

Living Ecosystems

Working Towards Sustainable Development and Providing Ecological Education...



Code for Sustainable Homes Ecology Report Saunderson Road

Section A1: Contact Details**Ecologist's Details**

Company name: Living Ecosystems

Company address: 24 Orwell Close, Bury, Greater Manchester, BL8 1UU.

Contact name: Richard Parkinson

Contact telephone number: 0161 763 6744

Email: info@livingecosystems.co.uk

Ecology Report Reference: New Royd CHS Report 1

Developer / Client Details

Company name: **Nicol Thomas,**

Company address: Heyside House, Blackshaw Lane, Heyside, Royton, Oldham, OL2 6N

Contact name: Ms Ruth Walker

Contact telephone number: 01706 290088

Section A2: Development Details

BRE Reference Number:

Client Reference Number:

Development Name: Saunderson Road, Penistone.

Development Address: Saunderson Road, Penistone, near Barnsley, South Yorkshire.

Section B1: Suitably Qualified Ecologist's Qualifications

Do you hold a degree (or equivalent qualification, e.g. N/SVQ level 5) in ecology or related subject?

Yes

If Yes, please provide details

BSc. [Hons] Geography and Biology specializing in Environmental Management and Conservation, 2:2 awarded by Lancaster University in July 1985.

Are you a practising ecologist with a minimum of 3 years relevant experience within the last 5 years?

Relevant experience must clearly demonstrate a practical understanding of factors affecting ecology in relation to construction and the built environment and will include acting in an advisory capacity to provide recommendations for ecological protection, enhancement and mitigation measures, e.g. ecological impact assessments.

Yes

If Yes, please provide details

27 years continuous relevant professional experience. Please refer to attached CV for details[Appendix 2].

Are you bound by a professional code of conduct and subject to peer review*?

A full member of one of the following organisations will be deemed suitable: Chartered Institution of Water and Environmental Management (CIWEM); Institute of Ecology and Environmental Management (IEEM); Institute of Environmental Management and Assessment (IEMA); Landscape Institute (LI).

Yes

If Yes, please provide details:

Full member of the Institute of Ecology and Environmental Management [also a Fellow of the Linnean Society and a Scientific Fellow of the Zoological Society of London].

**Peer review is defined as the process employed by a professional body to demonstrate that potential or current full members maintain a standard of knowledge and experience required to ensure compliance with a code of conduct and professional ethics.*

Note: If the answer to any question in Section B1 is 'No' then the ecologist writing the report does not meet the requirements of a *Suitably Qualified Ecologist* under the Code. The ecology report therefore cannot be used in the Code assessment unless it is verified by a 'Suitably Qualified Ecologist'. If this is the case, proceed to Section B2.

If the ecologist does meet the requirements of a *Suitably Qualified Ecologist*, proceed to Section C.

Section B2: Report Verification

If the appointed ecologist does not meet the requirements of a *Suitably Qualified Ecologist*, the report must be verified by an individual who does meet these requirements. Otherwise the ecology report cannot be used in the Code assessment.

1. The person who verifies the report must provide written confirmation that they meet the requirements of a Suitably Qualified Ecologist in accordance with Section B1 above.
2. Details on verifying an ecology report for a Code assessment:
 - The individual verifying the report must provide written confirmation that they comply with the definition of a Suitably Qualified Ecologist (as detailed above in Section B1).
 - The individual verifying the report must confirm in writing they have read and reviewed the report and found it to:
 - represent sound industry practice
 - report and recommend correctly, truthfully, and objectively
 - be appropriate given the local site conditions and scope of works proposed
 - avoid invalid, biased, and exaggerated statements.

Written confirmation from the third party verifier on all the points detailed under 1 and 2 above (for Section B2) must be included in the Appendix to this report (see Section E).

Section C: Site Survey

Have the findings of the ecology report been based on data collected from a site survey(s)?

Yes

If yes, please provide details to confirm this (e.g. date(s) and scope of site survey(s))

An extended phase 1 habitat survey with an integral terrestrial mammal survey was carried at the site on 26th September 2012 No evidence of any protected or notable species was found during the course of these surveys [see appendix 1 below for details].

Note: If 'No' has been answered to Question 1 of Section C the ecology report cannot be used to determine compliance with the requirements of the relevant Code credits.

On what date did initial site preparation works commence? ***No works have commenced at this time.***

Note: If the site survey was carried out after initial site preparation works commenced, the ecology report cannot be used to determine compliance with the requirements of the relevant Code credits.

Note to Suitably Qualified Ecologist and the Code assessor: The contents of the ecology report must be representative of the site's existing ecology immediately prior to the commencement of initial site preparation works.

Section D: Details from the Site Survey

Eco 1 Ecological Value of Site

Is the construction zone of low or insignificant ecological value?

The construction zone includes any land used for buildings, hard standing, landscaping, site access and any other land where construction work is carried out (or land being disturbed in any way), plus a 3 metre boundary in either direction around these areas. It also includes any areas used for temporary site storage and buildings.

No the construction zone itself has a limited ecological value.

The site has some ecological value as possible nesting habitat for birds. The site also supports a range of rodents including a population of short tailed field voles [*Microtus agrestis*]. See the extended phase one survey in Appendix 1 for details.

If yes, is there any land outside the construction zone but inside the development site of ecological value?

No

Eco 2 Ecological Enhancement

Has the developer / client required you to provide advice and recommendations for enhancing site ecology?

