Preliminary Ecological Appraisal

Land at Flockton Working Men's Club

Report reference: R-2517-01

March 2016

Report Title:	Land at Flockton Working Men's Club
Report Reference:	R-2517-01
Written by:	Laura Turnock BSc (Hons) MRes MCIEEM Ecologist
Technical review:	Peter James Brooks BSc (Hons) MA MCIEEM CEnv Managing Director
QA review:	Victoria Baker BSc (Hons) MSc Graduate Ecologist
Approved for issue	Peter James Brooks BSc (Hons) MA MCIEEM CEnv Managing Director
Date	14.03.16

The information which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report does not constitute legal advice.

Brooks Ecological
Grounded advice

Unit A, 1 Station Road, Guiseley, Leeds, LS20 8BX
Phone: **01943 884451**
01943 879129
Email:admin@brooks-ecological.co.uk
www.brooks-ecological.co.uk
Registered in England Number 5351418

smas worksafe consultant
www.smasltd.com
SSIP

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Non-technical Summary

Purpose of report

This report is produced to present an initial assessment of the potential ecological constraints and opportunities relating to a Site known as land at Flockton Working Men's Club; to inform the site's potential for development.

It is our conclusion that this survey and report will require the support of further bat surveys / report before submission to planning.

Methodology

The report is based on a Desk Study of designated wildlife sites and records of protected or notable species, and an extended Phase 1 Habitat Survey carried out in March 2016.

Findings Key-Points

The building on Site is considered to afford *Moderate* bat roost potential and should be subject to emergence surveys (May to August). The results of this survey would be needed to support a planning application.

A precautionary preclearance badger survey, with a simultaneous check for hedgehog and invasive species is recommended. This should not be needed to support the planning application.

The invasive species cotoneaster is present on site; removal of this species is advised during development.

The mature off site hedgerow should be protected during construction.

Introduction

1. Brooks Ecological Ltd was commissioned by Barratt and David Wilson Homes to carry out a Preliminary Ecological Appraisal of land at Flockton Working Men's Club, Barnsley Road, Grid Ref SE241150.
2. This report is produced with reference to British Standard BS42020 'Biodiversity Code of Practice for Planning and Development' and the CIEEM (2013) *Guidelines for Preliminary Ecological Appraisal.*

Scope

3. The application site 'the Site' comprises the former Flockton Working Men's Club and its associated grounds.
4. The 'Study Area' includes a 2 km area of search around the site for records of protected and notable species and locally or nationally designated wildlife sites.

Figure 1 Scope of study



Proposals

5. Proposals for the site include for the construction of 86 residential properties (detached, semi-detached and terrace style) with their associated access roads and garden plots; in addition to the re-build of the working men's club.

Figure 2 Proposed development taken from David Wilson Homes drawing number KSL – 01 D (April 2015)



Site context

6. The site is located off the A637 Barnsley Road towards the centre of Flockton Village; which itself is characterised by residential properties with garden plots and public amenities.

7. The local geology comprises a mixture of sandstone, mudstone and siltstone, giving rise to largely neutral soils. The topography of the Site gently slopes down from north to south towards the A637 Barnsley Road.

8. Immediate boundaries comprise:

    - A footpath with residential properties beyond to the east.
    - Scattered broad-leaved trees and dense scrub, a public play area and rough, horse grazed pasture with recreational fields beyond to the north.
    - A mature hedgerow and Flockton Primary School, with playing fields beyond to the west.
    - The A637 Barnsley Road and residential properties with their associated garden areas to the south; the latter perturbs part of the southern Site boundary.

9. Beyond these immediate boundaries the wider landscape is largely rural in character. The village of Flockton runs in a roughly linear manner along the A637 Barnsley Road, giving way to farmland with scattered small settlements and stands of broad-leaved woodland.

Wildlife corridors

10. The immediate surrounding landscape supports few substantial wildlife corridors, with residential gardens and hedge-lined agricultural field boundaries being the most significant.

11. The Site is loosely connected to Flockton Beck located some 200m south by residential property gardens and hedge-lined field boundaries. This watercourse ultimately flows into the River Dearne at Bretton Park some 4km downstream; this is the main wildlife corridor in the wider environment.

12. Pockets of higher value habitat, in the form of broad-leaved woodland stands (some ancient replanted and ancient semi-natural) are scattered across the landscape.

Figure 3 Analysis of wildlife corridors and higher value habitat in relation to the Site.



Note. White dashed lines denote wildlife corridors, orange hatching broad-leaved woodland stands and black solid lines are busy main roads

Water bodies

13. There is one waterbody within 500m of the Site; located some 420m north east of the Site boundary.

Designated Sites

Statutory Designations

14. There are no statutory designations within 2km of the site and one international designation within 10km; Denby Grange Colliery Special Area of Conservation (SAC). The site is designated primarily for its high population of the European Protected Species great crested newt.

15. Given the distance of the Site (>2.5km) and small scale nature of the development proposals in an already built up village, no impacts on the SAC or its great crested newt population could be felt.

SSSI Impact Risk Zones (IRZs)

16. The site lies within the IRZ for Denby Grange Colliery Site of Special Scientific Interest (SSSI), but does not fall into one of the highlighted categories which requires consultation between the Local Planning Authority (LPA) and Natural England (NE).

