

Habitats Regulations Assessments of Black Country Core Strategy and Cannock Chase Core Strategy

Cannock Extension Canal SAC Baseline Report

for
Black Country Local Authorities and
Cannock Chase District Council

June 2007



Photo courtesy of Natural England

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**BLACK COUNTRY LOCAL AUTHORITIES AND
CANNOCK CHASE DISTRICT COUNCIL**

**HABITATS REGULATIONS ASSESSMENTS OF BLACK COUNTRY CORE STRATEGY
AND CANNOCK CHASE CORE STRATEGY**

CANNOCK EXTENSION CANAL SAC BASELINE REPORT

JUNE 2007

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1.0 INTRODUCTION AND BACKGROUND

This report is part of a series which have been prepared to provide information to the Black Country Local Authorities and Cannock Chase District Council on the implications of the Black Country Core Strategy and Cannock Chase Core Strategy on Fens Pools SAC and Cannock Extension Canal SAC. It has been prepared in accordance with Regulation 48 of the Conservation (Natural Habitats etc) Regulations 1994, as the possibility of a significant impact on the European sites has been identified.

1.1 Black Country Core Strategy and Cannock Chase Core Strategy

1.1.1 Purpose

The purpose of the Black Country and Cannock Chase Core Strategies is to set out the development framework for the Black Country and Cannock Chase respectively, supported by a range of other more detailed documents such as Area Action Plans and Supplementary Planning Documents.

1.1.2 Description

The Core Strategies deal with the major issues for the areas and provide guidance on the Councils' expectations in relation to generic areas such as wildlife protection, housing provision, employment, transport and the location of new developments.

1.2 Habitats Regulations Assessment Process

1.2.1 Requirement for Habitats Regulations Assessment

EU Directive 92/43/EC on the Conservation of Natural Habitats and Wild Fauna and Flora, known more commonly as the Habitats Directive, provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of community interest through the establishment and conservation of an EU wide network of sites known as Natura 2000. Natura 2000 sites include Special Areas of Conservation (SACs), designated under the Habitats Directive, and Special Protection Areas (SPAs), designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive establish a requirement for competent authorities to undertake Appropriate Assessment of any plan or project likely to have a significant effect upon Natura 2000 sites. The assessment is termed 'Appropriate Assessment' because the assessment should be appropriate to its purpose under the Habitats Directive prescribed in Articles 6(3) and (4); to assess the implications of the plan in respect of the site's 'conservation objectives'.

In the light of the conclusions of the Appropriate Assessment the competent authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and where the plan cannot pass further stringent tests described in Article 6(4).

The Habitats Directive is implemented in the UK via the Conservation (Natural Habitats, &c.) Regulations 1994.. Amendments to the Conservation (Natural Habitats, &c.) Regulations 1994 are currently being finalised. These include a requirement for Appropriate Assessments to be undertaken for land use plans when such plans are likely to have a significant effect on a European site and are not directly connected with

or necessary to the management of the site in accordance with its conservation objectives.

1.2.2 Habitats Regulations Assessment at the Plan Level

Habitats Regulations Assessment is an assessment of the potential effects of a proposed plan on one or more Natura 2000 sites. The process of investigating the potential effects of a plan or project on European Sites is known as Habitats Regulations Assessment, to distinguish it from the term Appropriate Assessment as referred to in the Conservation (Natural Habitats, &c.) Regulations 1994, which actually means a statement from the competent authority (in this case the relevant local authority) which identifies whether the plan does, or does not affect the integrity of Natura 2000 site(s).

The purpose of Habitats Regulations Assessment of plans is to ensure that the protection of European sites is part of the planning process at both a regional and local level.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First the plan should aim to *avoid* any negative impacts on Natura 2000 sites by identifying possible impacts early in the plan-making process and writing the plan in order to avoid such impacts. Second *mitigation measures* should be applied during the process to the point where no adverse impacts on the site(s) remain.