Yes

If yes, please provide a brief statement outlining all of your KEY recommendations*:

1. Add to native planting

Currently the development site may be classed as tall grassland containing 17.6 native plant species. Of these 13 ubiquitous species in the local area will naturally re-colonise the lawns and unmanaged corners of the gardens. These are marked in red on the table below.

Common name	Latin name
Cocksfoot grass	<i>Dactylis glomerata</i>
Yorkshire fog grass	<i>Holcus lanatus</i>
Daisy	<i>Bellis perennis</i>
Creeping thistle	<i>Cirsium arvense</i>
Stinging nettle	<i>Urtica dioica</i>
Creeping buttercup	<i>Ranunculus repens</i>
Common sorrel	<i>Rumex acetosa</i>

Bramble	<i>Rubus fruticosus</i>
Curled dock	<i>Rumex crispus</i>
Cleavers	<i>Galium aparine</i>
Dandelion	<i>Teraxacum officinale</i>
Ribwort plantain	<i>Plantago lanceolata</i>
White clover	<i>Trifolium repens</i>

In order to further improve the post development biodiversity of the site the following additional planting is recommended.

Add trees and shrubs

Add small garden trees and shrubs to the planting scheme. Where possible each garden should include one of the listed berry bearing trees which will provide useful autumn forage for birds. Spring flowering shrubs from the list below should be added to the planting scheme scheduled for the site at a rate of least 2 plants per garden. Flowering currants provide a much needed source of nectar to bees in early spring, and English lavender provides a rich source of nectar and pollen to bees and butterflies throughout the summer.

Common name	Latin name
Lavender [English]	<i>Lavendula angustifolia</i>
Rowan	<i>Sorbus aucuparia</i>
Cherry	<i>Prunus sp</i>
Whitebeam	<i>Sorbus aria</i>
Crabapple	<i>Malus sp</i>
The species below may be used either as garden plants or in hedges	
Guelder rose	<i>Viburnum opulus</i>
Flowering currant	<i>Ribes sanguineum</i>
Hawthorn	<i>Crataegus monogyna</i>
Blackthorn	<i>Prunus spinosa</i>
Holly	<i>Ilex aquifolium</i>
Dogwoods	<i>Cornus sp</i>

Similar species which will perform the same function may be substituted if necessary.

The following species can be planted in the hedge bases to further improve diversity.

Common name	Latin name
Herb Robert [or other geranium species]	<i>Geranium robertianum</i>
Red campion	<i>Silene dioica</i>
Ivy	<i>Hedera helix</i>
Periwinkle	<i>Vinca minor</i>
Dog violet [or other suitable violet species]	<i>Viola riviniana</i>
White campion	<i>Silene alba</i>
Honeysuckle	<i>Lonicera sp</i>
Tutsan species	<i>Hypericum sp</i>

Planting with any 17 species from the tables above will meet the required criteria.

This will bring the total number of valuable species from 17.6 pre-development to 30 or more post development.

2. Removal of alien species

There is a small stand of Japanese knotweed [*Fallopia japonica*] in compartment A [see figure below for location]. Measures should be taken to eradicate this before it spreads. At this early stage, two or three targeted treatments with a glyphosate based systemic herbicide during the growing season can be effective. Digging up the rhizomes is a common solution where the land is to be developed, as this is quicker than the use of herbicides, but disposal of the plant material is difficult. Japanese Knotweed material including soil containing rhizomes and rootlets is regarded as 'controlled waste' in the UK and not disposing of it properly would be an offence under the Environmental Protection Act, 1990. Japanese knotweed is extremely invasive and rootlets as small as 1 centimetre long can regenerate into new plants. For this reason control of the plant using this method should only be carried out by licensed operatives or contractors. In the UK, it is an offence under section 14(2) of the Wildlife and Countryside act 1981 to "plant or otherwise cause to grow in the wild" any plant listed in Schedule nine, Part II to the Act, which includes Japanese knotweed. Over £150m is spent annually in the UK on Japanese knotweed control.





The stand of Japanese knotweed on the site.

2. Any clearance work should take place outside the bird breeding season (early April to late July) to avoid disturbance.
3. All fencing erected between residential properties should contain at least one gap at ground level (approximately 10x10cm) in order to allow movement of mammals, such as hedgehogs and amphibians, such as common frogs, to move freely between gardens.
4. Good horticultural practices should be employed to ensure no, or minimal, use of pesticides and herbicides.

If yes, please provide a brief statement outlining all of your **ADDITIONAL** recommendations*

Provide additional bird boxes

A single bat box should be incorporated into the wall under the eaves of each of 11 double housing units. 11 X



EcoSurv Bat Box - Bespoke Brick
Code: 002134 [retail at 80-90 UK pounds]

It is recommended: that new nesting opportunities for birds be provided at the site as part of the proposals. Given that Swifts and House Sparrows are known to be present in the vicinity of the site, it is recommended that new nesting opportunities for these UK BAP species be provided at the site.

House sparrows and swifts are listed as a Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006), they are UK BAP Priority Species. House Sparrow is listed upon the RSPB's Red List of 'Birds of Conservation Concern 3' (2009).