Non-Statutory Designations

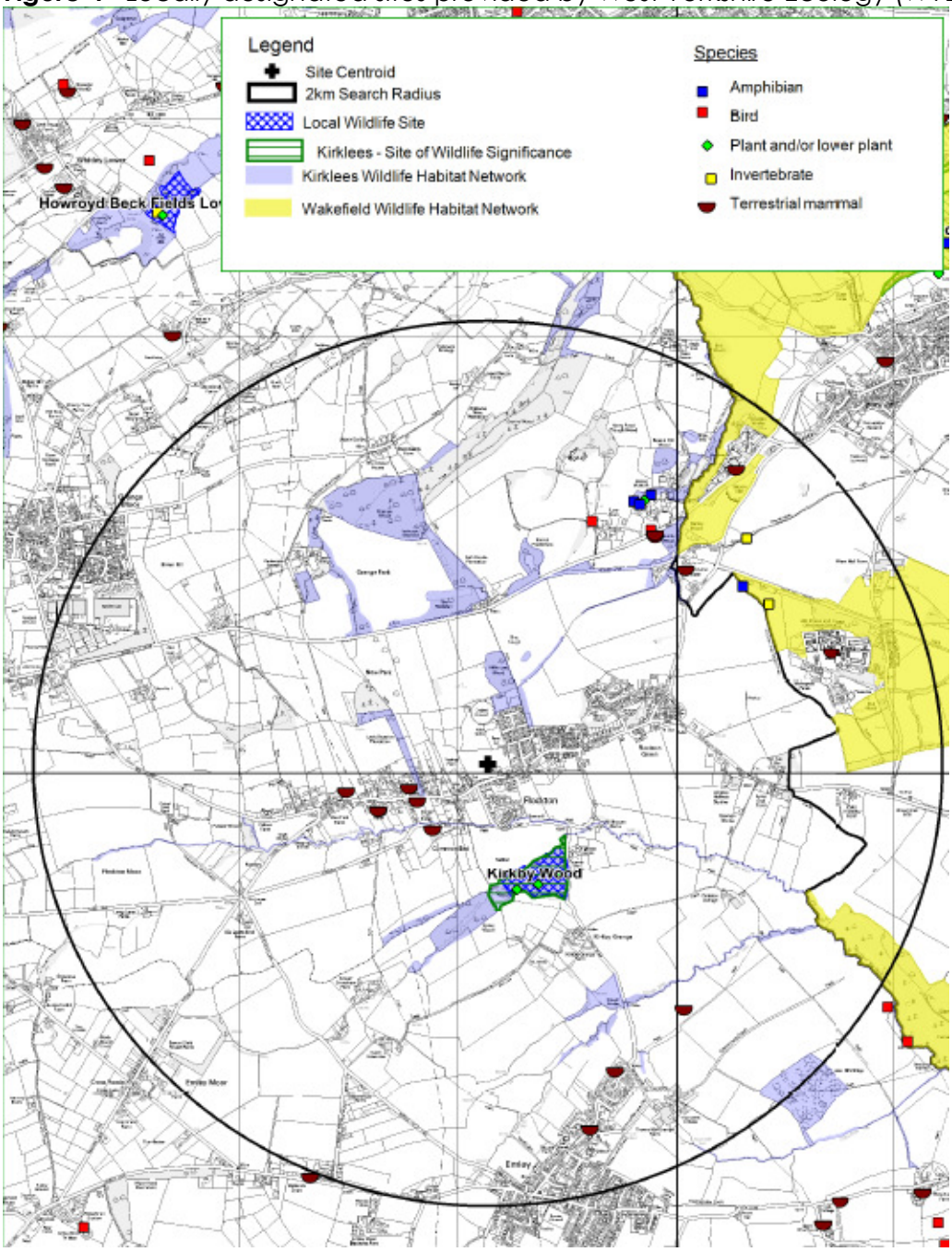
17. There is one locally designated site near the Study Area; Kirkby Wood Local Wildlife Site (LWS) and Site of Wildlife Significance (SWS), located some 600m south east. The Site is designated for its ancient replanted woodland.

18. Impacts are not anticipated on the LWS given its location beyond Flockton Beck and the A637 and lack of connectivity to the Site.

Kirklees and Wakefield Wildlife Habitat Network

19. No land within the site boundary is included in the Kirklees and Wakefield Wildlife Habitat Networks. The closest forms Hillhouse Wood some 300m north east; the Site is not functionally linked given the lay of the land sloping north to south away from the wildlife habitat network.

Figure 4 Locally designated sites provided by West Yorkshire Ecology (WYE)



Extended Phase 1 Habitat Survey

Method

20. The survey was carried out during March 2016[1] and followed Phase 1 habitat survey methodology (JNCC, 2010).

Limitations

21. The survey was carried out in March when many plant species have died back; however the habitat type and likelihood of supporting notable species or communities could still be assessed at this time by the experienced surveyor.

22. The vast majority of the south western half of the Site was inaccessible due to the presence of dense bramble.

23. Installed fencing denoting the registered title of the land restricted a close inspection of the off Site hedgerows and trees, located some 2m beyond the northern and western Site boundaries.

24. Sufficient time was afforded the surveyor to carry out the survey. The survey was not constrained by poor weather.

Results

25. The following habitats were identified within the Site and on its immediate boundaries:

- Building and hardstanding
- Rough neutral grassland
- Dense scrub and tall ruderal vegetation
- Scattered trees
- Amenity grassland and ornamental shrub

[1] This Report has been prepared during March 2016 following a visit to the site in March 2016 and our findings are based on the conditions of the site that were reasonably visible and accessible at that date. We accept no liability for any areas that were not reasonably visible or accessible, nor for any subsequent alteration, variation or deviation from the site conditions which affect the conclusions set out in this report.

Building and hardstanding

26. The building comprises the former, and now disused, Flockton working men's club with and an attached and currently inhabited house.

