



**Ecological Appraisal
Merchant Fields Farm,
Cleckheaton**

Report reference: R-1906-01
May 2014

Report Title:	Ecological Appraisal Merchant Fields Farm, Cleckheaton
Report Reference:	R-1906-01
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Summary Statement

Much of site has been significantly affected by agricultural activities and supports habitat types of relatively low value. However, there are areas of the site which do have higher ecological value or potential and these should be retained and designed into the masterplan.

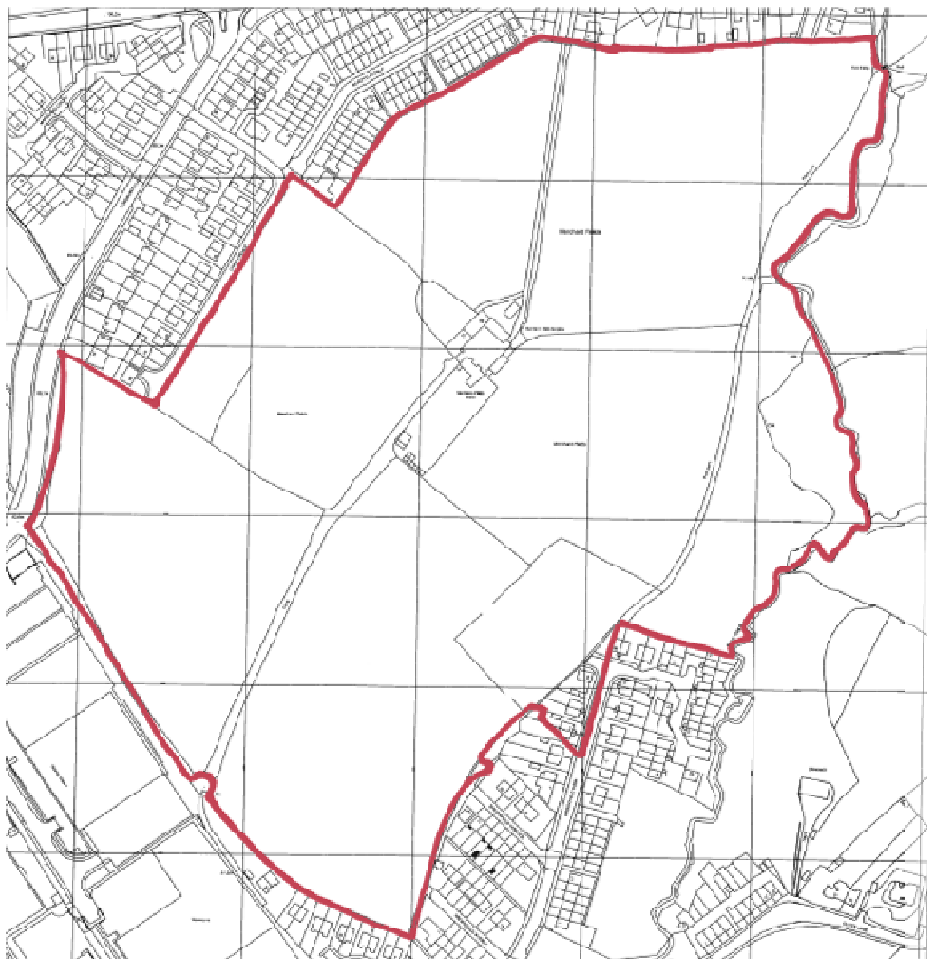
Additional protected species / habitat surveys are recommended to present a full baseline for the site and/or to ensure legal compliance.

- Detailed vegetation (semi-improved neutral grassland)
- Hedgerow
- Riparian mammal
- Bat surveys (scoping/emergence/activity)

Introduction

1. Brooks Ecological Ltd was commissioned by Harron Homes to carry out an Ecological Appraisal of Merchant Fields Farm, Cleckheaton, Huddersfield (SE 190 264).
2. The application site 'the site' encompasses Merchant Fields Farm and surrounding pasture fields, situated along the northern outskirts of Cleckheaton. The extent of the site can be seen in figure 1 below.

Figure 1 Site boundary - (Red Line)



Proposals

3. At the time of writing, no proposals plans have been provided; it is assumed that the results of this appraisal will feed into the creation of a master plan to inform an outline planning application for residential development.

Site context

4. 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.
5. The site occupies a large area of farmland to the north of Cleckheaton; this is bound by residential development to the north and south, industrial units to the west and further farmland to the east. Surrounding farmland is interspersed with small woodland blocks and water courses, which together represent the highest value habitat in the local area. In the wider landscape, this adjacent farmland forms a band of 'green' land that extends approximately 1km north and 2.5km southeast; before meeting major barriers such as the M62 and built development. In addition to these major barriers, numerous minor roads and small blocks of built development intersect the green area.