If the plan is still likely to result in adverse effects and no further practicable mitigation is possible then it should not be taken forward. Under such a scenario the plan may have to undergo an assessment of alternative solutions. Then *compensatory measures* are required for any remaining adverse effects but they are permitted only if (a) there are no alternative solutions and (b) the plan is required for imperative reasons of overriding public interest.

1.2.3 Habitats Regulations Assessment Guidance

The Habitats Regulations Assessment process undertaken by WYGE has been developed in accordance with the following guidance:

- The Conservation (Natural Habitats, &c.) Regulations 1994
- EU Directive 92/43/EC on the Conservation of Natural Habitats and Wild Fauna and Flora
- DEFRA (2006) The Conservation (Natural Habitats, &c.) (Amendment) (England and Wales) Regulations 2006 Consultation Document
- DCLG (2006) Planning for the Protection of European Sites: Appropriate Assessment (Consultation Document)
- EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC
- Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants (2006) Appropriate Assessment of Plans

1.2.4 Habitats Regulations Assessment Stages

The Habitats Regulations Assessment process involves the following tasks split according to the DCLG (2006) guidance stages. Tasks 2 and 3 are not always required, as they are dependent on the outcome of Task 1.

	Likely significant effects (Screening)
Task 1	Collect information on Natura 2000 sites. Consult with Natural England. Determine whether the plan has potential to have a significant effect on Natura 2000 sites.
Task 2	Appropriate Assessment and ascertaining the effect on site integrity Determine whether, in view of the sites' nature conservation objectives, the plan would have an adverse effect upon the integrity of the sites. Take account of the plan's effects 'in combination' with other plans and projects.
Task 3	Mitigation measures and alternative solutions Identify mitigation and / or alternatives to ensure that there are no adverse effects upon the integrity of the sites.

1.3 Information used in the Assessment

The following sources of information have been consulted during the preparation of this report:

- Conservation objectives and favourable condition table for the Cannock Extension Canal SSSI provided by Natural England
- www.natureonthemap.org.uk
- www.jncc.org.uk
- www.environment-agency.gov.uk
- Telephone conversation with Steve Barnes, Cannock Countryside Service, 12th April 2007
- Staffordshire Ecological Record data search
- Whild Associates survey report, 2005 (courtesy of Staffordshire Ecological Record)

1.4 Professional judgment

Professional judgment has been used throughout this study. This is particularly relevant to decisions made in relation to potential impacts, since the amount of detail available on the construction and operation of the developments proposed in the plan is necessarily limited. Therefore, the approach has been to identify risks as far as practicable.

The reliability of professional judgment can be quantified to some extent by reference to the experience of the professional concerned. This report was authored by Gail Quartly-Bishop and Susannah Parkin with technical direction and review from Duncan Watson.

*Duncan Watson MIEEM CEnv
Associate Director*

Duncan has been a professional ecologist for over 12 years and has extensive experience in directing, managing and undertaking a wide range of ecological projects. He has undertaken a number of projects within and adjacent to European protected sites, several of which have involved Appropriate Assessment under regulation 48 of the Habitats Directive.

*Gail Quartly-Bishop MIEEM CEnv
Senior Ecologist*

Gail has been a professional ecologist since 1998 and has a particular interest in Habitats Regulations Assessment including Appropriate Assessment. She has been involved in assessments of a number of projects and plans with complex technical and legal issues and as such has a good understanding of the legislative framework, prevailing guidance and process of Appropriate Assessment.

*Susannah Parkin AIEMA
Consultant*

Susannah is experienced in Sustainability Appraisal and Strategic Environmental Assessment and has a growing involvement in Habitats Regulations Assessment projects, due to her skill at assessing the likely environmental impacts of plan policies.