27. The building is two storeys high of brick construction, largely comprising a double pitched slate tile roof, with a small section of flat roof off the north western elevation. There are several more recent additions to the building; a single storey flat, bitumen covered roof on the western elevation, a one storey largely timber constructed porch to the south, and brick constructed outbuildings with corrugated asbestos and metal roofs off the northern elevation.



Figure 5

The southern building elevation showing the pitched roof section of building and the attached porch.

28. The slate tiles on the pitched roof are largely in good condition, being unlined to the interior and comprising a protective covering over most of the exterior. However, gaps are evident where mortar is missing on some of the ridge tiles.

29. The gable ends are in good condition, comprising concrete coping stones restricting any access/egress.



Figure 6

The northern roof elevation showing the well-sealed nature of the tiles and protective covering, with a gap where mortar is missing along the ridge line

30. Features at the eaves and wall tops provide most potential for roosting bats; a 1cm gap exists between the wall and timber soffit box and missing mortar in brickwork provides access into the cavity wall. Gaps under lifted fascia boards on the single storey extension off the western building elevation may itself provide occasional roosting opportunities, or access to the wall tops.

Figure 7 Gaps at the wall tops and eaves of the main building, and under the timber fascia board of the extension off the western building elevation.





31. The pointing and brick work is largely in good condition; there are two areas on the northern building elevation where its absence provides suitable access/egress into the cavity wall.

Figure 8 Gaps in the brickwork providing potential access/egress into the cavity wall (note. The security lights are no longer in use)





32. Features considered less suitable, but still with potential, to support roosting bats include a missing panel on the soffit box on the south eastern elevation of the porch, and gaps created where sealant is missing around the windows.

Figure 9 Gaps under the window where sealant is missing and into the soffit box of the porch





33. On the whole, the building is considered to afford *Moderate* bat roost potential.

34. Hardstanding areas comprise the tarmac covered access road and associated car park to the former working men's club.

Rough neutral grassland

35. The dominant habitat to the north of the site is rough agricultural grassland. Perennial rye grass (*Lolium perenne*) dominates the sward with abundant creeping bent (*Agrostis stolonifera)* and false oat grass (*Arrhenatherum elatius*), and occasional

fescue (*Festuca* sp.). Forbs amongst the sward are limited and include abundant white clover (*Trifolium repens*) and ribwort plantain (*Plantago lanceolata*) with frequent creeping buttercup (*Ranunculus repens*), occasional common sorrel (*Rumex acetosa*) with bulbous buttercup (*Ranunculus bulbosus),* common chickweed (*Stellaria media*) and mouse ear (*Cerastium fontanum*) at lower frequencies.

36. Cocks foot (*Dactylus glomerata*) and false oat grass, with forbs and scrub typical of competitive environments become more dominant towards the unmanaged field margins. Species comprise cow parsley (*Anthriscus sylvestris*), cleavers (*Galium aparine*), rosebay willowherb (*Chamerion angustifolium*) and broadleaved dock (*Rumex obtusifolius*) with bramble (*Rubus fruticosus*), rose (*Rosa* sp.), elder (*Sambucus nigra*) and bracken (*Pteridium aquilinum*) along with ornamental species.



Figure 10

Poor semi-improved grassland dominating the northern half of the site

Dense scrub and tall ruderal vegetation

37. The south western half of the Site is undergoing succession as a result of abandonment which has resulted in the colonisation of large expanses of coarse and competitive scrub and tall ruderal species. This area is dominated by dense bramble and rosebay willowherb with occasional nettle.

Scattered trees

38. There are a number of scattered trees that look to be largely self-seeded within the dense scrub; species comprise hawthorn (*Crataegus monogyna)*, blackthorn (*Prunus spinosa*), apple (*Malus* sp.) and elder with occasional silver birch (*Betula pendula*), sycamore saplings (*Acer pseudoplatanus)* and other *Prunus* species. The dense nature of the surrounding scrub limited a close inspection of these trees; however, they all appear immature with narrow trunks.



Figure 11

Dense scrub, tall ruderal vegetation and scattered immature trees to the south west of the Site.

Amenity grassland and ornamental shrub

39. Close mown amenity grassland dominated by perennial rye grass with occasional fescue, meadow grass (*Poa* sp.), ragwort (*Senecio jacobaea)*, dandelion (*Taraxacum officinale*), creeping bent (*Agrostis stolonifera*) and daisy (*Bellis perennis*) is present to the front of the working men's club, and where residential property gardens have encroached onto the Site further west.

40. Ornamental shrubs, including the invasive cotoneaster (considered further below), is present around planted borders.

Ecological value of the habitats on Site

41. Notwithstanding their faunal potential, the habitats on Site are considered to be of limited ecological value and their loss to development is not a constraint to the development proposals.

Off-site Habitats

Hedgerows

42. A mature, gappy hedgerow with occasional tree standards lies some 2m beyond the western Site boundary; species predominantly comprise hawthorn with blackthorn, hazel and holly with occasional sycamore and oak tree standards. Dense bracken, tall ruderal vegetation and bramble lie between the Site boundary fence and this hedgerow.



Figure 12
Mature gappy hedgerow some 2m beyond the western Site boundary

Trees

43. A line of scattered immature hawthorn, blackthorn and hazel trees are located beyond dense bramble scrub along the northern Site boundary; with occasional sycamore, hawthorn, elder, rose, silver birch and spruce species on, and immediately adjacent to, the southern Site boundary.



Figure 13
Line of scattered trees along the northern Site boundary.