Wildlife corridors

6. The site is isolated from the wider landscape by major infrastructure (M62) and urban sprawl; however, at a closer scale the site is well connected to the band of 'green land' habitat located to the east. The strongest link comes from Nann Hall Beck, which passes from south to north along the site's eastern boundary. The beck and its associated tributaries are lined with mature broadleaf trees along most of their length, and together with the surrounding network of hedgerows, form good connectivity between the site and adjacent higher value habitats.

Water bodies

7. No standing water bodies are located within 500m of the site.

Statutory Designations

8. A search of the MAGIC 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

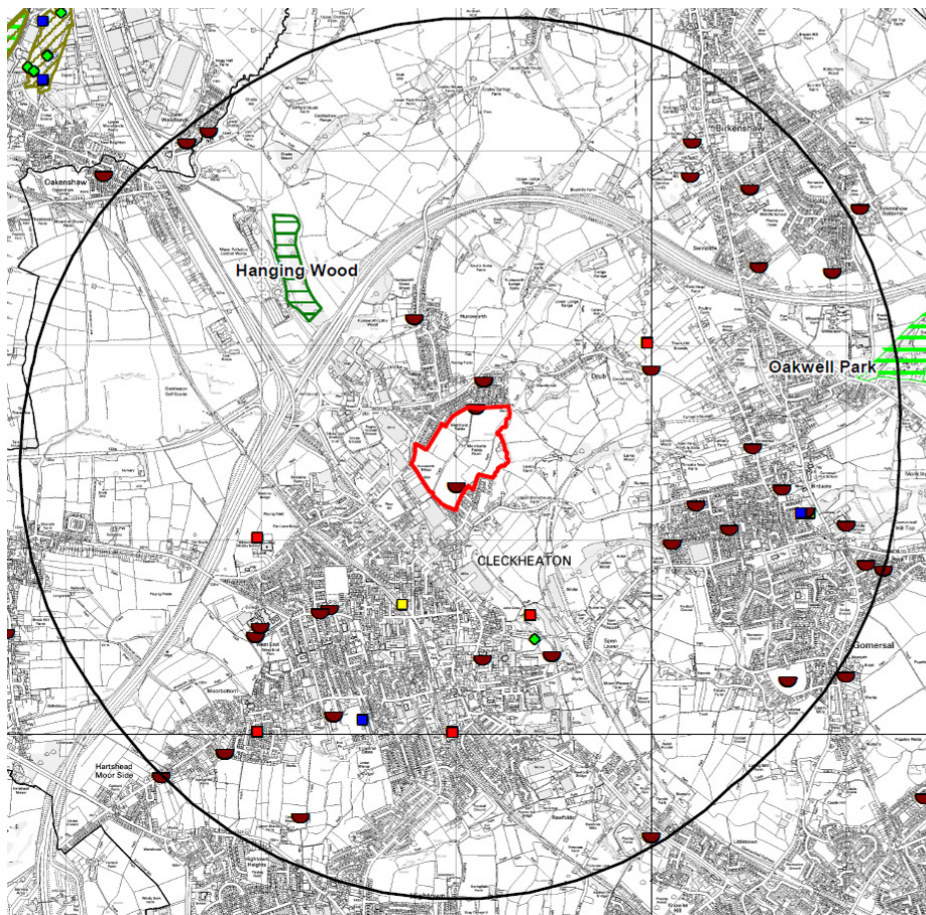
from the local record holders (WYE and NEYEDC) has been requested on locally designated sites

- 9. There are no statutory designated sites within 2km of the application site.

Non-Statutory Designations

- 10. There are two locally designated sites within 2km of the site; these are Hanging Wood Kirklees - Site of Wildlife Significance (SWS) and Oakwell Park Local Nature Reserve (LNR), situated approximately 800m northwest and 1.8km northeast, respectively (see figure 2 below). Both are considered to be isolated from the site, either by built development or major infrastructure. Development of the site is therefore unlikely to have any impact on these local designations.

Figure 2: WYE plan highlighting location of local designations in relation to the site.



Extended Phase 1 Habitat Survey

Method

11. The survey was carried out on 30th April 2014 and followed Phase 1 habitat survey methodology (JNCC, 1993). 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).

Results

12. The following habitats, arranged in order of area can be described within the application site and on its boundaries, habitats are shown indicatively on plan D-1906-01 provided in appendix.
 - Neutral grassland
 - Damp / marshy grassland
 - Scrub
 - Hedgerows and trees
 - Watercourse
 - Buildings
 - Gardens

Neutral Grassland

13. This habitat occupies approximately 80% of the site and represents low intensity pasture / paddock land. The grassland is divided into seven large fields by a mix of hedgerows, dry stone walls and post & wire fencing; with one of the fields being further divided into six smaller fields by electric fencing. At the time of the site visit, three of the larger fields and all six of the smaller fields were being used to graze small numbers of horses.
14. High ground is found within the centre of the site and towards the northern boundary, with the land sloping gently away towards the east, south and west boundaries. The lowest ground is found along the eastern boundary, marked by Nann Hall Beck.