1.5 Purpose and scope of this report

This report provides baseline information on Cannock Extension Canal SAC which will be used throughout the assessment. This includes:

- identification of the Natura 2000 site potentially affected by the project
- description of the features qualifying the European site for designation and identification of the conservation objectives for the site by consultation with the statutory nature conservation body
- ecological baseline information

2.0 NATURA 2000 SITES

2.1 Introduction

The first task in the Habitats Regulations Assessment process involves *evidence gathering* to enable the potential for significant effects upon Natura 2000 sites to be determined.

2.2 Natura 2000 sites considered in this report

Cannock Extension Canal SAC is located between SK019044 and SK020069, spanning the boundary between the boroughs of Cannock and Walsall. It is therefore considered that the Black Country Core Strategy and Cannock Chase Core Strategy could potentially affect this site.

2.3 Evidence gathering

In order to determine the likely effects of the Core Strategies, information has been collected to determine:

- The characteristics of the Natura 2000 site;
- The reasons why the site has been designated (the qualifying interest features);
- The environmental factors required to sustain the qualifying interest features and site integrity; and
- The nature conservation objectives of the Natura 2000 site.

The following data and information have been collected where possible:

- Latest Natural England condition surveys of the site;
- Recent surveys of the site undertaken by or on behalf of the local authorities or other relevant bodies;
- Species and habitat data for the site; and
- Other relevant data held by Natural England including conservation objectives.

The compiled information for the Cannock Extension Canal SAC is presented in section 3.

3.0 CANNOCK EXTENSION CANAL SAC

Cannock Extension Canal SAC is located between SK019044 and SK020069, spanning the boundary between Cannock and Walsall.

The SAC designation is underpinned by the site's designation as Cannock Extension Canal SSSI which is designated for its aquatic plants. The following text is taken from the SSSI citation, dated 1993:

“The Cannock Extension is a terminal side branch of the Wyrley and Essington Canal extending northwards for 2.5km towards Norton Canes.... The high water quality, uneven canal bottom and the low volume of boat traffic have allowed a diverse aquatic flora to develop without any extensive reedswamp incursion... Of major importance is a large population of the nationally scarce floating water-plantain Luronium natans, the best known colony in both Staffordshire and the West Midlands. This plant, recognised as endangered in Europe, is found throughout the length of the Cannock Extension.”

3.1 Qualifying features

The qualifying feature of the SAC is its population of floating water-plantain.

3.2 Conservation objectives

Conservation objectives for the SSSI were provided by Natural England and are as follows. Explanatory notes provided with the conservation objectives state that they may be used for the purposes of Habitats Regulations Assessment in relation to the SAC.

“The Conservation Objectives for this site are, subject to natural change, to maintain the following habitats and geological features in favourable condition (), with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages etc.) for which the land is designated (SSSI, cSAC, SPA, Ramsar) as individually listed in Table 1.*

Habitat Types represented (Biodiversity Action Plan categories)

Standing Open Water and Canals

Geological Features (Geological Site Types)

N/A

() or restored to favourable condition if features are judged to be unfavourable. “*

Table 1, to which this text refers, lists floating water plantain, which is the SAC qualifying feature, along with the vegetation community A11 *Potamogeton pectinatus* – *Myriophyllum spicatum*, which is a qualifying feature of the SSSI only.

The information provided by Natural England explains how favourable condition of the site is to be assessed. In summary, favourable condition is the result of the following attributes:

3.2.1 Floating water-plantain population

- Species should be present

- No reduction in the extent of the area supporting the notified features
- Two or more discrete populations present OR single large population stretching >100 m
- Within occupied habitat areas >20 % cover provided by floating water-plantain OR for canals and shallow ponds, >2/3 of site open water or wet mud (available habitat)
- No decline >50 % in cover of floating water-plantain within an occupied habitat area
- Plants of differing sizes present OR >50 % plants producing flowers or fruits