Figure 14
Line of scattered trees and scrub along the southern Site boundary

Faunal Appraisal

Bats

44. There are no records of bats within the Site, with records of noctule, common pipistrelle, brown long eared bats, indeterminate species and unidentified pipistrelle species within the 2km Study Area. The closest roost record is an unidentified bat some 400m to the west from a residential property in Flockton, recorded in 2003.

45. The building affords *Moderate* bat roost potential; current proposals involve the demolition of this building.

46. Emergence surveys should be carried out to confirm the presence/absence of roosting bats in identified features of the building; with a minimum of two visits during the main summer period, which runs from the beginning of May to the end of August / early September.

47. The trees on site are considered too immature to support roosting bats.

48. The dense scrub and scattered trees towards the south of the site are considered to provide some structure to commuting and foraging bats in the local area. Given the small size and nature of this area, dedicated activity surveys are considered inappropriate, and instead the approach taken should involve a walkover of the site following emergence surveys (refer to Appendix 4).

Recommend two emergence surveys between May and August, followed by a walked transect of the site (ideally spread surveys across the season).

Amphibians

49. There are no records of amphibians within the Site, but records of great crested newts, common frog, common toad and smooth newt some 1.4km away in the Study Area.

50. No ponds are present on Site, with one within a 500m radius of the site boundary (located some 420m north east); this pond looks to be in close proximity to suitable terrestrial habitat (broad-leaved trees, marshy and rough grassland).

51. The Site presents some good value terrestrial habitat for amphibians, however, since the distance of the pond is at the outer limits of what great crested newts would be expected to travel from a breeding site in search of suitable terrestrial habitat, this is of much reduced value. Additionally, the suitable habitat in close proximity to the pond provides no apparent reason why any amphibians using this pond would need

to travel to the application site. As such, it is concluded that the Site is unlikely to be of significant value to amphibians and the protected great crested newt is very unlikely to be present.

Birds

52. There are no previous records of nesting birds within the Site; with swallow and barn owl from the Study Area. The habitats on Site are not considered suitable to support either species; however, a number of common bird species are likely to make use of the dense bramble scrub or broad-leaved trees at least for foraging and occasional nesting. Dunnock are likely to make use of the mature off-site hedgerow.

53. The site is unlikely to be of value as a roosting or mustering site for wintering or passage birds due to proximity of footpaths, roads and disturbance by humans.

54. Common birds, including pheasant, wood pigeon and blackbird were noted during the survey. The trees and scrub, in addition to the lean-to porch on the northern building elevation have the potential to support common birds during the nesting period (March-August).

55. To prevent the proposed works impacting on nesting birds, any clearance of vegetation or demolition of the lean-to, will need to be undertaken outside the breeding bird season, which is 1st March – 31st August inclusive. Any clearance that is required during the breeding bird season should be preceded by a nesting bird survey to ensure that the Wildlife and Countryside Act (1981) is not contravened through the destruction of nests and that any active nests are identified and protected during construction.

Badger

56. There are several dated records of badger from within the Study Area. No evidence of badger could be found on the Site, but there is suitable habitat in the form of the dense scrub. While it is concluded that badger setts are likely to be absent, the dense scrub restricted full access so a precautionary approach to site clearance, (being watchful for any holes or burrows) is recommended to ensure that offences under the Protection of Badgers Act (1992) do not occur.

Hedgehog

57. The site is likely to provide suitable habitat for hedgehog in terms of foraging and cover. However, the likely impact as a result of site clearance is anticipated to be of short duration that will result in the temporary displacement of the species (if present)

to adjacent and equally suitable habitats. Sympathetic vegetation clearance adopted for badgers will ensure the safeguard of hedgehogs.

58. Recommendations are made later in the report with regards to enhancing the site's value for hedgehogs.

Invasive Species

59. There are previous records of Himalayan balsam within the Study Area, located some 500m to the south west along the Flockton Beck corridor.

Cotoneaster

60. Cotoneaster is found in garden areas associated with the working men's club. Whilst listed on Schedule 9 of the Wildlife and Countryside Act (1981) (as amended), this species is not considered to present a significant risk in this location. Whilst we are not aware of specific guidelines relating to the disposal of this plant it would be a sensible precaution to dispose of it through burning on Site or disposal at approved landfill. The plant, it berries or seeds should not be buried, mulched or added to rot piles as this is likely to lead to its spread.



Figure 15

Small stand of cotoneaster recorded in the planted borders of the working men's club

61. As a large proportion of the Site was inaccessible given the dense nature of the scrub, Schedule 9 species could be present within this area. As such, a check should be made to confirm invasive species presence/absence (April to September) during vegetation clearance.

Barratt Biodiversity Action Plan (BAP)

62. To assist Barratt Homes in safeguarding the Environment and assist reaching a target of becoming net positive for biodiversity across developments by 2020, the following habitats and species have been included within the Barratt Biodiversity Action Plan. Refer to Appendix 6 for further detail.

- Hedgerows
- Dunnock
- Bats (all species)
- Hedgehog

Key Findings

Further Surveys

63. Guidance provided by Clause 8 BS:42020 and ODPM circular 06/05 (2005) makes it clear that proposals and planning decisions should be informed by sufficient information - this is particularly the case in respect of European Protected Species (EPS). As such, given the buildings potential to support roosting bats, further emergence surveys are considered necessary in establishing the Site's baseline prior to submission to planning.

Constraints to Development

64. The habitats on Site are considered of low ecological value and their removal is not considered a constraint to the development. Negative impacts on the nearby wildlife sites would not be expected due to their distance and lack of direct habitat connectivity; however, given the topography of the site, indirect impacts through discharge and drainage should be a consideration to guard against the risk of polluting Flockton Beck some 200m south of the Site during construction.