15. All of the fields support a very similar assemblage of grasses and forbs, consistent with that of poor semi-improved neutral grassland, or MG6 grassland under the National Vegetation Classification. The frequencies of these species vary slightly from field to field, but overall the most abundant grasses were found to be perennial rye grass (*Lolium perenne*), bents (*Agrostis spp.*) and meadow grasses (*Poa spp.*), with smaller amounts of red fescue (*Festuca rubra*), Yorkshire fog (*Holcus lanatus*) and meadow foxtail (*Alopecurus pratensis*); small amounts of sweet vernal grass (*Anthoxanthum odoratum*) were also noted within the most easterly field.
16. Forbs make up a fairly large component of this habitat, but are restricted to a limited range of common species, which are typical of improved conditions. The most abundant is creeping buttercup (*Ranunculus repens*), with lesser amounts of meadow buttercup (*Ranunculus acris*), white clover (*Trifolium repens*), broad leaved dock (*Rumex obtusifolius*), dandelion (*Taraxacum agg.*), creeping cinquefoil (*Potentilla reptans*), ribwort plantain (*Plantago repens*), ragwort (*Senecio jacobaea*) and common mouse ear (*Cerastium fontanum*); small amounts of field speedwell (*Veronica persica*), red clover (*Trifolium pratense*) and bush vetch (*Vicia sepium*) were also noted within the south and east fields.



Figure 3

Typical view of the
grassland fields on site.

17. As is typical of paddocks and permanent pasture, small patches of coarser grasses and unpalatable tall competitive herbs are scattered across the site. These areas are dominated by species such as false oat grass (*Arrhenatherum elatius*), cocks foot (*Dactylis glomerata*), creeping thistle (*Cirsium arvense*) and nettle (*Urtica dioica*).
18. Survey was carried out at a time of year when not all of the components of grassland would be apparent. Given the scale of this habitat occupying the site, it would be prudent to carry out a detailed vegetation survey to ensure an accurate baseline of the site's vegetation has been collected during the correct season.

Damp / Marshy Grassland

19. A small fenced off section of land is found along the eastern boundary, bordering Nann Hall Beck. At the time of the site visit, the ground here was saturated with water, and from the floral assemblage noted, it is likely to remain damp for much of the year. Its position along side the beck, together with the site's topography, means that this area is likely to receive regular flooding and associated nutrient enrichment from deposited silt.
20. The dominant grass here is floating sweet grass (*Glyceria fluitans*), with lesser amounts of Yorkshire fog, perennial rye and meadow foxtail. Locally dominant patches of soft rush (*Juncus effusus*) and horsetail (*Equisetum arvense*) are also noted, along with dense stand of greater willowherb (*Epilobium hirsutum*) and meadow sweet (*Filipendula ulmaria*).



Figure 4

Damp / marshy
grassland along the
eastern boundary

Scrub & Tall Competitive Herbs

21. Small amounts of scattered hawthorn (*Crataegus monogyna*) scrub are noted within a number of the fields, particularly those located along the south-western boundary.
22. Denser areas of scrub are found towards the northwest corner and along parts of the north and southeast boundaries. These areas have established due to a lack of management and are dominated by woody species such as bramble (*Rubus fruticosus*), blackthorn (*Prunus spinosa*), elder (*Sambuccus nigra*) and hawthorn (*Crataegous monogyna*) and tall competitive herbs such as nettle, greater willowherb, bindweed (*Calystegia sepium*), cow parsley (*Anthriscus sylvestris*), thistles and cleavers.



Figure 5

Area of scrub and tall competitive herbs

Hedgerows

23. A relatively weak network of intact and defunct field hedgerows pass through the site; most of which are species poor and unmanaged. Hawthorn makes up the main component of all of these hedgerows, with small scattered examples of elder, sycamore (*Acer pseudoplatanus*), holly (*Ilex aquifolium*), bramble, dog rose (*Rosa canina*), elm (*Ulmus sp.*) and blackthorn. Most of the hedgerows support no distinct hedgerow understorey; instead the surrounding semi-improved neutral grassland habitat grades into a coarse grassland / tall herb community at the base of the hedgerow.



Figure 6

Typical unmanaged field hedgerow found within the site.

24. The best hedgerows on site are those that border an abandoned dirt track that runs through the western half of the site; starting at the southwest boundary and leading to the collection of farm building in the centre of the site. Both are positioned atop a

small bank and have been left unmanaged for many years; allowing them to reach up to 5-6m high and c.3m wide. Again, the main component is hawthorn, but this time with frequent holly, hazel (*Corylus avellana*), oak (*Quercus sp.*), field maple (*Acer campestre*), blackthorn, elder, dog rose and bramble. Bordering the track, the understorey is relatively sparse with only the occasional scattered bluebell (*Hyacinthoides non-scripta*), herb robert (*Geranium robertianum*) and wood avens (*Geum urbanum*) being noted; whilst the edges bordering the pasture fields support a rough grassland and tall competitive herbs ground layer.