In order to provide new nesting opportunities for House Sparrow at the site, it is recommended that a total of 11 House Sparrow Terraces be fitted to the proposed buildings. The House Sparrow Terraces should ideally be positioned close to the eaves of the building adjacent to one-another along the northern aspect of the building to keep them out of strong sunlight. The above enhancement would facilitate the aims and objectives of the UK BAP Species Action Plan for House Sparrows.



11 X 3 bay sparrow terrace Schwegler 1SP Sparrow Terrace
Retail at about 70 UK pounds.



Droppings Board for Sparrow, House Martin & Swallow Nests [£11.50 +

These boxes are long lasting, durable, maintenance free Schwegler designs which can be easily attached to the outside of buildings [or similar designs – please note I have no connection with Schwegler or their suppliers and recommend them merely because they are an effective design readily and cheaply available online].

Installation of a total of a total of 7 of the above bat/bird boxes may be taken to represent 30% of the 'extra' provision in respect of additional recommendations.

** The client / developer will be required to adopt / implement all KEY recommendations and 30% of ADDITIONAL recommendations.*

Eco 3 Protection of Ecological Features

Note: Eco 3 looks at protecting all existing features / areas of ecological value on the site and boundary area. If a feature of ecological value is to be removed as part of the development works, e.g. site clearance, then this credit cannot be achieved. If you have deemed the whole development site to be of poor ecological value then there will be no features of ecological value to protect. If the construction zone is of low ecological value but the wider site is not, give protection measures here. If there is an area(s) or feature(s) of low or insignificant ecological value you wish to advise be retained and enhanced / improved, e.g. a species-poor hedgerow to a species-rich hedgerow, then full details of this advice should be entered as a recommendation under *Eco 2 Ecological Enhancement*.

Are there any existing features/ areas of ecological value on the site or at the boundary of the site?

Yes a dry stone wall exists on the sites northern boundary. This wall has potential ecological value for small rodents, shrews, weasels, invertebrates and even common lizards [if present on the site].



A dry stone wall surrounds the site.

N/A

Are any ecological features to be relocated on the site?

No

If yes, please provide a brief statement outlining the reasons for relocation and recommendations for protecting the ecological features:

N/A

Are there any species present on site that are protected by UK and EU law?

No

Where there are species present on site protected by UK and EU law, have recommendations been provided to the developer in order to protect such species in order to comply with UK and EU law?

Yes ☐

No ☐

Eco 4 Change of Ecological Value of Site

Are you able to provide the following information for before and after construction: habitat types and an estimate of the number of floral species present per habitat type (based on appropriate censusing techniques and confirmed planting regimes)?

Yes ☐

If yes, please provide the following information:

- a. A brief description of the landscape and habitats surrounding the development site

The land surrounding the construction zone has no ecological value and is suburban in character comprising of roads, hard-standing and housing.

- b. The total site area (*this will be the same both before and after development*): 1,600 m²

- c. Provide details of the site before development in the table below:

Habitat Type*	Area of habitat type (m ²)	Number of species per habitat type
Rough grassland and hedgerow	5,000 approx	17.6 native species

- d. Provide details of the site after development in the table below:

Habitat Type*	Area of habitat type (m ²)	Number of species per habitat type
Gardens	2,500 approx	30 native species
Hard-standing & building footprint.	2,500 approx	0

* Habitat types will include natural areas, e.g. various grasslands and woodlands; as well as areas of the built environment, e.g. buildings, hard landscaping. The area of each habitat type when added together must always equal the total area of the development site.

Has your client / developer requested you to carry out the calculation for Eco 4 Change in Ecological Value of Site? The calculation must be carried out in line with the methodology provided in the most current version of the Code Guidance.

Yes

If yes, please complete the tables below:

Calculation of the Ecological Value of the Site Before Development

Plot Type	Area of Plot Type [m ²]		Species [No.] (from Table 2 or a SQE*)		Species x Area of Plot Type
	5,000	x	17.6	=	88,000



		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
(1) Total site area =	5,000			(2) Total =	88,000
Species before development =					17.6
Total species x area of plot type / Total site area = (2)/(1) =					17.6

Plot Type	Area of Plot Type [m ³]		Species [No.] (from Table 2 or a SQE*)		Species x Area of Plot Type
Hard-standing & building footprint	2,500	x	0	=	0
Landscaped area	2,500	x	30	=	75,000
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
(1) Total site area =	5,000			(2) Total =	75,000
Species after development =					30
Total species x area of plot type / Total site area = (2)/(1) =					15

- SQE = Suitably Qualified Ecologist

This gives a score of +2.6 which equates with “neutral change: between +3 and - 3 giving a score of **2** ecological credits. To this should be added **1** credit for following the recommendations of an ecologist and a further **1** credit for protecting an existing ecological feature on within the development. This gives a total score of **4** credits.

Criteria	Credits
The ecological value before and after development is measured, and the overall change in species per hectare is:	
• Minor negative change: between -9 and less than	1

or equal to -3

- | | |
|---|---|
| • Neutral: greater than -3 and less than or equal to +3 | 2 |
| • Minor enhancement: greater than 3 and less than or equal to 9 | 3 |
| • Major enhancement: greater than +9 | 4 |

Section E: Appendix

The required documentation to be included within the appendix of this guidance document will include: the ecology report; written confirmation from the verifier of the ecology report (where necessary); and any supplementary documentation, e.g. ecologist's curriculum vitae; maps, plans, drawings, letters / emails of correspondence, etc. Please include these details along with the appropriate reference to each document in the table below:

Document	Reference
Ecological surveys and assessments for a proposed development at New Royd.	Appendix 1
RWParkinson CV	Appendix 2

	Code for Sustainable Homes – November 2010	
	Ecology Report Template	

Section F: Signature of Validation

I confirm that the information provided in this document is truthful and accurate at the time of completion.