65. A precautionary approach to vegetation clearance (post planning) should be undertaken with a check for any missed badger setts, with a simultaneous check for invasive species whilst safeguarding hedgehogs allowing them to naturally disperse off Site. A directional strimming approach within the dense scrub should be adopted; moving east to west towards the mature off site hedgerow. This should be carried out by forestry contractors under the supervision of an ecologist during September; avoiding the bird nesting season and when hedgehogs are still active.

66. Despite the off-site hedgerow falling short of being assessed as "important" under the Hedgerow Regulations (1997), it still provides areas of higher ecological value, being mature and relatively well structured and a UK BAP Priority / Section 41 of the NERC Act (2006) habitat. Current government policy aims for "no net loss" in this case (Biodiversity 2020 White Paper). Measures should be put in place to safeguard this retained hedgerow and any retained trees to BS 5837, ensuring the absence of impacts on root protection zones. Any removal should be mitigated for through compensatory planting elsewhere on site.

Ecological Enhancement

67. The requirement for development to make a positive contribution to biodiversity is clearly set out in guidance such as the NPPF and BS:42020 - beyond mitigating or compensating any potential impacts.

68. The following themes provide opportunities for the proposals to deliver such a contribution:

- Plant native tree and shrubs within garden areas.
- Incorporation of a hedgerow or broad-leaved trees along the site boundaries to enhance connectivity through the site.
- Connect gardens by creating at least one small hole (at least 15cm in diameter) in each boundary fence line, thus increasing the amount of accessible foraging habitat for hedgehogs. Please see the hedgehog street website for further information: http://www.hedgehogstreet.org.
- Incorporation of bird and bat boxes within several of the new builds or on any retained trees.

69. Opportunities for enhancement are shown on the Ecological Constraints and Opportunities Plan provided as an appendix to this report.

Appendices

1. Extended Phase 1 Habitat Plan D-2517-01
2. Ecological Constraints and Opportunities Plan D-2517-02
3. Explanatory Notes and Resources
4. Bat Activity Survey Rationale
5. Information on legislation / protection
6. Barratt Biodiversity Action Plan

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Appendix 1 – Extended Phase 1 Habitat Plan



Rough neutral grassland

Scrub and tall ruderal vegetation

Buildings

Hardstanding

Amenity grassland

XXX Scrub

//// Tall ruderal vegetation

xxx Ornamental shrub

Hedgerow

Trees

Brooks Ecological
Grounded advice

Unit A, 1 Station Road
Guiseley
Leeds
LS20 8BX
www.brooks-ecological.co.uk

T: 01943 884451

Project: Land at Flockton Working Mens Club

Title: Extended Phase 1 Habitat Plan

Drawing Number: D-2517-01

Scale: Do not scale Date: March 2016

Revision:

Appendix 2 – Ecological Constraints and Opportunities Plan



Appendix 3 – Explanatory Notes and Resources Used

Site context

70. Aerial photographs published on commonly used websites were studied to place the site in its wider context and to look for ecological features that would not be evident on the ground during the walkover survey. This approach can be very useful in determining if a site is potentially a key part of a wider wildlife corridor or an important node of habitat in an otherwise ecologically poor landscape. It can also identify potentially important faunal habitat (in particular ponds) which could have a bearing on the ecology of the application site. Ponds may sometimes not be apparent on aerial photographs so we also refer to close detailed maps that identify all ponds issues and drains. We use Promap Street + scale maps for this purpose.

Designated Sites

71. A search of the MAGIC (Multi-Agency Geographic Information for the Countryside) website was undertaken. The MAGIC site is a Geographical Information System that contains all statutory (e.g. Sites of Special Scientific Interest [SSSI's]) as well as many non-statutory listed habitats (e.g. ancient woodlands and grassland inventory sites). It is a valuable tool when considering the relationship of a potential development site with nearby important habitats. In addition, information from the local record holders was referred to on locally designated sites.

Functional linkage with off-Site habitats

72. When assessing these we consider whether the Site could be functionally linked to them, considering links such as;

- Hydrological links - is the Site upstream downstream, or could ground water issues affect it?
- Physical links - is the site in close proximity and could it be directly or indirectly affected by construction and operational effects? Conversely it may be that despite proximity major barriers separate the two.
- Recreational links - Do footpaths and roads make it likely that increased recreational pressure could be felt?
- Habitat links - Is the site part of a network of similar habitat types in the wider area? These could be joined by linear corridors or could simply be 'stepping stones of habitat of similar form or function.

Kirklees and Wakefield Wildlife Habitat Network

73. The Site and Study Area lie within the Kirklees and Wakefield Wildlife Habitat Network which are a consideration - but this should be in relation to being able to maintain physical linkages for wildlife, where present on or directly adjacent to a site.

Method

Phase 1 Habitat Survey

74. Phase 1 habitat survey methodology (JNCC, 2010). This involves walking the site, mapping and describing different habitats (for example: woodland, grassland, scrub). The survey method was "Extended" in that evidence of fauna and faunal habitat was also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in

accordance with the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2012).

Bat roost suitability assessment

75. A thorough daytime inspection of the site was made in March 2016 in order to look for evidence of bats and assess bat roosting suitability. Evidence of bats may take the form of droppings, feeding remains, live bats, dead bats, stains on masonry or timber from the oils in bats' fur and claw marks made by bats regularly roosting in the same location.

