St Edmundsbury Local Development Framework

Site Allocations Development Plan Document

SITE SUBMISSION FORM

St Edmundsbury
BOROUGH COUNCIL

We are currently identifying sites with development potential as part of the Local Development Framework. This form should be completed to suggest sites that you think should be considered by the Council for their availability for development over the next 20 years.

Please return this form and a **map** clearly identifying the boundary of the site by: **Friday 9 May 2008** to:

Planning & Engineering Services
St Edmundsbury Borough Council
PO Box 122
Bury St Edmunds
IP33 3YS Or email it to: LDF@stedsbc.gov.uk

ALL INFORMATION SUBMITTED WILL BE MADE AVAILABLE FOR PUBLIC INSPECTION AND MAY BE THE SUBJECT OF PUBLIC CONSULTATION AS PART OF THE LDF PROCESS

Guidance

1 Please use a separate form for each site and complete the form to the best of your knowledge.

2 Do submit sites that:
- would be available for development or redevelopment in the next 20 years; and
- are more than 0.2 hectares (0.5 acres).

3 Do not submit sites that:
- already have planning permission for development unless a new and different proposal is likely in the future; and
- are outside of the St Edmundsbury local authority area.

4 Details of existing constraints can be obtained from a number of sources.
- Information on floodplains can be found at www.environment-agency.gov.uk
- Information on nature designations can be found at www.natureonthemap.org.uk
- Details of special landscape areas and conservation areas can be obtained from the existing replacement Local Plan at www.stedmundsbury.gov.uk

Site Plan

This form should be accompanied by a site plan on a recognised Ordnance Survey base. The site plan should clearly illustrate the following information:
- The exact boundary details (**coloured red**) of the site that you would like considered
- Potential access points *(vehicular and non-vehicular)*
- Those areas identified as brownfield (**shaded blue**) and/or greenfield land (**shaded green**)

1. CONTACT DETAILS

Your name	JON LAMBERT
Organisation	BERKELEY STRATEGIC
Address	BERKELEY HOUSE,
	19 PORTSMOUTH ROAD,
	COBHAM,
	SURREY **Postcode** KT11 1JG
Telephone	01932 584598
Email address	jonathan.lambert@berkeleygroup.co.uk

Your agents (if applicable)	N/A
Organisation	N/A
Address	N/A
	Postcode
Telephone	
Email address	

Site Owner	MAJOR THE HONORABLE JHA BROUGHTON
Address	THE MANOR HOUSE
	GREAT BARTON,
	BURY ST EDMUNDS,
	SUFFOLK Postcode IP31 2QR

Please indicate if you have the consent of the landowner to promote this site for inclusion in the Local Development Framework: **Yes** / No

2. SITE DETAILS

Site name COMPIEGNE WAY

Location NORTH EAST BURY ST EDMUNDS

Total Area 40 (ha)

Of which 0 (ha) is on brownfield land

Of which 40 (ha) is on greenfield land

Ordnance Survey Grid Reference TL879658

Current use(s) (please specify last use if vacant

AGRICULTURE

Suggested uses

AT LEAST 1,000 DWELLINGS, A RANGE OF COMMUNITY FACILITIES, INCLUDING A NEW PRIMARY SCHOOL, FORMAL AND INFORMAL PUBLIC OPEN SPACE, HIGHWAY AND PUBLIC TRANSPORT INFRASTRUCTURE.

3. DEVELOPMENT CONSTRAINTS

Is the suggested use subject to any of the following constraints?

Constraint	Yes/No	Comments
Flood Plain	NO	REFER TO ATTACHED STATEMENT
Nature designation	NO	REFER TO ATTACHED STATEMENT
Land contamination	NO	REFER TO ATTACHED STATEMENT
Conservation Area	NO	REFER TO ATTACHED STATEMENT
Special Landscape Area	NO	REFER TO ATTACHED STATEMENT

How close is the nearest bus stop?	150 metres Bus service numbers 83
How close is the nearest primary school?	1000 metres
How close is the nearest shop that will provide day-to-day food needs?	1600 metres
How close is the nearest doctor's surgery?	0.83 kilometres

If there are constraints to development, what interventions could be made to overcome them?

REFER TO ATTACHED STATEMENT

Policy constraints: How does the proposal conform with current national, regional or local planning policies?

REFER TO ATTACHED STATEMENT

4. OTHER INFORMATION

Has the viability of the site been tested? If so, please include details.

REFER TO ATTACHED STATEMENT

Level of developer interest, if known:
Low Medium **High**

Likely time frame for development:

0-5 years **6-10 years** **10-15 years** Beyond 15 years

Any further information: (Continue on separate sheets if necessary) Please supply four copies of any supportive statements or an electronic version.

REFER TO ATTACHED STATEMENT

St Edmundsbury Local Development Framework

Site Allocations Development Plan Document

SITE SUBMISSION SUSTAINABILITY APPRAISAL

	SA Objective	Please indicate whether your proposal will have a positive or negative contribution towards each objective
1	To improve the health of the population overall	
2	To maintain and improve levels of education and skills in the population overall	
3	To reduce crime and anti-social activity	
4	To reduce poverty and social exclusion	
5	To improve access to key services for all sectors of the population	
6	To offer everybody the opportunity for rewarding and satisfying employment	
7	To meet the housing requirements of the whole community	
8	To improve the quality of where people live and to encourage community participation	
9	To improve water and air quality	
10	To conserve soil resources and quality	
11	To use water and mineral resources efficiently, and re-use and recycle where possible	
12	To reduce waste	

	SA Objective	Please indicate whether your proposal will have a positive or negative contribution towards each objective
13	To reduce the effects of traffic on the environment	
14	To reduce contributions to climate change	
15	To reduce vulnerability to climatic events	
16	To conserve and enhance biodiversity	
17	To conserve and where appropriate enhance areas of historical and archaeological importance	
18	To conserve and enhance the quality and local distinctiveness of landscapes and townscapes	
19	To achieve sustainable levels of prosperity and economic growth throughout the plan area	
20	To revitalise town centres	
21	To encourage efficient patterns of movement in support of economic growth	
22	To encourage and accommodate both indigenous and inward investment	

Berkeley Strategic

St Edmundsbury Local Development Framework
Site Allocations Development Plan Document

Compiegne Way, Bury St Edmunds
Development Site Submission by Berkeley Strategic
May 2008

Introduction

This development site submission has been prepared by Berkeley Strategic in response to the St Edmundsbury Local Development Framework Site Allocations Development Plan Document site submission process.

Berkeley Strategic has an interest in land at Compiegne Way, located adjacent to the north eastern edge of Bury St Edmunds. This land represents a sustainable and relatively unconstrained location for a strotegic urban extension to Bury St Edmunds. Berkeley Strategic is putting this land forward as a potential development site and wishes the site to be given consideration through the preparation of the Core Strategy and the Site Allocations Development Plan Document.

This statement, and accompanying technical submissions, responds directly to the list of development site submission information required by the Borough Council, as is set out within paragraph 5.48 of the Core Strategy Issues and Options document.

Development Site

The proposed development site is located adjacent to the north eastern edge of Bury St Edmunds, to the south east of the A143 and to the north of the Peterborough – Ipswich railway line.

The proposed development site is shown edged in red on the Site Plan included at Appendix 1 and extends to approximately 40 hectares.

Existing Land Use

The proposed development site is currently in agricultural use.

Proposed Development

The proposed development site at Compiegne Way can accommodate at least 1,000 dwellings, a range of community facilities, including a new primary school, formal and informal public open space and new highway and public transport infrastructure. An illustrative masterplan for the proposed development is included at Appendix 2.

Additional suitable development land is located to the east and north west of the proposed development site. This additional land could be brought forward for development within the period to 2031 should the Borough Council determine that the most appropriate strategy for growth within the Borough is the identification of strategic development sites of more than 1,000 dwellings.

The proposed development at Campiegne Way could facilitate the delivery of a bypass to Great Barton through the provision of land and financial contributions. Berkeley Strategic would like to work with St Edmundsbury Borough Council and Suffolk County Council to secure the delivery of a bypass as part of the proposed development.

The proposed development site is immediately available and development could be brought forward to meet the housing needs of the Borough during the period to 2021, and possibly beyond.

Land Ownership & Availability for Development

The proposed development site at Compiegne Way is in a single ownership. The landowner is willing to make the site ovailable for development and Berkeley Strategic has an agreement with the landowner for the promotion of the site for development.

The delivery of development at Compiegne Way is therefore not subject to any landownership constraints.

Compliance with National and Regional Policy

National Policy

National planning policy relating to the location and form of new residential development is set out within Planning Policy Statements, particularly PPS1 and 3 which relate to Sustainable Development and Housing respectively.

The key objectives of national planning policy are to deliver more sustainable patters of development through:

- The promotion of social cohesion and inclusion
- The protection and enhancement of the environment
- The prudent use of natural resources; and,
- Sustainable economic development

The proposed development at Compiegne Way would assist in the delivery of new development within St Edmundsbury which achieves these objectives.

The development would create a socially inclusive new community through the provision of 40% affordable housing to meet local housing needs, and the delivery of new community facilities to meet the needs of the new community in a manner which is accessible to all.

The proposed development would avoid areas which are environmentally sensitive by virtue of their ecological, landscape and historic value. The design and layout of development would seek to minimise the environmental impact of the development and improve environmental quality through the provision of enhanced natural habitats within areas of open space. The masterplan for the proposed development has been prepared having regard to the environmental opportunities and constraints of the site.

The proposed development would represent a sustainable urban extension to Bury St Edmunds. The development would therefore enable best use to be made of existing infrastructure, would minimise travel demand and provide high levels of accessibility to existing employment, leisure and community facilities by modes of transport other than the car.

The proposed development would provide at least 1,000 dwellings at an average density of 40 dwellings per hectare. This is within the range of residential development densities required by national planning policy. The proposed development would therefore make the best use of land.

The development of land at Compiegne Way as part of the LDF development strategy for the period to 2031 would form part of a long-term strategy aimed at meeting the economic and

social needs of the Borough. The proposed development would support the economic and social development of the Borough by ensuring the provision of sufficient, good quality homes with good access to public transport, community facilities and employment opportunities.

Regional Policy

The emerging East of England Plan sets out the regional planning policies which are relevant to St Edmundsbury Borough.

Of particular relevance is Policy SS2 Overall Spatial Strategy. This policy sets out that in order to achieve a more sustainable pattern of development in the region most strategically significant growth should be directed to the region's major urban areas, where best use con be made of existing infrastructure and where additional development can deliver efficient infrastructure improvements.

Policy SS3 identifies Bury St Edmunds as a Key Centre for Development and Change, at which new development should be concentrated in order to deliver the spatial strategy and achieve sustainable patterns of development.

Policy BSE1 refers specifically to the role of Bury St Edmunds as a Key Centre for Development and Change. This policy sets out how Bury St Edmunds should act as a focus for growth, where provision should be made for further employment, service and housing development that reflects the town's role as an important service centre.

The proposed development at Compiegne Way would provide a strategic level of growth as a sustainable urban extension to Bury St Edmunds, one of the region's major urban areas. The development would therefore contribute towards a strategy of locating a majority of the Borough's growth at Bury St Edmunds, in accordance with policies SS2, SS3 and BSE1. Development in this location would make best use of existing infrastructure within the town, would deliver significant infrastructure improvements to meet the needs of the development and would ossist in unlocking existing infrastructure constraints, such as the need for a bypass to Great Barton.

Access

The proposed development would be accessed from two points on a realigned A143.

A proposed new three arm roundabout junction, located south of the existing A143/The Avenue junction, forms the northern development access. The northern arm of the roundabout joins the existing A143 and provides access into Great Barton. A relocated priority junction provides access to The Avenue and Barton Stud. The southern arm provides access into the development site. The western arm connects into the existing A143 north of Anglenook Cottages. An eastern fourth arm could provide a connection for a byposs to Great Barton.

The southern access junction, in the form of a proposed new three arm roundabout, is located between the proposed northern access junction and the A143/Orttewell Road roundabout junction. The A143 is realigned from a point south of Anglenook Cottages ond forms the eastern arm of the roundabout. The southern arm of the roundabout provides access into the development site while the western arm connects back into the existing A143.

Further west, improvements to the existing A143/Orttewell Road three arm roundabout includes the realignment of Orttewell Road, the A143 and Compiegne Way, and the relation of the

roundabout to the north east. These improvements would increase the capacity of Orttewell Road on the approach to the signals under the railway line.

This highway access strategy is shown on the plan at Appendix 3.

An objective of the proposed development is to encourage walking and cycling as an alternative to car use through the provision of safe and convenient pedestrian and cycle routes between the development, local facilities, employment and public transport links.

In addition to a comprehensive network of on site pedestrian and cycle routes, two pedestrian and cycle links to the south of the railway line would be provided via Orttewell Road and an existing underpass of the railway line, which is located adjacent to the south eastern corner of the site. This link would provide a direct connection between the new development and Moreton Hall.

Existing Community Infrastructure

An assessment of existing community infrastructure within the vicinity of the proposed development site and accessibility to it has been undertaken by WSP on behalf of Berkeley Strategic. This assessment has been produced as a Technical Note which accompanies this submission.

This assessment has identified that a comprehensive range of education, health, leisure, employment, retail facilities and public transport services are located within 5km of the proposed development site. Their location relative to the site means that the opportunity exists to encourage a high level of journeys between the site and these facilities to be made on foot and by bicycle.

In addition, the proposed development would provide a camprehensive range of community facilities and services on site which would be highly accessible to residents of the new development. By virtue of the pedestrian and cycle access under the railway line these facilities would also be easily accessible for the existing residents in Moreton Hall. Development at Compiegne Way would therefore help to address the existing deficit of community infrastructure in the Moreton Hall area.

Potential Impact on Areas of Wildlife Importance

A preliminary ecological assessment of the proposed development site has been carried out by Hankinson Duckett Associates on behalf of Berkeley Strategic. This assessment is included as part of this submission.

The assessment has shown that there are no areas of International, UK, National, Regional or County nature conservation importance within the site. Furthermare, the findings of the field survey have indicated that a majority of the site is of negligible nature conservation importance.

The development of the site would therefore not result in an adverse impact on areas of wildlife importance.

Landscape

A landscape appraisal of the site has been undertaken by Hankinson Duckett Associates on behalf of Berkeley Strategic.

This appraisal has concluded that the proposed development site to the south of the A143 and north of the railway line is not prominent within the landscape and is visually well related to the recent development at Moreton Hall. The landscape appraisal has identified the proposed development site as being suitable for residential development.

In addition, the landscape appraisal has identified further land located immediately to the east and north west of the proposed development site as also being suitable for development. This land could be brought forward to deliver a development comprising of more than 1,000 dwellings should the Borough Council determine that such a spatial development strategy is appropriate.

The development of the proposed development site, and the further land to the east and north west, would not result in development encroaching into the area of land between Bury St Edmunds and Great Barton which the landscape appraisal has identified should be maintained to ensure no coalescence of the settlements. The proposed development would maintain a 1km gap between the northern edge of the new development and Great Barton. This is regarded as being more than sufficient to ensure that no harm is caused to the setting of Bury St Edmunds and Great Barton.

Flood Risk

An initial assessment of the extent to which the proposed development site is subject to flood risk has been prepared by WSP on behalf of Berkeley Strategic. The findings of this assessment are set out within a Flood Risk Technical Note which accompanies this submission.

This initial assessment has identified that the proposed development site at Compiegne Way is not located within the 1:1000 year floodplain as defined by the Environment Agency. The site is located within Flood Zone 1 and is suitable for residential development in accordance with PPS25. Therefore, the proposed development site is not constrained by flood risk.

Access to Public Transport

The proposed development site is in close proximity to a number of existing public transport services, as are shown on the plan attached at Appendix 4. These services include stops on the existing bus service 83 which operates between Moreton Hall and the town centre. These are within 2km of the proposed development site meaning that they are within a comfortable walking distance of the site.

Additionally, Bury St Edmunds railway station is within 5km of the proposed development site, making it accessible by bicycle and by bus from the site.

In order to significantly enhance the accessibility of the proposed development site to public transport services a new shuttle bus service could be provided between the site and key destinations including the town centre, bus station, rail station, hospital and schools. This service could also be extended to serve key facilities within Moreton Hall.

In addition to this shuttle bus service, the existing 304 / 337 / 338 / 339 group of services which operate along the A143 between Diss and Bury St Edmunds could be diverted to pass through the proposed development site. Alternatively, new stops for these services could be provided on the A143 adjacent to the site.

These potential public transport improvements are shown on the plon at Appendix 5.

Sustainability Appraisal

WSP have prepared a Sustainability Approisal of the proposed development site. This has been prepared using the Borough Council's Site Submission Sustoinobility Matrix.

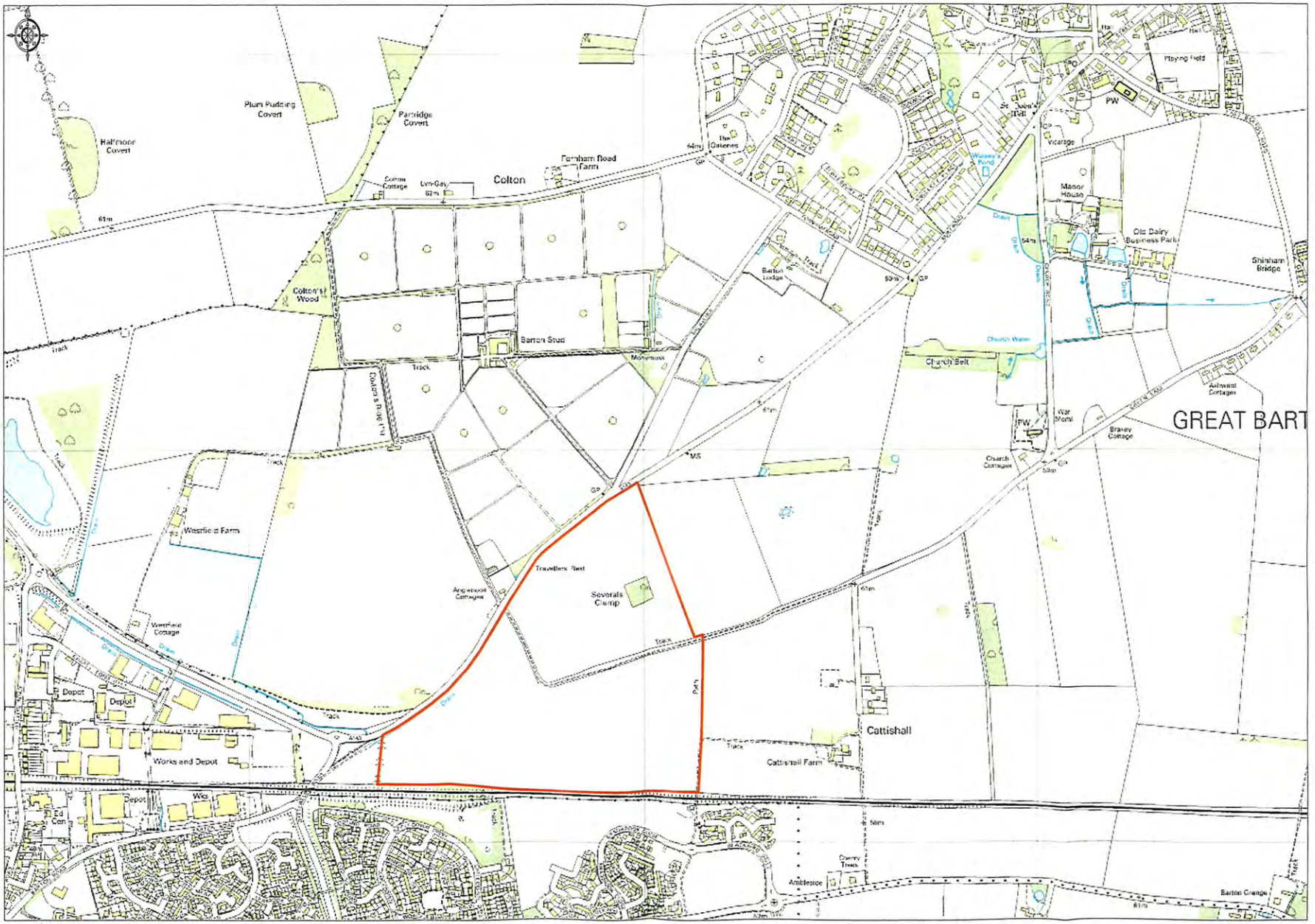
This Sustainobility Appraisal is included as part of this submission.

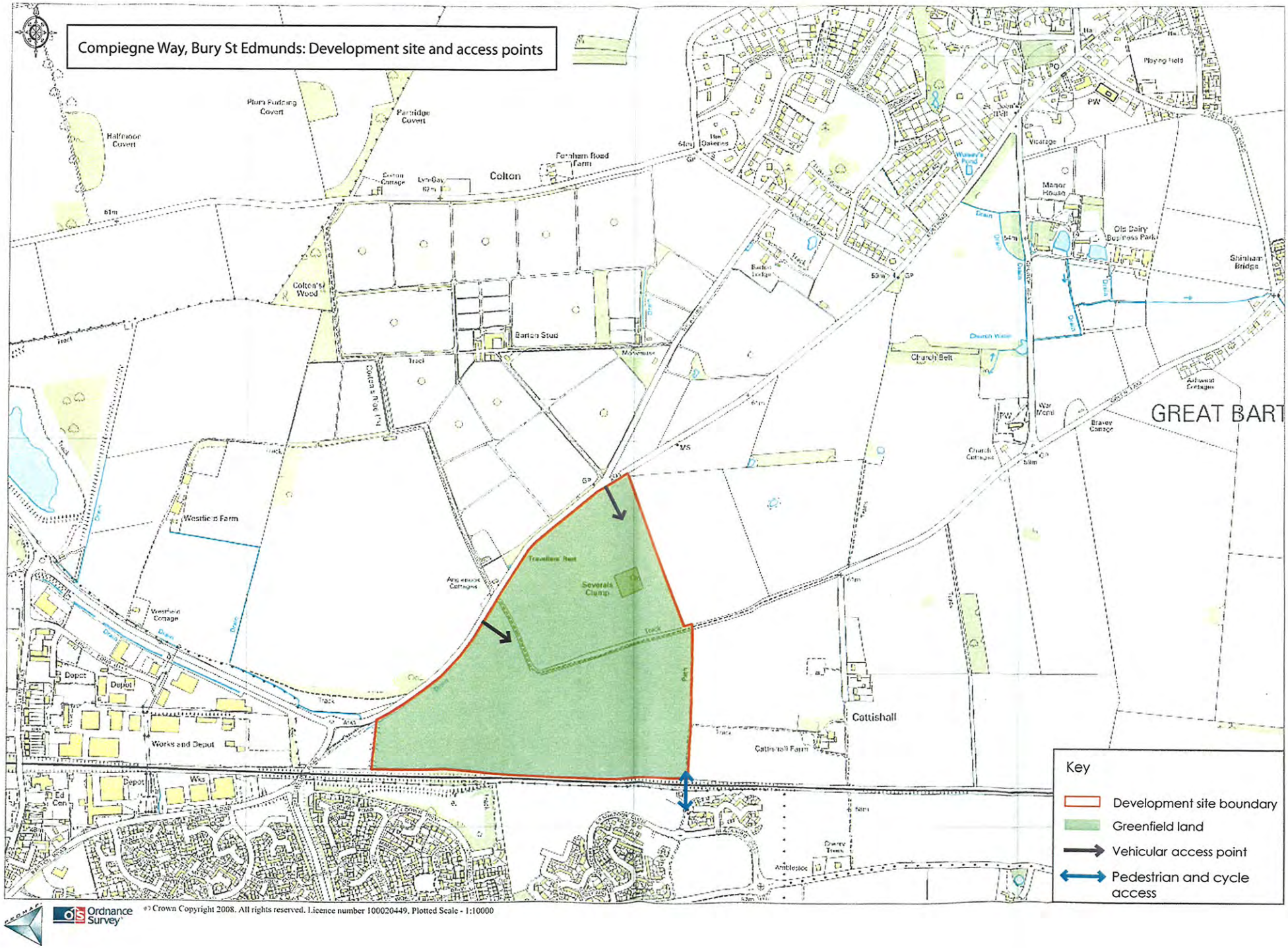
Conclusion

The proposed development site at Compiegne Way represents a sustainable, environmentally unconstrained and deliverable location for a strategic scale urban extension to Bury St Edmunds. The proposed development comprises of at least 1,000 dwellings, a range of community facilities, including a new primary school, formal and informal public open space and new highway and public transport infrastructure.

The site is immediately available and the development could be brought forward to meet the housing needs of the Borough for the period to 2021. Further development could be provided in this location after 2021to meet longer-term development needs.

Appendix 1




Compiegne Way, Bury St Edmunds: Development site and access points
Colton
Cottishall
GREAT BART
Key
Development site boundary
Greenfield land
Vehicular access point
Pedestrian and cycle access
© Crown Copyright 2008. All rights reserved. Licence number 100020449. Plotted Scale - 1:10000

Appendix 2

notes

The contractor is responsible for checking dimensions, brickmixes and references. Any discrepancy to be verified with the Architect before proceeding with the works.

Where an item is covered by drawings to different scales the larger scale drawing is to be worked to.

