Land off Oxford Road, Dewsbury

Ecological Impact Assessment

07/09/2023

Thomas Owen Care Ltd.

Report reference	**ER-6262-02 - ECIA**
Author	Josh Birchall BSc (Hons) ACIEEM Senior Ecologist
Technical Review	Peter Brooks BSc (Hons), MA CIEEM, CEnv Managing Director
QA	David Lovett MBiolSci (Hons) ACIEEM Ecologist
Authorised	Peter Brooks BSc (Hons), MA CIEEM, CEnv Managing Director
Date	07/09/2023
Report duration	In accordance with CIEEM (2019), unless otherwise stated the findings of this report remain valid for a period of 18 months. After this period advice should be sought on the scope of any updating work required.

Contents

Summary

The Site is occupied primarily by low distinctiveness habitats, which were created and managed for their amenity value within the former residential setting of the building. Mature trees and secondary scrub/woodland habitats provide the features of greatest ecological value, whilst some of the baseline vegetation was cleared several years ago in conjunction with the demolition of previous building. Further clearance works will be required to facilitate development.

Using the Defra Metric 3.1 Calculator tool, the scheme is expected to result in a minor loss in Habitat Units and a slightly larger loss in Hedgerow Units.

In order for the scheme to achieve a 10% net gain, an additional 0.35 Habitat Units and 0.84 Hedgerow Units will need to be generated through Biodiversity Offsetting.

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 Environnent Management Plan (CEMP)

Introduction

Brooks Ecological Ltd was commissioned by Thomas Owen Care Ltd. to carry out an Ecological Impact Assessment (EcIA) for their proposed care home development at land off Oxford Road, Dewsbury.

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.

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.

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

CIEEM

Ecological Impact Assessment (EcIA) Checklist

ALGE 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		

Method

Scope of Assessment

The application site 'the Site' encompasses a parcel of land, which was formerly a residential property. The extent of this assessment is the development area within the red line boundary defined in Figure 1, opposite.

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.

Ecological surveys and reports informing this assessment comprise of the following:

- Preliminary Ecological Appraisal, Brooks Ecological, January 2022.Report reference ER-6262-01.

Field Survey

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 refenced in reports.

Desk Study

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

Figure 1 Site area under assessment (red line)

Assessment Method

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

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.

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.

Ecology Baseline

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

Designated Sites and Conservation Areas

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

Habitats

For the purposes of presenting the Site's baseline for BNG purposes, the buildings appeared to have been cleared several years ago and as such the Site's baseline has not been assumed prior to this.

Potential future changes to the baseline

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

In the absence of re-development, it is assumed that cleared or more open parts of the Site would gradually become vegetated with scrub typical of the Site boundaries whilst scrub would gradually succeed to woodland.

Figure 2 The Site's habitat baseline

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

Table 1 Site Habitats Summary

Habitat Feature	Notes	Valued at what scale
Developed Land; sealed surface	Unmaintained but mostly unvegetated hard standing, possibly a former car park, in the south east of the Site.	None – Negligible value
Mixed Scrub	Scrub which has likely establishes from a mixture of unmanaged hedgerows and from tree saplings. It is comprised of a mix of common garden shrubs as well as some native species.	Site level
Other Neutral Grassland	Likely a lawn left unmanaged for a significant time period but also apparently subject to some disturbance, it now supports a limited array of common species.	Site level
Vacant Derelict or Bare Ground	Areas apparently cleared of buildings but now re-vegetating with a number of common and locally abundant species.	Site level
Lines of Trees	Two tree lines are described but are similar, comprised of some early-mature trees as well as self-set specimens, of a mix of native and non-native species. Trees lines are largely contiguous with the underlying scrub but have been separated out to better reflect the value of more well-established trees.	Site level

*Collectively these habitats are considered to be of relatively low value and as required going forward will be refereed to collectively as 'low value habitats'

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 Site Habitats as defined in Biodiversity Net Gain calculations – Site Baseline[1].