76. Bat roosting suitability of the building was classified according to the following criteria set out in Table A1, developed with reference to the Bat Mitigation Guidelines (2004), Bat Workers Manual (2004) and the Bat Conservation Trust Good Practice Guidelines (2012).

Table A1. Bat Roost Suitability in Buildings

Suitability	Criteria
High	Buildings that have many areas suitable for roosting with a large number of potential access points. These are normally in sheltered locations, subject to low variation in temperature. Buildings with good potential could be used for a whole range of roosts including maternity roosts.
Moderate	Buildings with one or more features that could be attractive to bats and potentially support maternity roosts, but unlikely to support a roost of high conservation status.
Low	A structure with a low number potential features which have the potential to support individual bats opportunistically, but lacking features capable of supporting maternity / hibernations roosts.
Negligible	Buildings which appear unsuitable for roosting bats due to clear lack of roosting spaces such as voids etc and/or absence of suitable access points.

77. Trees on the Site have been subject to a ground based roost suitability survey, where access was possible, making use of binoculars and a high powered torch; these have been assessed against the criteria set out in table A2 below.

Table A2 Bat Roost Suitability in trees

Roosting potential	Criteria
Good	Trees that have many areas suitable for roosting with a large number of potential roosting features such as fissures, holes and flaking bark. These are normally in areas of good habitat such as close to water or in a landscape with well connected linear features. Trees with good potential could be used for a whole range of roosts including maternity and hibernation roosts.
Moderate	Trees with a smaller range of features suited to roosting in less valuable habitat, but still supporting features that could be attractive to bats and potentially support maternity roosts.
Limited	Trees with limited range or quality of roosting features in poor habitat. They could be used as occasional or transient roosts, but are unsuitable for maternity roosts.
Very Limited	Trees that have few places for bats to roost located in poor foraging habitat, but due to superficial features such as flaked bark etc. could be used on an occasional basis for solitary or small groups of bats.
None	Trees which appear unsuitable for roosting bats due to clear lack of roosting spaces such as voids etc. and/or absence of suitable access points.

78. All surveys were directed by Laura Turnock BSc (Hons) MRes MCIEEM. Laura has five years' experience of carrying out bat surveys in a professional capacity and is registered to use the new Class Survey Licence WML CL18 (Bat Survey Level 2). She is a member of the West Yorkshire Bat Group and the Bat Conservation Trust.

Faunal appraisal

79. This section first looks at the types of habitat found on Site or within the sphere of influence of potential development, then considers whether these could support protected, scarce or NERC Act 2006 Section 41 species (referred to collectively as 'notable species'). Records of notable species supplied from a 2km area of search by West Yorkshire Ecology (WYE) are used to inform this appraisal.

80. We discuss further only notable species or groups which could be a potential constraint due to the presence of suitable habitat and their presence (or potential presence) in the wider area. We screen out and do not present accounts of notable species or groups which do not meet these criteria – in some cases it may be necessary to explain this reasoning.

Evaluation

81. In evaluating the site the ecologist will take into account a number of factors in combination, such as;

- the baseline presented above,
- the site's position in the local landscape,
- its current management and
- its size, rarity or threats to its integrity.

82. There are a number of 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 presents any opportunities in this respect.

83. The assessment of impacts considers the generic development proposals from which potential effects include:

- Vegetation and habitat removal
- Direct effects on significant faunal groups or protected species
- Effects on adjacent habitats or species such as disturbance, pollution and severance
- Operation effects on wildlife such as noise and light disturbance

84. Consideration is given to the Local Biodiversity Action Plan (LBAP), which for this site is the '**Kirklees Biodiversity Action Plan**'.

Species/group	Habitat
Floating water plantain	Semi-natural pasture
Great-crested newt	Lowland and upland meadows
Marsh helleborine	Lowland dry acid grassland
Northern wood ant	Blanket bog
Twite	Upland heathland
Water vole	Upland flushes
	Lowland heathland
	Upland oak woodland
	Lowland deciduous and other woodland
	Upland mixed ashwoods
	Wet woodland
	Arable field margins
	Hedgerows
	Rivers, riverine corridors and associated habitats
	Reedbeds
	Scrub and habitat mosaics on previously developed land

Appendix 4 – Bat Activity Survey Rationale

85. The Bat Conservation Trust Guidelines (BCTG) (Hundt 2012) is now widely accepted as providing a basis and rationale for scoping and conducting bat surveys. It is acknowledged that the guidelines provide a wealth of background and are a very useful tool in standardising approaches to survey, it is also felt that an over reliance on some of the tables (such as Table 7.2) within this document can result in the provision of complicated surveys where they have significant consequences for the cost, or timescale of a large project, but could never deliver positives for bat conservation.

86. Taking the BCTG document as a whole, Chapter 2 helps the reader understand whether or not surveys are required, and that in the context of planning and development survey is required in relation to ensure;

- the avoidance of legal offences, and;
- the provision of a sufficient level of information - such that will allow the Local Planning Authority to make an informed decision on the proposals and their potential impacts on the Favourable Conservation Status (FCS) of bats.

87. Attendance at seminars presented by, and discussions with, those involved in production of the BCTG document has emphasised the point that it is within the remit of the consultant ecologist to make a decision on the necessity and scope of surveys - they will use the guidelines in doing so but are not in any way bound by them: this is reflected in Section 1.1 of the guidelines.