Do not scale drawing. Figured dimensions to be worked to in all cases.

date	rev	revision/author/checker

purpose of issue: COMMENT

project: COMPIEGNE WAY BURY ST EDMUNDS

drawing: ILLUSTRATIVE LAYOUT

drawing no	A6243/1.1/01	rev
drawn	RC	checked
scale	1:2500	date 17.04.08

PRP Architects
John Dimond House
399 Silbury Boulevard
Central Milton Keynes
Bucks, MK9 3XL
T +44 (0)1908 353929
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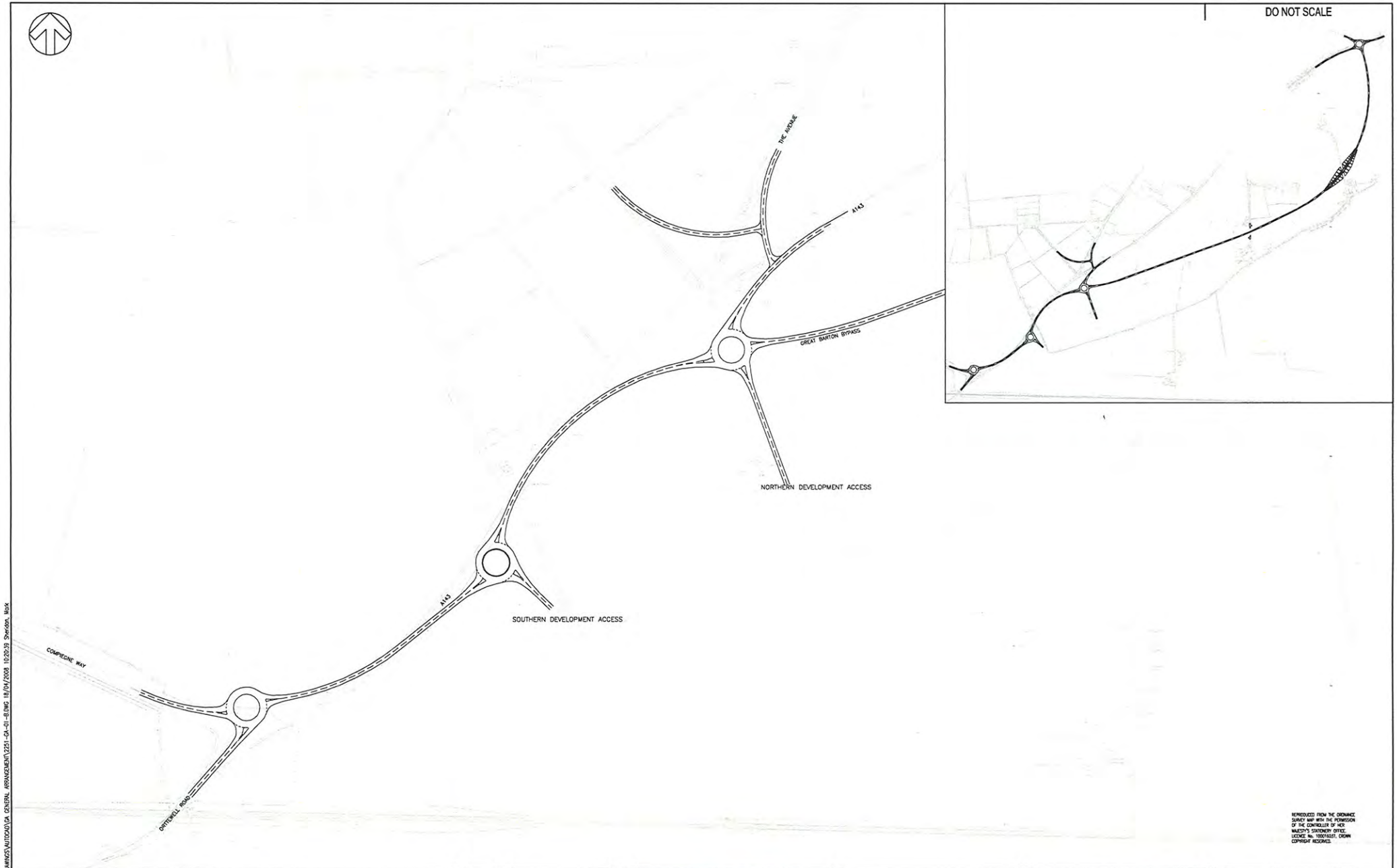
PRP

Appendix 3



REV	DATE	BY	DESCRIPTION	CHK	APD
B	17/04/2008	MS	REVISED LAYOUT	MJF	MJF
A	27/03/2008	MJF	ISSUED	MJF	MJF

DRAWING STATUS: FOR INFORMATION ONLY

WSP
Mountbatten House, Basing View, Basingstoke, Hampshire RG21 4HJ
Tel: +44 (0)1256 318800 Fax: +44 (0)1256 318700
http://www.wspgroup.com

CLIENT: BERKELEY STRATEGIC

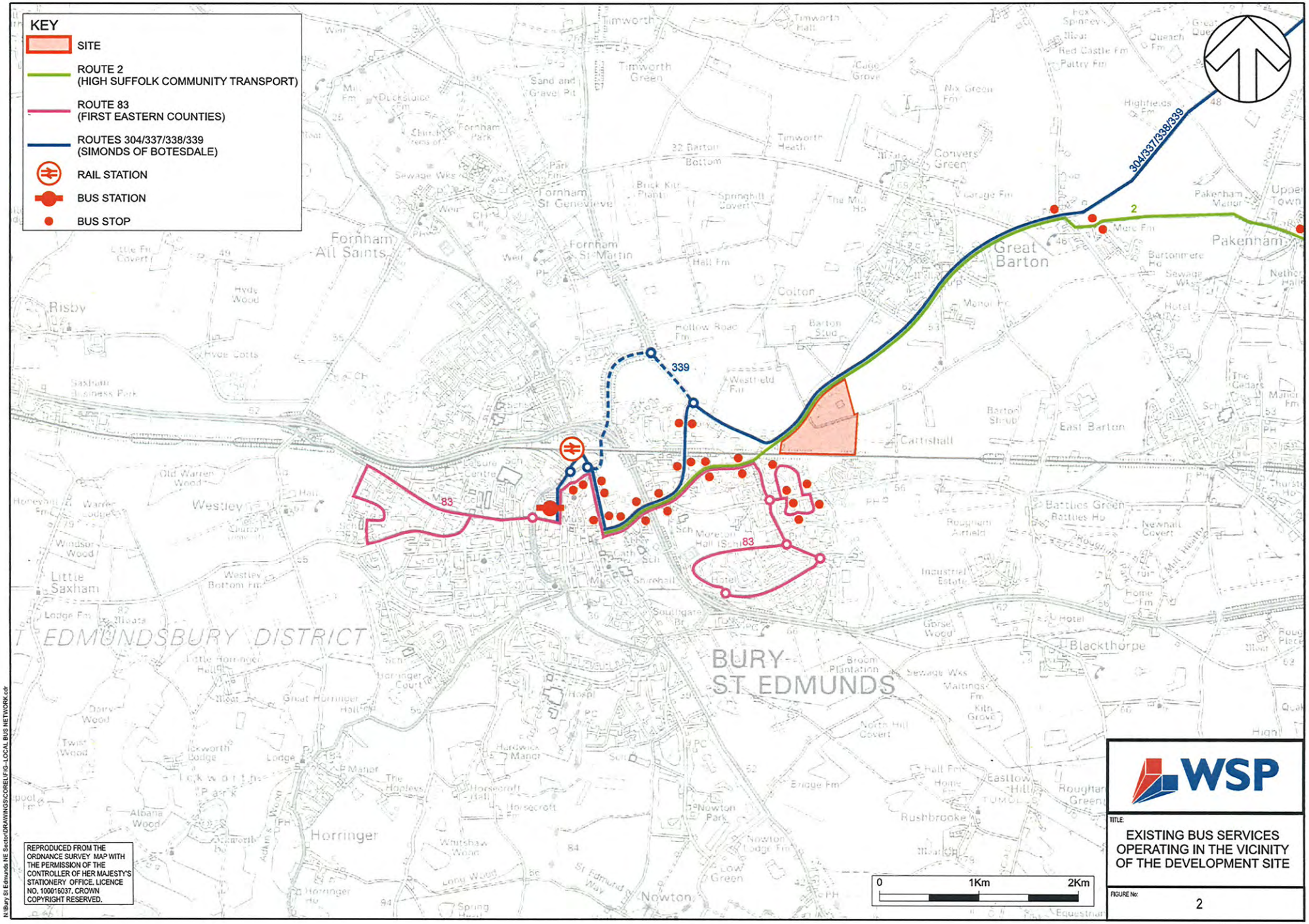
ARCHITECT:

PROJECT: BURY ST EDMUNDS

TITLE: ACCESS STRATEGY

SCALE @ A1:	CHECKED:	APPROVED:
1:2500	MJF	MJF
CAD FILE:	DRAWN/CHKD:	DATE:
2251-GA-01-B	MJF	April 2008
PROJECT No:	DRAWING No:	REV:
11012251	2251/GA/01	B

Appendix 4



REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. LICENCE NO. 100016037. CROWN COPYRIGHT RESERVED.

N:\Bury St Edmunds NE Sector\DRAWINGS\CORELUFIG-LOCAL BUS NETWORK.cdr

WSP

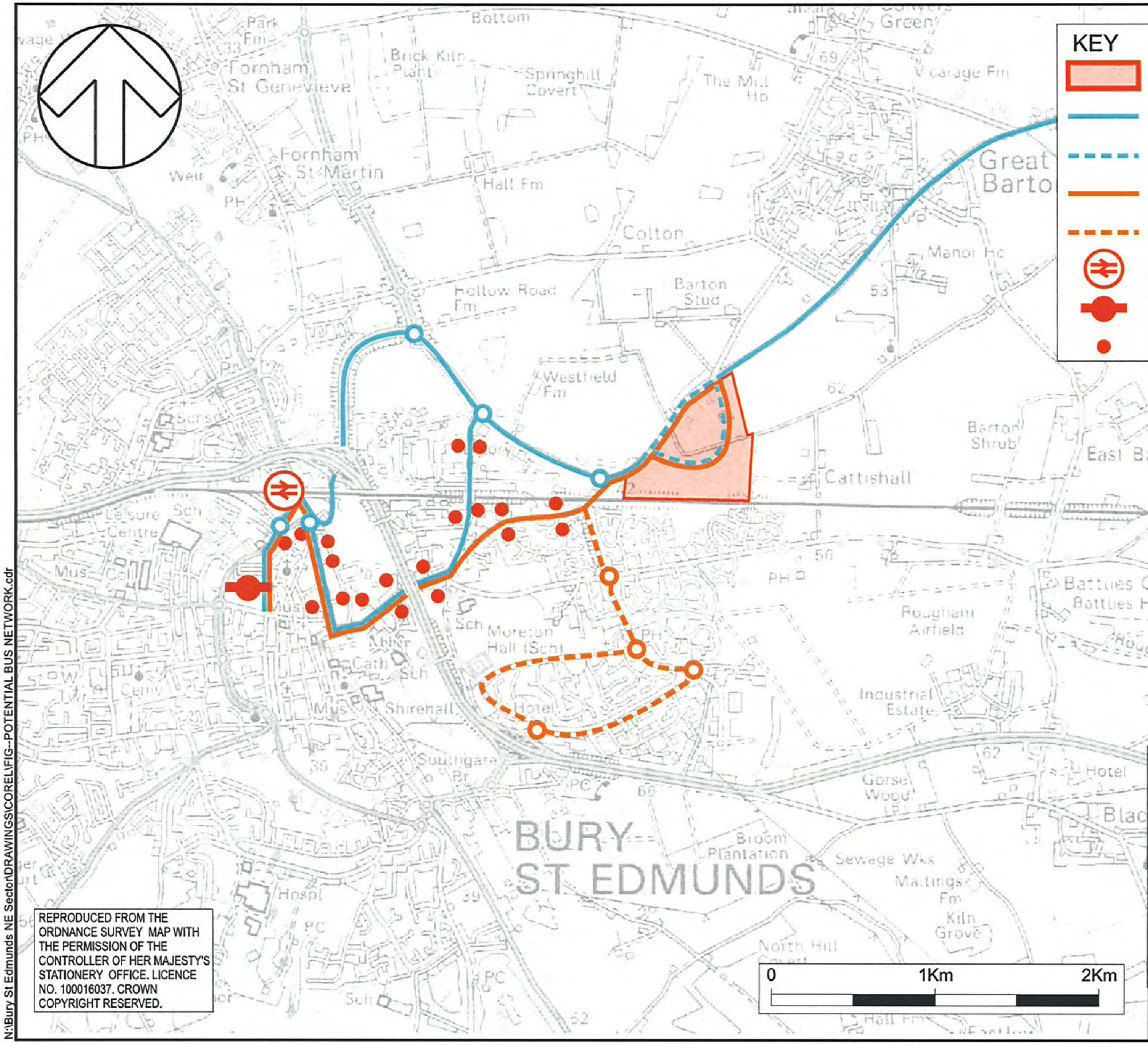
TITLE:

EXISTING BUS SERVICES OPERATING IN THE VICINITY OF THE DEVELOPMENT SITE

FIGURE No:

2

Appendix 5

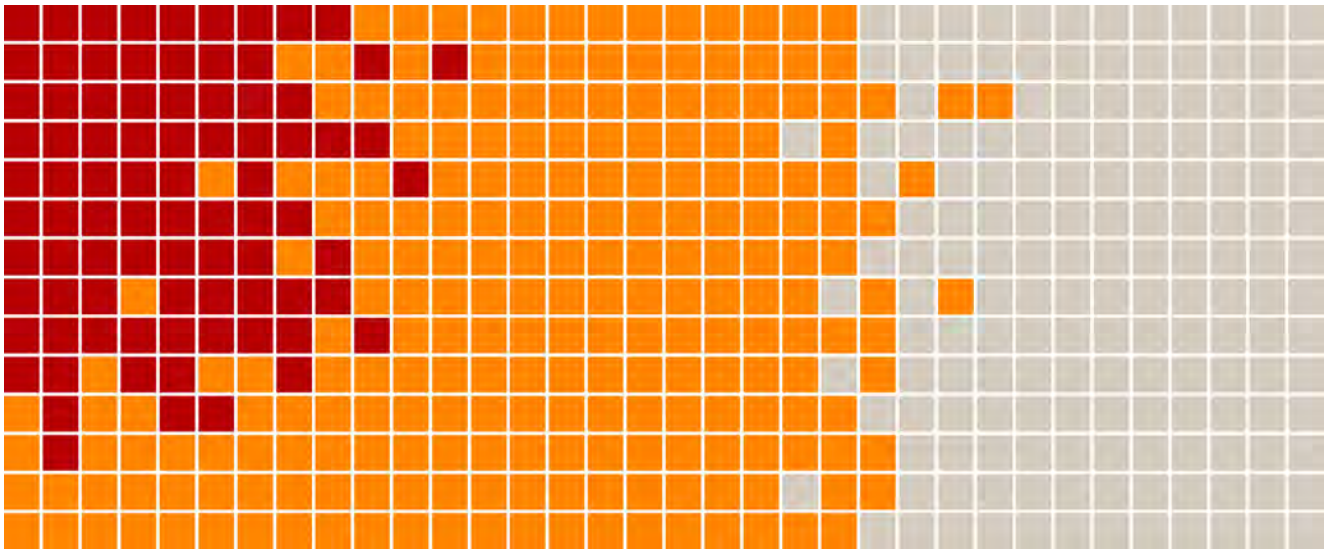

KEY
SITE
EXISTING ROUTES 304/337/338/339
POTENTIAL DIVERSION
PROPOSED SHUTTLE ROUTE
POTENTIAL SHUTTLE EXTENSION
RAIL STATION
BUS STATION
BUS STOP
BURY ST EDMUNDS
Great Barton
East Barton
Fornham St Genevieve
Fornham St Martin
Westfield Fm
Barton Stud
Colton
Cattishall
Moreton Hall (Sch)
Industrial Estate
Rougham Airfield
Battlies Green
Newhall Covert
0
1Km
2Km

WSP

TITLE: POTENTIAL PUBLIC TRANSPORT PROVISION

FIGURE No: 3

N:\Bury St Edmunds NE Secton\DRAWINGS\CORELIFIG--POTENTIAL BUS NETWORK.cdr



Compiegne Way, Bury St Edmunds: Accessibility to Local Facilities Technical Note

Berkeley Strategic

April 2008

COMPIEGNE WAY, BURY ST EDMUNDS: ACCESSIBILITY TO LOCAL FACILITIES TECHNICAL NOTE

This Technical Note has been prepared to provide an initial assessment of the current level of pedestrian and cycle accessibility to key local services and facilities from the proposed development site at Compiegne Way, north east of Bury St Edmunds. The site location is shown on Figure 1. It is bounded to the south by the Peterborough to Ipswich rail line and to the west and north by the A143.

Providing accessibility for pedestrians and cyclists within and journeying to and from the proposed development site will be an essential component of the development strategy. This is a requirement of national, regional and local policy aspirations in striving to achieve sustainable development, communities and lifestyles. This Technical Note sets out the existing provision for pedestrians and cyclists with regard to infrastructure, in addition to access to local facilities for education, health, retail, leisure and employment.

EXISTING PROVISION FOR CYCLISTS

There is a network of existing cycle routes that run through the heart of the town centre. These are made up of local connections, traffic free cycle routes and National Cycle Network (NCN) traffic free routes. The NCN route that runs through the town is Route 51 which provides a cycle connection between Oxford to the west and Felixstowe to the south east. The nearest connection that the site has with these existing cycle routes is to the south of the rail line at the Orttewell Road / Mount Road traffic free cycle connection to the NCN Route 51. There is currently no designated cycle route along Barton Road, the key desire line between the site and the town centre.

'As the crow flies' the distance between the approximate centre of the proposed development site and the town centre (bus station) is 3km. Utilising existing footways / highways, including Barton Road, this distance increases to approximately 4km. Planning Policy Guidance 13: Transport recognises that walking and cycling are of great importance at a local level, offering the greatest potential to replace short car trips (under 2km for walking and 5km for cycling). Whilst the town centre is beyond the desirable maximum walking limit of 2km, there is the realistic potential to encourage cycle trips between the development site and the town centre.

EXISTING PROVISION FOR PEDESTRIANS

For pedestrians, there is an extensive network of footways throughout the local area. Some of these footways are noted to be approximately 2.5m in width, such as the connection under the rail line from Orttewell Road leading onto Barton Road and providing a connection between the site and the town centre.

In addition to these facilities the opportunity exists to provide a pedestrian and cycle access between the site and the area to the south of the railway line via an existing underpass that connects to Bradbrook Close.

Within the town centre, it is noted from the adopted St Edmondsbury Local Plan – 2016, that considerable work has been done to increase pedestrian priority. The Local Plan also states that developers will be expected to implement or make financial contribution towards connecting pedestrian and cycle routes and creating new ones.

ACCESS TO LOCAL SERVICES

There are a wide range of local services and facilities located to the south west of the proposed development site, as shown on Figure 2. These can be categorised under the following headings:

- Education;
- Employment;
- Health;
- Retail; and
- Leisure.

As noted above, Planning Policy Guidance 13: Transport, recognises that walking and cycling are of importance at a local level, offering the greatest potential to replace short car trips (under 2km for walking and 5km for cycling). As such, two isochrones depicting distances of 2km and 5km from the centre of the proposed development site have been overlain onto the land use plan (Figure 2). It can therefore be seen from Figure 2, those facilities which lie within the potential walking and cycling catchments of approximately 2km and 5km, respectively, enabling a picture to be built of the existing level of accessibility to local facilities for pedestrians and cyclists.

Figure 2 shows that the town centre of Bury St Edmunds, and therefore a wide variety of local amenities, lie within 5km of the proposed development site. There is therefore the potential to encourage walking and cycling trips to and from the site to these local amenities as detailed further below. The proposed public transport strategy, as discussed in the Public Transport Technical Note, would further enhance this level of access to local services and facilities.

Education

Figure 2 shows that there are a range of educational establishments within 5km of the proposed development site including, inter alia:

- Thurston Community College to the east;
- Moreton Hall School and the Priory School to the south west of the development, east of the A14; and
- West Suffolk College, located to the north west of Bury St Edmunds town centre.

Moreton Hall School and The Priory School are located just on the boundary of the 2km catchment zone to the south west of the development site. This indicates that education trips to and from the development to these establishments have the potential to be undertaken on foot or by bicycle. The remaining schools listed above, in addition to St Benedicts Catholic School, King Edward IV Church of England (CofE) School, St James CofE Middle School and St Edmundsbury CofE Primary School, are located beyond the 2km catchment and are within 5km of the site. This would indicate that trips to and from these establishments could be encouraged to be undertaken by bicycle, with the exception of the Primary School. The network of local bus services in the vicinity, particularly those closest to the town centre, provide additional access opportunities for future residents of the proposed development site to gain access to educational facilities.

Employment

A large range of employment opportunities exist within Bury St Edmunds, including within the education, health and retail sectors. There are also three industrial sites located within 5km of the proposed development site offering additional employment opportunities.

These employment locations, within 5km of the development site, offer the potential to encourage trips by bicycle. In addition, and for employment opportunities within the town centre, the existing and proposed bus services as discussed within the Public Transport Technical Note, will provide frequent and direct access.

Health

The town centre provides a number of facilities for health care including a dentist surgery and a selection of opticians. As these facilities lie within 5km of the development site, access to these facilities can be gained by bicycle, utilising the network of existing cycle routes that are provided. Furthermore, future residents of the proposed development will be able to access these facilities by a selection of existing and proposed frequent bus services.

Mount Farm Pharmacy and Doctors Surgery is located within 2km to the south of the development site within the Moreton Hall Estate. Although this is located within an acceptable walking distance, it is likely that some people wishing to use this facility will be unable to walk or cycle this distance. The Public Transport Technical note highlights a possible extension to a dedicated shuttle service that would serve the proposed development site and which would directly pass this doctor's surgery. This would provide frequent and appropriate access for people wishing to utilise these facilities.

West Suffolk Hospital is located to the south of Bury St Edmunds town centre and is within 5km of the proposed development site. However, it is unlikely that cycle trips between the site and the hospital can be encouraged for most visitor and patient journeys, unless the journey is for employment purposes. Access to the hospital by bus can be achieved by changing services at the bus station. The town bus service 81 provides direct access to the hospital from the town centre.

Retail

The retail heart of the area is located within the town centre. The type of retail facilities range from large high street stores such as Marks and Spencers and Top Shop, to local independent shops. There is also the Cornhill Walk Shopping Centre which provides a variety of retail outlets and which is located on Brentgovel Street, a short walk from the bus station.

Figure 2 shows that the town centre is within 5km, 'as the crow flies' from the proposed development site. This would suggest that there is the potential to encourage cycle trips between the site and the town centre where there is an existing network of on and off road cycle routes. The provision of a dedicated shuttle service, as discussed in the Public Transport technical note, operating between the site and the town centre would also provide frequent access to these facilities.

In addition to the retail facilities provided in the town centre, a Sainsbury's supermarket is located to the south of the Moreton Hall Estate, to the south of the site. A proposed extension to the dedicated shuttle service would provide frequent access to this supermarket for food shopping.

Leisure

Bury St Edmunds has an historic background and offers a range of facilities within the town centre that focus around its history, including several museums. These facilities, as shown on Figure 2, are located within 5km of the development site. This presents the opportunity to encourage trips to these facilities by bicycle. Furthermore, these facilities are a short walk from the town's bus station. The proposals for a dedicated shuttle service between the development site and the bus station will provide frequent access to these facilities.

Bury St Edmunds Leisure Centre is located to the north west of the town centre. The leisure centre offers a wide range of facilities including a swimming pool, squash courts, floodlit all weather pitches, an athletics track and a badminton court. The leisure centre is within 5km of the development site and can be accessed by a network of on and off road designated cycle routes which currently exist to the south of the site.

RECOMMENDATIONS FOR PEDESTRIAN AND CYCLE PROVISION

This brief review of existing pedestrian and cycle provision has shown that a high level of quality infrastructure is already provided within Bury St Edmunds. It will be important for the development proposals to build on this.

External to the site, an audit of existing pedestrian and cycle infrastructure will be required to assess the level of provision and quality of the existing infrastructure. This audit will also highlight any gaps in the provision, for example, the lack of designated cycle route along Barton Road.

This review has highlighted that there is the potential to encourage cycle trips between the development site and the town centre and a review of this location is therefore required to ascertain the potential for introducing ASL's (advance stop lines) to aid this movement and to provide priority to cyclists at the traffic signal controlled rail underbridge. In addition, Barton Road is likely to become the key desire line between the development site and the town centre. Currently, there is no designated cycle route along this road and it may prove beneficial, both for encouraging trips between the site and the town centre and for enhancing the existing network of cycle routes, to create a designated link along Barton Road. Furthermore, a review of cycle parking facilities at key destinations is required to gauge whether the development can enhance this provision to further encourage cycle trips.

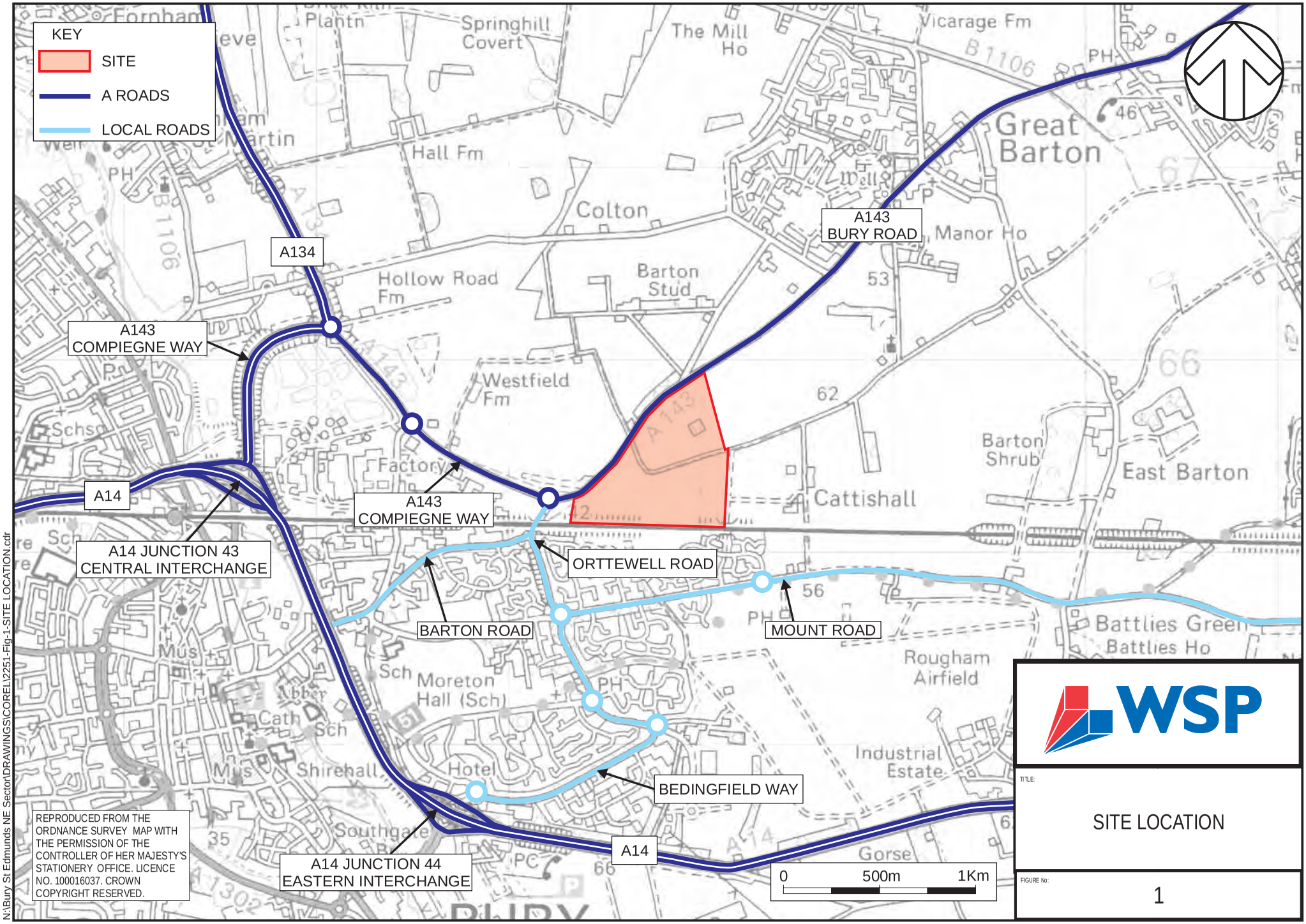
Within the site, a network of well connected and permeable routes will be required to ensure ease of movement for pedestrians and cyclists throughout the site and onto the main highway network for connection to the town centre and local facilities. The facilities provided will be well lit and to the highest possible standard. It may be that signage is introduced to aid this movement and in particular, journeys to the town centre. A signage strategy may therefore require facilities both internally and externally to the development. Urban design will be a key feature to the development proposals, to encourage journeys on foot and by bicycle and to ensure that speed limits within the site are kept to a minimum. Cycle parking, in accordance with the local cycle parking standards, will be required within the development site.

SUMMARY

This technical note has highlighted the potential for a high level of accessibility from the proposed development site to a range of local services and facilities on foot and by bicycle and has identified a number of options to enhance this provision. The key components of the Accessibility Strategy for the development site are discussed above and are set out in summary below:

- Pedestrian footway audit to determine quality of existing infrastructure. This will assist in determining what infrastructure requirements will be necessary to aid pedestrian trips between the site and local facilities
- Well connected and permeable routes within the site
- Traffic calmed streets and urban design to provide priority to pedestrians and cyclists
- Signage strategy – both internal and external to the development site to aid journeys to and from the town centre
- Cycle parking within the development site for both residents and visitors in accordance with local cycle parking standards
- Possibility of introducing a designated cycle route or other improvements for cyclists along Barton Road;
- Possibility of introducing advanced stop lines at the traffic signals beneath the rail line; and
- Possibility of enhancing cycle parking provision external to the development site to encourage cycle journeys beyond the development.

In addition, to enjoying a high level of accessibility to existing facilities the proposed development would provide a comprehensive range of community facilities and services on site. These would be highly accessible to residents of the new development and surrounding areas, particularly Moreton Hall.



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WSP

TITLE:

SITE LOCATION

FIGURE No:

1

KEY

- SITE
- EDUCATION
- (1) ST BENEDICTS CATHOLIC SCHOOL
- (2) BURY ST EDMUNDS COUNTY UPPER SCHOOL
- (3) KING EDWARDS VI C of E SECONDARY SCHOOL
- (4) WEST SUFFOLK COLLEGE
- (5) HORRINGTON COURT MIDDLE SCHOOL
- (6) ST EDMUNDSBURY C of E PRIMARY SCHOOL
- (7) ST JAMES C of E MIDDLE SCHOOL
- (8) PRIORY SCHOOL
- (9) MORETON HALL SCHOOL
- (10) THURSTON COMMUNITY COLLEGE
- EMPLOYMENT
- (11) INDUSTRIAL ESTATE
- HEALTH
- (12) WEST SUFFOLK HOSPITAL
- (13) DOCTORS
- (14) DENTIST
- (15) PHARMACY
- RETAIL
- (16) SAINSBURY'S
- (17) TESCO
- (18) CORNHILL WALK SHOPPING CENTRE
- LEISURE
- (19) SPORTS GROUND
- (20) OPEN AREA
- (21) PUB/ HOTEL
- (22) MUSEUM
- (23) GOLF COURSE
- RAILWAY STATION
- BUS STATION
- PEDESTRIAN UNDERPASS
- LEVEL CROSSING
- NATIONAL CYCLE ROUTE 51 WITHIN VICINITY OF SITE
- OTHER LOCAL CYCLE ROUTES

5Km

2Km

BURY ST EDMUNDS

Fornham All Saints

Fornham St Genevieve

Fornham St Martin

Great Barton

Pakenham

East Barton

Cattishall

Timworth

Timworth Green

Timworth Heath

Horringer

Newton

0 1Km 2Km

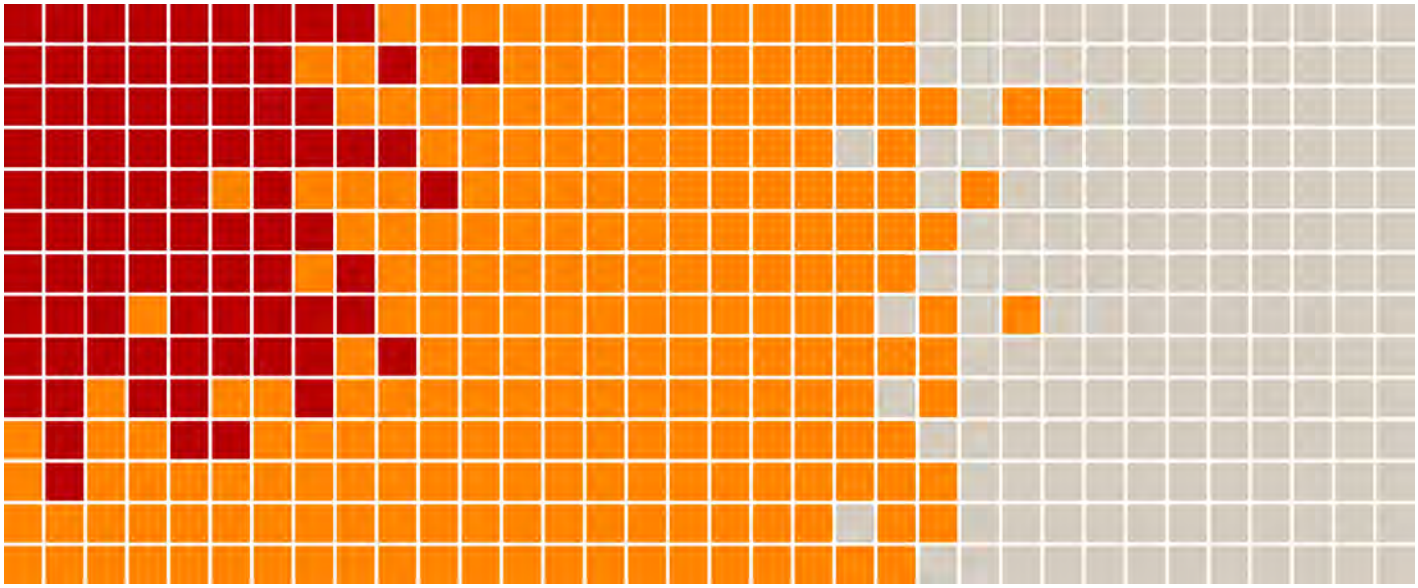
WSP

TITLE:

ACCESSIBILITY TO LOCAL FACILITIES

FIGURE No: 2

N:\Bury St Edmunds NE Sector\DRAWINGS\CORELFIG--LOCAL BUS NETWORK.cdr



Compiegne Way, Bury St Edmunds: Flood Risk Technical Note

Berkeley Strategic

April 2008

COMPIEGNE WAY, BURY ST EDMUNDS: FLOOD RISK TECHNICAL NOTE

INTRODUCTION

This flood risk Technical Note has been prepared by WSP for Berkeley Strategic to assess the constraints in terms of flood risk and surface water drainage to proposals for a residential development of circa 1000 dwellings on land at Compiegne Way, north east of Bury St Edmunds.