25. These hedgerows look to be relatively old and species rich and would most likely meet the criteria for classification as 'Important Hedgerows' under the Hedgerow Regulations 1997.



Figure 7

Looking east at the two higher value hedgerows from the disused track – the track is kept clear of vegetation by low light levels and the movement of horses / livestock.

Trees

26. Few trees are found on site, with those encountered being largely associated with either Nann Hall Beck, the collection of farm houses or areas of scrubby / unmanaged vegetation. Trees planted within and around the grounds of the farm buildings comprise primarily of early mature sycamore, along with lesser amounts of leylandii (*Cupressocypars × leylandii*), scots pine (*Pinus sylvestris*), cherry (*Prunus sp.*) and ash (*Fraxinus excelsior*).
27. Those associated with the scrub and tall competitive herb habitats have arisen naturally due to a lack of management and consist primarily of semi to early mature examples of oak, sycamore and holly.



Figure 8

Line of early mature sycamore boarding the grounds of the converted farm buildings.

28. Young to fully mature broadleaf trees line Nann Hall Beck for most of its length as it passes along the sites eastern boundary. These have all arisen naturally and include a mix of grey willow (*Salix cinerea*), goat willow (*S. caprea*), alder (*Alnus glutinosa*), ash, grey poplar (*Populus alba*) and oak.



Figure 9

Willow trees growing along the eastern boundary, boarding Nann Hall Beck.

Watercourse

29. Situated on immediately adjacent land, Nann Hall Beck forms the sites eastern boundary. Meandering from north to south, this section of beck retains a relatively natural profile along its entire length. The channel has an average width of c.2m and depth of c.20cm, with water flowing over a bed of fine deposited silt. No submerged, emergent or marginal vegetation was noted within any section of the channel.

30. The banks are typically around 30-40cm high and vertical, but in places reach up to 50-60cm. The bank side vegetation changes across the length of the beck; to the north, the banks are covered primarily with semi-improved neutral grassland and scattered scrub, which then grades into damp / marshy grassland, tall competitive herbs and scattered broadleaf trees as the beck progresses south. To the far south, the banks are covered in dense tree cover and a woodland ground flora type habitat.
31. Himalayan balsam (*Impatiens glandulifera*) is scattered along the entire length of the beck and forms the occasional dense stand; these stands are marked on drawing D-1906-01.1.



Figure 10

Section of Nann Hall Beck running along the site's eastern boundary.

Buildings

32. The built structures found on site can be separated into two main groups; farm buildings (found towards the centre of the site) and modern semi-detached houses (along the southern boundary).
33. A mix of red brick and white rendered farm buildings are located within the centre of the site. The original detached farm house is located to the south of this collection of buildings, with an 'L' shaped barn located to the north. This barn has, in the recent past, been converted into a number of private houses, each with an associated garden space, car parking area and garage / shed.

Figure 11 Views of the converted brick and render barn from the east (left) and north (right).



34. Associated with the active farm, a small collection of out-buildings, sheds and stables are located within the central south-east pasture field. These are largely of simple corrugated metal or wooden slat construction, with either flat or double pitch felt or corrugated metal roofs.



Figure 12

Sheds / stables within the central south-easterly pasture field.

35. The red line boundary also encompasses one detached and two semi-detached houses; all positioned along the southern boundary - off Brookfield View. These houses are of modern brick construction, with cavity walls and concrete pan tiles.



Figure 13

Modern brick buildings located along the southern boundary.

Gardens

36. Each of the houses described above has an associated garden space. Due to access constraints, detailed inspection of each of these gardens was not possible. However, due to the man made nature of these habitats, survey from the boundary fence lines was considered sufficient to accurately assess their ecological value.
37. Each garden comprises of a central area of amenity grassland, surrounded by well managed ornamental shrub borders and small broadleaf trees.



Figure 14

Typical garden habitat found on site.

38. One of the gardens within the centre of the site also contains a small concrete lined fish pond. At the time of the site visit, this pond empty. We were informed by the owner that the lining of the pond had been cracked by frost during the winter and was awaiting repair. Previous to this, the pond was heavily stocked with Koi carp.



Figure 15

Empty fish pond

Faunal appraisal

39. 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 , UKBAP or Local BAP (LBAP) priority species (referred to collectively as 'notable species'). A full list of LBAP priority species are provided as appendix 2.
40. Records of notable species supplied from a 2km area of search by West Yorkshire Ecology are used to inform this appraisal.

Amphibians

41. No standing water bodies are present on site, or are noted within a 500m search radius. A single ornamental garden fish pond was noted within one of the gardens in the centre of the site, however, this was empty at the time of the site visit and had been since being damaged during the winter. Prior to the pond emptying, it had been stocked with koi carp. The pond is therefore currently unsuitable for breeding amphibians and even when it has been repaired and re-filled; it is unlikely to be of value to this group, especially the protected great crested newt. This is due to the presence of fish and the absence of other ponds within a 500m radius. In addition to this, there are no records of great crested newt within 2km of the application site.