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
Ref	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic Significance multiplier		Total habitat units
1	Grassland	Other neutral grassland	0.0549	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 (≥)	0.22
2	Heathland and shrub	Mixed scrub	0.391	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 (≥)	1.56
3	Urban	Developed land; sealed surface	0.0759	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
4	Urban	Vacant/derelict land/ bareground	0.2573	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	1.03
5												
6												
7												
8												
9												
		Total habitat area	0.78									2.81

[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.

B-1 Site Hedge Baseline

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

	UK Habitats - existing habitats			Habitat distinctiveness		Habitat condition		Strategic significance			Suggested action to address habitat losses	Ecological baseline
Baseline ref	Hedge number	Hedgerow type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier		Total hedgerow units
1	1	Line of Trees	0.331	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	1.99
2	2	Line of Trees	0.085	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.34
3												
4												
5												
6												
7												
			0.42									2.33

Species and Species Groups

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 2 Summary of relevant faunal issues

Species/ Group (Feature)	Notes	Valued at what scale
Bats	Bat roosting potential was assessed of all trees, with one moderate suitability tree and nine low suitability trees identified with the remainder being considered to offer Negligible suitability. All trees with suitability are to be retained in current proposals and as such further survey was not carried out in line with guidance. Given the small size of the Site and sub-urban location bat activity at the Site was not expected to be notable and as such further survey and potential impacts upon this were ruled out.	Site Level
Nesting Birds	The Site is likely to support a small number of common garden bird territories during the breeding season, within introduced shrub beds, scrub and tree canopies. Standard precautions apply regarding clearance of vegetation. The Site is also likely to provide limited foraging habitat.	Site Level
Invasive non-native plant species (INNS)	Small amounts of Cotoneaster and Locust Tree have been identified. Standard precautions apply regarding clearance of vegetation.	Site Level

Description of the Proposed Development

Proposals are for the Sites re-development for residential care home use with associated infrastructure and amenity space.

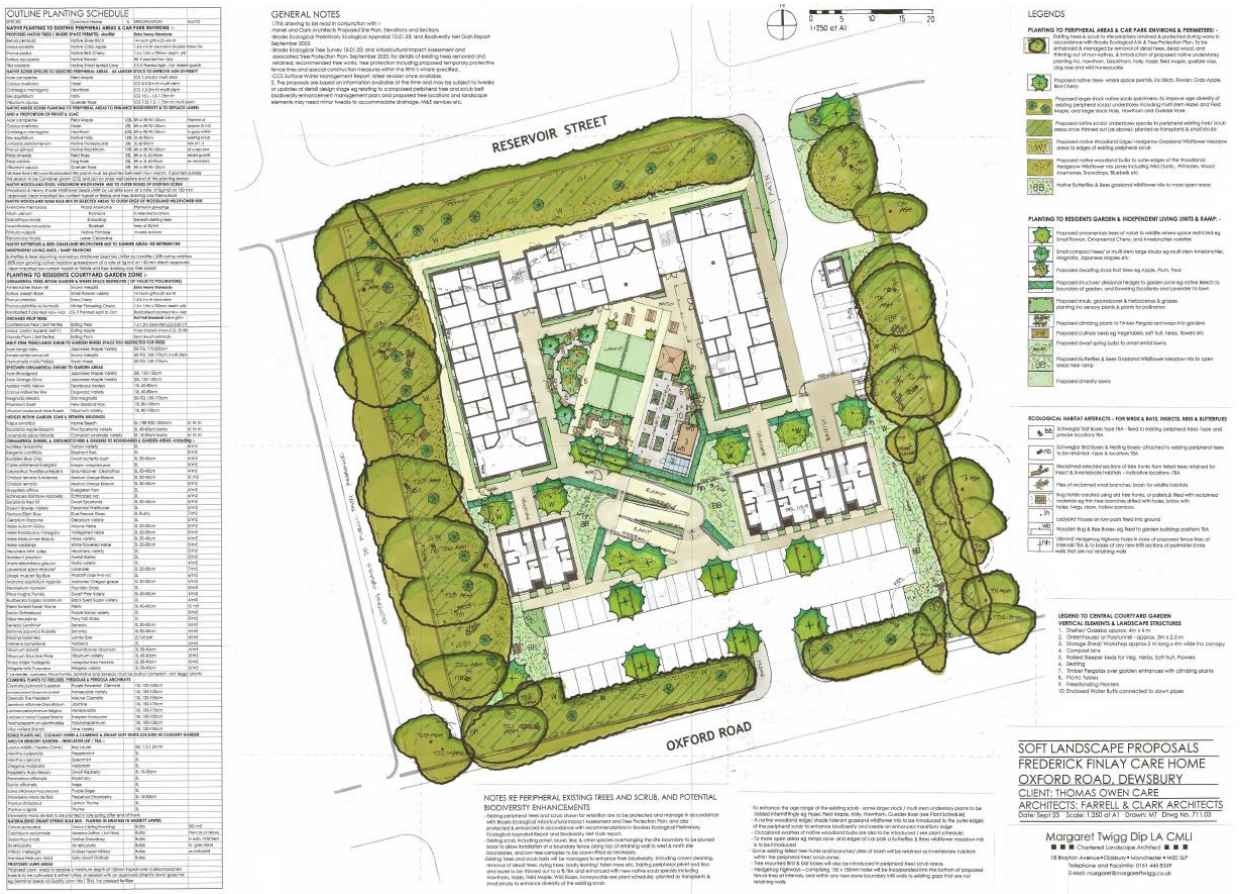
Proposals have had the opportunity to respond to the findings of the PEA and have built in all potential avoidance - in terms of layout. The following sections examine impacts resulting from the proposals which could not be avoided.