Name of ecologist Richard William Parkinson

Signature of ecologist: *R W Parkinson*

Date 30/10/2012

Appendix 1 Ecological Assessment

Living Ecosystems

'Working Towards Sustainable Development and Providing Ecological Education...'



Extended Phase One Habitat Survey of land near Saunderson Road in Penistone

Living Ecosystems was commissioned by the architects Nicol Thomas in September 2012 to carry out an Extended Phase One Habitat Survey on land in the vicinity of Saunderson Road in Penistone.

Planning Proposal

The current planning application is for the provision of 22 social housing units on behalf of Yorkshire Housing Ltd.



Habitat Survey Methodology

A detailed habitat survey of the site was undertaken on the 26th September 2012 during mild but very wet weather. The survey was carried out by Richard Parkinson a suitably experienced Ecologist.

All habitats were mapped and each habitat was separated where possible into compartments with a list of the plant species found in each.

Objective(s) of the botanical survey

The objectives of the survey were to assess the habitats and plant assemblages on site:-

- 1) Undertake a habitat survey of the site and the surrounding environs;
- 2) Identify the habitat and plant assemblages on the site.
- 3) Determine the likely presence/absence of any protected plant species or habitats on the site.

Site Location

The area surveyed consisted of former pasture, playing fields, woodland and a cemetery in the vicinity of Saunderson Road in Penistone.



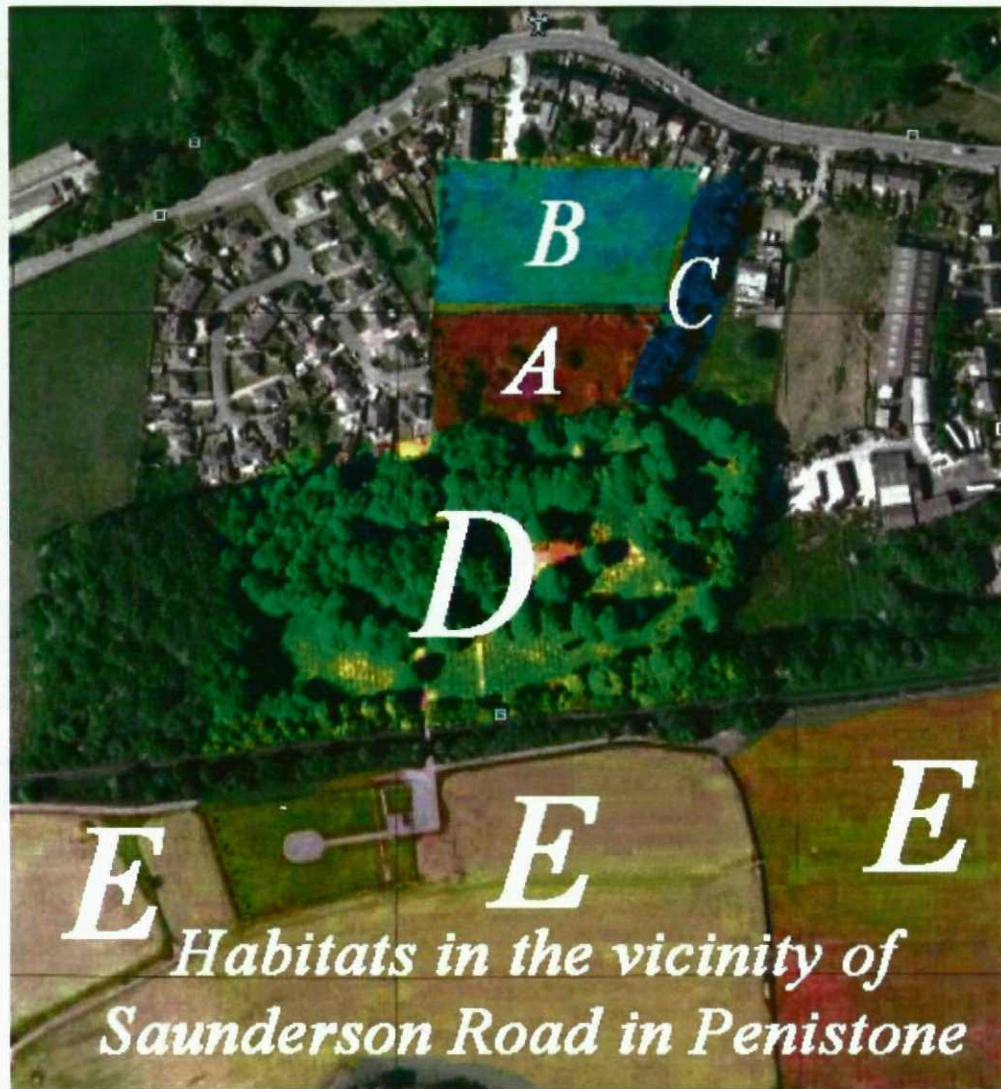
Location of the site off Saunderson Road in Penistone.

Habitat Survey Results

The following section presents the findings of the habitat survey. The habitats have been split into compartments and are shown on the map below. A detailed species list is included for each compartment using the DAFOR rating below.