3.2.2 Substrate

- Sediments cohesive but not too coarse

3.2.3 Competitive plant species

- Taller species associated with floating water-plantain patch no more than occasional
- None of: *Crassula helmsii*, *Hydrocotyle ranunculoides*, *Myriophyllum aquaticum*, *Azolla filiculoides* present

3.2.4 Water quality and transparency

- Bed clearly visible: - rivers, heathland pools and canals up to 1.5 m - lakes, 5 m
- Biological GQA¹ Class 'a' or 'b' depending on reach type. In addition, no drop in class from existing situation.
- Chemical GQA Class 'A' or 'B' depending on reach type. In addition, no drop in class from existing situation.
- Phosphorus concentration should be consistent with natural trophic status of water source (& no deterioration) (for mesotrophic canals (upland, hard rock water sources) >20µg/L TP; for eutrophic canals (lowland, soft rock geology) <60µg/L TP)
- No more than 10% drop in the canal's water level throughout the length of the canal.

3.3 Factors which may affect the qualifying features

Following consultation with Natural England, a list of factors which could result in deterioration or loss of the qualifying features was drawn up.

The most important factors were:

- Boat traffic – too much or too little
- Silt removal/dredging
- Direct loss of habitat supporting floating water-plantain

Factors of moderate importance were identified as

- Management of vegetation e.g. clearance for fishing access
- Water quality – point sources – including road drains and runoff from Little Wyrley Common caused by illegal off-road activity

¹ General Quality Assessment

The following less important factors were identified:

- Bottom feeding fish
- Invasive plants e.g. *Azolla*
- Routine canal maintenance activities
- Water quality – agricultural runoff – nutrients
- Water quality – agricultural runoff – herbicides etc
- Water quality – agricultural activity – siltation e.g. due to ploughing
- Management of water levels
- Invasive animals e.g. signal crayfish

3.4 Current status of Cannock Extension Canal SAC

The most recent condition assessment for the SSSI (August 2003) records that the site is in unfavourable condition with no change. The reason given is “water pollution – agriculture/run off”.

3.4.1 Floating water-plantain population

Staffordshire Ecological Record provided a number of records of floating water-plantain:

Date	Grid reference	Source
09 AUG 1986	SK01980585	Not specified
27 JUN 1989	SK020060	Not specified
09 AUG 1994	SK020060	Not specified
21 AUG 1997	SK0105	Not specified
21 AUG 1997	SK020060	Not specified
AUG 2001	SK02050720	Not specified
18 JUL 2004	SK01960476	Whild Associates survey
18 JUL 2004	SK01970500	Whild Associates survey
18 JUL 2004	SK01970515	Whild Associates survey
18 JUL 2004	SK01970525	Whild Associates survey
18 JUL 2004	SK01980535	Whild Associates survey
02 AUG 2005	SK02010627	Whild Associates survey

The majority of these records are in the southern half of the Cannock Extension Canal, with the most northerly at Pelsall Road Bridge in 2005. This comprised a single floating plant. The surveyors, Whild Associates, considered that the plant was likely to have become detached from the rooted populations further south and simply floated past. They concluded that this northerly section of the canal was unlikely to support a permanent population of floating water-plantain.

No detail on the percentage cover or size of floating water plantain population was available for the other records. However, the five separate records from the 2004 survey indicate that five patches of floating water-plantain were observed and therefore that the criteria for favourable condition in relation to floating water plantain population are likely to have been met.

3.4.2 Substrate

No information on the current state of the substrate was available at the time of writing.

3.4.3 Competitive plant species

Natural England reported that competitive plant species were not considered to be causing problems at the site at the time of writing, although *Azolla filiculoides* was known to be present. The possible presence of *Lemna minor* was also noted. The Whild Associates survey report of 2005 recorded that the alien species *Lemna minuta* was abundant by the Pelsall Road Bridge at that time.

The presence of *Azolla filiculoides* means that the site is not currently meeting favourable condition criteria in relation to competitive plant species.