> **The guidance should be interpreted and adapted on a case-by-case basis, according to the expert judgement of those involved. There is no substitute for knowledge and experience in survey planning, methodology and interpretation of findings, and these guidelines are intended to support these. Where examples are given they are descriptive rather than prescriptive.**

88. Such decisions require a consideration of the potential of the project to impact on bat habitat, alongside analysis of the value of habitat on and around the site and of local records and the likelihood that bats might occur in significant numbers. Our reports aim to present information on how we have arrived at our decision on the site, what assumptions we have based this on, and where further survey is recommended we indicate what the objective of this survey should be and how best this would be achieved.

89. The dense scrub and scattered immature trees to the south west, that make up less than a hectare of the site, are likely to provide some structure to foraging bat species in the local area. However, given its size and the fact that the main habitat corridors (off Site hedgerows) will be retained, the recommended approach to determine the use of the Site by bats is through a walked transect following dusk emergence surveys of the building.

Appendix 5 Wildlife Legislation, Policy and Guidance

This is not an exhaustive list but sets out briefly the relevance of Legislation, Policy and Guidance in terms of planning applications and this assessment.

Legislation

Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (EC Habitats Directive).

Provides framework at an international (EU) level for the consideration / protection of European Protected Species (EPS), and habitats through the designation of sites.

Council Directive 79/409/EEC on the Conservation of wild birds (EC Birds Directive) and The Ramsar Convention on Wetlands of International Importance (1971)

Provides framework at an international (EU) level for the consideration / protection of important bird populations and the sites on which they are dependant.

The Conservation of Habitats and Species Regulations (2010)

This transposes 1) into UK law and provides the basis on which all EPS are protected and impacts on them can be licensed in the UK.

The Wildlife and Countryside Act (1981) as amended

This provides the basis on which UK species are legally protected or restricted and confers protection on Sites of Special Scientific Interest SSSIs. It contains annexes of plants and animals which are legally protected as well as those which are considered to be invasive or harmful. It provides the basis on which impacts on such species can be licensed in the UK and provides controls on work on or near SSSIs.

The Countryside and Rights of Way Act 2000 (CRoW)

Provides a statutory basis for nature conservation, strengthens the protection of SSSIs and UK protected species and requires the consideration of habitats and species listed on the UK and Local Biodiversity Action Plans (UKBAP / LBAP).

Natural Environment and Rural Communities Act 2006 (NERC)

Sets out the responsibilities of Local Authorities in conserving biodiversity. Section 41 of the Act requires the publishing of lists of habitats and species which are "of principal importance for the purpose of conserving biodiversity". At present these largely reflect those making up the UKBAP lists.

Hedgerows Regulations (1997)

Define and provide protection for Important Hedgerows.

Protection of Badgers Act (1992)

Protects badgers from persecution, this includes excavation / development in the proximity of setts.

Protected Sites

Statutory EU / International Protected Sites

Special Areas of Conservation (SACs); and Special Protection Areas (SPAs) and Ramsar Sites contain examples of some of the most important natural ecosystems in Europe. Work on or near these sites is strictly protected and Local Authorities will be expected to carry out 'Appropriate Assessment' of development in proximity of them. In this case there is often an increased burden on the developer in relation to provision of information and assessment.

Statutory UK Protected Sites

Local Nature Reserves (LNRs); National Nature Reserves (NNRs); Sites of Special Scientific Interest (SSSIs) all receive strict protection under UK legislation. Work in or in proximity to these sites would be restricted with any needing to be agreed with Natural England. Natural England now provide guidance on the nature of development which could impact on SSSIs through Impact Risk Zones.

Locally Protected Sites

Local Authorities have a variety of protected wildlife sites designated at a local or regional level. These are gradually being brought under the banner of Local Wildlife Sites (LWS) but at present a plethora of different designations exist - all subject to local policy.

Protected Species

European Protected Species

A number of species (most relevantly bats, great crested newts [GCN], and otters) receive strict protection from killing, injury and disturbance under The Conservation of Habitats and Species Regulations (2010). Protection is also conferred on the habitats on which they rely such as roost space in the case of bats and ponds and fields etc. in the case of GCN.

UK Protected Species

A number of species (including bats, GCN, watervole and white clawed crayfish) are strictly protected under The Wildlife and Countryside Act (1981) as amended, from killing, injury, disturbance and damage or destruction of their resting places etc. Certain species (such as reptiles) and some birds (such as barn owl) receive partial protection e.g. at certain times of the year or form certain activities only. All nesting bird species are protected from damage or destruction of their nests - whilst active.

Invasive species

Schedule 9 of the Wildlife and Countryside Act (1981) as amended, lists these species and makes it an offence to cause or allow their spread in the wild. This often has impacts on development and planning in relation to the presence of invasive plant species such as: himalayan balsam (*Impatiens glandulifera),* japanese knotweed (*Fallopia japonica*) and giant hogweed *(Heracleum mantegazzianum*).

Planning Policy / Guidance

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework was published in 27 March 2012 replacing the majority of previous Planning Policy Guidance notes (PPGs) and Planning Policy Statements (PPSs). The most relevant paragraphs from the NPPF are set out below.

The general approach to assessing the natural environment is now embedded within the definition of what 'sustainable development' is. Paragraph 7 (P7) of the NPPF states that sustainable development should "contribute to protecting and enhancing our natural environment" and "help to improve biodiversity". There is also a need for positive inclusion of the natural environment in development design and "moving from a net loss of bio-diversity to achieving net gains for nature" (P9). P14 sets out the Frameworks presumption in favour of sustainable development.

The natural environment is stated within the NPPF core principles: development should "*recognise the intrinsic character and beauty of the countryside*" and contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should, "*prefer land of lesser environmental value, where consistent with other policies in this Framework*" (P17).