Bats

42. The local landscape presents relatively low value habitat for bats, with pastures and built development occupying most of the surrounding land. The weak network of field hedgerows, together with Nann Hall Beck and scattered woodland copses provide some foraging and commuting habitat, but local bat populations are likely to be small and comprise of common species such as pipistrelle and noctule.
43. A detailed bat roost potential survey has not been carried out on the buildings present on site; however, from the initial walkover survey at least some of the buildings (the brick and rendered farm buildings) appear to provide bat roosting potential and will require further survey if these are affected by development proposals.
44. In addition to this, a single mature oak tree has been identified as providing bat roost potential; this being a receding rot hole that extends from a hollow stem into two of the main branches. This is located towards the eastern site boundary (see D-1906-01.1) and can be seen in the below figure.

Figure 16 Mature oak tree with bat roost potential



Riparian mammals

45. Nann Hall Beck represents excellent potential water vole habitat, with bank side vegetation providing food and cover, whilst the clay loam banks provide ideal conditions for digging burrows.
46. The beck also provides habitat that could be attractive to otters, with the many mature bank side trees providing suitable locations for digging holts and the tall ruderal vegetation providing cover for couching. In addition to this, the beck provides a strong linear feature that could be used as a commuting corridor for this species, and is also likely to present foraging opportunities.

White-clawed crayfish

47. Detailed crayfish surveys were carried out by Brooks Ecological on an upstream section of this beck earlier in the year (2014), in relation to a different project. Surveys were carried out during optimal conditions and time of year, and the area covered by the survey represents much higher value habitat for this species than that found next to the site; despite this, likely absence of white clawed and signal crayfish was confirmed. In addition to this, prior to starting the survey, we were informed by the Environment Agency that a major pollution event had occurred on this stretch of watercourse, at an upstream location, within the last two years.
48. Based on negative survey results in higher value habitat a short distance upstream, combined with a recent major pollution event, the risk of white clawed crayfish being found on site is considered to be very low. As such, no further survey for this species is recommended.

Badgers

49. No evidence of badger activity was found on site during the walkover survey. Records returned by WYE show two distinct areas of badger activity, both over 1.5km from the site and separated by the M62. The risk of badgers being present on site is therefore considered to be low.

Birds

50. The buildings, hedgerows, trees and scrub habitats are likely to support a common range of urban fringe birds during the nesting season.
51. Records show a range of common BAP species including swift, goldfinch, house martin, yellowhammer, swallow, house sparrow, tree sparrow, dunnoek, starling and song thrush – all of which could find suitable breeding habitat on the site. However,

given the scale of suitable habitat present on site, significant populations of any of these species would not be expected to occur.

Reptiles

52. Generally the site presents poor habitat for this group, primarily due to a lack of suitable habitat structure. In addition to this, reptiles have never been recorded in the local area; their presence at the site can be therefore be reasonably ruled out.

Other terrestrial mammals

53. The site is likely to provide habitat for hedgehogs in terms of foraging and cover. Hedgehog is listed on the UK Biodiversity Action Plan and is an LBAP species. Recommendations are made later in the report in regards to enhancing the site's value for hedgehogs.

Evaluation

54. 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.
55. 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 (Appendix 2) and UK BAP to determine if the site supports any Priority habitats or presents any opportunities in this respect. The assessment of impacts considers residential development:
- Site preparation including 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

On site habitats

56. The majority of the site comprises semi-improved neutral grassland, which at the time of the walkover appeared to be of relatively low ecological value, due to agricultural improvement. However, survey was carried out at a time of year when all of the components of grassland would not be apparent. Given the scale of this habitat a vegetation survey to ensure an accurate baseline of the site's vegetation has been collected during the correct season and to identify if any or pockets of the grassland could fall into the BAP category 'lowland meadows'.
57. The site supports a relatively weak network of field hedgerows, most of which are found to be species-poor and of low importance. Despite this, hedgerows are listed as priority habitats under the UK BAP and the master plan should seek to retain and enhance those present on site. Any that are lost to facilitate development should be mitigated for through replacement planting. Two hedgerows are suspected to be of greater value, appearing older and more diverse than the rest; these are marked on plan D-1906-01.1 and are likely to meet the criteria for 'Important Hedgerows' under the Hedgerow Regulations 1997. Detailed survey is therefore recommended to confirm the status of these hedgerows.

58. Trees have an intrinsic ecological value and the master plan should seek to incorporate these into the design, especially more mature examples of native species.

