

BROWNFIELD SITES AND THE BUILT ENVIRONMENT

LOCAL HABITAT ACTION PLAN FOR CAMBRIDGESHIRE & PETERBOROUGH

Reviewed: January 2009

1 CURRENT STATUS

1.1 Context

In national planning policy, brownfield sites, or previously-developed land, is defined as 'land...which is or was occupied by a permanent structure, including the curtilage of the developed land and any associated fixed surface infrastructure', but may also include landfill sites, and mineral extraction sites where provision for restoration has not been made at the planning stage. From a planning perspective, gardens are also considered brownfield sites, but are excluded from the definition used here, being covered in another Action Plan. The planning definition does not include agricultural or forestry buildings, but these are included here as they are not covered under the farmlands BAP. Cambridgeshire is dominated by intensive arable agriculture, and brownfield sites are largely confined to urban areas such as Cambridge and Peterborough.

The built environment includes both old buildings, which may provide roosts for bats, for example, and the opportunities that new development may present, such as living roofs and green walls. Structures built using local building materials can be particularly interesting for mosses and insects.

With 90% of people living in towns and cities nationally, the conservation of wildlife-rich brownfield sites and the improvement of the built environment for wildlife provides important opportunities to engage with the public on wildlife issues. The involvement of local people is vital and the urban area is one where people can make a real difference. Contact with wildlife (biodiversity) increases quality of life and can help to relieve the stresses and strains of everyday life, and may provide measurable economic benefits.

1.2 Biological Status

While not all brownfield sites are valuable to wildlife, many support significant biodiversity. Brownfield sites can support as many Red Data Book and Nationally Scarce invertebrate species as ancient woodlands.

The most biodiverse brownfield sites come about through a combination of factors. Artificial surfaces (eg cracked tarmac) and human disturbance can produce impoverished, thin soils that encourage high plant diversity, with abundant flower-rich areas, providing an important forage resource for invertebrates. The flower-rich areas that arise are rare in the intensive agricultural landscape that characterises much of Cambridgeshire, and brownfield sites provide an important refuge for many species that rely on such habitats.

Another important habitat provided by brownfield sites is open bare ground. Bare ground warms up quickly, allowing reptiles and insects to become active, as well as providing a foraging area for visual predators and nesting sites for burrowing invertebrates like wasps and bees.

The hydrology of a brownfield site can also be very variable, providing seasonally wet areas, permanent water bodies and marshy areas.

These factors combine to produce a complex habitat mosaic on the best brownfield sites, resulting in high biodiversity. The higher average temperatures in urban areas can also mean that brownfield sites provide microclimates that support species that would otherwise only be found further south.

The wildlife on brownfield sites most likely to be of conservation importance will be made up of invertebrates – especially Araneae (spiders), Hymenoptera (ants, bees and wasps), Diptera (flies) and Coleoptera (beetles), many of which are species of conservation concern. The botanic interest of brownfield sites may also be high, the high plant diversity supplemented by garden escapees and exotics. Brownfield sites also provide important habitats for reptiles and amphibians, as well as nesting sites for birds or roosts for bats where built structures still persist.

The built environment can provide habitat for lichens, plants and nest sites for birds such as swift, house martin or kestrel and homes for bats. Bats use buildings and many roost sites have been lost after maintenance or renovation. Old walls can be particularly important for plants, including Wall Bedstraw, and for a number of tiny snails and a variety of mosses and lichens. Living roofs have the potential to provide habitat for wildlife and can partially mitigate habitat loss as a result of development.

2 CURRENT FACTORS AFFECTING BROWNFIELD SITES AND THE BUILT ENVIRONMENT IN CAMBRIDGESHIRE & PETERBOROUGH

2.1 Policy and Legislation

Government policy currently takes a ‘brownfield first’ approach, with a target of 60% of new developments to be built on brownfield. While this policy is designed to reduce urban sprawl and promote regeneration, it is often to the detriment of biodiversity, with many brownfield sites supporting significantly more biodiversity than greenfield sites, which are often intensively managed agricultural land.