Impacts are assessed on the basis of the effects impacting the valued habitats, species, or sites which have been identified above.

The following plans have been provided by the client to inform this assessment:

- Margaret Twigg, Landscape Proposals, drawing reference; 711.03, September 23, MT.

Figure 4 Site layout drawing reference: 711.03



Impacts and Effects of Development

Figure 5 shows the development footprint (yellow hatch) in relation to the mapped habitats.

The development footprint shows the sum extent of proposed built development and associated clearance works.

Areas shown in yellow hatch will be cleared of existing vegetation and subject to extensive earthworks, which will result in the permanent loss of baseline habitats where buildings and development is present or the creation of new habitats where new landscaping is proposed.

The areas marked purple will be retained in situ and protected from development within a 'No Works Area'. This will be detailed within the Site's Construction Environmental Management Plan (CEMP).

Figure 5 Development footprint in relation to existing on-Site habitats

Table 3 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.	*Clearance*

	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. Much of the existing habitat has already been lost from the Site as a result of remediation works undertaken by the previous landowner. Some of the edge habitats will be further reduced to facilitate development though large areas will be retained. Habitats that will be impacted by clearance works are of limited ecological value, being species-poor and largely ornamental or managed for their amenity value. These habitats have limited value to any notable or protected fauna, other than nesting birds.	Low Value Habitats Nesting Birds INNS Bats	Site
1b	**Damage to retained habita**t such as by storage of clearance machinery or materials in these areas.	Retained Habitats (Lines of Trees, Mixed Scrub)	Site
1c	**Disturbance**. The noise and activity at the Site will render it and areas immediately off-site inhospitable to wildlife during this period. However, the Site lies within a sub-urban setting; wildlife in this area is therefore likely to be habituated to moderate noise levels and the effects of disturbance from this development site is unlikely to be significant.	Nesting Birds Bats	Site
1d	**Pollution**. There is a very low potential for sediment or chemicals to be released from the Site, or into retained habitat during this stage.	Retained onsite habitats	Site
1e	Potential effects on **Protected Species**. Precautions will be required to ensure that impacts on 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 1-2 year period. Construction of roads and sewers will be followed by footings and then above ground construction of buildings.	*Construction*