Off site

59. Nann Hall Beck runs along the site's eastern boundary and although not technically within the red line boundary, the sites topography means that without proper protection, there is a high risk of the development negatively impact upon this feature. Standard protection measures should therefore be employed to guard against these potential impacts.
- Any nearby development's Construction Environment Management Plan (CEMP) should demonstrate how development can proceed without releasing contaminants into the watercourses, along with details on how materials will be stored and used on the site and how surface water will be settled and removed from the site.
 - A 'green buffer' $\geq 10\text{m}$ wide would be expected by the Local Planning Authority to be created between the beck and the development. Ideally this buffer zone would be planted with a grading of habitats from grassland up to shrubs and trees. A management plan should be put in place for the river corridor and should detail amongst other things how the invasive species Himalayan balsam can be removed / controlled.

Designated sites

60. Impacts on the nearby wildlife sites would not be expected due to lack habitat connectivity.

On site fauna

Bat

61. Due to access constraints, detailed survey of each of the buildings present on site could not be carried out. It is therefore recommended that a dedicated bat roost potential survey is commissioned on all buildings that will be impacted upon by the proposals. Should this survey reveal that the buildings have a significant risk of supporting roosting bats - then further surveys may be recommended.
62. A single tree has been identified as providing bat roost potential; if this tree is scheduled for removal or significant pruning, then further survey effort is recommended. This would ideally take the form of emergence surveys carried out during the main active period of May – September.

63. Nann Hall Beck and the network of defunct and intact field hedgerows represent linear features which are likely to be attractive to low levels of foraging and commuting bats. To confirm this assessment, it would be advisable to carry out summer and autumn transects to collect an accurate baseline of how bats are using the site. This connectivity should be retained on site and standard precautions should be taken to make sure these corridors are not degraded as a result of development. Precautions would include:
- Retaining and enhancing the sites hedgerow network and the beck corridor
 - Directing all artificial lighting used during both the constructional and operational phases away from the hedgerow network and beck. This can be achieved through the use of hoods or louvers.

Riparian mammals

64. The section of Nann Hall Beck bordering the site represents good habitat for supporting both water vole and otter. As such, a dedicated riparian mammal survey is recommended to inform the required stand off distances between development and this feature. These surveys would be best undertaken between April and September, when field signs of water vole would be most abundant.

General precautions

Nesting birds

- To prevent the proposed works impacting on nesting birds any clearance of vegetation will need to be undertaken outside of 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 adequately protected during the construction phase of the development.

Enhancement

65. At this stage it appears feasible that development could provide opportunities to enhance and secure the ecologically valuable habitats in the area whilst providing space for new development on less valuable agricultural elements. Plan D-1906-01.2 aims to present this situation visually and should be used to form the basis of producing an attractive master-plan for the site. It should be noted though that this picture will become more definitive in the light of recommended survey for protected species and vegetation.

66. In line with planning guidance outlined in the National Planning Policy Framework (NPPF) development should take account of the value of ecosystem services and enhance ecological networks.
67. Opportunities should be realised to enhance the sites connectivity; this could be achieved through improving the condition of existing hedgerows, i.e. through beating up and laying defunct hedgerows, bringing leggy sections back under management, increasing species diversity through new planting and planting standard trees. In addition to this, new linear features could be planted such as species-rich hedgerows or tree lines. Planting should utilise native species relevant to the site such as hawthorn, blackthorn, holly, oak, hazel, crab apple and field maple.
68. There is opportunity to create some areas of lowland (wildflower) meadow type habitat in open space around the development. Naturally damp conditions along the eastern boundary could also be used to create areas of wet / damp wildflower grassland, which could be incorporated into the required buffer zone. Such habitats would create an attractive backdrop to the development - it could be more cost effectively managed than traditional amenity grassland.
69. The buffer zone along the eastern boundary would also lend itself well to the creation of wildlife ponds. Designed correctly, these features could benefit local wildlife, such as amphibian, as well as provide high visual amenity for new residents. The ponds could also be linked to SUDs. Ponds could be allowed to vegetate naturally, or planted up with a range of native submerged, emergent and marginal vegetation. Suitable examples include; starwort (*Callitriche palustris*), hornwort (*Ceratophyllum demersum*), water mint (*Mentha aquatica*), water forge-me-not (*Myosotis scorpioides*), brooklime (*Veronica beccabunga*), marsh marigold (*Caltha palustris*), yellow flag iris (*Iris pseudacorus*) and purple loosestrife (*Lythrum salicaria*).

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Appendix 1 Local BAP - Kirklees Biodiversity Action Plan

Table 1 lists the local Species Action Plans and, with reference to the field study earlier in this report, assesses a) whether the species potentially have any degree of dependence on the site, and b) if so whether development could be likely to have a significant bearing on the objectives of the UK/LBAP.