DAFOR frequency ratings have used as follows :

- ☐ Dominant: the species appears at most (>60%) stops and it covers more than 50% of each sampling unit;
- ☐ Abundant: species occurs regularly throughout a stand, at most (>60%) stops and its cover is less than 50% of each sampling unit;
- ☐ Frequent: species recorded from 31-60% of stops;
- ☐ Occasional: species recorded from 11-30% of stops;
- ☐ Rare: species recorded from up to 10% of stops.



Habitat compartments on site adjacent to Saunderson Road, Penistone.

Compartment A – Abandoned smallholding

Compartment A is bounded by a dry stone wall about one metre tall to the south, and by fences to the east and west and by a stony bank about 1.5 metres tall to the north separating it from the adjacent cemetery. The northern portion of the compartment is clearly a disused and abandoned smallholding, a derelict shed/small wooden Dutch barn is present as are the remains of some disused animal pens and vegetable plots; all long abandoned and colonised by grasses and plant species typical of waste sites. The dominant habitat is rank grassland [Yorkshire fog and cocksfoot grasses predominating] forming well developed tussocks in some places. There are a variety of other species mostly typical of waste sites. The two most interesting plant species were ling [*Calluna vulgaris* - a heather] which occurs in the south of

the compartment, and sneezewort [*Achillea ptarmica*] which occurs very rarely in the north of the compartment. There was some limited evidence for field voles in compartment A. Such evidence included tracks, burrows and resting places. This type of habitat does provide good foraging habitat for barn owls, kestrels and other rodent predators. There are however no nesting opportunities for barn owls on the site. There are no large trees on the site but there is a small quantity of goat-willow scrub and a few ash and elder saplings.



Compartment A



Compartment A

Ling [*Calluna vulgaris*] in compartment A

Common name	Latin name	Frequency
Japanese knotweed	<i>Fallopia japonica</i>	R
Cocksfoot grass	<i>Dactylis glomerata</i>	A
Common bent	<i>Agrostis capillaris</i>	O
Yorkshire fog grass	<i>Holcus lanatus</i>	A
False oat grass	<i>Arrhenatherum elatius</i>	F
Rosebay willowherb	<i>Chamaerion angustifolium</i>	O
Teasel	<i>Dipsacus fullonum</i>	O
Greater burdock	<i>Arctium lappa</i>	O
Soft rush	<i>Juncus effusus</i>	O
Red clover	<i>Trifolium pratense</i>	O
Birds foot trefoil	<i>Lotus corniculatus</i>	O

Stinging nettle	<i>Urtica dioica</i>	F
Bush vetch	<i>Vicia sepium</i>	O
Creeping buttercup	<i>Ranunculus repens</i>	O
Common sorrel	<i>Rumex acetosa</i>	F
Bramble	<i>Rubus fruticosus</i>	O
Cow parsley	<i>Anthriscus sylvestris</i>	O
Curled dock	<i>Rumex crispus</i>	O
Dandelion	<i>Teraxacum officinale</i>	O
Ribwort plantain	<i>Plantago lanceolata</i>	O
Field horsetail	<i>Equisetum campestre</i>	F
Sneezewort	<i>Achilea ptarmica</i>	R
Ash	<i>Fraxinus excelsior</i>	R
Hoary willowherb	<i>Epilobium parviflorum</i>	R
Wild raspberry	<i>Rubus idaeus</i>	R
Wild rose	<i>Rosa sp</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	R
Elder	<i>Sambucus nigra</i>	R
Goat willow	<i>Salix caprea</i>	R
Ling	<i>Calluna vulgaris</i>	R
Relative Abundance: D Dominant; A Abundant; F Frequent; O Occasional; R Rare; L Locally		

Compartment B – Tussock grass.

The compartment is bounded by a continuous dry stone wall about one metre tall. The dominant habitat is rank grassland [Yorkshire fog and cocksfoot grasses predominating] forming well developed tussocks. There are a variety of other species mostly typical of waste sites. The most interesting plant species is sneezewort [*Achilea ptarmica*] which was thinly scattered throughout the compartment. Once again there is evidence for field voles this time much more significant and indicating a large and thriving population. Such evidence included tracks, burrows and resting places. This type of habitat does provide good foraging habitat for barn owls, kestrels and other rodent predators. There are no nesting

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Hogweed	<i>Heracleum sphondylium</i>	O
Meadow vetchling	<i>Lathyrus pratensis</i>	O
Creeping thistle	<i>Cirsium arvense</i>	F

opportunities for barn owls on the site itself. There are no large trees on the site but there is a few ash and elder saplings. There was a small but very dense stand of wild raspberry canes in the northern portion of the compartment.