	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, or further earthworks. In the absence of a well-defined and enforceable 'No Works Area' area shown as retained on planning drawings could be damaged or destroyed by contractors working on Site.	Retained Habitats	Site
2b	**Disturbance**. The noise and activity at the Site will render it and areas immediately off-site inhospitable to wildlife during this period. However, the Site lies within a sub-urban setting; wildlife in this area is therefore likely to be habituated to high noise levels and the effects of disturbance from this development site is unlikely to be significant.	Nesting Birds Bats	Site
2c	**Pollution**. There is a very low potential for sediment or chemicals to be released from the Site, or into retained habitat during this stage.	Retained habitats	Site

	Impacts during Construction	Stage
3	**Landscaping activities** will take place period during the construction period and will be phased around completion of roads and housing.	*Construction*

	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.	Retained habitats	Site
3b	**Pollution**. There is the potential for hazardous chemicals (i.e. herbicides, insecticides, fertilisers) to be used on retained habitats by landscape contractors. This could lead to increased mortality of retained vegetation or make it harder for retained habitats to be enhanced in line with the Defra Metric.	Retained habitats	Site

	Significant Effects - in the absence of mitigation	Acting on	Acting at scale (Maximum)
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 populated.** The care home will be inhabited, and traffic and services will access the Site regularly. Pedestrian access across the Site and along nearby rights of way will increase. Presence of domestic pets may increase. Retained and created habitat will be managed by the Site Management Company.	*Operation*

	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.	New and retained habitats	Site
4b	**Disturbance**. Noise, lighting and increased human 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. The presence of dogs and cats will result in some predation and displacement, but this area will already be affected by these species to a lesser degree.	Nesting birds Bats	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.	New and retained habitats	Site

Mitigation & Residual Effects

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 set out in the table below.

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.

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.

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).
- A BS:42020 Construction Environment Management Plan (CEMP)

Table 4 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.	*Clearance*

	Significant Effects - in the absence of mitigation	**Mitigation / Compensation**	**Residual Magnitude**
1a	**Direct habitat loss**.	Kirklees Council require all developments schemes to demonstrate a 10% net gain in biodiversity. By complying with the Biodiversity Net Gain policy, the scheme will ensure that overall, the impacts of habitat loss will be fully addressed, either on Site, or through offsetting. The BMP will detail the creation and management of new habitats, ensuring on-site habitats meet their target habitat types and condition scores, as shown in the Defra Metric. The BMP will also detail the provision of faunal features, such as bird nesting and bat roosting boxes, and hedgehog access through gardens. Any shortfall in BNG units on Site will be made via offsetting contributions.	Neutral / Minor Positive
1b	**Damage to retained habita**t such as by storage of clearance machinery or materials in these areas.	The CEMP will detail the installation of barrier fencing around the 'No Works Area' to protect retained habitat.	Neutral

	Significant Effects - in the absence of mitigation	Mitigation / Compensation	Residual Magnitude
1c	**Disturbance**. The noise and activity at the Site will render it, and areas immediately off-Site, inhospitable to wildlife during this period.	The main contractors CEMP will detail time limits to work on Site. However, some level of disturbance it unavoidable.	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 the installation of barrier fencing around the 'No Works Area' to protect retained habitat. Bunded compounds will be used for storage of machinery and materials.	Neutral
1e	Potential effects on **Protected Species**. Precautions will be required to ensure that impacts on nesting birds, and the spread of Invasive Non-Native Species (INNS) can be avoided.	The CEMP will detail necessary pre-works checks for nesting birds and INNS.	Avoided entirely.