This Technical Note takes into account PPS25 which was published in December 2006 and its companion guide published in February 2007.

FLOOD RISK POLICY

The Government's sustainable development strategy makes it a requirement to assess appropriate forms of development for areas at risk from flooding. This is to avoid any unnecessary increase in the requirement for flood defences.

The Environment Agency's 'Policy and Practice Protection of Floodplains' (1997) provides guidance to local authorities on the control of development. In addition, the Environment Agency has published Flood Maps that show three zones of varying flood risk probability for areas adjacent to tidal or fluvial water bodies.

PPS25 requires that Local Planning Authorities apply a risk based Sequential Test in allocating sites for development. The Sequential Test as outlined in Annex D of PPS25 aims to steer new developments to areas with the lowest probability of flooding (Flood Zone 1). Table D.2 of PPS25 also classifies different development types into flood risk vulnerability classes with residential development classified as 'more vulnerable'. If after the application of the Sequential Tests not enough sites are available in Flood Zone 1 some development types can then be developed in Flood Zones 2 and 3 provided they pass the Exception Test as outlined in Paragraphs D9 – D14 of PPS25.

A requirement of PPS25 is that developers making planning applications on sites that are potentially at risk from flooding should consult with the Environment Agency and, where appropriate, produce a Flood Risk Assessment (FRA) for their proposals. Sites recognised as being potentially at risk of flooding are those that are located in Flood Zones 2 and 3 and any site greater than 1 ha.

SITE LOCATION AND AREA

The proposed site is located immediately east of Orttewell Road, which forms the western boundary of the site. The development site is bounded by A143 to the north, undeveloped land to the east and the Peterborough to Ipswich railway line to the south. The site location is shown on Figure 1.

The proposed development site is considered to be green field. Ordnance Survey (OS) plans indicate that there are no main rivers within the vicinity of the site, the closest being the River Lark, which is approximately 1.5 km west of the site.

The OS mapping indicates that two dry valleys run across the site from southeast to northwest, with ground levels varying from approximately 60m AOD in the east to 42m AOD in the west. The site generally drains to the most western corner.

A drain is indicated on the OS mapping on the opposite side of the A143 to the north western boundary of the development site. The drain runs adjacent to A143 and appears to cross under the road approximately 300m west of the site and continues on the south western side of the A143. An inflow from a drain to the north east is also indicated.

FLOOD RISK

The development site lies within Flood Zone 1 on the Environment Agency flood map shown on Figure 2. Areas in Flood Zone 1 have an annual probability of river flooding less than 1 in 1000 years (< 0.1 %). The development proposals for the construction of 1000 dwellings on the site will be classified as 'more vulnerable' under PPS25 which is indicated to be suitable for development in Flood Zone 1. The Sequential Test, a requirement of PPS25, aims to steer development to Flood Zone 1 and the site is therefore likely to rank highly as a favoured development site.

Therefore, the proposed residential development will be in the top 'most suitable' ranking of any flood risk sequential test for the area. As the development site is shown to lie outside the 1000 year flood plain, it is anticipated that increased flood levels due to climate change effects will have insignificant effects on the proposed development.

SURFACE WATER DRAINAGE

PPS25 states that '*surface water arrangements for any development site should be such that the volumes and peak flow rates of surface water leaving a developed site are no greater than the rates prior to the proposed development, unless specific off-site arrangements are made and result in the same net effect*'. Sustainable Drainage Systems (SUDS) can be used to reduce the amount of surface water runoff from the development site and where appropriate, SUDS can be used to improve water quality.

The British Geological Survey (BGS) map of the area indicates that majority of the eastern portion of the site is underlain by Boulder Clay, with a proportion of Cover Sand along the eastern boundary. The more western portion of the site is indicated to include Upper Chalk and Head deposits. Refer to Figure 3 for the BGS map. Cover Sand, Upper Chalk and the Quaternary Head have a good infiltration capacity; SUDS in the form of infiltration systems such as soakaways, infiltration trenches, infiltrating permeable pavements and swales could therefore be used on the majority of the western portion of the site. However Boulder Clay has poor infiltration capacity. Therefore the SUDS options suitable for the larger eastern section of the site are more likely to be tanked permeable pavements, attenuation ponds, cellular storage systems and swales for conveyance.

The surface water runoff from the site would be discharged into the drain adjacent to the site by the A143.

CONCLUSIONS

The site is shown to be in Flood Zone 1 and is therefore suitable for residential development according PPS25.

There are no main rivers close to the site. However surface water drainage from the site would be discharged into a drain adjacent to the site's north-western boundary by the A143.

There are no major constraints to the proposed development in terms of flood risk.

KEY:

SITE LOCATION

DRAINAGE DITCH

RIVER

APPROXIMATE ROUTE OF DRAINAGE DITCH

RIVER LARK

RIVER LINNET

BURY ST EDMUNDS

GREAT BARTON CP

RUSHBROOKE WITH RO

WSP

TITLE:

BURY ST EDMUNDS
SITE LOCATION PLAN

FIGURE No:

FIGURE 1

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KEY:

FLOOD ZONE 3

FLOOD ZONE 2

SITE LOCATION

WSP

TITLE:

BURY ST EDMUNDS
EA FLOOD MAP

FIGURE No:

FIGURE 2

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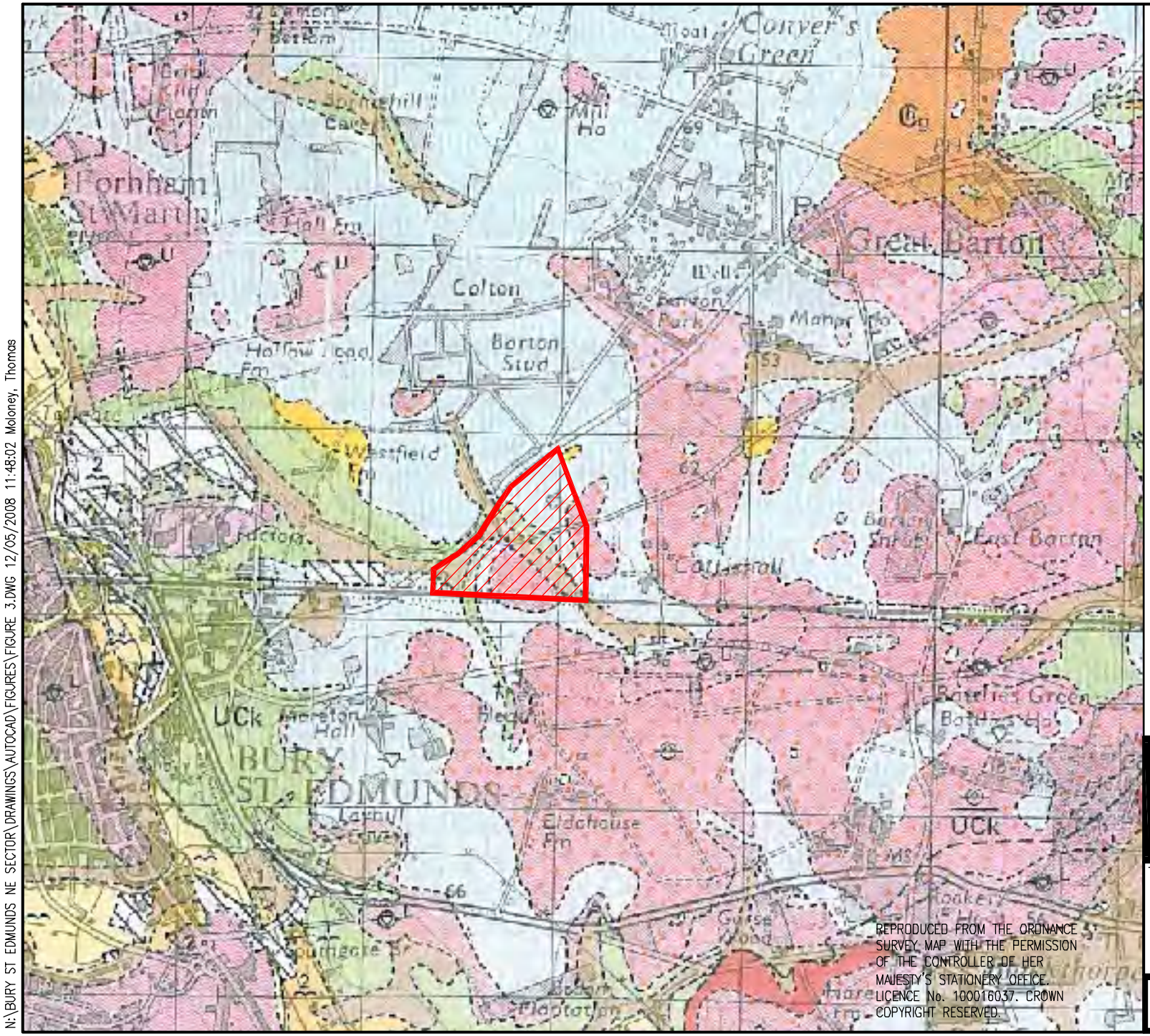

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COMPIEGNE WAY, BURY ST EDMUNDS

PRELIMINARY ECOLOGICAL ASSESSMENT

Prepared for Berkeley Strategic

by

Hankinson Duckett Associates

HDA ref: 2090.43
May 2008

CONTENTS **Page**

APPENDICES

1 INTRODUCTION

1.1 This report describes a preliminary ecological assessment of approximately 40ha of land at Bury St Edmunds, Suffolk hereinafter referred to as the site. The site centre is located by National Grid Reference TL878654. The study was commissioned by Berkeley Strategic in March 2008.

1.2 The site is located on the north-eastern edge of Bury St Edmunds in Suffolk. The site is set within a predominantly agricultural landscape, and is bordered to the north and west by the A143 arable farmland; to the south by a railway track, beyond which lies a residential development and arable farmland; and to the east by residential developments and an industrial depot. The location and boundary of the site are shown in Appendix A.

1.3 The aims of the study are:

i. To assess the nature conservation importance of habitats within the survey area;
ii. To assess the likely presence of protected species and species of principal importance (PPS9: ODPM, 2005);
iii. To identify any potential constraints to development due to the above;
iv. To identify requirements for any additional ecological surveys.

2 METHODOLOGY

2.1 Desk study

2.1.1 Existing ecological and nature conservation data relevant to the site was collated from various sources including the Magic online database, Natural England, Suffolk Biological Records Centre and the Suffolk Wildlife Trust, in addition to specialist county flora and fauna groups. All relevant data has been mapped for an area of approximately 2 km around the site and a check for statutory designated sites within 5km of the site was carried out using the Magic database. The desk study is summarised below and the full results are given in Appendix B.

2.2 Field survey

2.2.1 The field survey comprises a Phase 1 Habitat survey (JNCC, 1993) carried out by Kerry Elliott on 11th March 2008. This type of survey involves walking over the site, mapping the main habitat types and compiling detailed 'target notes'. Target notes record habitat features and a list of vascular plant species noted, together with a qualitative assessment of relative abundance, where appropriate. The full results of the field survey are given in Appendix C. A list of all the species recorded with scientific names is given in Appendix D. Botanical names follow Stace (1997) for higher plants.

2.2.2 Observations on the presence, or potential presence, of protected species were recorded as incidental information to the Phase 1 Habitat survey. However, this information should

not be relied on as a comprehensive assessment of the presence or otherwise of protected species on the site. This is because there is a wide range of protected species, many of them can occur on one site and most require specialist expertise to locate them and/ or season-critical survey techniques to confirm their presence, and this is outside the scope of the present report.

2.2.3 A total of 6 hours was spent carrying out the field survey. Weather conditions were generally overcast for the majority of the day with a strong wind and cool temperatures (9^{o}C).

2.3 Evaluation Criteria

2.3.1 The evaluation of the site, and the habitats within it, is based on the results of the field surveys described above, any designations pertaining to the site and existing ecological information collected during the desk study.

2.3.2 Each ecological resource (site, habitat, species or feature) was assigned a value at the following geographic scales (IEEM, 2006):

- International
- UK
- National (England/ Scotland/ Wales/ Northern Ireland)
- Regional
- County / Metropolitan
- District / Borough
- Local/ Parish
- within immediate zone of influence only (negligible)

2.3.3 Assigning value is relatively straightforward in the case of designated sites, and undesignated sites meeting designation criteria. However, in most cases evaluation of ecological resources is not straightforward and requires a degree of knowledge, training, experience and professional judgement (Usher,1986; Spellerberg, 1992). Evaluation of an ecological resource was based on a number of criteria (Ratcliffe, 1977; IEEM 2006). These are given in full in Appendix G.

2.3.4 The potential for protected species and species of principal importance (PPS9: ODPM, 2005) to be present within the site has been assessed based on the habitats and features present within the site and the results of the desk study.

2.4 Limitations

2.4.1 Biological surveys in the south of England during the period mid-October to early April (mid-October to early May in the north) are generally less efficient than during the spring

or summer and it is possible that some species may have been missed by this field survey.

2.4.2 However, in view of the ecological character of the habitats recorded it is considered that the survey is adequate to make a robust preliminary assessment of the site's nature conservation significance.

3 DESK STUDY

3.1 Introduction

3.1.1 The following section summarises the findings of the desk study. The original data and a plan showing the locations of protected species and designated sites are given in Appendix B. The findings of the Phase 1 Habitat Survey and an assessment of the importance of the site for protected species and species of principal importance are given in sections 4 and 5 respectively.

3.2 Designated Sites

3.2.1 No statutory or non-statutory nature conservation designations pertain to the site. This is confirmed by information from the Magic database and Suffolk Biological Records Centre.

Statutory designated areas

3.2.2 The nearest SSSI to the site is The Glen Chalk Caves, 0.9km to the south-west of the site (NGR: TL864646). This site has been designated a SSSI due to its importance for roosting bats. The site consists of a series of horizontal tunnels radiating outwards from a pit which also contains a disused lime-kiln. Five species of bats, including Daubenton's, Natterer's and Brown Long-eared regularly use the tunnels and lime-kiln for hibernation.

3.2.3 The only other SSSI located within the desk study area is Shaker's Lane, situated 1.3km to the south-west of the site (NGR: TL865641). This site consists of a hedged lane containing a wide range of shrub species and is of exceptional entomological interest.

3.2.4 There is one Local Nature Reserve within the desk study area, namely Morton Hall Community Woods, located 0.5km to the south-west of the site.

3.2.5 There are no sites of international nature conservation importance within 5km of the site.

` **Non-statutory designated areas**

3.2.3 The nearest non-statutory nature reserve to the site is the Roadside Nature Reserve (RNR No. 89) which forms part of the Shaker's Lane SSSI. The site was designated due to the presence of the Barberry Carpet moth.

3.2.4 There are three areas of ancient woodland located within the desk study area. The closest to the site, namely Barton Shrub (TL899657), is situated 1.6m from the eastern site boundary.

3.3 Natural Area

3.3.1 Natural England (NE) has sub-divided England into 120 areas, each with a characteristic association of wildlife and natural features. These are known as Natural Areas, covering the entire country. They are descriptions and are not designations. The site is located in the East Anglian Plain Natural Area.

3.3.2 The East Anglian Natural Area profile identifies a number of habitats that characterise the Natural Area. Of these, the site contains examples of arable farmland, Hedges and Ancient Trees.

3.3.3 The East Anglian Natural Area Profile also identifies key species such as Great Crested Newt, Otter, bats, Stag Beetle, Sky Lark and Dormouse. This report considers the potential presence of such species in the habitats identified at the site.

3.3.4 The Natural Area Profile proposes a number of aims that contribute to Natural England's vision for the East Anglian Plain Natural Area. The aims potentially most relevant to this site are:

"Provide links between important semi-natural habitats, by creating new habitat or by achieving a more wildlife-friendly agricultural landscape"

"Ensure no further loss of ancient and/or species rich hedges"

"Ensure that all hedges are managed appropriately"

"Promote the conservation value of ancient trees and dead wood"

3.3.5 Relevant extracts from the East Anglian Plain Natural Area profile are given in Appendix E.

3.4 Biodiversity Action Plan (BAP) Habitats and Species

3.4.1 The UK Biodiversity Action Plan (HMSO 1995, 1998) lists species and habitats which have undergone significant declines in recent years and for which conservation is a priority in order to preserve biodiversity in the UK. The BAPs provide a list of actions to be implemented to halt or reverse these declines.

3.4.2 These species and habitats are identified as Habitats and Species of Principal Importance for the conservation of biological diversity in England in section 74 of the Countryside and Rights of Way Act 2000. PPS9 requires that these species are a material consideration in planning applications.

3.4.3 The Suffolk Biodiversity Action Plan, published in 1998, includes BAPs for habitats and species considered to be of county biodiversity importance. Of the habitats included within the BAPs, the site contains examples of ancient and/or species-rich hedgerows and cereal field margins.

3.4.4 The Suffolk BAP also lists priority species, such as Brown Hare, Dormouse, Great Crested Newt, Grey Partridge, Pipistrelle Bat, Skylark, Song Thrush, Stag Beetle, Water Vole and Barn Owl. This report considers the actual, or likely, presence of such species in the habitats identified at the site.

3.4.5 The Biodiversity Action Plans contain objectives and targets for each species and habitat identified. These should be considered for any development proposal to the site, both in terms of impact avoidance and opportunities to enhance the site and contribute to BAP targets. The objectives potentially most relevant to this site are:

"Ensure that the conservation status and associated biodiversity species of all hedges affected by development proposals is assessed"

"Safeguard existing hedgerow trees and encourage the planting of new ones"

"Maintain existing Brown Hare populations"

"Maintain the current range of Skylark in Suffolk"

3.4.4 Relevant extracts from the Biodiversity Action Plans are given in Appendix F.

3.5 **Protected Species**

3.5.1 The desk study has shown that there are currently no records of protected species occurring within the site (Appendix B).

3.5.2 However, data from the Suffolk Biological Records Centre have shown that there are records of specially protected birds, Great Crested Newts, bats, Water Vole, Otter, Badger and reptiles occurring within the vicinity of the site.

3.5.3 **Badgers**

3.5.3.1 Four records of Badger were provided by Suffolk Biological Records Centre. The closest of these records to the site was recorded within approximately 1km of the north eastern site boundary (TL887666). Badgers and their setts are protected under The Protection of Badgers Act 1992. Any activity that may damage a sett or disturb Badgers using a sett will require a licence from the appropriate licencing body.

3.5.4 **Otter**

3.5.4.1 Five records of Otter which pertain to the River Lark were provided during the desk study, the closest of which is approximately 1.5km to the west of the site. The Otter is protected through its inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 and is a European protected species through the EC Habitats Directive 1992 as implemented by the Conservation (Natural Habitats &c.) Regulations 1994. It is also a Biodiversity Action Plan species for the UK, Suffolk and East Anglian Plain Natural Area.

3.5.5 **Hazel Dormouse**

3.5.5.1 No records of Hazel Dormouse were provided during a desk study. A search of the National Biodiversity Network found that there to be a record of this species, dating back from Victorian times (1890), within the 10km grid square in which the site is located (TL86). The Hazel Dormouse *Muscardinus avellanarius* is protected through its inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 and is a European protected species through the EC Habitats Directive 1992 as implemented by the Conservation (Natural Habitats &c.) Regulations 1994. It is also a Biodiversity Action Plan species for the UK, Suffolk and East Anglian Plain Natural Area.

3.5.6 **Water Vole**

3.5.6.1 Suffolk Biological Records Centre have records of Water Vole occurring to the south-west and west of the site, the closest of which is within approximately 1.7km of the site, at TL859641. The Water Vole has, since April 1998, received legal protection through its inclusion on Schedule 5 of the Wildlife and Countryside Act 1981. It is also a Biodiversity Action Plan species for the UK, Suffolk and East Anglian Plain Natural Area.

3.5.7 **Bats**

3.5.7.1 In total, 33 records of bats were provided during the desk study by Suffolk Biological Records Centre. Species include: Pipistrelle, Brown Long-eared, Daubenton's, Natterer's and Noctule. The closest record to the site pertains to a record of a Pipistrelle located 1km to the south-west of the site (TL864646). Bats are protected through their inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 and are European protected species' through the EC Habitats Directive 1992 as implemented by the Conservation (Natural Habitats &c.) Regulations 1994. Pipistrelles are also Biodiversity Action Plan species for the UK, Suffolk and East Anglian Plain Natural Area.

3.5.8 **Birds**

Suffolk Biological Records Centre provided records of 29 bird species within the desk study area, of which 25 species are notable. Notable species are shown in Table 1 below, and birds specially protected under the Wildlife and Countryside Act and Annex 1 of Council Directive 79/409/EEC on the conservation of wild birds are plotted in Appendix

B. These records include one of a Barn Owl which pertains to the grid square immediately to the west of the site (TL8665). All birds are protected under the Wildlife and Countryside Act 1981.

Table 1: Notable bird species recorded within the desk study area

Common Name	Scientific Name	Annex I[1]	WCA 1[2]	UK BAP[3]	Suffolk BAP[4]	BOCC[5]
Barn Owl	*Tyto alba*					Amber
Black Redstart	*Phoenicurus ochruros*					Amber
Brambling	*Fringilla montifringilla*					
Bullfinch	*Pyrrhula pyrrhula*					Red
Corn Bunting	*Miliaria calandra*					Red
Gadwall	*Anas strepera*					Amber
Golden Plover	*Pluvialis apricaria*					
Grey Partridge	*Perdix perdix*					Red
Hen Harrier	*Circus cyaneus*					Red
Hoopoe	*Upupa epops*					
Kingfisher	*Alcedo atthis*					Amber
Lapwing	*Vanellus vanellus*					Amber
Linnet	*Carduelis cannabina*					Red
Quail	*Coturnix coturnix*					Red
Reed Bunting	*Emberiza schoeniclus*					Red
Ringed Plover	*Charadrius hiaticula*					Amber
Shelduck	*Tadorna tadorna*					Amber
Shoveler	*Anas clypeata*					Amber
Skylark	*Alauda arvensis*					Red
Song Thrush	*Turdus philomelos*					Red
Spotted Flycatcher	*Muscicapa striata*					Red
Swallow	*Hirundo rustica*					Amber
Teal	*Anas crecca*					Amber
Turtle Dove	*Streptopelia turtur*					Red
Yellow Wagtail	*Motacilla flava*					Amber

Notes:
1 Species listed in Annex I of Council Directive 79/409/EEC on the conservation of wild birds
2 Species protected by Schedule 1 of the Wildlife and Countryside Act 1981
3 Species included in the UK Biodiversity Action Plan
4 Species included in the Suffolk Biodiversity Action Plan
5 Species included in the Birds of Conservation Concern Red and Amber lists (RSPB, 2002)

3.5.9 Reptiles

3.5.9.1 Three records of Grass Snake and one record of Slow-worm were provided by the Suffolk Biological Records Centre. The closest record to the site is of Grass Snake located 1.3km to the south-west at TL864644. All native reptiles are protected under the Wildlife and Countryside Act 1981. All species of reptile are now included on the UK BAP.

3.5.10 Amphibians

3.5.10.1 Suffolk Biological Records Centre provided two records of Great Crested Newt for the desk study area, the closest being located 2.3km to the south-west of the site (TL858634). The Great Crested Newt is protected through its inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 and is a European protected species through the EC Habitats Directive 1992 as implemented by the Conservation (Natural Habitats &c.) Regulations 1994. It is also a Biodiversity Action Plan species for the UK, Suffolk and East Anglian Plain Natural Area.

3.5.11 **Invertebrates**

3.5.11.1 Suffolk Biological Records Centre provided one invertebrate record for the desk study area, namely the Barberry Carpet Moth which is a UK BAP priority species (TL8564). The County Butterfly Recorder for Suffolk provided information relating to UK BAP species occurring within the desk study area, including White-letter Hairstreak, Grayling and Wall, although no precise locations for these records were given.

3.5.12 **Vascular Plants**

3.5.12.1 Suffolk Biological Records Centre provided records of 39 plant species within the desk study area, 7 of which are UK BAP Priority Species including Black Poplar, Shepherd's Needle, Grape Hyacinth, Cornflower and Barberry. None of the plant records provided occurred within the site boundary.

3.6 Planning Policies

3.6.1 Relevant policies from the Bury St Edmunds Local Plan 2016 relating to nature conservation and the environment include:

Section 10 – Protecting and enhancing Biodiversity and Geodiversity

Policy NE1: Impact of development on sites of biodiversity and geological importance - *When considering development proposals which may have an adverse impact on nature conservation sites or interests, the local planning authority will have regard to the expert nature conservation advice provided by English Nature, Suffolk Wildlife Trust and other specialist sources and the following criteria:*

- *i) The ecological value and objectives for which the site was classified or designated;*
  ii) The integrity of the site in terms of its wildlife value, its diversity and relationship with other ecological resources;
  iii) The cumulative impact of the proposal and other developments on the wildlife value of the site;

- *iv) The presence of protected species, habitat areas and wildlife corridors and proposed measures to safeguard and enhance them;*
  v) The opportunity to create new habitat areas and to improve the conservation status of locally vulnerable species;
  vi) Guidance set down within biodiversity action plans, St Edmundsbury Borough Biodiversity Strategy, St Edmundsbury Nature Conservation Strategy, habitat management plans and other relevant sources; and
  vii) The extent to which the imposition of conditions or planning obligation:

- *- would mitigate the effects of the development and/or protect the nature conservation value of the locality;*

- ensure replacement habitat or features; and/or
- ensure that resources are made available for the future enhancement and management of the replacement habitat or feature to enable it to attain the quality and attributes that have been lost.

Development which would have an adverse impact on areas of international and national nature conservation importance, as indicated on the Proposals Map, will not be permitted unless there are imperative reasons of overriding national public interest and that there is no alternative solution.

Development which would have an adverse impact on regionally and locally designated sites will not be permitted unless the need for the development outweighs the importance of the nature conservation value of the site.

Note: With respect to criterion (vii) the provision of replacement habitat or features is viewed as a last resort, rather than a regular development tool. Where compensation has been established as an acceptable alternative, it will be necessary to provide replacement areas to an equivalent value to the lost habitats. The local planning authority will normally expect that new habitats to be in place to a satisfactory standard before the original habitats are lost. At the same time the local planning authority will expect such compensation areas to be larger than the original.

In considering development proposals which may give rise to serious or irreversible environmental damage to important wildlife interests, the local planning authority will apply the precautionary principle.

***Species protection**: The presence of a protected species such as bats, barn owls and great crested newts is a material consideration when considering a development proposal. The Borough Council will seek to ensure that development will not harm the conservation status of such protected species and will consult English Nature before granting planning permission.*

***Policy NE2: Protected species -** Development which would have an adverse impact on species protected by schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981, the Protection of Badgers Act 1992, The Conservation Regulations 1994 and listed in the Suffolk Biodiversity Action Plan, or subsequent legislation, will not be permitted unless there is no alternative and the local planning authority is satisfied that suitable measures have been taken to:*

a) facilitate the survival of the protected species;
b) reduce disturbance to a minimum;
c) provide adequate alternative habitats to sustain at least the current levels of population.

4 PHASE 1 HABITAT SURVEY

4.1 General description

4.1.1 The results of the Phase 1 habitat survey are presented in map form with target notes (represented by numbered dots) in Appendix C. A brief non-technical description of the sites habitats and features is given below. Numbers in brackets refer to target notes.