Section 11 of the NPPF details the approach to the natural environment. The Framework states that development should "*minimise impacts on biodiversity and provide net gains in biodiversity, where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*" (P109).

The Framework sets out ways to minimise the impacts on biodiversity through "*promoting the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets*" (P117).

The NPPF requires the consideration of the impacts of development on the natural environment. The Framework also encourages "*opportunities to incorporate biodiversity in and around developments*" (P118). Importantly this paragraph (P118) sets out the hierarchy of avoiding, mitigating and compensating harm from development - plans should ensure that they can demonstrate engagement with this hierarchy when required.

Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services.

This strategy builds on the Natural Environment White Paper (June 2011) - The Natural Choice: securing the value of nature. Setting out the current UK Government's approach to nature conservation. It promotes a more coherent and inclusive approach to conservation and the valuing in economic and social terms of economic resources.

The strategy promotes initiatives such as Biodiversity Offsetting, Nature Improvement Areas and a focus on well-connected natural networks and introduces the concept of securing a 'no net loss' situation with regard to UKBAP / Section 41 habitats and species.

ODPM circular 06/05 (2005) Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System

Provides guidance to Local Authorities on their obligations to biodiversity – particularly in relation to assessing planning applications and ensuring the adequacy of information.

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

Provides a standard for the biodiversity assessment and development industries and decision makers such as Local Planning Authorities to work to.

Appendix 6 Barratt Biodiversity Action Plan

Based on the findings from this report, the attached BAP:

a) Identifies key species and habitats present or potentially present on the site;

b) Gathers all the evidence available, using standard methodologies for assessing the ecological status of the proposed development site, to best identify the status of key species and habitats on site;

c) Creates targets for those identified species and habitats that would seek to at least maintain the ecological value of the site; and

d) Sets out actions to be undertaken to ensure these targets are met and devises a strategy to monitor their effectiveness.

			Actions to achieve target					
				After construction				
Key Species/habitat	**Target**	**KPIs**	**During Construction**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Hedgerow	Retain existing off-site hedgerow in favourable condition	Avoid damage or disturbance to hedgerow during construction - including root protection zones	Fencing installed to protect above and below ground extent of hedgerow. Site staff given toolbox talk regarding avoidance and safeguarding of hedgerow	-	-	-	-	-
		Enhance retained hedgerow through 'planting up' gappy areas and increase ground flora species diversity	Plant in additional native species - e.g.buckthorn or guelder rose. Sow in hedgerow ground flora seed mix to supplier's instructions	Minimal management required - strim if necessaryand allow herbs and grasses to establish	Strim if necessary. Cut and remove arisings from herbs and grasses in Autumn	Strim if necessary. Cut and remove arisings from herbs and grasses in Autumn	Strim if necessary. Cut and remove arisings from herbs and grasses in Autumn	Strim if necessary. Cut and remove arisings from herbs and grasses in Autumn
	Establish new species-rich native hedgerow on site boundaries	Hedgerow established with at least 5 woody species and ground flora by 2021	Prepare ground and lay new hedgerow following best practice guidelines	Monitor progress of hedgerow and replace dead plants. Sow ground flora seed mix to supplier's instructions	Monitor progress and replace dead plants	Monitor progress and replace dead plants	Monitor progress and replace dead plants	Monitor progress and replace dead plants
Dunnock	Dunnock to use and ideally nest within hedgerows within two years of development completion	Dunnock recorded using hedgerows by 2019	Recruit 'citizen scientist' to monitor hedgerows	Collect and review data from 'citizen scientist'	Collect and review data from 'citizen scientist'	Collect and review data from 'citizen scientist'	Collect and review data from 'citizen scientist'	Collect and review data from 'citizen scientist'
Bats	Existing working men's club has potential to support roosting bats	Demolish building with no risk to potentially roosting bats	If confirmed present, follow detailed method statement set out in EPSML. Otherwise, provide tool-box talk to site contractors to highlight potential of roosting bats	Follow EPSML monitoring guidance if present	-	-	-	-
	Bats to roost on site within five years of project completion	Bats recorded using integral bat bricks by 2021	Install integral bat brick in new working mens club building	Recruit 'citizen scientist' to monitor bat brick use throughout active season (May to August)	Collect and review data from 'citizen scientist'	Collect and review data from 'citizen scientist'	Collect and review data from 'citizen scientist'	Collect and review data from 'citizen scientist'

Bats			Prepare ground and plant new, native trees in accordance with supplier's instructions	Monitor progress of tree planting and replace any dead speciments	Monitor progress and replace dead plants	Monitor progress and replace dead plants	Monitor progress and replace dead plants	Monitor progress and replace dead plants
	Bats to use hedgerows and garden habitats to commute and forage within two years of project completion	Bats recorded using habitats on site by 2019	Engage residents to monitor garden habitats for use by bats at dusk (throughout May-August)	Collect and review data from residents	Collect and review data from residents	Collect and review data from residents	Collect and review data from residents	Collect and review data from residents
Hedgehog	Safeguard of hedgehogs during construction	Dense scrub has potential to support species	Toolbox talk to site contractors on potential presence of species. Supervised progressive removal of vegetation from east to west towards retained offsite mature hedgerow	-	-	-	-	-
	Allow hedgehogs to continue use of site	Hedgehog present in gardens two years following project completion	Create at least one small hole (at least 15cm in diameter) in each boundary fence line, thus increasing the amount of accessible foraging habitat for hedgehogs	Engage residents to monitor garden habitats for use by hedgehogs	Collect and review data from residents	Collect and review data from residents	Collect and review data from residents	Collect and review data from residents