	Mitigation during Construction	Stage
2	**Construction activities** will take place over a 1–2-year period. Construction of roads and sewers will be followed by footings and then above ground construction of buildings.	*Construction*

	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 the installation of barrier fencing around the 'No Works Area' to protect retained habitat.	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 main contractors CEMP will detail time limits to work on Site and the installation of screened fencing to limit visual disturbance of sensitive habitat. However, some level of disturbance it unavoidable.	Minor Negative
2c	**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 the installation of barrier fencing around the 'No Works Area' to protect retained habitat. Bunded compounds will be used 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 buildings.	*Construction*

	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 the installation of barrier fencing around the 'No Works Area' to protect retained habitat.	Neutral
3b	**Pollution**. There is the potential for hazardous chemicals (i.e., herbicides, insecticides, fertilisers) to be used on retained habitats by landscape contractors. This could lead to increased mortality of retained vegetation, or make it harder for retained habitats to be enhanced in line with the Defra Metric.	The BMP will specify preparation and establish works for all new and retained habitats covered by the Defra Metric. It will detail where hazardous chemicals can and cannot be used.	Neutral
3c	Inappropriate habitat creation or management techniques could mean that the proposals fail to deliver on BNG commitments	The BMP will specify preparation and establish works for all new and retained habitats covered by the Defra Metric. The BMP will include monitoring so that evidence can be provided, or remedial action can put in place as required.	Neutral

	Mitigation during Operation	Stage
4	**The Site will be populated.** Units will be inhabited, and traffic and services will access the Site regularly. Pedestrian access across the Site and along rights of way will increase. Presence of domestic pets may increase.	*Operation*

	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.	Landscaping has been designed to accommodate public access.	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. The presence of dogs and cats may result in some predation and displacement.	Landscaping is designed to maximise the amount of habitat which groups such as birds can use for cover, and to provide connectivity. New nesting (for birds) and roosting (for bats) will be included around the Site.	Neutral

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.	Neutral
4d	Exclusion of wildlife from the developed Site – physically or through the lack of provided habitat	The BMP will detail the installation of faunal features, such as hedgehog highways, within new fence lines where appropriate.	Neutral

Biodiversity Net Gain

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, in this instance Kirklees (LPA in line with their own policies and guidance in the NPPF).

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.

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.

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

The proposals will lead to an overall loss in habitat units, with a shortfall of 0.07 Habitat Units (-2.55%) predicted and a shortfall in Hedgerow Units of 0.69 (-27.82%).

As a net gain position has not been achieved on-Site in Habitat, the developer will need to source additional Units. This can take the form of enhancement of habitats off-Site within the developer's ownership, or a monetary contribution made to the LPA or a third-party / provider or habitat bank. To achieve 10% net gain, an additional 0.28 Habitat Units and 0.25 Hedgerow Units will be required. It is often the case that the LPA will want to see a plan to show how these units will be secured presented alongside the planning application, although in some cases it is also possible to deal with this detail as a condition of planning.

The proposals also fail to satisfy the Trading Rules, with a deficit in Medium Distinctiveness habitats, caused by the loss of existing Urban Trees; this will need to be addressed through offsetting.

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

Figure 6 Post development habitat types

Figure 7 Headline Summary extracted from Biodiversity Metric 3.1 Calculator tool

On-site baseline	*Habitat units*	2.81
	Hedgerow units	2.50
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	2.74
	Hedgerow units	1.80
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	*Habitat units*	-2.55%
	Hedgerow units	-27.82%
	River units	0.00%
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*	-0.07
	Hedgerow units	-0.69
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-2.55%
	Hedgerow units	-27.82%
	River units	0.00%
Trading rules Satisfied?	No - Check Trading Summary ▲	