4.1.2 In general terms, the site consists of arable fields separated by a track flanked on either side by species-poor hedgerows, scrub and mature trees. A line of mature pine trees pertains to the western site boundary, whilst species-poor hedgerows and ditchlines form parts of the northern and eastern site boundaries. To the south, the site is bound by a railway track, along which are areas of scrub and rough grassland margins. Other habitats occurring within the site include an area of broadleaved woodland, which forms a small isolated copse within the northern half of the site.

4.2 Woodland and scattered trees

4.2.1 A small isolated copse, 'Severals Clump', pertains to the large arable field within the northern half of the site (13). The woodland is dominated by a dense understorey of Elder scrub and young Beech trees whilst mature Oak trees are scattered throughout the area. Common Nettle is dominant among the ground flora with the exception of several areas where Lords and Ladies is particularly abundant.

4.2.2 Two mature oak standards occur along the hedgerow which cuts through the centre of the site (8). A line of mature pine trees is located along the western site boundary (2) and scattered mature, pine, conifer and English Oak trees are scattered throughout the area of dense scrub which forms part of the railway embankment to the south of the site (3).

4.4 Scrub

4.4.1 An area of dense scrub pertains to the steep-sided railway embankment located along the southern site boundary (3). Here dense Elder and Bramble scrub is interspersed with mature trees, the majority of which are conifer and fir trees, with occasional English Oak.

4.4.1 Sections of Bramble dominated scrub are frequent along the fenceline which runs the length of the southern site boundary adjacent to the railway track (4, 5). There are also scattered stands of Bramble and Blackthorn scrub located along the ditchline which forms part of the northern site boundary (1).

4.5 Semi-improved grassland

4.5.1 There is a semi-improved grassland strip on the southern site boundary, running parallel with the railway track. Grasses such as Timothy and Cock's Foot dominate, whilst

species such as Cow Parsley, Yarrow, Broadleaved Dock, Cleavers and Ground Ivy are also frequent.

4.7 Arable

4.7.1 The large arable fields which constitute the majority of the habitat within the site were recently ploughed and sown with a cereal crop at the time of survey. Generally the crops are cultivated within a metre of the base of the hedgerows.

4.8 Buildings

4.8.1 There are no buildings located within the site boundary. There is one residential property situated immediately to the north of the site, namely a two-storey, stone-built, pitched tiled roof detached cottage with amenity grassland and ornamental planting surrounds (9). A number of one-storey garages/outbuildings are also associated with the cottage.

4.10 Ditches

4.10.1 A slow-flowing wet ditch forms part of the northern site boundary. This narrow (<50cm) ditch was holding only a small amount of water at the time of survey (<10cm). The banks of the ditch are steep sided and vegetated with ruderal vegetation, dominated by Common Nettle. Occasional stands of Bramble scrub and Blackthorn are scattered along the length of the ditchline.

4.10.2 A dry ditch runs along the northern section of the eastern site boundary. This ditch is flanked by an outgrown hedgerow (12).

4.11 Hedgerows

4.11.1 The character of the hedgerows varies across the site with some being well managed and compact (e.g. 6, 8, 11) and others exhibiting a looser structure, forming lines of young scrubby trees (e.g. 7, 12). All hedgerows were generally intact, with only the occasional hedgerow having a defunct structure (e.g. 11). The majority of the hedgerows within the site were species poor and generally dominated by either Elder, Blackthorn or Hawthorn. The ground flora of all the hedgerows across the site is generally poor and dominated by ruderal species such as Common Nettle and Cleavers.

5 PROTECTED AND NOTABLE SPECIES

5.1 Badgers

5.1.1 No evidence of Badger was found during the field survey, although the small pocket of woodland and scrubby railway embankment (3, 13) provide potential sett building habitat, whilst the field boundaries provide potential foraging opportunities.

5.3 **Hazel Dormouse**

5.3.1 No evidence of Hazel Dormice was recorded during the survey. Within Suffolk the Dormouse population is currently concentrated to the south of the county (S. Bullion, Suffolk Wildlife Trust, pers. comm.). Although the site does lie on the edge of the Dormouse populations former range, there are no records for this species within the desk study area dating from this century. The intensively managed nature of many of the hedgerows within the site and their isolation from areas of ancient woodland also make it unlikely that the site could support a population of Dormice.

5.4 Water Voles

5.4.1 Although no evidence of Water Voles was recorded during the survey, the ditches within the site form a network to the wider countryside and provide potential habitat for this locally recorded species, although their presence may be limited by the low water levels within these waterbodies.

5.5 Bats

5.5.1 The hedgerows and woodland edges within the site provide both potential foraging and commuting routes for bats. It is possible that some of the mature trees in the site provide potential bat roosts, particularly those associated with the hedgerow indicated by target note 8.

5.6 Birds

5.6.1 It is likely that the site supports a number of birds which are typical of arable farmland, scrub and woodland habitats. Species recorded during the field survey include Lapwing, Skylark, Kestrel, Green Woodpecker, Pheasant, Red-legged Partridge and Carrion Crow. Skylark and Lapwing are Biodiversity Action Plan species for the UK. Skylark is also included on the Suffolk Biodiversity Action Plan.

5.6.2 The site is unlikely however to be of particular ornithological interest in a local context.

5.7 Reptiles

5.7.1 Some of the habitats present on site, such as the woodland edges, ditch banks and hedgerow bases provide potential areas for reptiles who favour sunny undisturbed habitats for basking. It is conceivable that widespread species such as Common Lizard, Grass Snake and Slow-worm occur within the site.

5.8 Amphibians

5.8.1 The wet ditch which forms part of the northern boundary of the site provides potential breeding habitat for amphibians such as Common Frog and it is conceivable that limited numbers of common and widespread amphibians use the site during terrestrial phases.

The site is not expected to be significant for these species in a local context. As the ditch is flowing, it is not considered to provide suitable for breeding habitat for Great Crested Newts, and it is considered unlikely that the site provides terrestrial habitat for this species.

5.9 Invertebrates

The site is dominated by intensively farmed arable fields, providing poor invertebrate habitat. The hedgerows and woodland habitats could provide potential habitat for invertebrate species, including UK and Suffolk BAP species such as the Stag Beetle. It is unlikely however that the habitats within the site provide significant habitat for these species in a local context.

5.10 Plants

5.10.1 The site provides potential habitat for common and widespread arable weed species, although the intensive nature of cultivation at the site and narrow margins make it unlikely that notable species occur.

6 NATURE CONSERVATION EVALUATION

6.1 The habitats within the site have been assessed with consideration given to the criteria given in Appendix G of this report (Ratliffe 1977; IEEM 2006). A summary of the site habitat evaluation is given in Table 2.

Table 2: Site Habitat Evaluation

International	**UK**	**National**	**Regional**	**County/ Metropolitan**	**District/ Borough**	**Parish/ Local**	**Negligible**
None	None	None	None	None		Scattered mature trees Hedgerows	All other habitats

6.2 There are no areas of International, UK, National, Regional, County or District nature conservation importance within the site boundary.

6.3 The habitats of highest nature conservation value within the site are the hedgerows and the scattered mature trees which occur along some of the hedgerows themselves (8) and within the area of dense scrub to the south of the site (3). Although the majority of the hedgerows are relatively species poor and on their own would be considered of only negligible nature conservation importance, as a network they are considered of a Local nature conservation importance as they comprise a component part of a local BAP habitat, provide a wildlife corridor and connecting habitats both within the site and the wider countryside. The hedgerow network also provides potential habitat for species such as bats, reptiles and birds.

6.4 The scattered mature trees which occur within the site (predominantly English Oak, conifers and pine trees) are also considered to be of Local nature conservation importance. These appreciably enrich the wildlife habitat resource within the local area, particularly in terms of their potential to support protected species such as bats.

6.5 All other habitats, which comprise the majority of the site, are considered of negligible nature conservation importance.

7 ADDITIONAL DATA REQUIREMENTS

7.1 It would be prudent to survey the site at an appropriate stage for those species protected under the 1981 Wildlife and Countryside Act which have been identified as possibly occurring on site, and that could be impacted by development proposals. The recommended surveys to accompany a planning application for the site are listed below in approximate order of priority:

7.2 **European Protected Species:**

Bats: A bat survey should be undertaken if potential roost sites and/or commuting and foraging habitats could be affected by development proposals. This would comprise a scoping survey, ideally during the winter months to identify potential roost sites. This will identify the scope for any further survey work which might be required between late May and August to identify whether any potential roost sites are in use, and record levels of bat activity across the site.

7.3 **UK Protected Species:**

Badger: Although no definitive evidence of Badger was noted during this survey within the areas accessed, the site provides suitable sett building and foraging habitat for this locally recorded species. A survey should be carried out to determine whether there are any setts within the site or within 30m of the development boundary. The optimal time for this survey is between November and March when vegetation cover is at its lowest.

Reptiles: Records of Grass Snake and Slow-worm were provided within the desk study area and some of the habitats on site such as the woodland edges, hedgerow bases and banks of the ditches provide suitable areas for reptiles. The earliest suitable time for this survey is between April and September 2008.

Water Vole: The ditches within the site provide potential habitat for Water Vole and a number of records for this species were provided within the desk study area.

A survey for this species should therefore be undertaken. The earliest suitable time for this survey is April-September 2008 inclusive.

7.4 **Other**

Hedgerows: The Phase 1 habitat survey was carried out at a time of year when many hedgerow species are absent of inconspicuous. In the event that the development proposals could impact the hedgerows, a hedgerow survey should be carried out to ascertain whether the hedgerows qualify for protection under the 1997 Hedgerow Regulations.

7.5 Although there are ponds within 500m of the site which may provide potential breeding habitat for Great Crested Newts, it is considered unlikely that this species would use the site during terrestrial phases and a survey for this species is not recommended. Not only is there suitable terrestrial habitat within the immediate vicinity of the ponds themselves, they are also located on the other side of the A143 which would provide a significant barrier to the movement for migrating Great Crested Newts. Suitable terrestrial habitat within the site is also limited in extent.

7.6 Although the site contains some suitable habitat for Dormice, the available habitat is limited in extent and isolated, and Dormice have not been recorded within the local area since the Victorian period. The site is therefore considered unlikely to support Dormice and a survey for this species is not recommended.

7.7 The site contains suitable habitat for Brown Hare and this species was recorded on a number of occasions during the survey. Given the extent of similar habitats within the vicinity of the site it is unlikely that the site itself supports significant numbers of this UK and Suffolk BAP species within the local context and a survey for this species is not recommended.

7.8 It is recommended that the scope of any further ecological survey work required in support of an application is agreed with Natural England at an appropriate stage.

8 CONCLUSION AND RECOMMENDATIONS

8.1 Current knowledge suggests that there are no areas of International, UK, National, Regional, County or District nature conservation importance on the site. The findings of the field survey have indicated that the majority of the site appears to be of negligible nature conservation importance. However, prior to the submission of any planning application in order to ensure compliance with wildlife legislation, planning guidance and to provide an iterative approach to mitigation within the site and wider area, it would be prudent to carry out the recommended surveys for locally recorded protected species.

8.2 The habitats of highest nature conservation value within the site are the hedgerows which form a network across the whole site. Although the hedges on their own are considered of only negligible nature conservation importance, as a network they are considered to be of local importance as they are a component part of a local BAP habitat and provide a wildlife corridor between areas of habitat both within the site and the wider countryside. The development proposals should aim to maintain the connectivity of habitats provided by the existing hedgerow network. This could be done either through the retention and enhancement of the existing hedgerows or through the creation of new more ecologically valuable habitat corridors. Where hedgerows are to be retained at the site, adequate buffers should be maintained between them and developed areas.

8.3 The scattered mature trees within the site were also identified as being important within a local context. These features should be retained where possible within the landscape structure of any proposed development, or similar habitat recreated elsewhere on the site.

8.4 Where the removal of trees, hedges, scrub or brambles is unavoidable, removal should occur outside the bird-breeding season (i.e. not between March and August inclusive), as wild birds, their nests and eggs are protected under the Wildlife and Countryside Act, 1981. Construction works near any areas of these habitats which are retained should also, if possible, avoid the breeding season.

8.5 It would be prudent to establish the presence or absence of selected protected or notable species which could occur on the site: bats, Badger, Water Vole and reptiles. These surveys will need to be undertaken in support of the design and application stage to ensure compliance with planning policies, legal requirements and, where possible, provide ecological enhancement of the site following development.

8.6 Beyond the normal requirements to avoid impacts on protected species there appears to be no overriding nature conservation constraints that would preclude the allocation or development of the site.

9 REFERENCES

Asher, J., Warren, M., Fox, R., Harding, P., Jeffcote, G. & Jeffcote, S. (2001) *The Millenium Atlas of Butterflies in Britain and Ireland*. Oxford University Press, Oxford.

Batten, L.A., Bibby, C.J., Clement P., Elliot G.D. & Porter R.F. (1990) *Red Data Birds in Britain*. T & A D Poyser. London.

Bright, P. Morris, P. & Mitchell-Jones, T. (1996) *The Dormouse Conservation Handbook.* English Nature, Peterborough.

English Nature (1998) *Natural Areas: Nature conservation in context.* English Nature, Peterborough.

English Nature (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.

Froglife (1999) Reptile survey. An introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth.

Her Majesty's Stationery Office(1995) *Biodiversity: The UK Steering Group Report - Volume II: Action Plans.* HMSO, London

Her Majesty's Stationery Office (1998) *UK Biodiversity Group Tranche 2 Action Plans - Volume I: Vertebrates and vascular plants.* HMSO, London

IEEM (2006) *Guidelines for Ecological Impact Assessment: Final Draft February 2006.* Institute of Ecology and Environmental Management.

Joint Nature Conservation Committee (1993) *Handbook for Phase 1 Habitat survey: a technique for environmental audit*. JNCC, Peterborough.

Office of the Deputy Prime Minister (2005) *Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9).*

Ratcliffe, D.A. (ed.) (1977) *A Nature Conservation Review, Vols. 1 and 2.* Cambridge University Press, Cambridge.

RSPB (2002) *The Population Status of Birds in the UK. Birds of Conservation Concern: 2002-2007.* RSPB, Bedfordshire.

Spellerberg, I.F. (1992) *Evaluation and Assessment for Conservation.* Chapman & Hall, London.

Stace, C. (1997) *New Flora of the British Isles (Second edition).* Cambridge University Press, Cambridge.

Suffolk Biodiversity Partnership (1998) Suffolk Biodiversity Action Plan. Available online at: http://www.suffolk.gov.uk/Environment/Biodiversity/

Usher, M.B. (ed.) (1986) *Wildlife Conservation Evaluation.* Chapman & Hall, London.

HDA Document Control and Quality Assurance Record

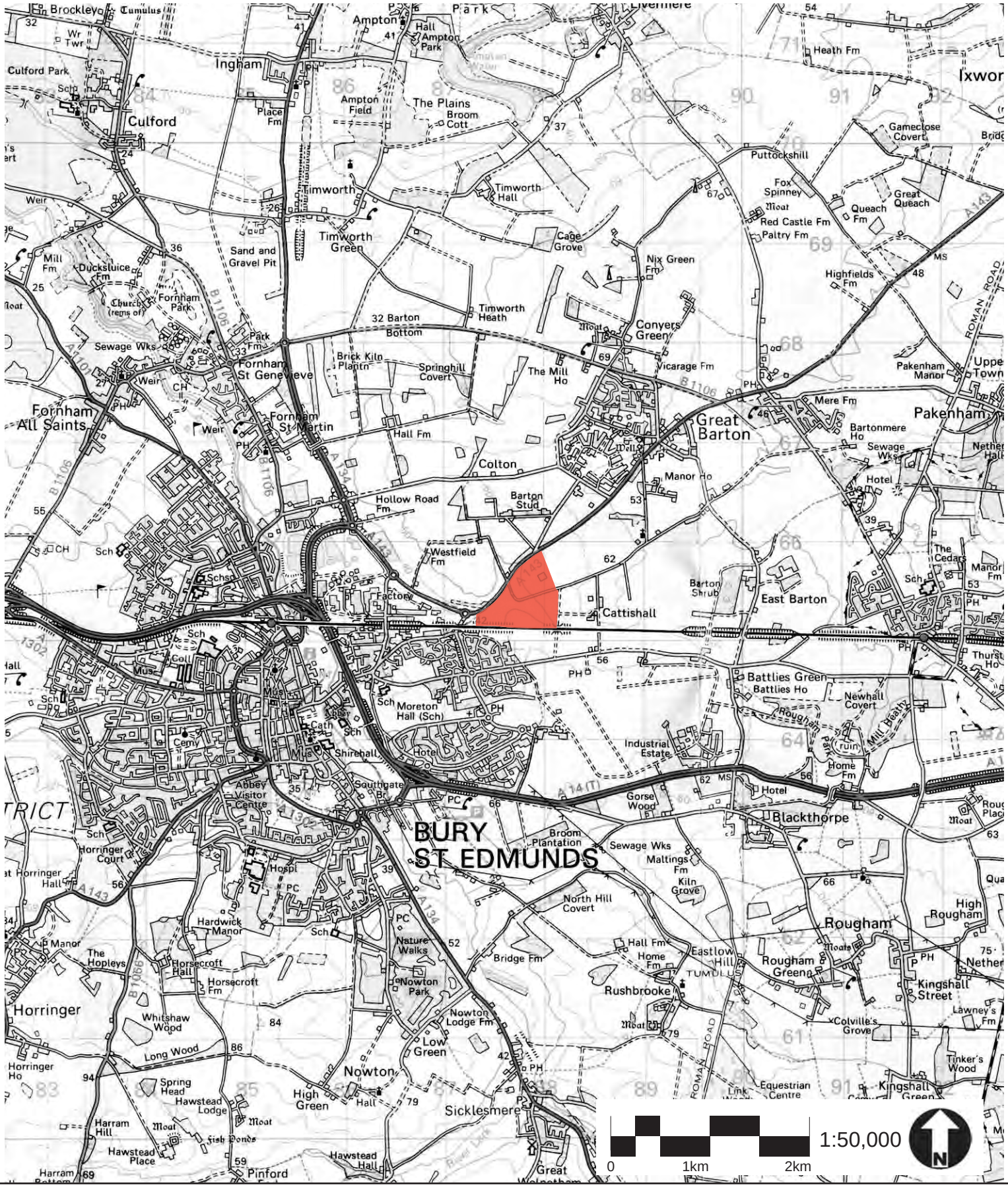
Project Title: Compiegne Way, Bury St Edmunds
Project Reference: 2090.43
Document Title: Preliminary Ecological Assessment
Commissioning Party: Berkeley Strategic

Issue	Description	Date of Issue	Signed
1	First Draft for comment	May 2008	
2			
3			
4			

	Personnel	Position
Author	Kerry Elliott	Assistant Ecologist
Checked by	Adrian Meurer	Principal Ecologist
Approved for issue	Brian Duckett	Director

APPENDIX A

Site Location



KEY

Site location

Project: Compiegne Way

Title: Site location

Scale: 1:50,000@A4

Date: May 2008

Ref: 2090.43/007/KE

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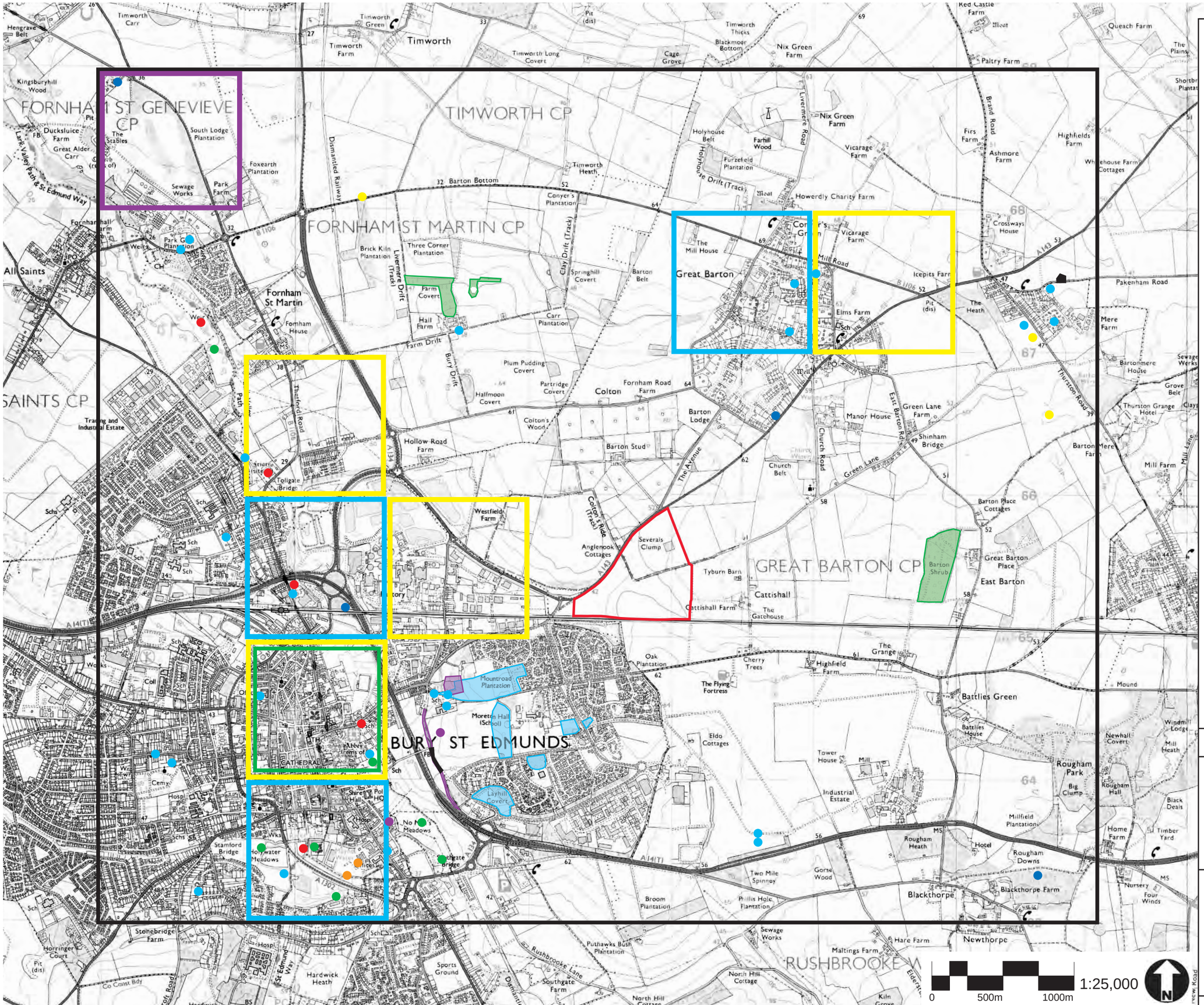
APPENDIX B

Desk Study Search Area and Results



KEY

- Application Site boundary
- Desk study area
- Local Nature Reserve
- Special Site of Sceintific Interest
- Ancient Woodland
- Roadside Nature Reserve
- Bird Records *
- Great Crested Newt Record
- Reptile Record
- Bat Record
- Water Vole Record
- Badger Record
- Otter Record

* Includes birds protected under Annex 1 and Schedule 1 of the Wildlife and Countryside Act

Only records where the exact location was given are shown

Hankinson Duckett Associates

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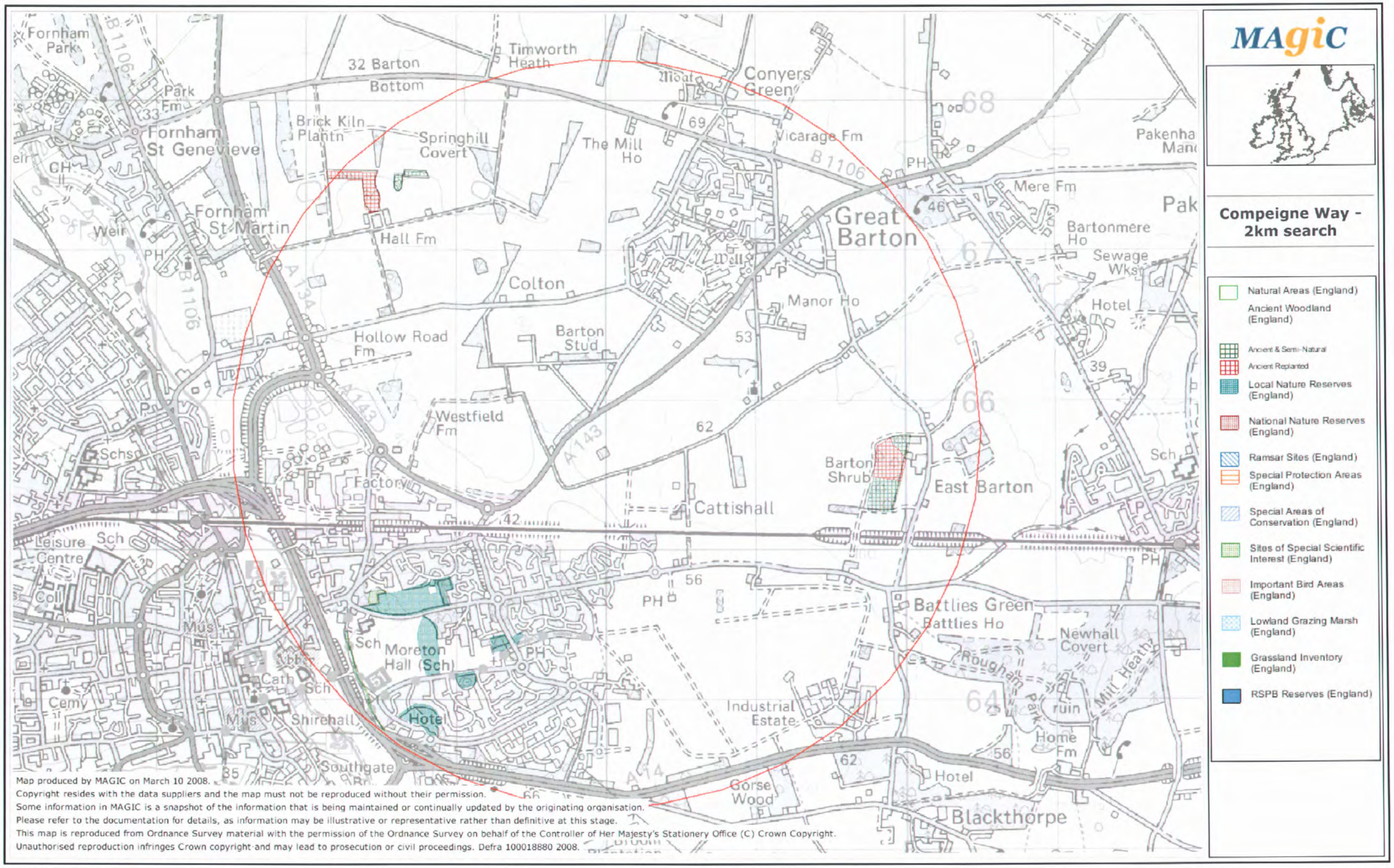
Client: Berkeley Strategic Land Limited

Project: Compiegne Way Ecology

Title: Desk Study Area and Results

Scale: 1:25,000@A3 Date: May 2008

Ref: 2090.43/008/KE


MAGiC
Compeigne Way - 2km search
Natural Areas (England)
Ancient Woodland (England)
Ancient & Semi-Natural
Ancient Replanted
Local Nature Reserves (England)
National Nature Reserves (England)
Ramsar Sites (England)
Special Protection Areas (England)
Special Areas of Conservation (England)
Sites of Special Scientific Interest (England)
Important Bird Areas (England)
Lowland Grazing Marsh (England)
Grassland Inventory (England)
RSPB Reserves (England)
Fornham Park
Fornham St Genevieve
Fornham St Martin
32 Barton Bottom
Timworth Heath
Conyers Green
Brick Kiln Plantn
Springhill Covert
The Mill Ho
Vicarage Fm
Hall Fm
Colton
Great Barton
Manor Ho
Hollow Road Fm
Barton Stud
Westfield Fm
Factory
Cattishall
Barton Shrub
East Barton
Mere Fm
Bartonmere Ho
Sewage Wks
Hotel
Leisure Centre
Moreton Hall (Sch)
Shirehall
Southgate
Battlies Green
Battlies Ho
Newhall Covert
Industrial Estate
Gorse Wood
Blackthorpe
Home Fm
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Site Check Report

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You clicked on the point:
Grid Ref: TL 880 657
Full Grid Ref: 588005 , 265768

The following features have been found within 2,500 metres of your search point:

Natural Areas (England)

Reference	Name	Hotlink
50	EAST ANGLIAN PLAIN	http://www.english-nature.org.uk/science/natural/na_details.asp?na_id=50&s=&r=8

Ancient Woodland (England)

Theme Name	Wood Name	Grid Reference	Theme ID
ANCIENT & SEMI-NATURAL WOODLAND	BARTON SHRUB	TL899657	1116911
ANCIENT & SEMI-NATURAL WOODLAND	BARTON SHRUB	TL898653	1116911
ANCIENT & SEMI-NATURAL WOODLAND		TL867675	1411469
ANCIENT & SEMI-NATURAL WOODLAND		TL866674	1411468
ANCIENT REPLANTED WOODLAND	FARM COVERT	TL864673	1116905
ANCIENT REPLANTED WOODLAND	BARTON SHRUB	TL898656	1116911

Local Nature Reserves (England)

Reference	Name
1082984	MORETON HALL COMMUNITY WOODS

National Nature Reserves (England)

There are no features within your search area.