Planning Policy Statement 9: Biodiversity and Geological Conservation, recognises the role brownfield sites have in supporting biodiversity, and requires that “...*where such sites have significant biodiversity or geological interest of recognised local importance, local planning authorities, together with developers, should aim to retain this interest or incorporate it into any development of the site.*”

The official definition of Previously Developed Land – found in an annex to Planning Policy Statement 3: Housing includes an important exclusion for the purposes of nature conservation: “...*[sites] where the remains of the permanent structure or fixed surface structure have blended into the landscape in the process of time (to the extent that it can reasonably be considered as part of the natural surroundings)*”. However in practice this exclusion is rarely employed in the planning system. It is also the case that sites with structures that have not blended into the landscape can also support significant biodiversity.

The Natural Environment and Rural Communities act was brought into force in October 2006. Under this act, all public bodies have a duty to have regard for conserving biodiversity. Under the Wildlife and Countryside Act, certain species that may be present on brownfield sites are protected by law, including bats and great-crested newts.

With regard to living roofs, the UK remains currently without incentives, standards, or policies to encourage their installation. Nevertheless, within the last couple of years there has been a significant renewed interest in green and brown roofs, and a marked increase in such roofs being designed and installed. The amount of housing planned in Cambridgeshire and Peterborough offers an enormous potential for incorporating not only living roofs but also green walls and other biodiversity features.

2.2 Management

Sympathetic management can be key to retaining the biodiversity interest of brownfield habitats. Inappropriate management by well meaning conservationists or local authorities can also be a threat. Turning a brownfield into ‘pretty’ greenspace through importation of topsoil, seeding of grassland and planting of trees can be as devastating to brownfield wildlife as development. Many invertebrates rely on a continuity of grassland habitat, overwintering in stems or seedheads, so mowing, even once a year, may be inappropriate for the management of brownfield grasslands.

Lack of management, usually resulting in scrub encroachment, can also be detrimental to the biodiversity of a site. Managed disturbance – such as mechanical scraping – may also be an important part of brownfield management.

Unsympathetic renovation of old built structures, including conversion projects, may reduce the availability of the habitats therein to wildlife.

2.3 Attitudes

Brownfield sites are often viewed as eyesores by the general public and can attract anti-social behaviour such as fly tipping and drug- and alcohol-abuse. Changing public attitudes towards brownfield sites is an important part of securing their conservation. Inaccessibility is also an issue: most derelict sites are not managed and the public are often excluded, usually due to safety or security requirements.

Despite growing awareness of brownfield biodiversity among planners, mitigation or compensation for brownfield development is often absent or of variable quality. There is also reluctance by developers to incorporate such features into new developments, so it is important to integrate such requirements at the planning stage.

3 CURRENT ACTION

3.1 Legal

Policies to safeguard public open spaces and green corridors are incorporated into many District plans.

Some urban species such as bats are protected under the Wildlife and Countryside Act.

3.2 Example Projects

The Peterborough Brownfield Invertebrate project (phase 1) has undertaken an assessment of invertebrate value of brownfield sites in the wider Peterborough area. This project demonstrated the biodiversity value of brownfield sites and identified sites with particular

significance for biodiversity. This information has been used to inform current planning decisions and the production of the Local Development Framework.

There are a number of urban wildlife projects run in partnership between local authorities and the Wildlife Trust in Peterborough, Cambridge and St Neots. These projects manage certain sites and are involved in community participation and education in urban areas.

Impington Park has a small brownfield element.

4 OBJECTIVES AND TARGETS

4.1 Objectives

- Assess and monitor existing urban habitats
- Maintain the extent of our urban habitat resource
- Create new urban habitats
- Manage and enhance our urban habitat resource
- Raise awareness and increase accessibility and involvement

4.2 Targets

- 1) Identify extent and location of brownfield wildlife resource in Cambridgeshire
- 2) Identify top 20% of wildlife-rich brownfield sites
- 3) Status of brownfield County Wildlife Sites monitored every 5 years
- 4) Four brownfield site survey training days held
- 5) Report produced on biodiversity features of the Built Environment in Cambridgeshire and Peterborough
- 6) Brownfield sites incorporated into policies and guidelines for wildlife site protection processes
- 7) 10 ha of brownfield habitat of significant biodiversity value protected from development
- 8) Biodiversity value of brownfield sites recognised in development plans and regional strategic planning guidance
- 9) 15 ha of new habitat created
- 10) Designs for biodiversity features incorporated into 5 new commercial developments (not mitigation)
- 11) Designs for biodiversity features incorporated into 5 new residential developments (not mitigation)
- 12) Management needs of brownfield County Wildlife Sites identified and incorporated into management plans
- 13) 100% of brownfield County/City Wildlife sites 'in favourable condition' by 2015
- 14) Public awareness of the biodiversity value of brownfield sites raised and involvement in recording brownfield wildlife increased
- 15) Public awareness of the potential biodiversity value of the built environment raised
- 16) Participation in recording features such as old walls and bat roosts increased
- 17) Public access at two additional brownfield sites secured by 2010
- 18) Annual brownfield wildlife awareness event held at a brownfield County/City Wildlife Site