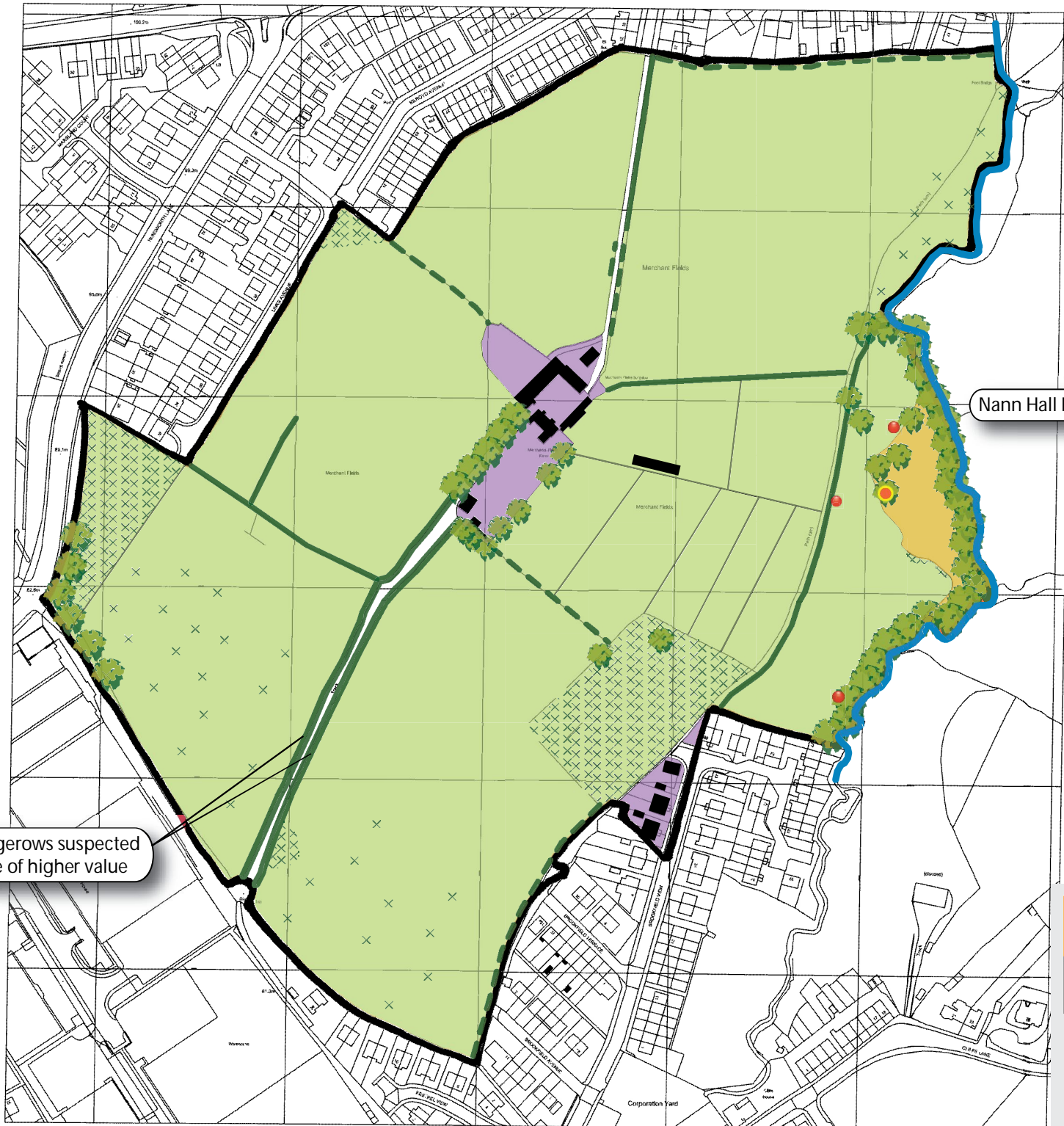
Table 1: Species Action Plans

Species/group	Potentially on site	Could development impact significantly on BAP objectives
Floating water plantain	No	No
Great-crested newt	No	No
Marsh helleborine	No	No
Northern wood ant	No	No
Twite	No	No
Watervole	Yes	Unlikely
White-clawed crayfish	No	No

Table 2 lists local Habitat Action Plans and assesses a) whether habitats on site could represent valuable examples of the habitat type within the spirit of the BAP and b) whether loss of the habitat would have a significant bearing on the objectives of the BAP.












Table 2: Habitat Action Plans

Habitat	Valuable examples present on site?	Could development impact significantly on BAP objectives
Semi-natural pasture	Unlikely	Yes
Lowland and upland meadows	No	No
Lowland dry acid grassland	No	No
Blanket bog	No	No
Upland heathland	No	No
Upland flushes	No	No
Lowland heathland	No	No
Upland oak woodland	No	No
Lowland deciduous and other woodland	No	No
Upland mixed ashwoods	No	No
Wet woodland	No	No
Arable field margins	No	No
Hedgerows	Yes	Yes
Rivers, riverine corridors and associated habitats	Yes	Yes
Reedbeds	No	No
Scrub and habitat mosaics on previously developed land	No	No