Ramsar Sites (England)

There are no features within your search area.

Special Protection Areas (England)

There are no features within your search area.

Special Areas of Conservation (England)

There are no features within your search area.

Sites of Special Scientific Interest (England)

Reference	Name	Citation
1001963	THE GLEN CHALK CAVES, BURY ST EDMUNDS	1003555
1001959	SHAKER'S LANE, BURY ST EDMUNDS	1003479

Important Bird Areas (England)

There are no features within your search area.

Lowland Grazing Marsh (England)

There are no features within your search area.

Grassland Inventory (England)

There are no features within your search area.

RSPB Reserves (England)

There are no features within your search area.

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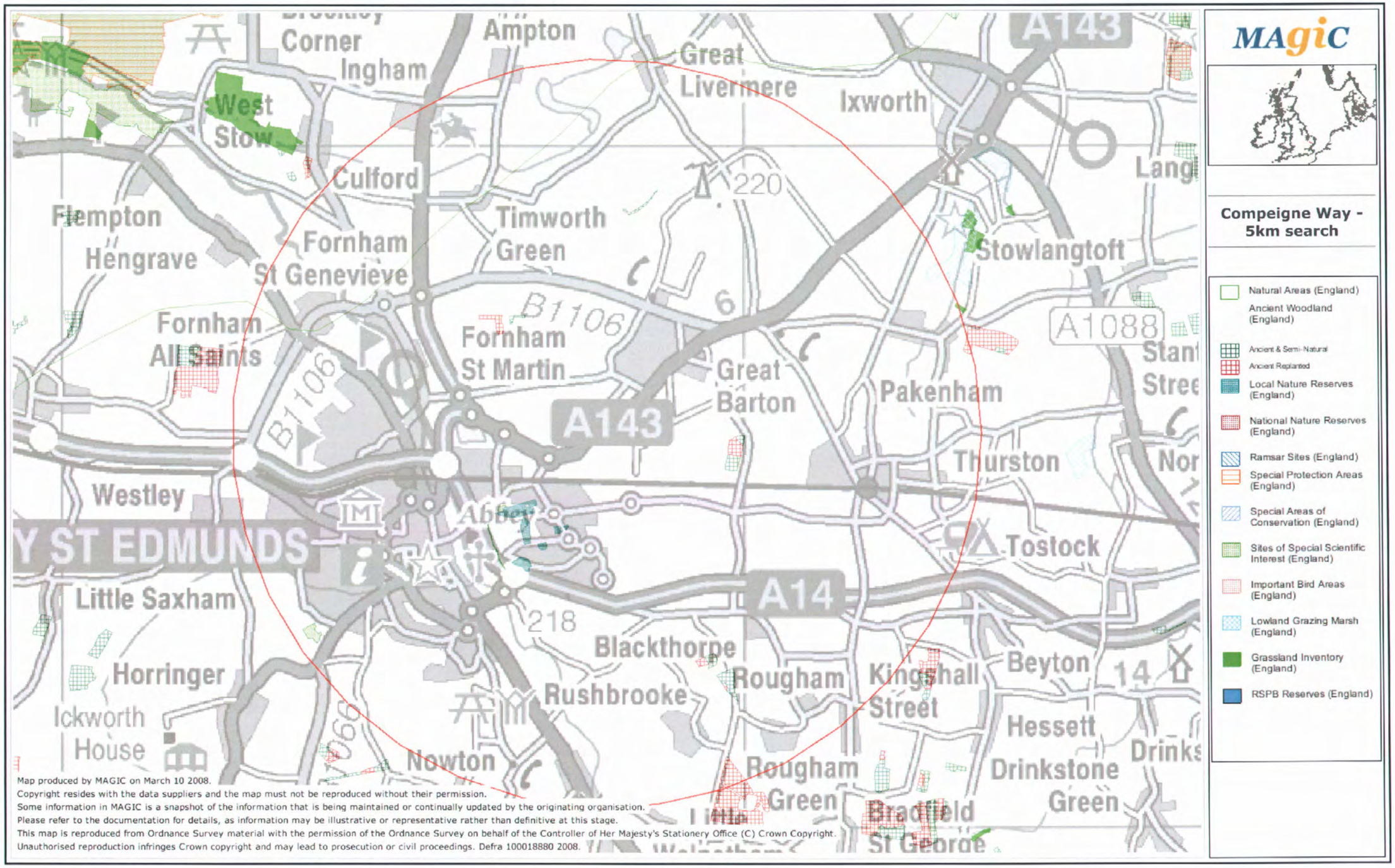
MAGIC
Compeigne Way - 5km search
Natural Areas (England)
Ancient Woodland (England)
Ancient & Semi-Natural
Ancient Replanted
Local Nature Reserves (England)
National Nature Reserves (England)
Ramsar Sites (England)
Special Protection Areas (England)
Special Areas of Conservation (England)
Sites of Special Scientific Interest (England)
Important Bird Areas (England)
Lowland Grazing Marsh (England)
Grassland Inventory (England)
RSPB Reserves (England)
Corner
Ingham
Ampton
Great Livermere
Ixworth
A143
West Stow
Culford
220
Flempton
Hengrave
Fornham St Genevieve
Timworth Green
Stowlangtoft
Fornham All Saints
B1106
Fornham St Martin
6
A1088
Great Barton
Pakenham
A143
Thurston
Westley
Abbey
Tostock
Little Saxham
A14
218
Blackthorpe
Horringer
Rougham
Kingshall Street
Beyton
14
Rushbrooke
Ickworth House
Hessett
Newton
Rougham Green
Drinkstone Green
St George
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Grid Ref: TL 880 657
Full Grid Ref: 588007 , 265787

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Natural Areas (England)

Reference	Name	Hotlink
46	BRECKLAND	http://www.english-nature.org.uk/science/natural/na_details.asp?na_id=46&s=&r=8
50	EAST ANGLIAN PLAIN	http://www.english-nature.org.uk/science/natural/na_details.asp?na_id=50&s=&r=8

Ancient Woodland (England)

Theme Name	Wood Name	Grid Reference	Theme ID
ANCIENT & SEMI-NATURAL WOODLAND		TL885690	1411473
ANCIENT REPLANTED WOODLAND	ELDERSHRUB WOOD	TL897620	1116910
ANCIENT & SEMI-NATURAL WOODLAND	BARTON SHRUB	TL899657	1116911
ANCIENT & SEMI-NATURAL WOODLAND	BARTON SHRUB	TL898653	1116911
ANCIENT & SEMI-NATURAL WOODLAND		TL867675	1411469
ANCIENT & SEMI-NATURAL WOODLAND	ELDERSHRUB WOOD	TL897621	1116910
ANCIENT & SEMI-NATURAL WOODLAND		TL866674	1411468
ANCIENT REPLANTED WOODLAND	LINK WOOD	TL898606	1116909
ANCIENT REPLANTED WOODLAND	LINK WOOD	TL899602	1116909
ANCIENT REPLANTED WOODLAND	KILN GROVE	TL894624	1116906
ANCIENT & SEMI-NATURAL WOODLAND	KILN GROVE	TL895624	1116908
ANCIENT REPLANTED WOODLAND	PAKENHAM WOOD	TL936671	1117009
ANCIENT REPLANTED WOODLAND	FARM COVERT	TL864673	1116905
ANCIENT REPLANTED WOODLAND	BARTON SHRUB	TL898656	1116911

Local Nature Reserves (England)

Reference	Name
1082984	MORETON HALL COMMUNITY WOODS

National Nature Reserves (England)

There are no features within your search area.

Ramsar Sites (England)

There are no features within your search area.

Special Protection Areas (England)

There are no features within your search area.

Special Areas of Conservation (England)

There are no features within your search area.

Sites of Special Scientific Interest (England)

Reference	Name	Citation
1001963	THE GLEN CHALK CAVES, BURY ST EDMUNDS	1003565
1001959	SHAKER'S LANE, BURY ST EDMUNDS	1003479
1001845	HORRINGER COURT CAVES	1004343

Important Bird Areas (England)

There are no features within your search area.

Lowland Grazing Marsh (England)

Reference	ID
1319	E239

Grassland Inventory (England)

Reference	Name
SK/TL96/P01	PAKENHAM FEN

RSPB Reserves (England)

There are no features within your search area.

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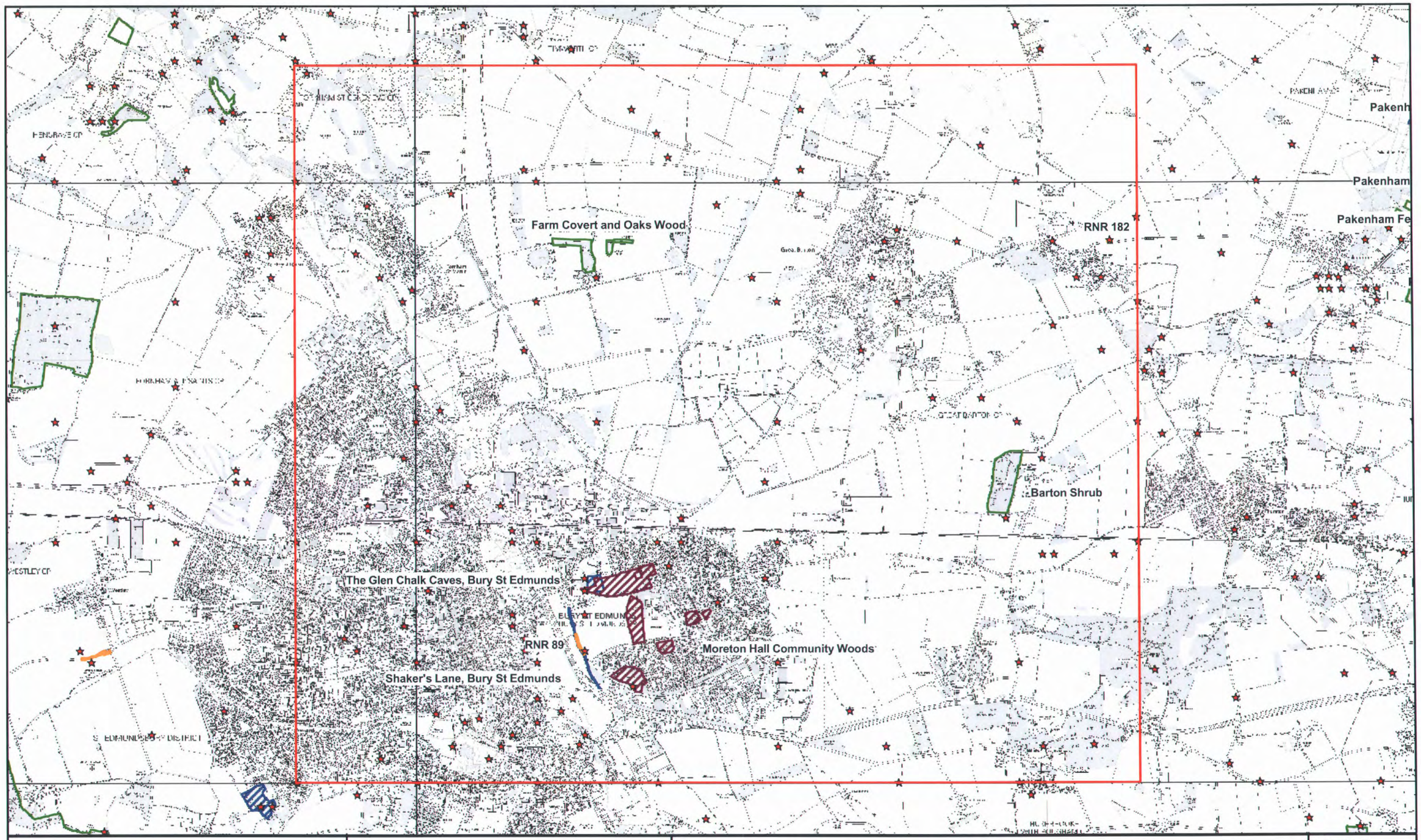


SUFFOLK BIOLOGICAL RECORDS CENTRE

Suffolk Biological Records Centre
Ipswich Museum, High Street
Ipswich, IP1 3QH
Tel: 01475 433571

NORTH
Grid North

Scale 1:30000

Kankinson Duckett Associates - Bury st Edmunds

PRODUCED BY: M. Horlock

CHECKED BY

DRAWING No.

DATE: 11th March 2008

COUNTY: SUFFOLK SITE NAME: THE GLEN CHALK CAVES, BURY ST EDMUNDS

DISTRICT: ST EDMUNDSBURY

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authority: BOROUGH OF ST EDMUNDSBURY

National Grid Reference: TL 864646 Area: 1.58 (ha.) 3.9 (ac.)

Ordnance Survey Sheet 1:50,000: 155 1:10,000: TL 86 SE

Date Notified (Under 1949 Act): N/A Date of Last Revision: N/A

Date Notified (Under 1981 Act): 1986 Date of Last Revision: –

Other Information:
A new site.

Description and Reasons for Notification:
The site consists of a series of tunnels excavated horizontally in chalk, and totalling about 200m in length. The tunnels radiate outwards from a pit which also contains a disused lime-kiln. Five species of bats regularly use the tunnels and the lime-kiln for hibernation between September and April. The bat population has been continuously monitored since 1947 and is the subject of continuing detailed scientific studies.

The caves are used principally by Daubenton's bat *Myotis daubentoni* and Natterer's bat *Myotis nattereri*, but Brown long-eared bats *Plecotus auritus* are frequent with occasional visits by Whiskered *Myotis mystacinus* and Brandt's *Myotis brandti*. The rare Barbastelle *Barbastella barbastellus* was seen once, as was a Pipistrelle *Pipistrellus pipistrellus* near the entrance, which was later recovered 63km away 11 years after. A Lesser horseshoe *Rhinolophus hipposideros* was resident for 4 months in 1958–1959 and was only the third record for that species for eastern England. A *Myotis daubentoni* recovered in 1983, 22 years after marking, represents one of the greatest longevity records for any species of bat in Britain.

In recent years the number of bats present has increased steadily. Up to 100 may be seen on a visit, and from previous studies, we know at least 150 bats will use the tunnels each winter.

Above the tunnels there is mixed woodland and the pit itself supports Elder scrub. The shelter provided by the trees and other vegetation helps to maintain a suitable micro-climate within the cave, which is crucial for bats. These surrounding areas also provide a source of food and sheltered feeding areas for the bats.

COUNTY: SUFFOLK SITE NAME: SHAKER'S LANE, BURY ST EDMUNDS

DISTRICT: ST EDMUNDSBURY

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authority: BOROUGH OF ST EDMUNDSBURY

National Grid Reference: TL 865641 Area: 1.26 (ha.) 3.11 (ac.)

Ordnance Survey Sheet 1:50,000: 155 1:10,000: TL 86 SE

Date Notified (Under 1949 Act): N/A Date of Last Revision: N/A

Date Notified (Under 1981 Act): 1985 Date of Last Revision: –

Other Information:
A new site.

Reasons for Notification:
Shaker's Lane is notified because of its exceptional entomological interest.

The site consists of a hedged lane, with its associated verges, and two narrow strips of arable land. The hedges contain a wide range of shrub species, including Blackthorn *Prunus spinosa*, Dogwood *Cornus sanguinea*, Hawthorn *Crataegus monogyna*, Barberry *Berberis vulgaris*, Ash *Fraxinus excelsior* and Elm *Ulmus sp.*

The verges and hedges of the lane support the species that is of entomological interest.

COUNTY: SUFFOLK SITE NAME: HORRINGER COURT CAVES

DISTRICT:

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authority: ST EDMUNDSBURY DISTRICT COUNCIL

National Grid Reference: TL 837628 Area: 4 (ha.) 10 (ac.)

Ordnance Survey Sheet 1:50,000: – 1:10,000: TL 86 SW

Date Notified (Under 1949 Act): 1973 Date of Last Revision: –

Date Notified (Under 1981 Act): 1983 Date of Last Revision: –

Other Information:
No boundary change at re-notification.

Reasons for Notification:
This site contains a series of inter-connected chalk mines totalling over 500 metres in length. There are five grilled entrances leading off chalk pits excavated in the ground. These 'caves' are important for various species of bat which hibernate in the tunnels from September to April each winter. The bat population has been the object of detailed research into several aspects of bat ecology and has been continuously monitored since 1947. The locality is hence of exceptional scientific interest.

The bat hibernaculum is used principally by Daubenton's bat *Myotis daubentoni* and Natterer's bat *M. nattereri* but Whiskered bat *M. mystacinus*, Brandt's bat *M. brandti* and Brown Long-eared bat *Plecotus auritus* occur occasionally. The very rare Barbastelle bat *Barbastella barbastellus* has been recorded eight times in 36 years.

Grounds surrounding the quarries are densely wooded with beech, elm, oak, sycamore, sweet chestnut and scots pine. Ground cover is dominated by ivy, ground ivy and grasses. There are open glades of coarse grassland within the wood. The woods and glades influence the micro-climate within the bat caves and are hence an integral part of the interest of the site. They also provide a source of food and sheltered feeding areas especially for those bats that move into the caves early in the autumn.

County Wildlife Site Citations

CWS Number St Edmundsbury 41

Site Name Farm Covert / Oaks Wood

Parish FORNHAM ST MARTIN

District St Edmundsbury

NGR TL864674

DESCRIPTION These small ancient woodland sites are listed in English Nature's Ancient Woodland Inventory. A large proportion of Farm Covert has been densely planted with conifers, although a fringe of sycamore and elm remains around the edge of the wood. The understorey consisting of hazel, hawthorn and crab apple is dense in places and provides suitable habitat for a wide range of woodland birds. The ground flora which is dominated by nettle, cow parsley and ivy has suffered from the heavy shade cast by the tree canopy.

RNR Number 0

CWS Number St Edmundsbury 42

Site Name Barton Shrub

Parish GREAT BARTON

District St Edmundsbury

NGR TL898656

DESCRIPTION Barton Shrub is listed in the English Nature Ancient Woodland's Inventory. The eastern edge is bounded by a ditch which also has a bank at its northern end. A bank marks the wood's edge along its northern and western boundaries. The wood is surrounded by arable land except for the farmyard and buildings. Much of the western side of the wood has been planted with conifers. The north eastern part is made up of an oak canopy and some ash. The southern end is dominated by oak, with sycamore and birch. The understorey consists of field maple, hazel, and elder with rarer holly and broom. Planted trees include sweet chestnut, beech, elm and a lesser amount of common lime and snowberry. Bluebells are dominant in the ground layer in the north eastern corner and in other areas where the canopy is more open. In other places brambles, bracken and nettles are abundant. In addition primrose is present, another ancient woodland indicator as is narrow buckler fern, an uncommon plant in Suffolk. The numerous rides are kept short by mowing and are not particularly species rich. The pond just outside the wood at the north east corner has poor water quality, the ditch draining into it is filled with green algae. The wood has fallen branches, in addition some wood has been felled and stacked. Barton Shrub is managed for pheasant rearing, and there is a pheasant pen in the centre of the wood. Roe deer and grey squirrel are seen frequently.

RNR Number 0

RNRSiteNo	CWSSiteNo	Parish	ReasonForProtection	Criteria	Lengthm	Areasqm	Grid ref
89	SSSI	Bury St Edmunds	Entomological interest Barberry carpet moth	Criteria 1 - Shaker's Lane SSSI	East:177	823.2	TL 86326423 TL 86396407
182		Great Barton	Sandy Stilt Puffball	Protected Species	40	73.7568	TL 90756750 TL 90796750

Common_name	Latin_name	Location	Site_details	Grid_ref	Longitude	Latitude	Year	Easting	Northing
Sandy Stilt Puffball	Battarraea phalloides	Pakenham	verge of C689	TL907736	0.79643	52.2722	2006	590772	267513
Stinking Hellebore	Helleborus foetidus	Bury St Edmunds		TL868638	0.73621	52.2402	1992	586799	263799
Barberry	Berberis vulgaris	Thurston		TL96C	0.78314	52.2409	2002	589999	263999
Barberry	Berberis vulgaris	Bury St Edmunds	#NAME?	TL8664	0.72462	52.2423	1995	585999	263999
Barberry	Berberis vulgaris	Bury St Edmunds		TL8663	0.72407	52.2333	1993	585999	263000
Barberry	Berberis vulgaris	Fornham St Martin		TL849767	0.71125	52.2705	2003	584969	267100
Rough Poppy	Papaver hybridum	Timworth		TL8668	0.72682	52.2782	1995	585999	267999
Fine-Leaved Fumitory	Fumaria parviflora	Bury St Edmunds	South	TL86L	0.69427	52.225	2003	583999	262000
Good King Henry	Chenopodium bonus-henricus	Rougham		TL902633	0.78567	52.2346	1990	590199	263300
Annual Knawel	Scleranthus annuus	Great Barton		TL96D	0.78426	52.2589	2002	589999	266000
Corn Spurrey	Spergula arvensis	Rougham	f.p. to Blackthorpe	TL9063	0.78258	52.232	1997	589999	262999
Corn Spurrey	Spergula arvensis	Bury St Edmunds	South	TL86L	0.69427	52.225	2003	583999	262000
Night-Flowering Catchfly	Silene noctiflora	Rushbrooke		TL86X	0.75388	52.2416	2005	587999	263999
Cornfield Knotgrass	Polygonum rurivagum	Great Barton		TL96D	0.78426	52.2589	2002	589999	266000
Cornfield Knotgrass	Polygonum rurivagum	Pakenham		TL96E	0.78539	52.2769	2002	589999	268000
Golden Dock	Rumex maritimus	West Suffolk	West Suffolk	TL845674	0.70453	52.2734	1990	584499	267399
Golden Dock	Rumex maritimus	Bury St Edmunds		TL865660	0.73304	52.2601	1992	586499	265999
Wild Pansy	Viola tricolor	Great Barton		TL96D	0.78426	52.2589	2002	589999	266000
Black Poplar	Populus nigra betulifolia	Bury St Edmunds	W bank of Lark, Abbey Gdns	TL858643	0.72186	52.2451	1991	585799	264299
Black Poplar	Populus nigra betulifolia	Bury St Edmunds	No Mans Meadows	TL862636	0.72733	52.2387	1991	586199	263599
Black Poplar	Populus nigra betulifolia	Bury St Edmunds	No Man's Meadow	TL8663	0.72407	52.2333	1986	585999	263000
Black Poplar	Populus nigra betulifolia	Bury St Edmunds	Holywater Meadows	TL853633	0.71399	52.2363	2002	585299	263300
Black Poplar	Populus nigra betulifolia	Barton Mere		TL910670	0.79947	52.2675	1992	590999	267000
Black Poplar	Populus nigra betulifolia	Great Barton		TL893662	0.77413	52.2609	1991	589299	266199
Tower Mustard	Arabis glabra	Bury St Edmunds		TL8535631	0.72937	52.2361	2004	586349	263319
Smith's Pepperwort	Lepidium heterophyllum	Bury St Edmunds	Ram meadows	TL858650	0.72224	52.2514	1993	585799	265000
Dittander	Lepidium latifolium	Bury St Edmunds		TL8565	0.71054	52.2516	1995	584999	265000
Dittander	Lepidium latifolium	Bury St Edmunds		TL8465	0.6959	52.252	1995	583999	264999
Dittander	Lepidium latifolium	Bury St Edmunds		TL851651	0.71205	52.2525	1990	585099	265099
Dittander	Lepidium latifolium	Rushbrooke		TL86W	0.75277	52.2237	2005	587999	262000
Dittander	Lepidium latifolium	Bury St Edmunds	A45, Central reservation	TL846653	0.70485	52.2545	1991	584599	265300
Dropwort	Filipendula vulgaris	Timworth		TL870684	0.74169	52.2815	1992	586999	268400
Dropwort	Filipendula vulgaris	Timworth		TL884689	0.76247	52.2855	1991	588399	268899
Sainfoin	Onobrychis viciifolia	Great Barton		TL872652	0.74284	52.2527	1991	587199	265199
Sainfoin	Onobrychis viciifolia	Great Barton		TL871648	0.74116	52.2491	1990	587099	264799
Sainfoin	Onobrychis viciifolia	Great Barton		TL86Z	0.75611	52.2775	2005	587999	267999
Sainfoin	Onobrychis viciifolia	Bury St Edmunds	#NAME?	TL8664	0.72462	52.2423	1995	585999	263999
Sainfoin	Onobrychis viciifolia	Bury St Edmunds		TL8564	0.70999	52.2426	1984	584999	264000
Sickle Medick	Medicago sativa falcata	Timworth	Timworth Heath	TL86U	0.72682	52.2782	1999	585999	267999
Dwarf Spurge	Euphorbia exigua	Great Barton		TL878672	0.75273	52.2704	1990	587799	267200
Dwarf Spurge	Euphorbia exigua	Great Barton		TL86Z	0.75611	52.2775	2005	587999	267999
Dwarf Spurge	Euphorbia exigua	Great Barton		TL86Y	0.75499	52.2596	2003	587999	265999
Dwarf Spurge	Euphorbia exigua	Fornham All Saints		TL86I	0.66717	52.2616	2003	581999	265999
Dwarf Spurge	Euphorbia exigua	Horringer		TL86G	0.66502	52.2257	2004	581999	261999
Sheperd's needle	Scandix pecten-veneris	Horringer		TL86G	0.66502	52.2257	2004	581999	261999
Sheperd's needle	Scandix pecten-veneris	Bury St Edmunds		TL880633	0.75349	52.2353	1999	587999	263299
Common Gromwell	Lithospermum officinale	Great Barton		TL882686	0.75937	52.2829	1995	588199	268599
Common Gromwell	Lithospermum officinale	Great Barton		TL871682	0.74304	52.2797	2005	587099	268200
Common Gromwell	Lithospermum officinale	Timworth	Timworth Heath	TL86U	0.72682	52.2782	1999	585999	267999
Common Gromwell	Lithospermum officinale	Bury St Edmunds		TL86R	0.72352	52.2244	2004	585999	262000
Field Gromwell	Lithospermum arvense	Hardwick		TL8463	0.69481	52.234	1982	583999	262999
Hound's-Tongue	Cynoglossum officinale	Thurston		TL96C	0.78314	52.2409	2002	589999	263999
Hound's-Tongue	Cynoglossum officinale	Timworth Green		TL868686	0.73887	52.2833	1993	586799	268599
Hound's-Tongue	Cynoglossum officinale	Timworth Green		TL86P	0.69754	52.2789	1999	583999	268000