Figure 8 Trading Summary

Trading Summary

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

Low Distinctiveness

Habitat group	Group	On site unit change	Off Site Unit Change	Project wide unit change
Cropland - Cereal crops	Cropland	0.00	0.00	0.00
Cropland - Horticulture	Cropland	0.00	0.00	0.00
Cropland - Intensive orchards	Cropland	0.00	0.00	0.00
Cropland - Non-cereal crops	Cropland	0.00	0.00	0.00
Cropland - Temporary grass and clover leys	Cropland	0.00	0.00	0.00
Cropland - Cereal crops winter stubble	Cropland	0.00	0.00	0.00
Grassland - Modified grassland	Grassland	0.01	0.00	0.01
Grassland - Bracken	Grassland	0.00	0.00	0.00
Heathland and shrub - Rhododendron scrub	Heathland and shrub	0.00	0.00	0.00
Lakes - Ornamental lake or pond	Lakes	0.00	0.00	0.00
Sparsely vegetated land - Ruderal/Ephemeral	Sparsely vegetated land	0.00	0.00	0.00
Urban - Bioswale	Sparsely vegetated land	0.00	0.00	0.00
Urban - Allotments	Urban	0.00	0.00	0.00
Urban - Facade-bound green wall	Urban	0.00	0.00	0.00
Urban - Ground based green wall	Urban	0.00	0.00	0.00
Urban - Ground level planters	Urban	0.00	0.00	0.00
Urban - Other green roof	Urban	0.00	0.00	0.00
Urban - Intensive green roof	Urban	0.00	0.00	0.00
Urban - Introduced shrub	Urban	0.02	0.00	0.02
Urban - Rain garden	Urban	0.00	0.00	0.00
Urban - Actively worked sand pit quarry or open cast mine	Urban	0.00	0.00	0.00
Urban - Sustainable urban drainage feature	Urban	0.00	0.00	0.00
Urban - Vacant/derelict land/ bareground	Urban	-1.03	0.00	-1.03
Urban - Vegetated garden	Urban	0.05	0.00	0.05
Woodland and forest - Other coniferous woodland	Woodland and forest	0.00	0.00	0.00
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	Coastal saltmarsh	0.00	0.00	0.00
Intertidal sediment - Artificial littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mud	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral muddy sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mixed sediments	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral seagrass	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral biogenic reefs	Intertidal sediment	0.00	0.00	0.00
Intertidal Hard Structures - Artificial hard structures	Intertidal	0.00	0.00	0.00
Intertidal Hard Structures - Artificial features of hard structures	Intertidal	0.00	0.00	0.00
Heathland and shrub - Sea buckthorn scrub (other)	Heathland and shrub	0.00	0.00	0.00
		-0.94		-0.94

Low Distinctiveness Summary

Low Distinctiveness Net Change in Units	-0.94
Cumulative surplus of units	-0.07

Timing Issues

Standard constraints will apply to nesting birds and vegetation clearance.

Cumulative Effects

The Site is a re development of an old residential plot into a care home facility as such it is expected there will be limited effects of the new development whilst it is similar in nature to what was present previously. As such no significant effects and likewise no cumulative effects are anticipated.

Offsite Measures or Compensation

The scheme is expected to result in a -2.55% net loss in Habitat Units and -27.82 loss of Hedgerow Units on-site. In order for the scheme to achieve a 10% net gain, an additional 0.35 Habitat Units and 0.84 Hedgerow Units will need to be generated, either through additional onsite measures, or by means of Biodiversity Offsetting.

In order to satisfy trading rules, the short fall in habitat units could be offset by the creation of low distinctiveness habitats or better.

Enhancement

Opportunities to provide will be detailed in the Biodiversity Management Plan and Landscaping Plan documents, to be produced as a standard condition of planning.

Monitoring

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

The BMP document will identify any management specific monitoring which might be required in respect of habitat enhancement proposed. The LPA will require regular Monitoring Reports for the Site, to demonstrate that on-site habitats are meeting the condition scores targeted.

Policy and Legislation

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.

Conclusion

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

The scheme is expected to result in a minor net loss for biodiversity on-site. In order for the scheme to achieve a 10% net gain, an additional 0.35 Habitat Units and 0.84 Hedgerow Units will need to be generated through Biodiversity Offsetting.

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

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

DEFRA (2021) Biodiversity Metric 3.0 Auditing and accounting for biodiversity Calculation tool macro free

DEFRA (2021) Biodiversity Metric 3.0 Technical Supplement (1)

DEFRA (2021) Biodiversity Metric 3.0 User Guide

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

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