Hedgerows suspected to be of higher value

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-  Neutral grassland
-  Marshy / damp grassland
-  Scrub
-  Trees
-  Hedgerow (Intact)
-  Hedgerow (Defunct)
-  Watercourse
-  Buildings
-  Garden
-  Tree with BRP
-  Himalayan Balsam



Project: Merchant Fields Farm, Cleckheaton

Title: Ecological Features Plan

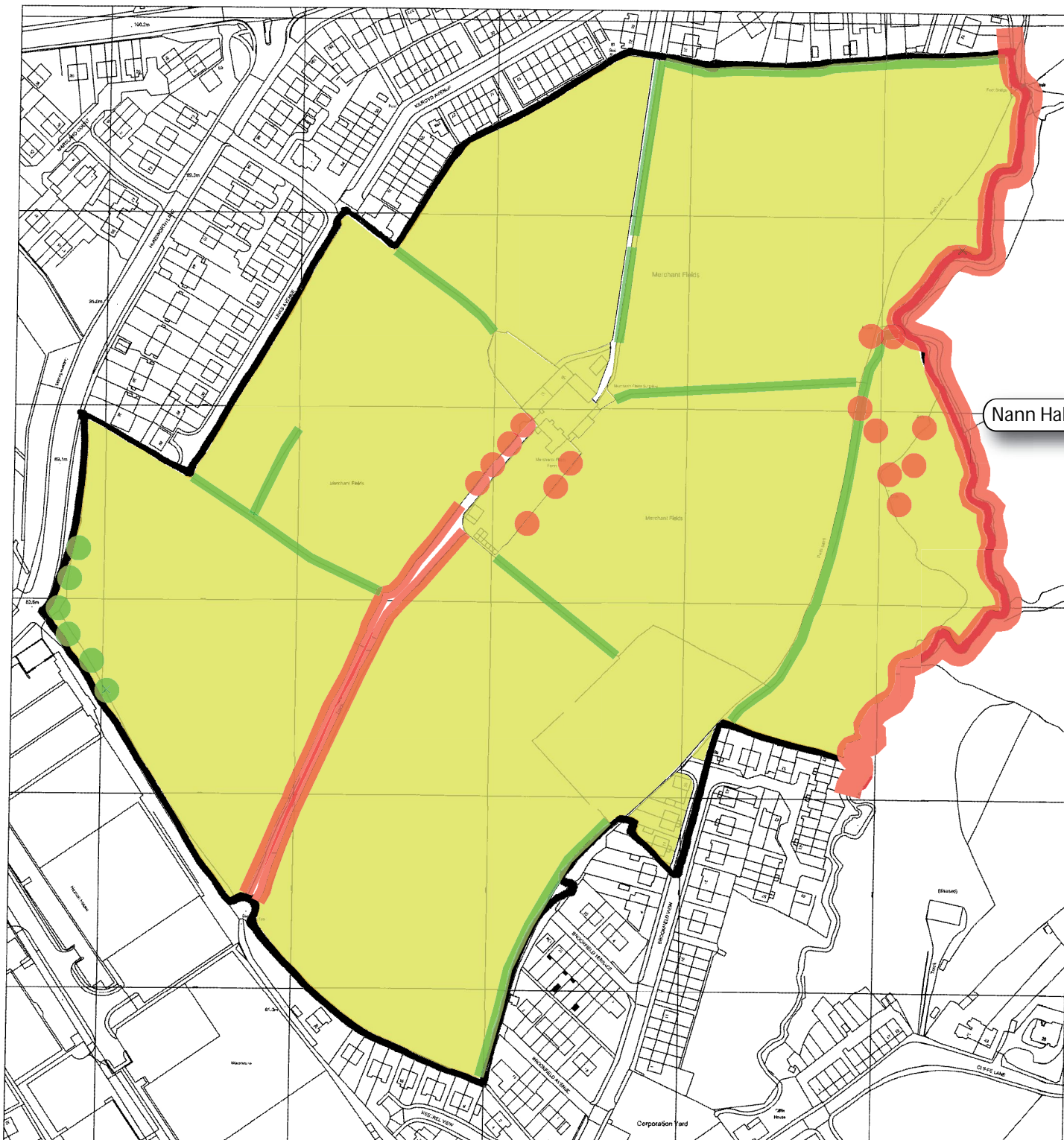
Drawing Number: D-1906-01.1


Scale: Do not scale Date: May 2014


Revision: _____


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- 
 Areas with less ecological constraints
 (notwithstanding protected species surveys)

- 
 Areas likely to support more valuable habitats - mitigation and compensation is more likely to be required for development here.

- 
 Areas of more valuable habitat
 These should be retained.

 Loss of these habitats will require comprehensive mitigation and compensation.

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Project: Merchant Fields Farm
 Title: Ecological Value of Habitats Plan

Drawing Number: D-1906-01.2
 Scale: Do not scale Date: May 2014

Revision: _____