Large-Flowered Hemp-Nettle	Galeopsis speciosa	Great Barton		TL878672	0.75273	52.2704	1990	587799	267200
Hoary Mullein	Verbascum pulverulentum	Bury St Edmunds		TL8565	0.71054	52.2516	1995	584999	265000
Hoary Mullein	Verbascum pulverulentum	Bury St Edmunds		TL8465	0.6959	52.252	1995	583999	264999
Hoary Mullein	Verbascum pulverulentum	Bury St Edmunds		TL8564	0.70999	52.2426	1983	584999	264000
Hoary Mullein	Verbascum pulverulentum	Bury St Edmunds		TL858651	0.7223	52.2523	1980	585799	265100
Small Scabious	Scabiosa columbaria	Bury St Edmunds	Hollow road	TL8664	0.72462	52.2423	1984	585999	263999
Small Scabious	Scabiosa columbaria	Great Barton	ride	TL879655	0.75325	52.2551	1995	587899	265500
Cornflower	Centaurea cyanus	Bury St Edmunds	St.James' Park, Morton Hall	TL875645	0.74684	52.2463	1995	587499	264499
Common Cudweed	Filago vulgaris	Great Barton		TL96D	0.78426	52.2589	2002	589999	266000
Common Cudweed	Filago vulgaris	Stowlangtoft		TL96B	0.78202	52.223	2004	589999	261999
Common Cudweed	Filago vulgaris	Timworth Green		TL86P	0.69754	52.2789	1999	583999	268000
Common Cudweed	Filago vulgaris	Rougham		TL9064	0.78314	52.2409	2006	589999	263999
Common Cudweed	Filago vulgaris	Bury St Edmunds	Ortewell Rd.	TL872650	0.74273	52.2509	1995	587199	264999
Sneezewort	Achillea ptarmica	Pakenham		TL96E	0.78539	52.2769	2002	589999	268000
Corn Marigold	Chrysanthemum segetum	Bury St Edmunds	St.James' Park, Morton Hall	TL875645	0.74684	52.2463	1995	587499	264499
Corn Marigold	Chrysanthemum segetum	Great Barton		TL86Z	0.75611	52.2775	2005	587999	267999
Purple Fescue	Vulpia ciliata ambigua	Stowlangtoft		TL96B	0.78202	52.223	2004	589999	261999
Purple Fescue	Vulpia ciliata ambigua	Bury St Edmunds		TL849643	0.70869	52.2454	1997	584899	264300
Loose Silky-Bent	Apera spica-venti	Timworth	Timworth Heath	TL86U	0.72682	52.2782	1999	585999	267999
Loose Silky-Bent	Apera spica-venti	Great Barton		TL903668	0.78911	52.266	1983	590299	266800
Lily Of The Valley	Convallaria majalis	Thurston		TL96C	0.78314	52.2409	2002	589999	263999
Lily Of The Valley	Convallaria majalis	Great Barton		TL96D	0.78426	52.2589	2002	589999	266000
Grape-Hyacinth	Muscari neglectum	Bury St Edmunds	Golf Course	TL8365	0.68127	52.2523	2004	582999	265000
Field Garlic	Allium oleraceum	Shakers Lane		TL864641	0.73053	52.2431	1991	586399	264099
Spring Crocus	Crocus vernus	Bury St Edmunds	#NAME?	TL8664	0.72462	52.2423	1995	585999	263999
Spring Crocus	Crocus vernus	Bury St Edmunds		TL8464	0.69536	52.243	1995	583999	263999
Spring Crocus	Crocus vernus	Bury St Edmunds	#NAME?	TL8566	0.71108	52.2606	1995	584999	265999
Barberry Carpet	Pareulype berberata	Bury St Edmunds		TL8564	0.70999	52.2426	1996	584999	264000
Warty Newt	Triturus cristatus	Bury St Edmunds	Redrow Homes Devt.Pond 1 (East) Southgate Street	TL857633	0.71985	52.2361	1998	585699	263299
Warty Newt	Triturus cristatus	Bury St Edmunds	Southgate Street. Redrow Homes	TL858634	0.72136	52.237	2000	585799	263400
Slow-Worm	Anguis fragilis	Thurston	Cavendish Close	TL9165	0.79833	52.2496	1992	590999	265000
Grass Snake	Natrix natrix	Culford		TL8468	0.69754	52.2789	1994	583999	268000
Grass Snake	Natrix natrix	Bury St Edmunds	Bury St Edmunds, Lark Valley & Sicklesmere Road	TL860637	0.72445	52.2396	2005	585999	263700
Grass Snake	Natrix natrix	Bury St Edmunds	Moreton Hall school	TL864644	0.73069	52.2458	1993	586399	264400
Shelduck	Tadorna tadorna	Bury St Edmunds		TL8562	0.70889	52.2247	1994	584999	261999
Shelduck	Tadorna tadorna	Bury St Edmunds	sugar beet factory	TL8564	0.70999	52.2426	1991	584999	264000
Shelduck	Tadorna tadorna	Barton Mere		TL9166	0.7989	52.2586	1994	590999	266000
Shelduck	Tadorna tadorna	Great Barton		TL907666	0.79485	52.264	1994	590699	266599
Shelduck	Tadorna tadorna	Great Barton	Barton Mere	TL8967	0.77019	52.2682	1993	588999	266999
Gadwall	Anas strepera	Bury St Edmunds	B.F. ponds	TL8564	0.70999	52.2426	1992	584999	264000
Teal	Anas crecca	Bury St Edmunds	sugar beet factory	TL8564	0.70999	52.2426	1991	584999	264000
Shoveler	Anas clypeata	Bury St Edmunds	Beet Factory	TL8564	0.70999	52.2426	1993	584999	264000
Shoveler	Anas clypeata	Barton Mere		TL9166	0.7989	52.2586	1994	590999	266000
Hen Harrier	Circus cyaneus	Great Barton		TL8967	0.77019	52.2682	1991	588999	266999
Buzzard	Buteo buteo	Bury St Edmunds	Hardwick Heath	TL8564	0.70999	52.2426	1992	584999	264000
Grey Partridge	Perdix perdix	Barton Mere	Barton Mere	TL9166	0.7989	52.2586	2004	590999	266000
Grey Partridge	Perdix perdix	Great Barton	Great Barton	TL8967	0.77019	52.2682	2003	588999	266999
Grey Partridge	Perdix perdix	Fornham St Martin	Fornham St Martin	TL8566	0.71108	52.2606	2004	584999	265999
Grey Partridge	Perdix perdix	Bury St Edmunds	A14	TL8564	0.70999	52.2426	1995	584999	264000
Grey Partridge	Perdix perdix	Bury St Edmunds	Bury St Edmunds	TL8365	0.68127	52.2523	2004	582999	265000
Grey Partridge	Perdix perdix	Fornham All Saints		TL8367	0.68235	52.2703	1993	582999	266999
Quail	Coturnix coturnix	Great Barton		TL905672	0.79226	52.2695	1995	590499	267200
Ringed Plover	Charadrius hiaticula	Bury St Edmunds	Beet Factory	TL8564	0.70999	52.2426	1993	584999	264000
Golden Plover	Pluvialis apricaria	Great Barton		TL8967	0.77019	52.2682	1994	588999	266999
Lapwing	Vanellus vanellus	Bury St Edmunds	Beet Factory	TL8564	0.70999	52.2426	1993	584999	264000

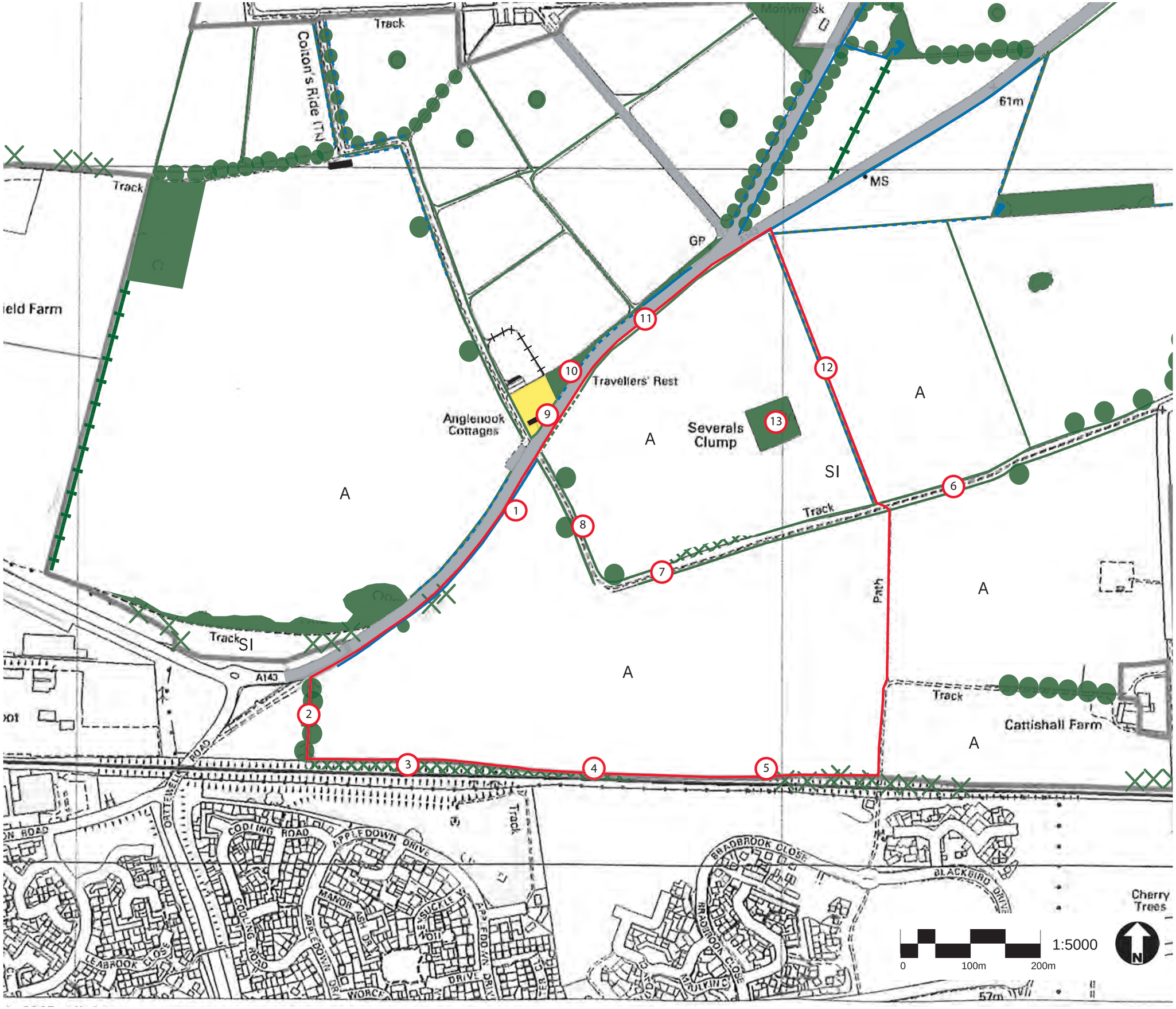
Rock Dove	Columba livia	Bury St Edmunds		TL8564	0.70999	52.2426	1995	584999	264000
Rock Dove	Columba livia	Suffolk		TL86M	0.69536	52.243	1989	583999	263999
Turtle Dove	Streptopelia turtur	Great Barton	Great Barton	TL8967	0.77019	52.2682	1999	588999	266999
Turtle Dove	Streptopelia turtur	Barton Mere	Barton Mere	TL9166	0.7989	52.2586	2004	590999	266000
Turtle Dove	Streptopelia turtur	Hardwick	heath	TL8562	0.70889	52.2247	1994	584999	261999
Barn Owl	Tyto alba	Bury St Edmunds	Bury St Edmunds	TL8564	0.70999	52.2426	1998	584999	264000
Barn Owl	Tyto alba	Fornham St Martin	Fornham St Martin	TL8566	0.71108	52.2606	2003	584999	265999
Barn Owl	Tyto alba	Great Barton		TL8967	0.77019	52.2682	1994	588999	266999
Barn Owl	Tyto alba	Bury St Edmunds	Bury St Edmunds	TL8665	0.72517	52.2513	2004	585999	264999
Kingfisher	Alcedo atthis	Bury St Edmunds	R.Lark	TL8564	0.70999	52.2426	1994	584999	264000
Kingfisher	Alcedo atthis	Fornham All Saints	R.Lark	TL8367	0.68235	52.2703	1994	582999	266999
Hoopoe	Upupa epops	Bury St Edmunds		TL8564	0.70999	52.2426	1995	584999	264000
Skylark	Alauda arvensis	Bury St Edmunds		TL8564	0.70999	52.2426	1993	584999	264000
Swallow	Hirundo rustica	Bury St Edmunds		TL8564	0.70999	52.2426	1991	584999	264000
Yellow Wagtail	Motacilla flava	Bury St Edmunds	Beet Factory	TL8564	0.70999	52.2426	1993	584999	264000
Black Redstart	Phoenicurus ochruros	Bury St Edmunds		TL8564	0.70999	52.2426	1995	584999	264000
Whinchat	Saxicola rubetra	West Suffolk		TL8562	0.70889	52.2247	1992	584999	261999
Wheatear	Oenanthe oenanthe	Fornham St Martin		TL8566	0.71108	52.2606	1994	584999	265999
Song Thrush	Turdus philomelos	Bury St Edmunds	Bury St Edmunds	TL8564	0.70999	52.2426	2004	584999	264000
Whitethroat	Sylvia communis	Hardwick	heath	TL8562	0.70889	52.2247	1994	584999	261999
Spotted Flycatcher	Muscicapa striata	Bury St Edmunds	Hardwick Heath	TL8562	0.70889	52.2247	2004	584999	261999
Spotted Flycatcher	Muscicapa striata	Bury St Edmunds	Bury St Edmunds	TL8564	0.70999	52.2426	1999	584999	264000
Spotted Flycatcher	Muscicapa striata	Great Barton	Great Barton	TL8967	0.77019	52.2682	1999	588999	266999
Brambling	Fringilla montifringilla	Timworth		TL859681	0.72541	52.2792	1995	585899	268100
Linnet	Carduelis cannabina	Barton Mere	Barton Mere	TL9166	0.7989	52.2586	2003	590999	266000
Bullfinch	Pyrrhula pyrrhula	Bury St Edmunds	Holywater Meadows	TL8563	0.70944	52.2337	2004	584999	263000
Bullfinch	Pyrrhula pyrrhula	Bury St Edmunds	Bury St Edmunds	TL8664	0.72462	52.2423	2004	585999	263999
Bullfinch	Pyrrhula pyrrhula	Bury St Edmunds	Hardwick Heath	TL8562	0.70889	52.2247	2004	584999	261999
Reed Bunting	Emberiza schoeniclus	Bury St Edmunds	Bury St Edmunds	TL8564	0.70999	52.2426	1998	584999	264000
Corn Bunting	Miliaria calandra	Great Barton	Vicarage Farm	TL897683	0.78117	52.2797	1994	589699	268299
Natterer's Bat	Myotis nattereri	Great Barton	Small Barn, Mere Farm, Barton Hamlet	TL907672	0.79519	52.2694	1999	590699	267199
Natterer's Bat	Myotis nattereri	Bury St Edmunds		TL8565	0.71054	52.2516	1990	584999	265000
Natterer's Bat	Myotis nattereri	Bury St Edmunds	Abbeyford Motor Company, Bury St Edmunds	TL853653	0.71509	52.2542	1990	585299	265299
Natterer's Bat	Myotis nattereri	The Glen Chalk Caves	The Glen Chalk Caves	TL864647	0.73086	52.2485	2001	586399	264699
Natterer's Bat	Myotis nattereri	The Glen Chalk Caves		TL864646	0.7308	52.2476	1995	586399	264599
Natterer's Bat	Myotis nattereri	Fornham All Saints	Moseley's Farm, Fornham All Saints	TL8367	0.68235	52.2703	2004	582999	266999
Daubenton's Bat	Myotis daubentoni	The Glen Chalk Caves	The Glen Chalk Caves	TL864647	0.73086	52.2485	2001	586399	264699
Daubenton's Bat	Myotis daubentoni	The Glen Chalk Caves		TL864646	0.7308	52.2476	1995	586399	264599
Noctule	Nyctalus noctula	Great Barton		TL903675	0.7895	52.2723	2000	590299	267499
Noctule	Nyctalus noctula	Hardwick	Hardwick Heath	TL86L	0.69427	52.225	1994	583999	262000
Pipistrelle	Pipistrellus pipistrellus	Cockfield	The Highlands, Lawshall Road, Cockfield	TL886636	0.76244	52.2378	1993	588600	263599
Pipistrelle	Pipistrellus pipistrellus	Great Barton	Great Barton	TL8867	0.75555	52.2686	2001	587999	266999
Pipistrelle	Pipistrellus pipistrellus	Great Barton		TL888672	0.76737	52.2701	1993	588799	267200
Pipistrelle	Pipistrellus pipistrellus	Great Barton	14 Downing Drive, Great Barton	TL889675	0.76901	52.2728	2001	588899	267500
Pipistrelle	Pipistrellus pipistrellus	Bury St Edmunds	48, Queens Road, Bury St Edmunds	TL844642	0.70132	52.2446	2006	584399	264199
Pipistrelle	Pipistrellus pipistrellus	Bury St Edmunds		TL845641	0.70273	52.2437	1997	584499	264099
Pipistrelle	Pipistrellus pipistrellus	Fornham St Genevieve	8 Parklands Green, Fornham St Genevieve	TL846678	0.70621	52.2769	1998	584599	267799
Pipistrelle	Pipistrellus pipistrellus	Bury St Edmunds	Rowen House, Stonebridge Avenue, Bury St Edmunds	TL847632	0.70516	52.2356	1993	584699	263199
Pipistrelle	Pipistrellus pipistrellus	Bury St Edmunds	25 Norfolk Road, Bury St Edmunds	TL849657	0.70946	52.258	1996	584899	265700
Pipistrelle	Pipistrellus pipistrellus	Bury St Edmunds	23 Mildenhall Rd, Bury St Edmunds, Suffolk	TL850663	0.71125	52.2633	2004	584999	266299
Pipistrelle	Pipistrellus pipistrellus	Bury St Edmunds	Triton House, Bury St Edmunds	TL851646	0.71178	52.248	1988	585099	264599
Pipistrelle	Pipistrellus pipistrellus	Bury St Edmunds	Methodists Home for the Aged, The Martins, The Vinefields, Bury St Edmunds	TL859642	0.72327	52.2441	1991	585899	264199
Pipistrelle	Pipistrellus pipistrellus	Bury St Edmunds	SOUTHGATE STREET	TL860635	0.72434	52.2378	1994	585999	263500
Pipistrelle	Pipistrellus pipistrellus	Great Barton	Thurston Road	TL905672	0.79226	52.2695	1995	590499	267200
Pipistrelle	Pipistrellus pipistrellus	Fornham All Saints		TL8367	0.68235	52.2703	1990	582999	266999

Brown Long-Eared Bat	Plecotus auritus	Fornham All Saints	Fur House, Rectory Meadows, Fornham All Saints, IP28 6JR	TL8367	0.68235	52.2703	2004	582999	266999
Brown Long-Eared Bat	Plecotus auritus	Fornham St Genevieve	8 Parklands Green, Fornham St Genevieve	TL846678	0.70621	52.2769	1998	584599	267799
Brown Long-Eared Bat	Plecotus auritus	Bury St Edmunds	Westgate Street	TL853633	0.71399	52.2363	1994	585299	263300
Brown Long-Eared Bat	Plecotus auritus	Bury St Edmunds	18 Westgate Street, Bury St Edmunds	TL8563	0.70944	52.2337	1994	584999	263000
Brown Long-Eared Bat	Plecotus auritus	Great Barton		TL890676	0.77053	52.2736	1997	588999	267600
Brown Long-Eared Bat	Plecotus auritus	The Glen Chalk Caves		TL864646	0.7308	52.2476	1995	586399	264599
Brown Long-Eared Bat	*Plecotus auritus*	Fornham St Martin	Hall Farm, Fornham St Martin	TL865672	0.7337	52.2709	2002	586499	267199
Brown Long-Eared Bat	Plecotus auritus	Cockfield	The Highlands, Lawshall Road, Cockfield	TL886636	0.76244	52.2378	1993	588600	263599
Brown Hare	Lepus capensis	Bury St Edmunds		TL859666	0.72459	52.2657	1996	585899	266600
Brown Hare	Lepus capensis	Fornham St Martin		TL853679	0.71652	52.2776	1995	585299	267899
Brown Hare	Lepus capensis	Fornham St Genevieve		TL8368	0.6829	52.2792	1993	582999	267999
Brown Hare	Lepus capensis	Fornham St Martin		TL859681	0.72541	52.2792	1994	585899	268100
Brown Hare	Lepus capensis	Rougham		TL96B	0.78202	52.223	1989	589999	261999
Brown Hare	Lepus capensis	Great Barton		TL8865	0.75444	52.2506	2005	587999	264999
Brown Hare	Lepus capensis	Great Barton		TL882681	0.75909	52.2784	1996	588199	268099
Brown Hare	Lepus capensis	Great Barton		TL882679	0.75898	52.2766	1995	588199	267900
Brown Hare	Lepus capensis	Bury St Edmunds		TL889633	0.76666	52.235	1994	588899	263300
Brown Hare	Lepus capensis	Great Barton		TL875678	0.74868	52.2759	1993	587499	267800
Brown Hare	Lepus capensis	Fornham St Martin		TL8668	0.72682	52.2782	1993	585999	267999
Brown Hare	Lepus capensis	Fornham St Martin		TL8667	0.72627	52.2693	1991	585999	266999
Brown Hare	Lepus capensis	Bury St Edmunds	*nr. Mount Farm*	TL879647	0.75281	52.248	1994	587899	264699
Brown Hare	Lepus capensis	Great Barton		TL895675	0.77779	52.2726	1994	589499	267500
Brown Hare	Lepus capensis	Bury St Edmunds		TL8765	0.7398	52.251	1992	586999	264999
Brown Hare	Lepus capensis	Bury St Edmunds		TL8763	0.7387	52.233	1991	586999	262999
Brown Hare	Lepus capensis	Great Barton	Thurston Road	TL905672	0.79226	52.2695	1996	590499	267200
Brown Hare	Lepus capensis	Great Barton		TL903649	0.78804	52.2489	1993	590299	264899
Brown Hare	Lepus capensis	Great Barton		TL902657	0.78702	52.2561	1996	590199	265699
Brown Hare	Lepus capensis	Great Barton		TL902649	0.78657	52.249	1993	590199	264900
Brown Hare	Lepus capensis	Great Barton		TL897662	0.77999	52.2608	1996	589699	266200
Brown Hare	Lepus capensis	Rougham		TL8963	0.76795	52.2323	1991	588999	263000
Brown Hare	Lepus capensis	Suffolk	Suffolk	TL8962	0.76739	52.2233	2001	588999	262000
Brown Hare	Lepus capensis	Great Barton		TL899652	0.78235	52.2518	1996	589899	265200
Brown Hare	Lepus capensis	Rougham		TL908649	0.79535	52.2488	1996	590799	264899
Brown Hare	Lepus capensis	Ixworth	A143	TL910677	0.79986	52.2738	2006	590999	267700
Brown Hare	Lepus capensis	Great Barton	near Bartonmere	TL907666	0.79485	52.264	1996	590699	266599
Water Vole	Arvicola terrestris	Bury St Edmunds	East of Friars Bridge, Bury St Edmunds	TL851636	0.71214	52.2387	2005	585162	263571
Water Vole	Arvicola terrestris	Bury St Edmunds		TL864634	0.73014	52.2368	1993	586399	263400
Water Vole	Arvicola terrestris	Bury St Edmunds		TL863637	0.72884	52.2395	1995	586299	263699
Water Vole	Arvicola terrestris	Bury St Edmunds		TL859641	0.72321	52.2432	1994	585899	264099
Water Vole	Arvicola terrestris	Bury St Edmunds	Greene King, Bury St Edmunds	TL856632	0.71833	52.2353	2003	585599	263199
Water Vole	Arvicola terrestris	Bury St Edmunds	Bury St Edmunds	TL8564	0.70999	52.2426	1999	584999	264000
Water Vole	Arvicola terrestris	Bury St Edmunds		TL848967	0.71002	52.2696	1997	584889	267000
Water Vole	Arvicola terrestris	Bury St Edmunds	Industrial Estate, Bury St Edmunds	TL848926	0.71005	52.2696	2004	584891	267000
Water Vole	Arvicola terrestris	Bury St Edmunds	Holywater Meadows	TL8462	0.69427	52.225	1995	583999	262000
Water Vole	Arvicola terrestris	Bury St Edmunds	Bury St. Edmunds Westgate Brewery	TL855206	0.71734	52.2383	2005	585519	263529
Badger	Meles meles	Fornham St Genevieve		TL841689	0.69949	52.287	1993	584099	268900
Badger	Meles meles	Great Barton	Great Barton A143	TL887666	0.76557	52.2647	2004	588699	266599
Badger	*Meles meles*	Rougham	Rougham	TL906263	0.79183	52.2346	2001	590619	263319
Badger	Meles meles	Bury St Edmunds		TL857653	0.72095	52.2541	2003	585699	265300
Otter	Lutra lutra	Bury St Edmunds	Friars Lane Bridge, Bury St Edmunds	TL854635	0.71557	52.238	2004	585399	263499
Otter	Lutra lutra	Bury St Edmunds	Bury St Edmunds	TL854346	0.71714	52.2557	2004	585433	265467
Otter	Lutra lutra	Bury St Edmunds	Lark, Eastgate Street Bridge, Bury St Edmunds	TL858644	0.72191	52.246	2000	585799	264399
Otter	Lutra lutra	Fornham All Saints	Club House Weir Fornham All Saints	TL847672	0.70735	52.2715	2004	584699	267200
Otter	Lutra lutra	Fornham St Martin	Lark, Tollgate Road Bridge, Fornham St Martin	TL852661	0.71407	52.2614	2000	585199	266099

APPENDIX C

Phase 1 Habitat Survey Map

And Target Notes



KEY

- Site boundary
- Broadleaved woodland
- Dense scrub
- Scattered trees
- Scattered scrub
- SI — Semi-improved grassland
- I — Improved grassland
- Wet ditch
- Dry ditch
- A — Arable
- Amenity grassland
- Hardstanding
- Buildings
- Intact species-poor hedgerow
- Intact species-rich hedgerow
- Hedgerow with trees
- Fence
- 3 — Target note

Hankinson Duckett Associates

h d a

Client: Berkeley Strategic Land Limited

Project: Compiegne Way Ecology

Title: Phase 1 Survey Plan

Scale: 1:5000@A3 Date: May 2008

Ref: 2090.43/06/KE

Target Notes

1. Wet ditch with a slow flow. Banks of the ditch are steep-sided and vegetated with ruderal vegetation, dominated by Common Nettle. The ditch is narrow (<50cm) and shallow (<10cm). Scattered stands of Bramble and Blackthorn are also located along the ditchline.

2. Line of mature Pine trees with an understorey of Elder and Hawthorn towards the southern end.

3. Area of Elder and Bramble scrub along steep banks of the railway embankment. Scattered throughout the scrub are occasional mature trees including Conifers and English Oak. Within this area are areas of more open habitat consisting of grassy clearings. Some dead wood habitat is also apparent amongst the scrub.

4. Steep-sided scrubby woodland ceases and is replaced with a grassy strip of rank grasses with Cow Parsley, Yarrow, Broadleaved Dock, Cleavers and Ground Ivy also present. Occasional stands of Bramble are present along the wire fenceline.

5. Area where embankment becomes steep-sided again. Here Bramble scrub is more frequent with Hawthorn and Elder also apparent. Some mature Conifers are also present within this area.

6. Public Right of Way dirt track flanked on either side by hedgerows. The hedgerow to the south of the track is intact, dense and well managed whilst the hedgerow to the north is less so. Along some sections it has been left unmanaged, resulting in lines of scrubby hedgerow trees.

7. Hedgerow to the north of the track is completely outgrown, forming a continuous line of scrubby hedgerow trees. Towards the very western end before the track curves round to the north, the line of trees widens to form a strip of Elder scrub vegetating the gently sloping bank of the arable field to the north. The Elder scrub becomes more heavily vegetated with Blackthorn towards the most westerly end.

8. Section of the track which is flanked by intact and well-managed hedgerows on either side. Elder and Hawthorn are the dominant species, whilst Ivy and Bramble are also present.

9. Two-storey, stone-built, tiled roof detached cottage with amenity grassland and ornamental planting surrounds. A number of one-storey garages/outbuildings are also associated with the cottage. An intact, species poor hedgerow surrounds the front garden of the property where it fronts the A143.

10. Intact, well managed species-poor hedgerow with a dry ditch running to the south. To the north of the hedgerow is an area of Elder and Bramble scrub with occasional mature Fir and Pine trees scattered throughout.

11. Species poor hedgerow, dominated by Hawthorn with Elder and Bramble. The ground flora is typical of that associated with soils which have been agriculturally improved, including Cleavers and Common Nettle. Hedgerow becomes less dense and compact towards western end, with sections where it is completely defunct.

12. Out-grown hedgerow/treeline with dry ditch to east, dominated by Blackthorn with Elder. Treeline becomes gappier to the south, with larger tree specimens becoming more frequent.

13. Small area of scrubby woodland with a dense understorey of Elder and semi-mature Beech. Mature Oaks are scattered throughout the area. Lords and Ladies are abundant amongst the ground flora, as well as dense stands of Common Nettle.

APPENDIX D

Species List

Common Name	*Scientific name*	Type
Alder	*Alnus glutinosa*	plant
Ash	*Fraxinus excelsior*	plant
Beech	*Fagus sylvatica*	plant
Birch	*Betula sp.*	plant
Blackbird	*Turdus merula*	Bird
Blackthorn	*Prunus spinosa*	plant
Bramble	*Rubus fruticosus agg.*	plant
Brown Hare	*Lepus europaeus*	Mammal
Brown Rat	*Rattus norvegicus*	Mammal
Broad Leaved Dock	*Rumex obtusifolius*	plant
Carrion Crow	*Corvus corone*	Bird
Cherry Laurel	*Prunus laurocerasus*	plant
Cleavers	*Galium aparine*	plant
Cock's-foot	*Dactylis glomerata*	plant
Common Nettle	*Urtica dioica*	plant
Cow Parsley	*Anthriscus sylvestris*	plant
Daffodil	*Narcissus pseudonarcissus*	plant
Dandelions	*Taraxacum officinale agg.*	plant
Dogwood	*Cornus sanguinea*	plant
Elder	*Sambucus nigra*	plant
English Oak	*Quercus robur*	plant
Firs	*Abies sp.*	plant
Great Tit	*Parus major*	Bird
Green Woodpecker	*Picus viridis*	Bird
Ground Ivy	*Glechoma hederacea*	plant
Hawthorn	*Crataegus monogyna*	plant
Hazel	*Corylus avellana*	plant
Hogweed	*Heracleum sphondylium*	plant
Ivy	*Hedera helix*	plant
Kestrel	*Falco tinnunculus*	Bird
Lapwing	*Vanellus vanellus*	Bird
Lords-and-Ladies	*Arum maculatum*	plant
Magpie	*Pica pica*	Bird
Mallard	*Anas platyrhynchos*	Bird
Perennial Rye-grass	*Lolium perenne*	plant
Pheasant	*Phasianus colchicus*	Bird
Pine	*Pinus sp.*	plant
Rabbit	*Oryctolagus cuniculus*	Mammal
Red Dead-nettle	*Lamium purpureum*	plant
Red-legged Partridge	*Alectoris rufa*	Bird
Ribwort Plantain	*Plantago lanceolata*	plant
Robin	*Erithacus rubecula*	Bird
Roe Deer	*Capreolus capreolus*	Mammal
Skylark	*Alauda arvensis*	Bird
Snowdrop	*Galanthus nivalis*	plant
Timothy	*Phleum pratense*	plant
Wild Privet	*Ligustrum vulgare*	plant

Common Name	***Scientific name***	**Type**
Willow spp.	*Salix spp.*	plant
Woodpigeon	*Columba palumbus*	Bird
Yarrow	*Achillea millefolium*	plant
Yew	*Taxus baccata*	plant

APPENDIX E

Natural Area Profile Extract

East Anglian Plain

Produced by and available from
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1.4 Buffer important semi-natural habitats (such as SSSIs and County Wildlife Sites) from spray drift and localised drainage by surrounding them with non-intensively managed grassland or other habitats.