5 ACTIONS Brownfield Sites & the Built Environment

OBJECTIVES	TARGETS	ACTIONS	Responsible	Timescale
Assess and monitor existing urban habitats	1) Identify extent and location of brownfield wildlife resource in Cambridgeshire	1.1) Desktop survey to identify brownfield sites 1.2) Develop survey database for derelict sites	1.1 CPBRC? 1.2 CPBRC?	2010
	2) Identify top 20% of wildlife-rich brownfield sites	2.1) Important features for biodiversity on brownfield sites identified 2.2) Brownfield sites in Cambridge assessed for habitat potential 2.3) Identify suitable species to monitor on derelict sites	2.1 Buglife 2.2 Buglife, WT, local volunteer groups 2.3 Buglife	2010 Ongoing
	3) Status of brownfield County Wildlife Sites monitored every 5 years	3.1) Identify and monitor existing brownfield County/City Wildlife Sites	3.1 WT	
	4) Four brownfield site survey training days held	4.1) Organise training days in brownfield monitoring for volunteers 4.2) Possibility of developing a brownfield ecology group investigated	4.1 WT?	2010
	5) Report produced on biodiversity features of the Built Environment in Cambridgeshire and Peterborough	5.1) Review use of biodiversity features in recent developments X. Identify funding streams for brownfield biodiversity work	5.1 Natural England, Anglia Ruskin University? X. BAP partnership co-ordinator	2012

Maintain the extent of our Urban habitat resource	6) Brownfield sites incorporated into policies and guidelines for wildlife site protection processes	6.1) Review County Wildlife Site selection criteria to include brownfield sites 6.2) Review coverage of brownfield species of conservation concern under Cambridgeshire SAPs	6.1 CCC & WT, CWS Partnership 6.2 Cambs BAP	2010
	7) 10 ha of brownfield habitat of significant biodiversity value protected from development	7.1) Designate sites of high biodiversity value as appropriate (including SSSIs and CWS)	7.1 CWS Partnership	2012
	8) Biodiversity value of brownfield sites recognised in development plans and regional strategic planning guidance	8.1) Develop regional brownfield biodiversity planning guidance for planners	8.1 Buglife, Natural England	2010
Create new urban habitats	9) 15 ha of new habitat created	9.1) Work with local authorities and private landowners to identify sites where new 'brownfield' habitat features of value for biodiversity can be created	9.1 LA?	2012
	10) Designs for biodiversity features incorporated into 5 new commercial developments (not mitigation)	10.1) Identify potential funding sources for incorporating biodiversity features into new developments (eg section 106, Community Infrastructure Levy, endowments) 10.2) Develop guidance/policy for living roofs on industrial developments	10.1 WT? 10.2 CCC, PCC, Natural England	
	11) Designs for biodiversity features incorporated into 5 new residential developments (not mitigation)	11.1) Influence training of developers and construction industry	11.1 via smartLIFE project?, based at CCC	