Compartment B



Dense stand of raspberry canes



Tussock grass

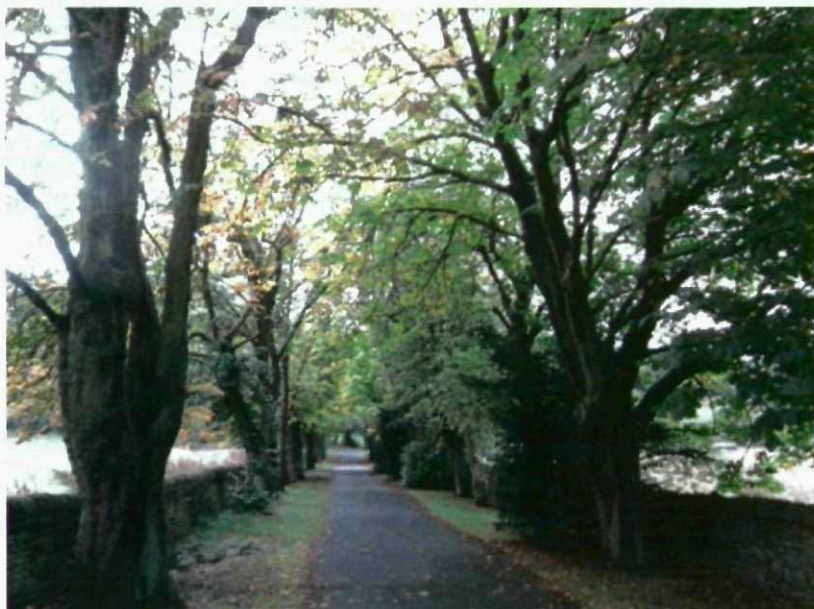


Vole burrow

Common name	Latin name	Frequency
Cocksfoot grass	<i>Dactylis glomerata</i>	A
Common bent	<i>Agrostis capillaris</i>	O
Yorkshire fog grass	<i>Holcus lanatus</i>	A
False oat grass	<i>Arrhenatherum elatius</i>	F
Reed canary grass	<i>Phalaris arundinacea</i>	O
Red clover	<i>Trifolium pratense</i>	O
Birds foot trefoil	<i>Lotus corniculatus</i>	O
Hogweed	<i>Heracleum sphondylium</i>	O
Meadow vetchling	<i>Lathyrus pratensis</i>	O
Creeping thistle	<i>Cirsium arvense</i>	F
Stinging nettle	<i>Urtica dioica</i>	F
Bush vetch	<i>Vicia sepium</i>	O
Creeping buttercup	<i>Ranunculus repens</i>	O
Common sorrel	<i>Rumex acetosa</i>	F
Bramble	<i>Rubus fruticosus</i>	O
Cow parsley	<i>Anthriscus sylvestris</i>	O
Curled dock	<i>Rumex crispus</i>	O
Dandelion	<i>Teraxacum officinale</i>	O
Ribwort plantain	<i>Plantago lanceolata</i>	O
Field horsetail	<i>Equisetum campestre</i>	F
Sneezewort	<i>Achillea ptarmica</i>	O
Ash	<i>Fraxinus excelsior</i>	R
Goat willow	<i>Salix caprea</i>	R
Hoary willowherb	<i>Epilobium parviflorum</i>	R
Wild raspberry	<i>Rubus idaeus</i>	R
Wild rose	<i>Rosa sp</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	R
Elder	<i>Sambucus nigra</i>	R
Relative Abundance: D Dominant; A Abundant; F Frequent; O Occasional; R Rare; L Locally		

Compartment C - Avenue of Trees

The road to the cemetery is flanked by a double row of mature sycamore trees [*Acer psuedoplatanus*] forming an impressive avenue. The avenue also contains smaller numbers of English yew [*Taxus baccata*] and small leaved lime trees [*Tilia cordata*] with occasional rhododendrons [*Rhododendron ponticum*].



Avenue of sycamores leading to the cemetery

Compartment D - The cemetery

The cemetery is a mixture of close mown turf and scattered trees. Grey squirrels and a range of common song bird species were plentiful but no protected species though lesser spotted woodpeckers are a possibility, but this should not affect any development on the neighbouring site.



Between the cemetery and the playing fields is a disused railway track running from east to west.



Beyond the cemetery and the railway track are playing fields with little ecological value.

Common name	Latin name	Frequency
Close mown turf	<i>Various grass species</i>	D
Beech	<i>Fagus sylvatica</i>	O
Bramble	<i>Rubus fruticosus</i>	O
Rosebay willowherb	<i>Chamerion angustifolium</i>	R
Cocks foot grass	<i>Dactylus conglomerata</i>	O
Elder	<i>Sambucus nigra</i>	O
Rhododendron	<i>Rhododendron ponticum</i>	O
Horse chestnut	<i>Aesculus hippocastanum</i>	O
Holly	<i>Ilex aquifolium</i>	O
Stinging nettle	<i>Urtica dioica</i>	O
Lime	<i>Tilia cordata</i>	F
Hoary willowherb	<i>Epilobium parviflorum</i>	O
Sycamore	<i>Acer psuedoplatanus</i>	F
Hogweed	<i>Heracleum sphondylium</i>	O
Ivy	<i>Hedera helix</i>	O
Irish yew	<i>Taxus baccata 'Fastigiata'</i>	R
Black pine	<i>Pinus nigra</i>	R
Relative Abundance: D Dominant; A Abundant; F Frequent; O Occasional; R Rare; L Locally		

Compartment E – Playing Fields

Compartment D comprises a large expanse of close mown amenity turf with hybrid ryegrasses dominating [*Lolium sp.*].