1.5 Provide greater availability of advice/skills training for farmers interested in environmentally-friendly farming.

1.6 Provide links between important semi-natural habitats, by creating new habitat or by achieving a more wildlife-friendly agricultural landscape.

Winter wheat

2. Arable farmland habitats

This chapter describes the habitats and species of arable farmland and sets objectives for their conservation. The previous chapter looks at the way the farming system as a whole sets the background for achieving these objectives. A separate chapter in this profile concentrates on hedges.

Nearly three hundred species of wild plant grow on arable land in Britain, mostly being annuals with long-lived seeds. Before the 1940s, arable wildflowers were common in arable crops but now are rarely seen. Many arable wildflowers are very rare and some are extinct in the wild, such as corncockle. The East Anglian Plain holds much of Britain's populations of shepherd's- needle and also has the last remaining persistent site for cornflower (Stewart, Pearman and Preston 1994). As well as herbicidal destruction of the weed resource, the timing and depth of ploughing has affected species. Spring germinators such as corn marigold are unable to compete with cereals that were sown in the previous autumn, and are unable to germinate if buried by ploughing.

Ground-nesting birds were once common in arable fields, but their numbers are declining rapidly. For example, there are less than half the lapwings and skylarks in Britain than there were twenty years ago (HMSO 1995). The decline has probably been caused by sowing cereals in autumn rather than summer and more efficient use of herbicides and insecticides. Lapwing, skylark and other species such as oystercatcher nest where there they have good visibility all round so they can spot predators. They also need extensive bare ground from which to peck their invertebrate food. Spring-sown crops are ideal for this, but autumn-sown

crops are too tall and dense by the time the birds begin to nest. As chicks grow older, they take invertebrates from the growing crop, helping to reduce crop loss. Use of insecticides at this time removes a food source for these birds and so chick survival is lowered. The population density of skylark in the East Anglian Plain is one of the highest in the country, according by an analysis by Chris Durdin of the RSPB, based on Gibbons *et al* (1993).

In the past, stubble was routinely left in the field over winter, and modern set-aside has helped to replace some of this. Spilt or unharvested grain, weed seeds and invertebrates are eaten by a wide range of birds such as buntings, tree sparrows and finches, and small mammals such as mice, voles and shrews. The small mammals in turn provide food for predators such as stoats, barn owls and kestrels. With autumn-sown crops, there is no stubble left for more than a few days in late summer so the wildlife resource is lost.

Set-aside management is primarily intended to maintain soil productivity for when it is farmed again, for example in preventing weed populations expanding. Recent changes, for example delaying spring cultivation until chicks are old and mobile enough to escape the plough, have been of benefit to wildlife. The proportion of arable land in set-aside varies from year-to-year and it could dwindle to nothing if there becomes a viable unsubsidised world market for wheat.

The cropped edge of arable fields offer opportunities for wildlife. Hedges and grass margins are included in a separate chapter, but influence closely the wildlife in the adjacent crop. If normal insecticides are not used around the edge of a crop, there will be many more insects available as food for predatory insects, birds and small mammals such as shrews and bats. Avoidance of herbicide will allow arable wildflowers to grow and also support a greater abundance of insects.

Unfarmed areas within farms are valuable for wildlife. For example, lengths of rough grassland alongside farm tracks or roads support small mammals such as field vole which in turn support a wide range of predators such as owls, kestrels and mustelids. Scrub patches on farmland are important for birds, and are a complementary habitat to hedges. In particular, the East Anglian Plain has high densities of birds which are declining rapidly on a national scale, including turtle dove, song thrush, tree sparrow, linnet and bullfinch. Arable farmland can be an important resource for grass snakes, particularly where there are unfarmed areas including ponds and small woods.

Brown hares are a Key Biodiversity Action Plan species whose needs (Corbet and Harris 1991) typify the nature conservation needs of the East Anglian Plain. They feed upon grasses, herbs and early stages of arable crops, so benefit from mixed livestock/arable farming with a range of crop sowing dates. Large-scale farming with a low diversity of crops is less suitable. Unfarmed grassland or grass margins alongside hedges are a partial substitute for permanent pasture. Woods, shelter belts, and hedges are needed for shelter during the day.

Issues and threats

- Arable wildflower populations are declining and few fields are managed even in part to benefit arable wildflowers.

- Insecticides and herbicides in fields and especially around field edges remove a food source for ground-nesting birds such as grey partridge and skylark.

- Ground-nesting birds such as grey partridge and skylark are rapidly declining in numbers due to a rapid decline in the amount of spring-sown crops and a lack of insects in crops.

- Set-aside management is not primarily intended to favour wildlife such as arable wildflowers or birds so set-aside land supports far less wildlife than its potential. Winter stubble followed by spring cultivation occupies a small proportion of farmland.

- Unfarmed land such as rough grassland, road or track verges and scrub occupies a small and decreasing proportion of farmland; modern agriculture is so efficient that it leaves little space for wildlife.

Nature conservation objectives

Policy/large-scale needs
see preceding 'arable farming systems' chapter

Expansion of resource

2.1 Raise arable wildflower populations, for example by creating a network of whole fields or field margins managed for arable wildflowers, particularly targeting rare and scarce species.

2.2 Increase ground-nesting bird populations, especially skylark and grey partridge, by increasing habitat suitability (see below).

2.3 Increase habitat suitability for ground-nesting birds by cultivating in spring to create open ground for nesting, using pest-specific insecticides to avoid harm to non-pest insects and beneficial insects especially around field edges, and avoiding herbicides around field edges.

2.4 Increase populations of seed-eating birds, by increasing the area of winter stubble and scrub birds.

2.5 Increase populations of scrub birds by increasing the area of scrub.

2.6 Increase the area of unfarmed land such as rough grassland, including 'beetle banks', road verges and track verges, targeting its location as a priority where it will adjoin or link existing semi-natural habitat.

There are no Sites of Special Scientific Interest notified for arable farmland habitats or species in the East Anglian Plain

Rye Meads	Hertfordshire	58.5
Hertfordshire/Essex	Sawbridgeworth Marsh	6.3
Shelfanger Meadows	Norfolk	10.7
Thorley Flood Pound	Hertfordshire/Essex	17.3

Sites of Special Scientific Interest (SSSI) wholly or partly containing hay meadows or other species-rich grassland of river valleys in the East Anglian Plain

SSSI name	County/Counties	SSSI area in hectares
Debden Water	Essex	20.9
Dillington Carr, Gressenhall	Norfolk	49.0
Glemsford Pits	Essex/Suffolk	37.5
Potter's Carr, Cranworth	Norfolk	5.7
River Nar **also in fens chapter**	Norfolk	233.43
River Wensum **also in fens chapter**	Norfolk	393.91
Rye Meads	Hertfordshire	58.5

4. Hedges

Hedges are common throughout the East Anglian Plain, and the resource is too large to be readily measured. There is a much higher density of hedge in the South Suffolk & North Essex Claylands than in the South Norfolk & High Suffolk Claylands. In many parts of the South Suffolk & North Essex Claylands the hedges give a well-wooded feel to the landscape, whereas in the South Norfolk & High Suffolk Claylands there are extensive views, often over a kilometre long without interruption by hedges. Mid Norfolk has an intermediate density of hedges.

The hedges originate from a great range of ages (Rackham 1986). Some are believed to have originated in prehistoric times, as strips of wildwood left as boundaries following the first human tree clearance since the Ice Age. Prehistoric field boundaries have been identified in South Norfolk and Suffolk, which may have been continuously hedged (Williamson 1987). Some hedges have been recorded from the Saxon era, and their descriptions can be found in Saxon documents.

The East Anglian Plain had irregular open-field systems which had disappeared by the Middle Ages or the Tudor period. By the time of the Parliamentary enclosures, most of the East Anglian Plain was already enclosed and well-hedged, but large numbers of common pastures and greens were enclosed in the late 18th and early 19th centuries. Hedge planting has become popular in recent years, with lines of newly planted shrubs in plastic tubes being a common sight along roadsides.

Until the 1940s, hedges were required as livestock enclosures and were an important source of firewood when coppiced. Since then, arable farming has made their livestock function redundant and their firewood has little value. An enormous number of hedges has been removed, and that process is continuing. For example, in the period 1990-1993, 6% of existing hedges were lost each year, mostly through neglect or over-zealous management rather than deliberate removal. Planting of new hedges matched approximately the 1% of total hedge length that had been deliberately removed.

There is a general correlation between the age of a hedge and the number of shrubs it contains (Hooper 1974). A rough but often inaccurate guide is one century of age per woody species found in a thirty-metre length of hedge. The East Anglian Plain has a large variety of woody shrubs in its ancient hedges. Hawthorn, blackthorn, hazel and maple are abundant in hedges. Dogwood, spindle, hornbeam and willows are found frequently, and occasionally small-leaved lime (derived from woodland) and barberry. Hedgerow trees include oak, ash, hornbeam and maple. Old hedgerows often have ancient pollarded oaks, which are good habitat in their own right. Climbers such as brambles, wild roses, clematis, wild hops, black bryony and white bryony are common. In south Norfolk and the South Suffolk and North Essex Claylands, elm is a very common component of hedges; it does not succumb to Dutch Elm Disease if it is regularly coppiced or permitted to continuously form new suckers.

Large bushy hedges of mixed shrub species support the highest diversity of wildlife and greatest density of breeding birds, such as tits, thrushes, finches, wren, robin, warblers and tree sparrow. Well managed hedges provide nest sites, and a rich and varied food source of berries, seeds, and an abundance of invertebrates.

One agricultural hedge in the East Anglian Plain supports one of only three native sites for the Barberry Carpet Moth. Grubbing out of barberry to prevent it carrying disease to crops has made it an uncommon species, and the moth whose caterpillars rely on it is now on the edge of extinction.

Many hedges grow on banks and there is often a ditch and narrow grassy strip alongside. Hedgebanks and the grass margin support a wide range of common flowering plants, such as white campion, cowslips and toadflax. These margins support a wide range of insects (herbivores, aphid predators, and pollinators) which is food for ground-living birds such as pheasant, grey partridge and lapwing. They also provide cover from predators. Wider margins are used as nest sites by game birds. Small mammals such as voles can live at high densities in hedges and grass margins, so this habitat is a hunting ground for kestrels and barn owls. Perennial grass margins are not suitable for growth of annual weeds, so a permanent margin prevents weeds getting into the crop from the field edge.

Song thrush

Issues and threats

- Stock restraint is no longer a function of most hedges, as livestock are not an important part of the agricultural economy, and so many hedges have no agricultural function. Even where hedges border pasture, there is usually a wire fence to contain the animals.

- Hedges continue to be grubbed up in order to merge fields, sometimes stimulated by tenure changes. Less significant causes of hedge loss are road schemes, development etc.

- Many hedges are developing expanding gaps and losing a dense bushy form due to neglect.

- Many hedges are being flailed too much and too frequently, leading to continued reduction in volume, loss of flowers and berries which grow on older wood, and creation/enlargement of gaps.

- Trees are no longer a prominent feature of many hedges.

- Very few hedges have grass strips separating them even by one metre from arable land, so shrub and tree roots get ploughed out.

- Fertiliser and pesticides sometimes go into hedges, especially where the crop extends to the hedge bottom, degrading plant and invertebrate populations.

- Tractor access to hedges for management depends on harvesting and sowing dates, and soil conditions, rather than the best dates for hedge management.

- Field boundaries are frequently not hedged, especially in the South Norfolk & High Suffolk Claylands and Mid Norfolk.

- Many fields are huge. Fields of 20 hectares or more are common, and fields of up to 50 hectares are not unusual. Even if all the boundaries are hedged, huge fields still result in a low density of hedgerow length per square kilometre.

- Birds associated with hedges are declining rapidly in numbers, such as grey partridge and song thrush (HMSO 1995).

Nature conservation objectives

Policy/large-scale needs

4.1 Ensure no further loss of ancient and/or species rich hedges.

Management of existing resource

4.5 Ensure that all hedges are managed appropriately, for example many should be big and bushy with hedgerow trees, trimmed once every two to three years in late winter, and with permanent grass strips two to four metres wide separating the edge of the hedge from ploughed land. A diversity of size and structure provides diversity of wildlife.

4.6 Ensure that hedges and their flora and fauna do not receive accidental fertiliser or pesticide applications from farming operations in the adjacent fields.

Expansion of resource

4.2 Increase the field boundaries that are hedged, so there is a need to retain existing hedges and plant new ones (or permit their natural development) where they are absent.

4.3 Increase the total length of field boundary available for hedge creation, by dividing huge fields so that no fields are larger than twenty hectares.

4.4 Increase the ancient tree resource in hedgerows, by pollarding existing ancient trees when necessary to prolong their life, and creating new pollards from young trees.

Site of Special Scientific Interest (SSSI) wholly or partly containing hedges of special interest in the East Anglian Plain. Many hedges are found in/around SSSIs notified for other interests.

SSSI name	County	SSSI area in hectares
Shaker's Lane, Bury St Edmunds	Suffolk	1.26

5. Farm ponds and other water bodies

Water bodies in the East Anglian Plain range from small ponds a metre or two across, shallow lakes, disused gravel pits, to historic moats. The size, age and location of each water body influences the potential wildlife interest, but they are all treated as one feature here because there are shared species, issues and objectives. Agricultural issues affecting ponds are included here, although earlier chapters analyse farmland issues and objectives in more detail.

The number of ponds in the East Anglian Plain is not known, but they have declined enormously over recent decades. Fifty to one hundred years ago most farms had livestock as well as horse-drawn equipment, and ponds were valued as watering holes. Now, farm animals are rare so there is no agricultural function for ponds. From a situation of small farms with a managed pond in each of many small fields, ponds are a scarce, neglected and diminising feature. Farm ponds usually support a range of common aquatic plants and invertebrates. Some ponds are being managed for amenity, conservation or wildfowling but many are neglected and deteriorating.

Where a pond is in a village green, it is likely to have steep or shored-up banks, heavily mown grassland around, turbid water, few aquatic plants and many ducks.

In many areas of the East Anglian Plain, semi-natural habitat is so scarce that ponds and surrounding habitats are practically the only feature of wildlife interest. A good example is a group of villages in north-east Suffolk known as The Saints, where ungrazed commons and

SSSI name	County/Counties	SSSI area in hectares
Aslacton Parish Land	Norfolk	4.3
Beetley & Hoe Meadows	Norfolk	11.22
Dereham Rush Meadow	Norfolk	20.6
Forncett Meadows	Norfolk	5.0
Fox Fritillary Meadow, Framsden	Suffolk	2.3
Geldeston Meadows	Norfolk	3.4
Gypsy Camp Meadows, Thrandeston	Suffolk	2.46
Holly Farm Meadow, Wendling	Norfolk	2.5
Hunsdon Mead	Hertfordshire/Essex	34.0
Lineage Wood & Railway Track	Suffolk	81.23
Little Hallingbury Marsh	Essex	4.5
Pakenham Meadows	Suffolk	5.8
River Wensum **also in fens chapter**	Norfolk	393.91
Rye Meads	Hertfordshire	58.5
Sawbridgeworth Marsh	Hertfordshire/Essex	6.3
Shelfanger Meadows	Norfolk	10.7
Thorley Flood Pound	Hertfordshire/Essex	17.3

8. Parks, pasture woodlands and ancient trees

Ancient trees are found in hedgerows, on field boundaries as hedge relicts, in churchyards, on boundaries of ancient coppice woods, and concentrated in parks and pasture woodlands. Ancient trees are found throughout the East Anglian Plain, but individual trees outside parks and pasture woodlands are more common in the South Suffolk & North Essex Claylands than elsewhere. Ancient trees support a wide range of wildlife which is not found elsewhere. Parks and pasture woodland are scattered throughout the East Anglian Plain. The number of parks and pasture woodlands of significant conservation interest has not been collated.

Many parks were set up in mediaeval times for aesthetic reasons, and also to provide grazing for farm animals or deer and to provide wood from pollarded trees. In later centuries, new landscape parks were made from old mediaeval parks or by enclosing ordinary farmland. Two of the British top forty deadwood invertebrate sites are in the East Anglian Plain. Hatfield Forest NNR originated as a Royal forest where deer were protected (Rackham 1989), and Shrubland Park was a pasture-woodland not used for deer.

The nature conservation interest of parks and pasture-woodlands come from having a continuity of old trees over hundreds of years, or even in some cases back to the post ice-age wildwood. Oaks are found in practically all sites, with sweet chestnut featuring in some places and hornbeam in others. Many parks and pasture-woodlands are associated with ancient coppice woodland or secondary plantation, adding habitat diversity to the core feature.

Rotten wood in the centre of ancient tree-trunks, looking like damp red sawdust, is home to a high number of invertebrates not found elsewhere. Many of these invertebrates are beetles or their larvae. Other dead wood is also valuable invertebrate habitat. Rugged cracked bark has its own range of specialised invertebrates. For example there is a spider *Nuctenea umbratica* closely related to the common garden cross spider, which has a flattened body to allow it to get underneath bark. Most invertebrates have a dispersal stage. Beetle larvae that live in rotten wood may have nectar-feeding or predatory adults, which fly or walk up to possibly a

few hundred metres. As concentrations of ancient trees are few, a beetle leaving its park is unlikely to find another ancient tree. If dead wood is removed, there will be nowhere to go and the whole population will disappear. It is for this reason that only sites with a long history of ancient trees and dead wood have important invertebrate populations. Isolated ancient trees normally have those invertebrates which are good colonisers and so are more common.

Lichens rely on the stability of the surface provided by ancient trees for their support. Most of the uncommon species are found on ancient tree trunks where they have had centuries to grow.

Ancient trees are good places for hole-nesting birds. Woodpeckers find it easy to drill holes in old and/or rotting wood, and there are plenty of holes for other birds such as barn owls to use.

Issues and threats

- Many private landowners are not familiar with the conservation needs of old trees.
- Standing dead wood is frequently removed for 'safety', and fallen dead wood is frequently removed for 'tidiness'.
- Nectar sources for invertebrates are often not present or in low numbers, especially their preferred species such as hogweed, hawthorn, cow parsley and ragwort. Herbicides are often used on pasture around ancient trees.
- Fertilisers on park grassland can disrupt ancient trees' mycorhizal fungi and cause death or weakening of the trees, and can kill lichens.
- Insecticides on grassland can kill deadwood invertebrates during the part of their life-cycle outside trees.
- In many parks there is little regeneration or planting of new trees. No new pollards are being made from standard trees in parks or elsewhere.
- Some parks contain arable land from which may drift herbicide, fertiliser and insecticide, and which does not contain flowering plants for invertebrates.
- Ancient trees in arable fields may be damaged by accidental ploughing of roots.
- There is an age gap between very old trees and any recently planted ones. When the old trees die there may not be enough 'new' old trees to replace them.
- There is a need to re-pollard ancient trees, most of which haven't been pollarded for many decades. The conservation movement does not yet have the confidence or knowledge to plan re-pollarding of long-neglected trees with a high chance of tree survival.
- Very few people have the skills to identify deadwood invertebrates, lichens, or fungi.

APPENDIX F

Biodiversity Action Plan Extract

Ancient and/or Species-rich Hedgerows

Hedges are boundary lines of trees and/or shrubs, sometimes associated with banks, ditches, and grass verges. They are an important reservoir of biodiversity in the farmed landscape as well as being of, cultural historical and landscape importance. Hedges act as wildlife corridors, linking habitats of high biodiversity value such as woodland and wetland, thus enabling bats, small mammals and insects to move around under cover from predators.

1 Definition

Ancient hedgerows, which support a greater diversity of plants and animals than subsequent hedges, may be defined as those, which were in existence before the Enclosure Acts, passed mainly between 1720 and 1840. By the time of the Parliamentary enclosures, most of the East Anglian Plain was already enclosed and well hedged, but large numbers of common pastures and greens were enclosed in the late 18th and early 19th centuries. Large areas of Breckland and the Suffolk Coast and Heaths were enclosed at this time. These hedges were after-planted as single species, (usually Hawthorn).

Species-rich hedgerows contain five or more native woody species on average in a thirty-metre length. Hedges, which contain fewer woody species but a rich basal flora, may also be considered as ancient. The Hedgerow Regulations 1997 define 'important' hedgerows as those with seven woody species, or six woody species in a 30m length plus other defined features.

Key National Biodiversity Action Plan species in Suffolk which use hedges (including associated features such as grassy verges) are Brown Hare, Skylark, Grey Partridge, Song Thrush, Linnet, Turtle Dove, Corn Bunting, Tree Sparrow, Bullfinch, and Pipistrelle Bat.

Other fauna using hedges include small mammals, such as Dormice in the south of the county, hibernating reptiles and amphibians, and invertebrates such as White-letter Hairstreak butterfly in Elm hedges.

2 Current Status

2.1 Suffolk

The number or length of ancient and/or species-rich hedgerow in Suffolk is unknown but total hedgerow length, regardless of whether it is ancient or species-rich, is estimated to be in the region of 12,500-15,000km. These figures have been extrapolated from three hedge surveys in small parts of Suffolk.

Stanton Branch of the National Farmers Union recorded 599.8km of farm hedges in 1985, and in 1993 ADAS surveyed $15km^2$ of the Suffolk River Valleys ESA and found 62km of hedges. This can be extrapolated to give an estimate of 12,589 for the whole county.

Parker (2000) undertook a hedge survey using selected 1km grid squares across the county and estimated 13,800 km. He also provides some data on rates of new creation (Suffolk Naturalists Society 2000).

The national action plan surmises that 42% of all hedges are ancient and/or species-rich. Applied to Suffolk, this provides the following estimates of ancient and/or species-rich hedgerow length for the county.

Length of hedgerows in Suffolk	Estimated ancient/ species-rich proportion	Min/max estimates of ancient/species-rich hedgerow in Suffolk
10,000km	40%	4000km
20,000km	45%	9000km

With better data it is hoped that % of ancient hedges can be broken down by Natural Area; it is known that the Claylands have a greater proportion of ancient hedges than the Brecks and the Suffolk Sandlings but no figures are available at present.

2.2 Natural Areas

All (East Anglian Chalk, The Claylands, The fens, The Brecklands, East Anglian Plain, Suffolk Sandings.)

3 Current factors affecting Ancient and/or species rich hedgerows in Suffolk

Inappropriate management:

- Ancient and/or species-rich hedges are still occasionally removed by farmers, to facilitate arable operations, although the Local Planning Authority should give consent.
- Under-management and neglect of hedges leads to a reduction in their nature conservation interest and structural coherence (and occasionally leads to complete disappearance).
- Too frequent flailing of hedges is causing a reduction in their nature conservation interest.
- Few hedges have grass strips separating them from arable land, so ploughing can damage shrub and tree roots.
- Fertiliser and pesticide drift degrades plant and invertebrate populations, especially where the crop extends to the hedge base.

- The reduction in numbers of livestock enterprises has led to a loss of agricultural function for many hedges.
- The number of hedgerow trees (often veteran trees, a feature of Suffolk landscapes) is declining; losses are not being replaced fast enough.
- Many private nature reserve owners are planting new species-rich hedges.

4 Current Action

4.1 Legal Status

The Hedgerows Regulations (Section 97 of the Environment Act 1995) were introduced to protect this characteristic element of the countryside. The Regulations prevent the removal of most countryside hedgerows without first submitting a hedgerow removal notice to the local planning authority.

Article 10 of the 1992 Habitats Directive encourages the management of linear features such as hedgerows to aid the migration, dispersal and genetic exchange of wild species.

The Countryside and Rights of Way Act 2000(Section 74) places a duty on Local Authorities to have regard to the purposes of conserving biological diversity. This includes habitats such as Ancient and or Species-rich hedges.

An individual hedge can be subject to a Tree Preservation Order (TPO) although this is not common. It is more common for individual hedgerow trees to be protected by a TPO.

Indirectly a hedgerow may be protected where it forms a habitat for a legally protected species under the Wildlife and Countryside Act 1981 or the Conservation (Natural Habitats, & c.) Regulations 1994.

4.2 Management, research and guidance

- Defra's Countryside Stewardship (CS) pays for an agreed programme of hedge management and/or planting. The new Entry Level Scheme (ELS) may to improve prospects for hedge management in the county, although it may not include planting.
- Since 1991 approximately 400km of hedgerows have been planted and restored. During the lifespan of the Suffolk BAP (1998-2003) the figure equates to approximately2200 km of the above total through Defra's Countryside Stewardship scheme.
- The Suffolk River Valley ESA pays for hedge management but only a tiny proportion of hedges in the ESA have been entered into the scheme. It is a condition of receiving ESA payments that hedges on agreement land are retained. The Breckland and Broads ESAs also support hedge restoration.
- Suffolk County Council offer a 40% Landscape Conservation grant (up to £500) for hedge planting, although resources are limited. Over 13km of new hedge were planted in 2002/03 under this scheme.
- The Suffolk Hedgerow Survey has been completed by around 15 parishes, but data quality is variable and remains paper based. Other parishes are currently taking part.

5 Action Plan Objectives and Targets

Comprehensive survey work to establish the status of the habitat is still urgently required. Although the Lifescapes project (Suffolk Coasts and Heaths) has assessed some of the species-rich hedgerow resource, the area has never been an important on for this habitat.

The Suffolk Hedgerow Survey has been undertaken by some parishes but data quality is variable and remains paper based.

The objectives for this HAP are as follows:

1 *Obtain an up to date picture of the status and extent of ancient and/or species rich hedgerows in the county.*

2 *Ensure that most existing field boundaries are hedged, by encouraging planting along currently un-hedged boundaries (where this would have been a typical landscape feature), retaining hedgerow trees and the planting up of gaps.*

3 *Planting schemes should take account of the historical and cultural context, that is, local traditions and structures of boundary features.*

6 Ancient & Species-rich hedgerows: Proposed local action with lead agencies

Action	Date	Partners
POLICY AND LEGISLATION		
Encourage uptake of Agri-environment schemes, which provide for grass field margins alongside ancient and /or species-rich hedgerows. As well as favourable hedge management.	2007	**FWAG,** Defra/ RDS, , SWT
Ensure that the conservation status and associated biodiversity species of all hedges affected by development proposals is assessed.	2007	SCDC, WDC, BDC, FHDC,SEBC, MSDC, SCC
SITE SAFEGUARD AND MANAGEMENT		
Promote the favourable management of ancient and/or species-rich hedgerows throughout the Suffolk Countryside. Particularly replanting and gap-filling where seedbank is thought to have been retained.	2007	**FWAG**, EN, LAs, SWT, Defra/RDS
Encourage the use of set aside strips, (where regulations allow) to protect hedge bases from damage by agricultural operations.	2007	**FWAG**
Safeguard existing hedgerow trees and encourage the planting of new ones.	On-going	**FWAG**, SWT, Parish Tree Wardens

RESEARCH AND MONITORING		
Improve data on existing hedges through continuation of Parish Hedgerow Surveys.	2007	**SWT**
Find funds and proceed to map ancient and semi-natural hedgerow resource using parish survey data, historic maps and GIS.	2005	**SBRC**
Produce local data on the amount & length of hedge planted under new AES throughout the lifetime of these schemes (where possible to obtain data).	2004 2005 2006 2007	**Defra**
ADVISORY		
Continue where possible to promote hedge planting to farmers and parish groups, through grant schemes.	2007	**FWAG**, Defra/RDS, SHG
COMMUNICATIONS AND PUBLICITY		
Promote to the general public an awareness of the importance of hedgerows as a habitat, how much new hedge is planned and that the era of massive hedge loss is over. Undertake sites visits, farm walks and press coverage.	2007	**FWAG**, SWT, SHG

Cereal Field Margins

Cereal field margins provide valuable habitat for a wide range of animals and plants. Up to 75% of the biodiversity within an arable field can be found in the margins, regardless of the farming practice. Swings in cropping practice and underlying changes through farming reform and the agri-environment review all have the potential to alter this habitat, either positively or negatively.

1 Definition

This Action Plan recognises the term 'Cereal field margin' as referring to the land lying between a cereal crop and the field boundary. This area can be cropped, left fallow or managed as a temporary grassland habitat or a more permanent tussocky grassland strip.

Sympathetically managed cereal field margins can provide nesting and feeding sites for birds and is also an important habitat for invertebrates and small mammals. In turn mammals may be predated upon by owls and raptors. Where a tussocky growth can be allowed to develop bumblebees may find suitable sites to develop colonies, amphibians and bats can benefit from the extra habitat to buffer and link water bodies. Changes in farming practice and the increasing effectiveness of herbicides has meant that some arable plants are now found mostly within the margins of arable crops. Rare arable plants found within cereal field margins include Cornflower, Corn Parsley, Red-tipped Cudweed, Shepherd's Needle, Spreading-hedge Parsley and Narrow-fruited Corn Salad.