<p>Manage and enhance our Urban habitat resource</p>	<p>12) Management needs of brownfield County Wildlife Sites identified and incorporated into management plans</p> <p>13) 100% of brownfield County/City Wildlife sites 'in favourable condition' by 2015</p>	<p>12.1) Identify brownfield County/City Wildlife Sites where management might be appropriate</p> <p>12.2) Assess the management requirements of brownfield species of conservation concern.</p> <p>13.1) Advise owners /occupiers of brownfield County/City Wildlife Sites of their biodiversity value and encourage management where appropriate</p> <p>13.2) Produce information on management of brownfield habitats for landowners</p> <p>13.3) Identify and publicise good practice to other developers/local authority planners</p>	<p>12.1 CWS Partnership</p> <p>12.2 Buglife</p> <p>13.1 CWS Partnership</p> <p>13.2 Buglife, WT?</p> <p>13.3 WT?</p>	
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Raise awareness and increase access and involvement	14) Public awareness of the biodiversity value of brownfield sites raised and involvement in recording brownfield wildlife increased	14.1) Encourage local community involvement on brownfield sites where appropriate	14.1 CPBRC	
	15) Public awareness of the potential biodiversity value of the built environment raised	15.1) Produce information on making your home 'wildlife friendly' for householders 15.2) Bats in Buildings showcase at Ecocentre Peterborough 15.3) Promotion of "Best Practice" and brown roofs advocacy-partnership	15.1 WT 15.2 Eco-arts, PCC 15.3 LAs, Biodiversity Partnership	
	16) Participation in recording features such as old walls and bat roosts increased	16.1) Identify brownfield sites appropriate for public use and incorporate these into 'greengrids'	16.1 CCC/PCC Green Infrastructure Strategy Officer & Green Grid Officers?	
	17) Public access at two additional brownfield sites secured by 2010	17.1) Work with landowners and local authorities to secure access to brownfield sites	17.1 LA?	
	18) Annual brownfield wildlife awareness event held at a brownfield County/City Wildlife Site	18.1) Organise 'brownfield awareness' ('urban wildlife') events for the public	18.1 WT?	

BAP = Biodiversity Action Plan

CCC = Cambridgeshire County Council

CPBRC = Cambridgeshire and Peterborough Biological Records Centre

CWS = County Wildlife Site

LA = local authority

PCC = Peterborough City Council

SAP = Species Action Plan

WT = Wildlife Trust

? = unconfirmed

5 RELATED PLANS/LINKS TO OTHER PLANS

Cambridgeshire & Peterborough

Domestic Gardens

Wetlands (where it covers Mineral restorations)

Acid Grassland and Heathland (similarities in invertebrate assemblages)

Lowland Calcareous grassland (similarities in invertebrate assemblages)

Great Crested Newt

Pipistrelle Bat

National

‘Open Mosaic Habitats on Previously Developed Land’

6 REVIEW OF ACTION PLAN

This action plan will be reviewed by the Biodiversity Partnership on a regular basis and checked annually by the Urban BAP Group.

7 REFERENCES & FURTHER READING

[Planning Policy Statement 3: Housing](#). Communities & Local Government, November 2006

[Planning Policy Statement 9: Biodiversity and Geological Conservation](#). ODPM, August 2005

Brownfield: Red Data, The values artificial habitats have for uncommon invertebrates. English Nature Research Report 273, 1998.

The potential contribution of the mineral extraction industries to the UK Biodiversity Action Plan. English Nature Research Report 279, 1998.

Going, going, gone? The cumulative impact of land development on biodiversity in England.

English Nature Research Report 626, 2005.

Exotic plant species on brownfield land: their value to invertebrates of nature conservation importance. English Nature Research Report 650, 2005.

Review of the coverage of urban habitats and species within the UK Biodiversity Action Plan.

English Nature Research Report 651, 2005.

Barker G, 1997. A framework for the future: green networks and multiple uses in and around towns and cities.

Colston A, Gerrard C & Parslow R 1997. Cambridgeshire’s Red Data Book

Brownfields. Buglife information poster. 2007.

8 LIST OF INDIVIDUALS AND ORGANISATIONS CONSULTED

Anglia Ruskin University

Bat Conservation Trust

Buglife

Butterfly Conservation

Cambridge City Council

Cambridge Preservation Society

Cambridge University

Cambridgeshire and Peterborough Amphibian and Reptile Group

Cambridgeshire and Peterborough Biological Records Centre

Cambridgeshire County Council

Cambridgeshire Bats Group

Cambridgeshire Natural History Society

Countryside Properties

Diocese of Ely Environment Group

East Cambridgeshire District Council

Eco-arts Project Peterborough

Ely Society

Environment Agency
Fenland District Council
Friends of Sudbury Meadow
Froglife
Gallagher Estates
Greater Dogsthorpe Environmental Forum
Green Grid and Green Infrastructure Groups
Hanson/Philip Parker Associates
Huntingdonshire District Council
Impington Parish Environment Volunteers
Natural England
Opportunity Peterborough
O&H Hampton
Peterborough City Council
Peterborough Environment City Trust
RSPB - East Anglia
SMART life Centre
Smeeden Foreman Partnership
South Cambridgeshire District Council
St Neots Town Centre Initiative
St Neots Town Council
The Wildlife Trust