Alien species

There is a small stand of Japanese knotweed [*Fallopia japonica*] in compartment A [see figure below for location]. Measures should be taken to eradicate this before it spreads. At this early stage, two or three targeted treatments with a glyphosate based systemic herbicide during the growing season can be effective. Digging up the rhizomes is a common solution where the land is to be developed, as this is quicker than the use of herbicides, but disposal of the plant material is difficult. Japanese Knotweed material including soil containing rhizomes and rootlets is regarded as 'controlled waste' in the UK and not disposing of it properly would be an offence under the Environmental Protection Act, 1990. Japanese knotweed is extremely invasive and rootlets as small as 1 centimetre long can regenerate into new plants. For this reason control of the plant using this method should only be carried out by licensed operatives or contractors. In the UK, it is an offence under section 14(2) of the Wildlife and Countryside act 1981 to "plant or otherwise cause to grow in the wild" any plant listed in Schedule nine, Part II to the Act, which includes Japanese knotweed. Over £150m is spent annually in the UK on Japanese knotweed control.





The stand of Japanese knotweed on the site.

Reptile and amphibian potential

Some piles of rubble from a demolished garage could provide a possible resting place for reptiles; but far more significant is the dry stone wall encircling the site. This contains many voids and has real potential to provide resting and hibernation opportunities for reptiles and particularly common lizards if they are present on the site. I would recommend a reptile survey in this case. The site is ideal for smooth newts and common frogs, but not ideal for great crested newts [GCNs]. I was not able to find any ponds on or near the site despite looking, but need to do little more work to discount any ponds within a 500 metre radius for any GCNs to breed in. I cannot yet definitively discount their presence but it seems unlikely.



Piles of rubble from a demolished garage. This could provide a possible resting place for reptiles.



A dry stone wall surrounds the site. This is suitable for common lizards if present.



Standing water on the site. Keeping in mind this is after a month's rain in two days it is reasonable to suppose this is temporary. There were no aquatic plants which imply that the water dries out regularly.

The habitats on the site are summarized below.

- Compartment A- Abandoned smallholding waste ground.
- Compartment B –Rank tussock grass
- Compartment C – Avenue of trees
- Compartment D – Cemetery – turf and trees.
- Compartment E – Playing fields.

Impacts and recommendations

Only compartment A would be directly impacted by the proposed development. Any ecological impact on the other habitat compartments would be temporary or negligible. No protected or notable plant species were discovered during the course of the survey. However the habitat in compartment A supports a small population of field voles and may therefore be suitable as barn owl foraging habitat [Also kestrels and other predators of rodents]. Compartment B to the north supports a much larger and denser vole population of voles and will not be impacted by the proposals. The dry stone walls may be suitable as resting/hibernation sites for lizards. A reptile survey is recommended in this case. There is nesting potential for some birds species and particularly for ground nesting varieties in compartments B and A eg skylark. Ideally any works to clear vegetation **should not** be carried out during the breeding bird season which is March to August inclusive. If such clearance is essential during this period a breeding bird survey should take place immediately [ie a few days only] prior to any vegetation clearance or tree felling operation and further actions should be guided by the results. There appear to be no ponds within a 500 metre radius which are suitable as great crested newt breeding sites so no

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great crested newt impacts are anticipated. Common frogs and smooth newts are likely to be present but these are not specifically protected. Action should be taken to eradicate the stand of Japanese knotweed in compartment A, using a licensed knotweed contractor. The open woodland in the cemetery known as Stottercliffe wood provides very significant foraging opportunities for bats; and the strip of woodland at the edge of the cemetery neighbouring compartment A, could be used as a geographical marker by transiting bats. The edge of the woodland in the cemetery may also provide some additional foraging opportunities for bats in conjunction with the willow scrub in the northern portion of compartment A.

Other Impacts

Trees

Trees that are to be retained that are located outside the development site, but overhang the working area should have their root systems protected during development works. Tree protection works should extend 1 metre from the edge of the canopy and be in accordance with BS 5837:1980 Trees in relation to construction, guidelines.

Breeding Birds

The site has potential for a range of bird species including some significant ground nesting species such as skylark. It is also suitable as foraging habitat for barn owls. Works to clear vegetation **should not** be during the breeding bird season which is March to August inclusive. Immediately [ie a few days only] prior to any vegetation clearance or tree felling operation during the nesting bird season a breeding bird survey should take place. If an active nest is identified this area should be left undisturbed until nesting activity has finished. It is an offence to disturb any nesting bird or its nest.

Prepared by

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Senior Partner – Living Ecosystems
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Appendix 2 RWParkinson CV

Living Ecosystems

Working Towards Sustainable Development and Providing Ecological Education...



Richard W Parkinson
 Select - CV/Biography - Short version

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Born 04-07-1964 in Liverpool

Current base of operations Lancashire - England

Phone 01617636744/ 07854137884 Email notonnecta@aol.com

Website <http://www.livingecosystems.co.uk>

Current main occupation -Senior Partner LivingEcosystems [2002 - present].

LivingEcosystems is an Ecological Consultancy based in the North West of England. We specialise in the provision of environmental impact assessment, ecological survey and mitigation for all European protected species. **LivingEcosystems** has particular experience of co-ordinating the ecological mitigation of large scale infra-structure schemes, brownfield sites, major housing developments and contaminated sites.

Our aim is to provide a complete, sustainable and innovative service. We pride ourselves on our professionalism, competency, discretion and value for money.