Key National Biodiversity Action Plan species in Suffolk which use Cereal field margins are Brown Hare, Skylark, Grey Partridge, Song Thrush, Linnet and Corn Bunting.

2 Current Status

2.1 Suffolk

The area that can be identified under this habitat is subject to fluctuation, not only through cropping swings but also between autumn and spring plantings, thus no reliable figures are available. Nationally the habitat is also thought to be under threat due to changes in farming practices.

2.2 Natural Areas

All (East Anglian Chalk, The Fens, The Brecklands, East Anglian Plain, Suffolk Coast and Heaths, The Broads).

3 Current factors affecting cereal field margins in Suffolk

Some of these factors are especially important on the lighter soils in east Suffolk.

- Availablity of grant funded margin management through Defra Agri-environment schemes.
- Large scale farming reform through the CAP .

Reduction in rotation of cereal crops with other land covers eg; grass leys and fallows. For example;

- Increased cane sugar imports causing a contraction of the UK sugar beet hectarage. [Sugar beet is often followed by a spring sown cereal].
- Continued volatility of the malting market leading to a reduction in plantings of barley.
- Increase in alternative crops such as turf, outdoor pigs and vegetables which provide greater returns than cereals.
- Shift to winter cropping and associated loss of winter stubbles.
- Potential to "trade" set aside between holdings (possibility for less productive land to be placed under "semi-permanent" set aside).
- Continued sympathetic management of field margins to recognise Local Reduction in the Application of Pesticides (LERAP), Nitrate vulnerable zone (NVZ) obligations.

4 Current Action

Appropriate management is key to the success of this habitat. All cereal field margins offer a degree of biodiversity, those offering a high biodiversity benefit can be identified as follows:

- Defra agri-environment scheme grass margins, particularly where a six metre strip is managed with an un-managed tussocky portion.
- Set aside sited as boundary strip.
- Conservation headlands managed within the crop through reduced inputs.
- Game cover, wildlife seed-mixture or pollen and nectar strips or plots adjacent to the field boundary. These strips can be grant aided although not for ordinary game cover.
- Field boundaries managed through a shallow annual cultivation to promote populations of arable plants.

5 Action Plan Objectives and Targets

1. *Continue promotion of appropriate management, taking into account the species present*

2. *Recognise the value of soil type, particularly with regard to maintaining populations of declining arable plants through annual cultivation techniques.*

3. *Encourage examination of crop management techniques favouring biodiversity. [New generation seed treatments / varietal resistance]*

4. *Ensure farmers, land managers and their agronomic advisers recognise the importance of Habitat Action Plans, particularly with regard to species associated with them.*

5. *Promote the adoption of a user-friendly guide to farmland biodiversity, easily accessible to farmers, land owners and their advisers, emphasising the link between BAP species and habitats and Agri-environment schemes.*

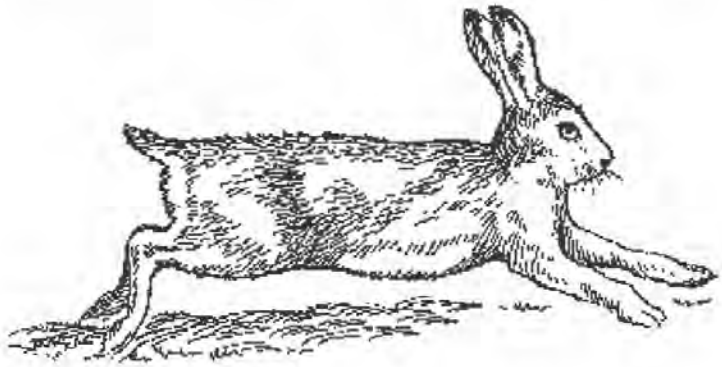
6 Cereal Field Margins: Proposed local action with lead agencies

Action	Date	Partners
POLICY AND LEGISLATION		
Ensure partners input fully into review of Defra Agri-environment schemes to ensure that the new schemes can properly address the management requirements of this habitat in Suffolk.	2004 2005 2006 2007	**FWAG, RSPB, SWT, EN**
SITE SAFEGUARD AND MANAGEMENT		
Support and promote uptake of Defra agri-environment Schemes to encourage appropriate management for cereal field margins	2004 2005 2006 2007	**Defra**, RDS
RESEARCH AND MONITORING		
Collect data on appropriate species on different soil types so that there can be better targetting focussed on natural areas and pass all data to SBRC	2004 2005 2006 2007	FWAG, SWT, EN, RSPB
Produce data on the hectarage of field margins managed through Defra agri-environment schemes (where information is available for the County)	2004 2005 2006 2007	**Defra**
ADVISORY		
Continue to promote appropriate management through on-farm events	2004 2005 2006 2007	**FWAG**
Ensure 'Defra first visit" facility through FWAG is available to all farmers / landowners as required.	2004 2005 2006 2007	**FWAG**
Provide annual training courses encouraging farmers and agronomists to recognise a wide variety of biodiversity, particularly targetted courses such as Farmland Birds.	2004 2005 2006 2007	**FWAG**

COMMUNICATIONS AND PUBLICITY		
Produce easily accessible, user-friendly farmland biodiversity guide.	2004	**Farmland HWG**
Promote to landowners the benefits of favourable margin management through a variety of means including mail shots, press articles, training courses and farm walks – especially in areas where alternative crops are on the increase.	2004 2005 2006 2007	**FWAG**, Defra, RSPB, EN, SWT

Brown Hare *(Lepus europaeus)*

The Brown Hare is a familiar mammal of open arable land and rough pasture throughout most of Britain. It is primarily nocturnal and feeds on grasses and occasionally cereals and root crops. They may have been introduced to Britain around the time of the Romans, although the archaeological evidence is not conclusive.



1 Definition

Brown Hares are adapted to living in open habitat and are well adapted for running. In Britain, they are usually associated with lowland pasture and arable farmland, feeding mainly on grasses and herbs as well as agricultural crops. Unlike Rabbits, they do not make a burrow, but hide in shallow depressions in the ground or in long grass, known as forms. Woods and hedgerows also provide day-time shelter, particularly in winter. Although they are normally nocturnal, their activity can extend into mornings and evenings during summer.

Hares are usually born between February and October and a female can produce up to three litters of 1-4 young (leverets) per year. Fox predation of young Hares can be heavy, causing a significant reduction in the recruitment of young Hares to the population. Hares can also experience high losses due to disease, but this tends to occur only when they are living at higher densities.

During the last century, there has been a gradual decline in Hare numbers and agricultural intensification is thought to be the main factor. The decline has been most pronounced in the western regions where increased stocking densities of livestock and a greater reliance of silage cutting have been the main causes. There have been less dramatic changes in arable areas, but hare numbers have still declined in these areas because of a reduction in habitat richness, such as a change to large fields with less crop diversity. More recently, a change to winter-sown cereals has led to a reduction in higher-quality food in early summer, leading to food shortages and a lower leveret survival rate.

Losses elsewhere mean that East Anglian populations are more important. Suffolk has a responsibility for a significant percentage of the national Brown Hare population. It is difficult to estimate the impact of field sports on hare numbers. Whilst there is little evidence that this has a long-term effect on population levels, these effects may be more significant where hare numbers are low or at certain times of the year. For example, a Hare shoot in February can remove 60% of the breeding stock.

2 Current status

2.1 National

The Brown Hare has declined substantially, by about 80% over the last 100 years with a sharper decline since the early 1960s. National surveys indicate that numbers have remained largely stable over the last 10 years. Current estimates are in the region of 800,000 animals. It remains widespread, being particularly numerous in East Anglia, but is scarce in Cornwall and is absent from the north-west and Highlands of Scotland.

2.2 Local

Information supplied by The Game Conservancy Trust demonstrates that although numbers fluctuate from year to year, there is no evidence that populations have declined in East Anglia during the last five to ten years. The Brown Hare is still widespread in Suffolk and there is little evidence of any large decline in recent years.

3 Current factors affecting the Brown Hare in Suffolk

- Conversion of grassland to arable farmland leading to a reduction in habitat richness and potential food shortages at certain times of year.
- Loss of general habitat diversity in the agricultural landscape such as field margins and hedgerows as well as crop diversity.
- Changes in planting and cropping regimes.
- Prolonged wet weather during the spring is thought to have adverse effects on breeding performance.
- Foxes are important predators of leverets and changes in their numbers are likely to have as much impact as agricultural changes.

4 Current Action

4.1 Legal Status

Brown Hares do not have protection under the Wildlife and Countryside Act 1981, but are protected by a complex set of older acts such as the Game Laws, the Ground game Act 1880 and the Hare Preservation Act 1892.

4.2 Management, research and guidance

National surveys in the winters of 1991-93 and 1997-99 have played an important role in highlighting the status of the Brown Hare. In addition, the Game Conservancy Trust, as one of the Lead Partners, monitors regional and national changes through game bag records. There have been no specific surveys of Brown Hare in Suffolk.

Whilst existing populations of Brown Hare appear to be being maintained, being able to meet the long term national target of doubling spring numbers in Britain by 2010 is dependent upon significant improvements to their habitat.

The Game Conservancy Trust has produced a set of guidelines to promote Hare conservation through improving cover and food availability. On cereal farms, game crops, hedgerows and small woodlands will particularly benefit Hares in winter, by providing cover and shelter whilst in summer grassy field margins provide food for adult Hares and leverets. On livestock farms, fencing off ditches, banks and other features will allow long grass to develop providing leverets with protection from predators. Many of these measures are grant-aided through agri-environment schemes and these incentives will play an important role in ensuring that existing populations are maintained and expanded.

5 Action Plan Objectives and Targets

1 *Maintain existing Brown Hare populations.*

2 *Influence farmland management by developing a conservation strategy for the Brown Hare.*

6 Brown Hare: Proposed Action with Lead Agencies

Action	Date	Partners
POLICY AND LEGISLATION		
Incorporate needs of Brown Hare in Breckland and Suffolk River Valleys ESAs.	2004	**Defra**
SITE SAFEGUARD AND MANAGEMENT		
Promote appropriate management practices through Defra agri-environment schemes.	2004 2005 2006 2007	**FWAG,** Defra
SPECIES MANAGEMENT AND PROTECTION		
Ensure landowners are aware of the importance of avoiding Hare shoots in late winter.	2004 2005 2006 2007	**FWAG**, Defra
RESEARCH AND MONITORING		
Encourage other local research or survey, especially when linked to farmland management.	2004 2005 2006 2007	**Defra**
Promote counts of Brown Hare by land managers. Ensure data is passed on to SBRC.	2004 2005 2006 2007	Defra, GCT
ADVISORY		
Provide information on Brown Hare management and biology to landowners.	2004 2005 2006 2007	**Defra**, GCT
COMMUNICATIONS AND PUBLICITY		
Produce guidance leaflet on habitat management for Brown Hares.	2004	**Defra**, SWT

Skylark *(Alauda arvensis)*

1 Definition

The Skylark is a bird of open habitats such as heathland, grassland, dunes and saltmarsh, and is characteristic of arable habitats in East Anglia. Although still common, it has undergone a large decline in recent years. It feeds amongst short vegetation and nests on the ground.

2 Current status

2.1 National

One of the most widespread birds of the British Isles, with over 2 million breeding pairs, the resident Skylark population is joined in winter by a significant proportion of the northern European population - possibly up to 25 million individuals. The UK breeding population of Skylark on lowland farmland declined by 61% between 1971 and 1995.

2.2 Local

The Skylark is common and widespread in Suffolk as a breeding and wintering bird throughout the open countryside. However, numbers have declined rapidly in central Suffolk, the main cereal-growing areas and the population is has declined throughout the county since the 1980s.

2.3 Natural Areas

All

3 Current factors affecting the Skylark in Suffolk

- Winter cereals grow too dense to allow Skylarks to raise more than a single brood. This is insufficient to sustain the population.
- Intensive management of arable fields has reduced broad-leaved weed seeds and insect prey through the use of agro-chemicals.
- Intensive management of grasslands and high stocking rates.
- Silage fields are often cut too frequently which destroys nests and exposes Skylarks to predators.
- Decline in area of weedy stubbles may reduce over-winter survival.

4 Current action

4.1 Legal Status

The Skylark is protected under the EC Birds Directive and the Wildlife and Countryside Act 1981.

4.2 Management, research and guidance

- The Sustainable Arable Farming for an Improved Environment (SAFFIE) Project is researching novel ways of making winter cereal fields more attractive to skylarks.
- A national Species Action Plan has been prepared and agreed by RSPB and the country agencies.
- Skylark plots have been included as an option in the pilot Entry Level Scheme, due to be rolled out nationally in 2005.
- Provision of cereal field margins in the Suffolk River Valleys ESA scheme has benefitted Skylark numbers recently.

5 Action plan objectives and targets

1 *Maintain the Breeding Bird Survey population index for Skylarks at or above the 1995 level.*

2 *Maintain the current range of Skylark in Suffolk as measured in the 1993 Provisional Atlas of Breeding Birds in Suffolk.*

3 *Create and manage suitable Skylark habitat on farmland through uptake of Agri-environment schemes.*

6 Skylark: Proposed action with lead agencies

Action	Date	Partners
POLICY AND LEGISLATION		
Ensure Entry Level and Higher Tier agri-environment schemes contain suitable prescriptions to benefit Skylark on arable land.	2004	**Defra**, RSPB, FWAG, EN
Promote uptake of agri-environment scheme prescriptions that are likely to benefit Skylark.	2007	**FWAG,** Defra, RSPB
Ensure compliance with annex III/I of EC Birds Directive and the Wildlife and Countryside Act 1981 through provision of advice to landowners.	2007	**FWAG,** Defra, RSPB,
RESEARCH AND MONITORING		
Collate all Skylark records annually and pass records on to SBRC.	2004 2005 2006 2007	**SBRC**, FWAG, SWT, Landowners, RSPB, SOG
Undertake survey on farmland, encouraging landowner participation to establish Skylark numbers in Suffolk.	2005	SBRC, GCT, FWAG, SWT, Landowners, RSPB, Defra
ADVISORY		
Continue to provide conservation advice to land managers on field margins, set-aside management, etc to benefit Skylark.	2007	**FWAG**, Defra, RSPB, SOG, SWT
COMMUNICATIONS AND PUBLICITY		
Use the Skylark as example of farmland bird in decline and also 3 seek positive stories about management for Skylark in farming and local press.	2007	**FWAG**, SWT, Defra

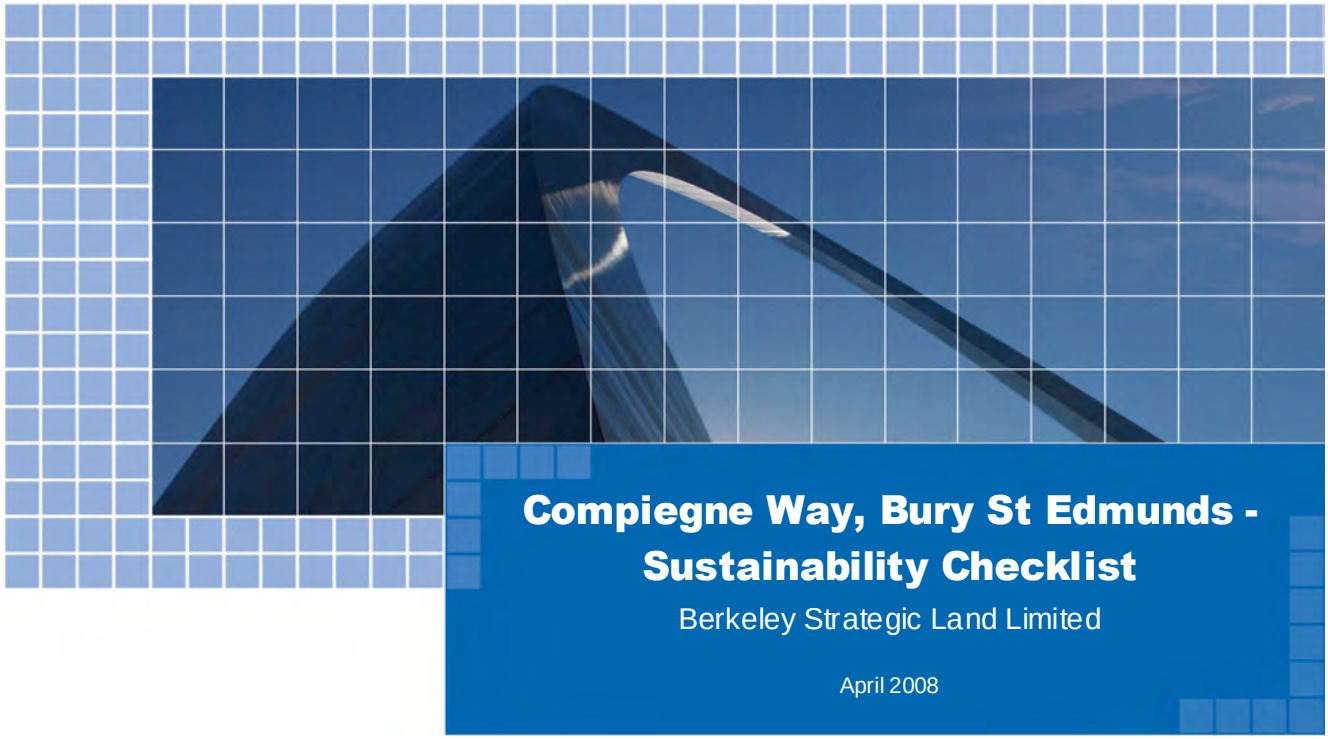
APPENDIX G

Evaluation Criteria

Criteria used for the evaluation of ecological receptors (based on Ratcliffe, 1977; IEEM 2006)

Assigning value is relatively straightforward in the case of designated sites, and undesignated sites meeting designation criteria. However, in most cases evaluation of ecological resources is not straightforward and requires a degree of knowledge, experience and professional judgement (Usher,1986; Spellerberg, 1992). Evaluation of an ecological receptor was based on a number of criteria (Ratcliffe, 1977; IEEM 2006):

- Site designations; SPA, SAC, Ramsar, SSSI, NNR, LNR, SINC or equivalent.
- Site designation criteria; e.g. Guidelines for the Selection of Biological SSSIs, JNCC, 1989.
- Conservation status; Whether a habitat or species is rare, declining or threatened at a given geographic scale.
- Geographic location; the value of a habitat or species may change depending on whether it is being assessed in the south of England or the north of Scotland.
- Distribution; habitats or species on the edge of their distribution, particularly where that distribution is changing as a result of global trends and climate change and endemic species or locally distinct sub-populations of a species are more valuable;
- Rarity; the presence of habitats, species, subspecies or varieties that are rare or uncommon at a given geographic scale.
- Diversity; of habitats, or species, particularly of vascular plants. Species-rich assemblages of plants or animals are likely to be important in terms of biodiversity;
- Naturalness; habitats least affected by human disturbance are normally of relatively higher importance.
- Size; larger areas are generally more valuable than lots of small ones. Notably large populations of animals or concentrations of animals considered uncommon or threatened in a wider context may be important.
- Fragility; sensitivity to, and probability of, human impact.
- Typicalness; a good example of the type, particularly plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities.
- Potential value (if restored to favourable conservation status).
- Secondary or supporting value; value of a receptor in supporting the integrity or conservation status of another valued receptor.
- Ability to be recreated; the more difficult a habitat is to re-create, were it to be destroyed, the greater the importance usually attached to it.



Compiegne Way, Bury St Edmunds - Sustainability Checklist

Berkeley Strategic Land Limited

April 2008

WSP

Contents

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1 Sustainability Checklist

1.1 INTRODUCTION

1.1.1 This sustainability checklist has been prepared in relation to a potential development of circa 1,000 dwellings and community facilities on land at Compiegne Way, north east of Bury St Edmunds. The land being promoted for residential development (hereafter referred to as the Site) is bound by the A143 to the west and north and the Peterborough to Ipswich rail line to the south.

1.1.2 The sustainability checklist is taken from the ***St Edmundsbury Local Development Framework Site Allocations Development Plan Document***. The checklist has been given an additional column to provide a commentary to the sustainability effects that are expected. The expected effect of the proposed development has been given on a five point scale from significantly positive to significantly negative:

Significant positive effect	++
Minor positive effect	+
No effect	O
Minor negative effect	-
Significant negative effect	--
Uncertain	?

1.1.3 Where necessary, more than one of the above effect types is shown for a given objective. This is because in most cases the overall effect taking into account all the issues have been combined into a single score, but in some cases the issues or expected effects are entirely discreet from one another and to combine them into a single expected effect would be unrepresentative of the reality of the situation. The appraisal has been undertaken by experienced assessors and was informed by a site visit and the technical material prepared in support of the representations relating to this site.

Table 1 – Sustainability Checklist for land at Compiegne Way, North East Bury St Edmunds

	SA Objectives	Expected impact of the proposed development	Commentary
1	To improve the health of the population overall	+	The Site has access to doctors' surgeries, dentists and a leisure centre within a 5km radius. The promotion of cycling both on Site and between the Site and town centre will have a beneficial effect on people's health, as will the significant areas of formal and informal open space which will be provided within the development.
2	To maintain and improve levels of education and skills in the population overall	++	Moreton Hall school is within walking distance of the Site and Priory School is on the 2km desirable walking distance boundary. It is expected that a new two form entry primary school will be built to meet the educational requirements associated with the new development.
3	To reduce crime and anti-social activity	+	It is expected that the design of the Site will include measures to reduce crime and antisocial activity including traffic calming measures.
4	To reduce poverty and social exclusion	+	In 2007 Suffolk was ranked 116th out of 149 Counties and Unitary Authorities in England according to the index of multiple deprivation (149th being the least deprived). Some of the Lower Super Output Areas[1] of Bury St Edmunds fall within the bottom 40% of deprivation for Suffolk as a whole, with the rural areas surrounding Bury St Edmunds in the top 20% least deprived. The allocation provides the opportunity to provide affordable housing in line with the Local Planning Authority's requirements. The site is 3km from the town centre as the crow flies, so essential services and facilities could be accessed by cycle and public transport. In addition, a comprehensive range of community facilities and services will be provided within the proposed development which will be accessible to both residents of the new development and existing residents of Bury St Edmunds.
5	To improve access to key services for all sectors of the population	+	The Site is 3km from the town centre bus station as the crow flies and approximately 4km using existing footways / highways. This puts the town centre beyond the desirable walking limit but within the cycling limit[2]. The town centre contains a range of key services including a doctor's surgery, dentist, pharmacy, retail stores and various leisure facilities. A public transport and accessibility study has identified options to improve access to the town centre including extending existing services and adding new services. The community facilities and services provided within the new development would be accessible to new and existing

[1] Super Output Areas are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales.
[2] Planning Policy Guidance 13 : Transport recognises that walking and cycling are of great importance at a local level, offering the greatest potential to replace short car trips (under 2km for walking and under 5km for cycling).

	SA Objectives	Expected impact of the proposed development	Commentary
			residents of Bury St Edmunds.
6	To offer everybody the opportunity for rewarding and satisfying employment	+	The Site is well connected by road to both local employment areas (primarily Bury St Edmunds) and London. The proposed development does not include any employment land on Site.
7	To meet the housing requirements of the whole community	++	The scale of the proposed development (circa 1000 dwellings) will make a significant contribution to meeting to St Edmundsbury housing requirement as identified in the emerging East of England Plan and would provide a significant contribution to the higher rates of house building for Bury St Edmunds identified in the St Edmundsbury Core Strategy Issues and Options Report. Affordable housing will be provided in line with the Local Planning Authority's requirements and a range of house-types provided to create a mixed and balanced community.
8	To improve the quality of where people live and to encourage community participation	++	The Site will be developed to high design and construction standards and will provide modern, quality homes and community facilities.
9	To improve water and air quality	Water quality 0	If appropriate, the use of sustainable urban drainage systems (SUDS) on site may increase water quality. Further studies are required to establish this. Run-off or spillages on local roads within the site may contaminate local water courses or groundwater but there is scope for mitigation of these potential effects.
		Air quality ?	There are currently no designated Air Quality Management Areas in St Edmundsbury. The increased use of cars in the local area will have a negative impact on local air quality (particularly NO_2 and PM 10) although it is not expected that this will be significant. Additional bus routes will also have a negative impact on air quality, the significance of this impact being dependent largely on the age of the bus fleet. Provision of on-site facilities will assist in mitigation of this impact.
10	To conserve soil resources and quality	-	Development of the green field Site is expected to result in a significant loss of soil, either through soil removal or sealing. The agricultural land classification is Grade 3. A Soil Management Plan would ensure that soil is utilised on site as much as possible.
11	To use water and mineral resources	+	The Site offers the potential to introduce high standards of water efficiency in homes. St

	SA Objectives	Expected impact of the proposed development	Commentary
	efficiently, and re-use and recycle where possible		Edmundsbury Borough Council has an excellent track record in waste collection and recycling[3] and its 'three bin[4]' recycling scheme would be used on Site. Mineral use is expected to be minimised during construction and minerals will be re-used where practicable. The nearest proposed mineral excavation site identified in the Minerals Local Plan 1999 and Minerals and Waste Development Framework is Timworth more than 5km north of the site. A baseline geographical survey has shown the Site to consist of boulder clay, cover sand, upper chalk and head. The development of the site would therefore not blight a viable mineral resource.
12	To reduce waste	+	St Edmundsbury Borough Council has an excellent track record in waste reduction. This high level of performance is expected to be reflected in the proposed development. A Construction and Environmental Management Plan could be used to help minimise waste during the construction phase.
13	To reduce the effects of traffic on the environment	+/-	Cycling and walking will be facilitated and promoted both on and off site and the provision of facilities on site will also help reduce the effects of traffic on the environment.
14	To reduce contributions to climate change	+	Whilst walking and cycling will be encouraged and new bus routes will hopefully be established, the site will have a high level of associated car use. The dwellings themselves will also have net carbon dioxide emissions. It is expected that the dwellings will comply with the Code for Sustainable Homes Level 3. Options to increase the energy efficiency of dwellings along with options for onsite renewable energy generation will be examined at a later stage. The accessibility strategy will make walking and cycling a more attractive option.
15	To reduce vulnerability to climatic events	+	The Site is located in Flood Zone 1 which equates to a less than 0.1% probability of flooding. As such the predicted increase in flooding events as a result of climate change is expected to have an insignificant impact on the Site.
16	To conserve and enhance biodiversity	+	Preliminary ecological assessment suggests that there are no areas of International, UK, National, Regional or County nature conservation importance on the Site and that the majority of the site is of negligible nature concern. A network of hedgerows are present on the site that together form a wildlife corridor and provide connectivity between the site and the surrounding area. There are mature trees on site that are important in the local context. The aim should be retain existing hedgerows and trees and integrate these into the

[3] St Edmundsbury Borough Council was awarded Beacon Council status in the theme 'Sustainable development: dealing with waste'.
[4] Waste to landfill is collected in black wheeled bins. Kitchen and garden waste are collected in brown wheeled bins. Dry recyclable waste is collected in blue wheeled bins.

	SA Objectives	Expected impact of the proposed development	Commentary
			development as much as possible. They should form part of areas that are not in private ownership to ensure their long-term management. The overall aim should be to achieve a net gain in the ecological value of the site using an ecological budgeting approach.
17	To conserve and where appropriate enhance areas of historical and archaeological importance	+	There are no Listed Buildings or Scheduled Ancient Monuments on the site. Additionally, there are no features included on the Suffolk County Council Sites and Monuments Record within the Site. The Site's proximity to Moreton Hall East and Eldohouse Farm Estate archaeological sites means that the Site has a medium to high probability (depending on exact proximity to the above sites) of containing Iron Age, Roman or medieval remains. If the site is allocated it is recommended that further investigations are undertaken and an appropriate mitigation strategy put in place.
18	To conserve and enhance the quality and local distinctiveness of landscapes and townscapes	+	There is no national landscape designation in St Edmundsbury. The nearest Special Landscape Area is more than 3km to the south of the side on the opposite side of the A14. The Site forms part of the open gap between Bury St Edmunds and Great Barton. Areas to the north and east of the Site have been identified as essential gaps between the two settlements which will be retained in their existing use or as informal open space. Opportunities exist to enhance the landscape structure as part of the development to reinforce the separation between the settlements. Important landscape features such as trees and hedgerows have been identified within the Site and will be incorporated within the development where possible. Those parts of the Site which are least prominent in the landscape and visually best related to Bury St Edmunds have been identified for development.
19	To achieve sustainable levels of prosperity and economic growth throughout the plan area	+	The proposed development is expected to act as a boost to the local economy, supporting local shops and industry.
20	To revitalise town centres	+	Development here could indirectly contribute to this objective by increasing the local catchment population for the town centre, thereby helping to maintain its viability.
21	To encourage efficient patterns of movement in support of economic growth	+	Bus and cycle priority measures will enhance movement patterns. The Site already has a good transport link to main arterial roads via the A143, A14 and M11. The proposed development is expected to place an additional congestion burden on some local roads.
22	To encourage and accommodate both indigenous and inward	?	The increased workforce associated with the proposed development may facilitate some further investment and providing further residential space may help to address the inflow/outflow balance of commuters travelling in and out of the Bury St Edmunds area. The

	SA Objectives	Expected impact of the proposed development	Commentary
	investment		2001 Census shows that 71% of people that live in St Edmundsbury Borough also work in the Borough.