3.4.4 Water quality and transparency

The most recent condition assessment on Natural England's website records the site as in unfavourable condition, with the reason given as water pollution due to agricultural runoff. However, this was in 2003, and agricultural runoff is now considered by Natural England to be one of the less important factors affecting the site (see above).

The Environment Agency's website was accessed on 26th March 2007 to obtain water quality data. The monitored section of the Cannock Extension Canal is described as "Norton Green to Wyrley and Essington Canal" between NGR:402000,307200 and NGR 401900,304400. The water quality of the site is summarised in the table below:

Water quality attribute	Assessment date	Class/level	Level equating to favourable condition	Comments
Transparency	No data		Bed clearly visible	
Biological GQA	2004	C	A or B	Failed to meet expected standard
Chemical GQA	2003 - 2005	D	A or B	Failure was due to poor score for dissolved oxygen levels.
Phosphorus concentration	2003-2005	0.03 mg/L (standard deviation = 0.99)	<0.06 mg/L	Levels acceptable
Water level	No data		No more than 10% drop in level over whole length	

The monitored site was compliant with all assessed chemical water quality scores for 2003-5 except for dissolved oxygen, which was a significant failure. In fact, the overall assessment is recorded as a significant failure for all assessed periods between 1993 – 2005. Pre- 1993 data is not provided on the EA website.

Nitrates, an indicator of nutrient enrichment from agricultural or wastewater treatment sources, were recorded as grade 2 for the period 2003-2005. Over the period 1993 – 2005, the grade for nitrates has varied from 1 to 3.

Finally, the Environment Agency website also provides information on estimated releases to the environment from landfills. The local landfill site at Grove Lane, to the immediate west of the SAC, reported no notifiable releases between 2002 and 2005, although a variety of substances were discharged to controlled waters.

The Whild Associates survey report of 2005 makes incidental observations on water clarity in the canal, noting that it appears to decline towards the northern end, and suggests that the reduced clarity could be responsible for the apparent lack of floating water-plantain in this area.

4.0 REFERENCES

- The Conservation (Natural Habitats, &c.) Regulations 1994
- EU Directive 92/43/EC on the Conservation of Natural Habitats and Wild Fauna and Flora
- DEFRA (2006) The Conservation (Natural Habitats, &c.) (Amendment) (England and Wales) Regulations 2006 Consultation Document
- DCLG (2006) Planning for the Protection of European Sites: Appropriate Assessment (Consultation Document)
- EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC
- Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants (2006) Appropriate Assessment of Plans
- Whild Associates (2005) Ecological survey of Pelsall Road Canal Bridge (courtesy of Staffordshire Ecological Record)

- Conservation objectives and favourable condition table for the Cannock Extension Canal SSSI provided by Natural England
- www.natureonthemap.org.uk
- www.jncc.org.uk
- www.environment-agency.gov.uk
- Telephone conversation with Steve Barnes, Cannock Countryside Service, 12th April 2007
- Staffordshire Ecological Record data search

APPENDIX A
SAC AND SSSI CITATIONS

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Cannock Extension Canal

Site details



Location of Cannock Extension Canal SAC/SCI/cSAC

Country	England
Unitary Authority	Staffordshire; Walsall
Grid Ref*	SK020058
Latitude	52 38 59 N
Longitude	01 58 14 W
SAC EU code	UK0012672
Status	Designated Special Area of Conservation (SAC)
Area (ha)	5.47

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (7.5%)
 Humid grassland, Mesophile grassland (10%)
 Broad-leaved deciduous woodland (4.9%)
 Other land (including towns, villages, roads, waste places, mines, industrial sites) (10.1%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

[Interactive map](#) from MAGIC (Multi-Agency Geographic Information for the Countryside).