For further details contact: info@livingecosystems.co.uk or telephone 0161 7636744

Website: <http://www.livingecosystems.co.uk>

In partnership with Ecology Services Ltd, LivingEcosystems provided all the ecological mitigation & environmental impact assessments and restoration plans required, for the re-development of the former Royal Ordnance Factory at Chorley in Lancashire. This BAE Systems Redrow development was one of the largest brownfield developments ever undertaken in Europe. The £400 million first phase of the development including Buckshaw Village is now complete and the more ambitious second phase including extensive commercial development and the proposed Central Lancashire New Town Development is well under way. The development is the largest new town development in Europe and is one of the first fully sustainable communities in the UK it will include schools, parks, nature reserves and sustainable urban drainage systems. The status of all protected species has been preserved and enhanced within the development.

Living Ecosystems has extensive expertise particularly in relation to the remediation of brownfield sites. Current projects include providing the required ecological survey work, mitigation, ecological assessments and landscape design for the proposed re-development of Kirkby towncentre; Living Ecosystems also provided the necessary restoration plans and great crested newt mitigation licences for the re-development of the Orica UK Ltd explosives factory at Shevington and for the re-development of RWE Innogy's redundant power stations in the North West, as well as the provision of protected species mitigation method statements for the Hoddon Castle Leisure Village on behalf of storeys:ssp in Scotland. We have recently completed a seven year project to provide all the required ecological survey work, ecological mitigation, environmental impact assessments and restoration plans for the re-development of BAE Systems former Royal Ordnance Factory site at Euxton, Lancashire which at the time was the largest brownfield development in Europe. We continue to carry out ecological work for BAE Systems at other sites in England and Scotland. Other major clients include Cass Associates, Ball Hall Ltd, Nicol Thomas, Solum Environmental and Great Places Housing Association.

Charitable Activities

Trustee of Green Schemes

Green Schemes is an unincorporated not for profit association. The aim of Green Schemes is to promote a more sustainable and socially conscious approach to economic development in the North

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West of England. **Green Schemes** provides free locally produced fruit and vegetable boxes to Homestart Centres in Greater Manchester.

Darcy Lever Marshes Site of Biological Importance – Living Ecosystems owns and manages Darcy Lever Marshes Site of Biological Importance an area of relict Lancashire Mossland near Bolton. This site is managed for the benefit of wildlife including dragonflies, great crested newts and a range of wetland bird and plant species.

Prior Experience

1995/2002 Senior Ranger & Water Bailiff, South Ribble District, Lancashire. With responsibility for 110 parks/nature reserves/woodlands/fisheries and open spaces. Also a member of borough's award winning Sustainable Development Steering Group, Environmental Management System (& European Eco-Management & Audit Scheme ISO 1001) Audit Committee.

Concurrently with above Part-time Youth and Community Worker Lancashire County Education Authority as a Duke of Edinburgh Award Scheme Expedition Trainer/Supervisor.

Also freelance Herpetological Consultant for Roland Bardsley Ltd and BNFL.

1992/5 Education Officer & Acting Head of Education, Training and Visitor Services at the Wildfowl & Wetlands Trust Northwest Regional Centre, Martin Mere.

1990/1 Full-time Trainee Warden with the Royal Society for the Protection of Birds based at Strumpshaw Fen, Norfolk Broads (& Brecklands).

1987/9 Head of Education, Banham Zoo & Monkey Sanctuary, Norfolk.

1985/6 Charge-hand Botanist/Ecologist, Landlife Urban Wildlife Unit, Liverpool.

Specialist Training and Knowledge

Specialist training in botanical survey methods to phase 1/2 and NVC standards.

18 months full-time training in wildlife conservation management skills at the Royal Society for the Protection of Birds Warden Training Centre at Strumpshaw fen, Norfolk. With an intern period at Redgrave & Lopham National Nature Reserve, Suffolk.

Full training as a wildfowl and Wetlands Trust Avicultural Warden at the Martin Mere Centre.

Full training in Environmental Education Teaching Methods Landlife & WWT Centre Martin Mere & University of London.

Specialist Herpetologist with particularly extensive field experience in relation to the UK's amphibians. Field survey and development mitigation for great crested newts has been a particular specialisation for 12 years.

Very wide experience & training captive breeding of fish, birds, reptiles and amphibians.

Specialist in Wetland & fisheries management.

Residential training in Bat Ecology, Conservation and Bat Survey Techniques validated by the Bat Conservation Trust at Flatford Mill Field Study Centre in Suffolk - June 2003 followed up by several months of mentored field training with licensed bat workers during summer and autumn 2003.

Full EMAS audit training.

Training in relation to evidence gathering in relation to the Police and Criminal Evidence Act.

Training in mediation and conflict resolution.

Full driving licence/First-Aid Certificate/Basic Health & Safety Certificate

Training in risk assessment has also been undertaken.

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Qualifications

BSc Honours[2:2] Geography and Biology specializing in ecology, vertebrate zoology & conservation management (Lancaster University).

Fellow of the Linnean Society of London

Scientific Fellow of the Zoological Society of London

Member of the Institute of Ecology & Environmental Management

Member of Council the British Herpetological Society.

North West England Conservation Officer for the British Herpetological Society.

Holder of Natural England Protected Species Survey and Development Licences for Great Crested Newts.

Five day residential course in Bat Ecology, Conservation and Bat Survey Techniques validated by the Bat Conservation Trust at Flatford Mill Field Study Centre in Suffolk – June 2003.

Hobbies and Interests

Natural history, comparative mythology, history, Folklore, genealogy, politics,

Canoeing, fencing & riding.

I also maintain a small collection of fish and aquatic amphibians, bred as part of international conservation programs .