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

1831 [Floating water-plantain](#) *Luronium natans*

Cannock Extension Canal in central England is an example of anthropogenic, lowland habitat supporting floating water-plantain *Luronium natans* at the eastern limit of the plant's natural distribution in England. A very large population of the species occurs in the Canal, which has a diverse aquatic flora and rich dragonfly fauna, indicative of good water quality. The low volume of boat traffic on this terminal branch of the Wyrley and Essington Canal has allowed open-water plants, including floating water-plantain, to flourish, while depressing the growth of emergents.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

Many designated sites are on private land: the listing of a site in these pages does not imply any right of public access.

COUNTY: STAFFORDSHIRE,
WEST MIDLANDS

SITE NAME: CANNOCK
EXTENSION CANAL

DISTRICT: Cannock Chase Walsall

SITE REF: 15W2L

Status: Site of Special Scientific Interest (SSSI) notified (Under Section 28 of the Wildlife and Countryside Act) 1981 as amended.

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, Cannock Chase District Council, Walsall Metropolitan Borough Council

National Grid Reference: SK 019044, SK 020069 Area: 5.47 (ha.) 13.5 (ac.)

Ordnance Survey Sheet 1:50,000: 139 1:10,000: SK 00 NW, SK 00 SW

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

Date Notified (Under 1981 Act): 25 March 1993 Date of Last Revision: –

Other Information:
New site.

Description and Reasons for Notification:

The Cannock Extension is a terminal side branch of the Wyrley and Essington Canal extending northwards for 2.5 km towards Norton Canes. It is part of the extensive inland waterway system running throughout Birmingham and the Black Country. The high water quality, uneven canal bottom and the low volume of boat traffic have allowed a diverse aquatic flora to develop without any extensive reedswamp incursion.

A total of thirty four aquatic plants have been recorded from the canal, making it the richest known waterway of its type in Staffordshire and the West Midlands, and placing it high within the national canal network series.

Of major importance is a large population of the nationally scarce floating water-plantain *Luronium natans*, the best known colony in both Staffordshire and the West Midlands. This plant, recognised as endangered in Europe, is found throughout the length of the Cannock Extension. Good populations also exist of flowering-rush *Butomus umbellatus*, arrowhead *Sagittaria sagittifolia*, shining pondweed *Potamogeton lucens*, perfoliate pondweed *P. perfoliatus* and spiked water-milfoil *Myriophyllum spicatum*, all of which are rare or uncommon in Staffordshire. Other uncommon species present include curled pondweed *P. crispus* and narrow-leaved water-plantain *Alisma lanceolatum*.

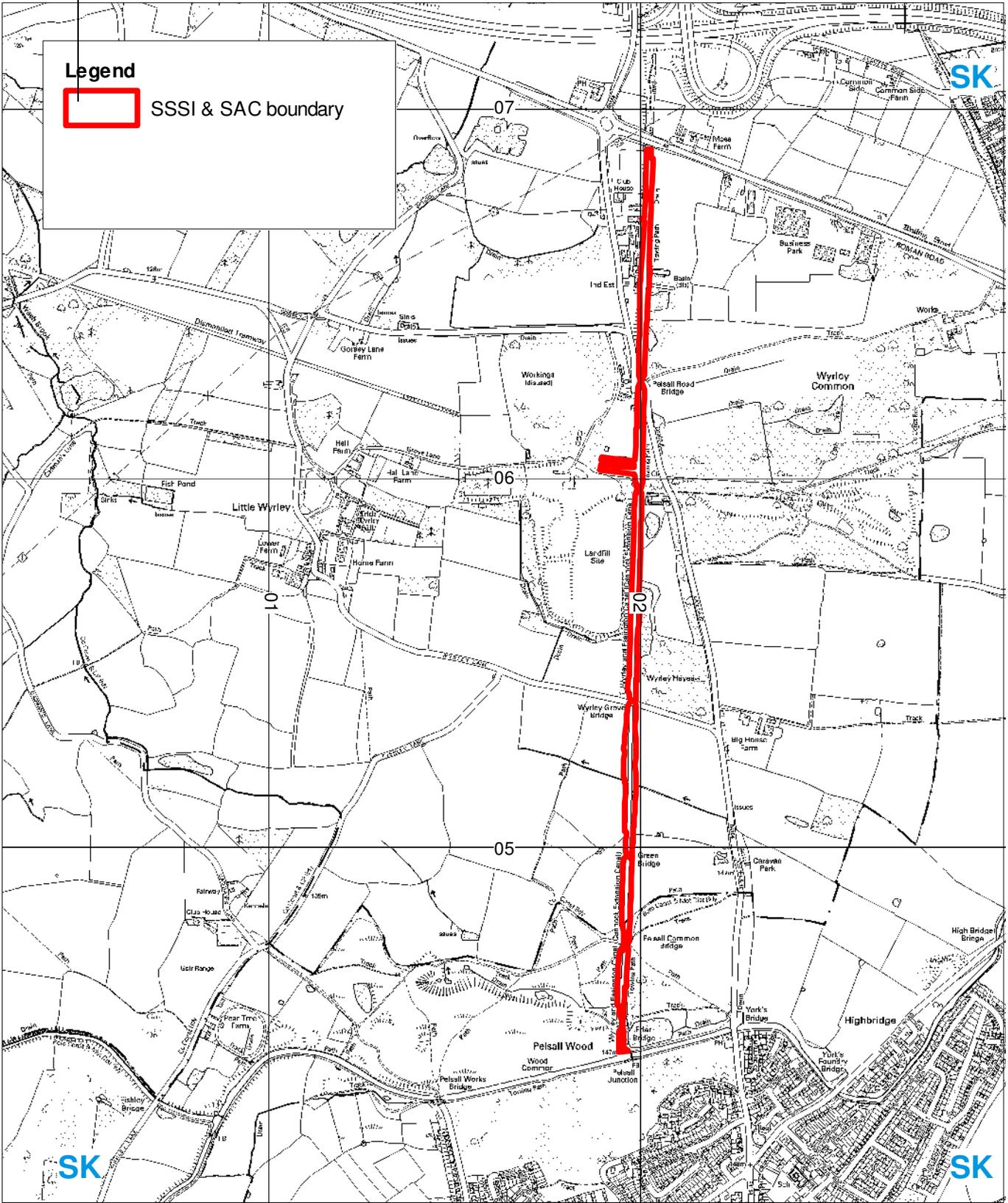
The eastern canal bank is brick-edged with several species including hemlock water-dropwort *Oenanthe crocata*, skullcap *Scutellaria galericulata*, fairy flax *Linum catharticum* and water dock *Rumex hydrolapathum*, growing out of the brickwork. The towpath itself supports such species as common spotted-orchid *Dactylorhiza fuchsii* and greater bird's-foot-trefoil *Lotus uliginosus*. The western bank is much more natural with reed sweet-grass *Glyceria maxima* and branched bur-reed *Sparganium erectum* forming extensive marginal stands. Yellow iris *Iris pseudacorus* and yellow loosestrife *Lysimachia vulgaris* add to the diversity of this community.

At least nine species of dragonfly have been recorded in association with the canal, including the red-eyed damselfly *Erythronma najas* and emperor dragonfly *Anax imperator*, the latter species being at the northern edge of its range in Britain.

APPENDIX B
LOCATION PLAN PROVIDED BY NATURAL ENGLAND

Cannock Extension Canal SSSI & SAC

NATURAL ENGLAND



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APPENDIX C
REPORT CONDITIONS

REPORT CONDITIONS

**HABITATS REGULATIONS ASSESSMENT OF BLACK COUNTRY CORE STRATEGY AND
CANNOCK CHASE CORE STRATEGY**

This report is produced solely for the benefit of BLACK COUNTRY AND CANNOCK CHASE LOCAL AUTHORITIES and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYGE. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYGE using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to WYGE by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYGE accept no liability for issues with performance arising from such factors

February 2006