THE NEW INN, LEEK ROAD, LONGSDON, STAFFORDSHIRE

EXTENDED PHASE 1 HABITAT SURVEY INITIAL BAT SURVEY AND BARN OWL SURVEY

A Report to John Pointon and Sons

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THE NEW INN, LEEK ROAD, LONGSDON, STAFFORDSHIRE

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01 OF 02

01 JOHN POINTON AND SONS
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The contents of this report are the responsibility of Middlemarch Environmental Ltd.
It should be noted, that whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment
or prediction of the natural environment

Contract Number 105333

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EXECUTIVE SUMMARY

Middlemarch Environmental Ltd was commissioned by John Pointon and Sons to carry out an initial ecological appraisal of a proposed re-development site at The New Inn, Leek Road, Longsdon, Staffordshire. To fulfil this brief an ecological desk study, Extended Phase I Habitat Survey, initial bat and barn owl survey were undertaken.

The ecological desk study identified one statutory nature conservation site and nine non-statutory nature conservation sites within 1 km of the proposed development site. The closest of these sites is located approximately 40 m east of the study site. The desk study provided a number of records for a range of protected and notable plant, invertebrates, birds and mammals within a 1 km radius of the site.

The Extended Phase 1 Habitat Survey was undertaken on 18th June 2009 by Andrea Powell, Ecological Consultant. This survey identified the presence of the following habitats on site: buildings, hard standing, scattered trees, semi-improved grassland and hedgerows.

The initial bat survey and barn owl survey were undertaken on 18th June 2009 by Andrea Powell and Tim Hextell (Principal Technical Ecological Consultant). This survey identified suitable features for use by bats in both the main New Inn building and the outbuildings. Old bat droppings were identified within the loft space of the New Inn. No other evidence of bats was recorded. Suitable roosting/nesting features for barn owl were identified within the outbuildings, but no evidence of use by barn owl was recorded.

The key ecological features on the site in relation to the works proposed are the buildings, scattered trees and hedgerows. The outbuildings, scattered trees and hedgerows provide habitat for nesting birds, which are a notable consideration. The buildings have potential to support roosting bats and therefore are a notable consideration if it is shown that bats are using them for roosting.

In order to ensure compliance with wildlife legislation and relevant planning policy, the following is recommended:

- Vegetation should be removed outside of the nesting bird season (generally March to September inclusive), or checked by an ecologist immediately prior to removal if this is not possible.
- A nocturnal bat survey should be carried out to determine the use of the buildings by bats for roosting.
- If the outbuildings are not made unsuitable for use by barn owls prior to March 2010 an updated barn owl survey should be undertaken prior to works commencing.

1. INTRODUCTION

1.1 BACKGROUND

On 5th June 2009, John Pointon and Sons commissioned Middlemarch Environmental Ltd to undertake an Extended Phase 1 Habitat Survey, an initial bat survey and a barn owl survey on a site known as The New Inn, Leek Road, Staffordshire. It is understood that the existing building is to be demolished as part of the redevelopment of the site.

To fulfil the above brief to assess the existing ecological interest of the site, a desk study and an Extended Phase 1 Habitat Survey were undertaken on 18th June 2009. In addition an initial bat survey was carried out on the same day to consider the potential of the building on site for use by roosting bats and barn owls.

This report details and provides the following information:

- Desk Study,
- Extended Phase 1 Habitat Survey;
- Initial Bat Survey; and,
- Barn Owl Survey.

1.2 SITE DESCRIPTION

The site comprises a former public house and surrounding outbuildings, with areas of tarmac carparking and gardens. It is situated on the junction with Denford Road and the A53 on the outskirts of the village of Longsdon. The surrounding environs are typified by semi-improved grassland fields and arable land on steeply sloping hills.

2. METHODOLOGY

2.1 DESK STUDY

A desk study was undertaken to determine the nature conservation designations and protected species that have been recorded within a 1 km radius of the site. This involved contacting statutory and non-statutory organisations. Middlemarch Environmental Ltd assimilated and reviewed the desk study data provided by the organisations.

The consultees for the Desk Study were:

- *MAGIC* website for statutory conservation sites; and,
- Staffordshire Ecological Records.

The data collected from these consultees is discussed in Section 3 and can be seen in full in Appendix 1.

2.2 EXTENDED PHASE 1 HABITAT SURVEY

An Extended Phase 1 Habitat Survey was conducted following the methodology of JNCC (1993) as modified by IEA (1995). Phase 1 Habitat Survey is a standard technique for classifying and mapping British habitats. The aim is to provide a record of habitats present on site. During the survey, the presence, or potential presence, of protected species was noted. Target notes are used to record any notable areas, features of interest and/or protected or notable faunal species. The data recorded during the field survey is discussed in Section 4.

2.3 INITIAL BAT SURVEY

In line with the specifications detailed by English Nature (2004), a daytime survey of the site was conducted. A visual assessment was undertaken of the site internally and externally for activity and signs of possible bat presence. All likely roosting areas were visually assessed. Any accessible holes/cracks and crevices, which could have allowed bat access into potential roosting areas were inspected using an endoscope and torch.

2.4 BARN OWL

To assess the site for owls an initial walkover survey was undertaken. The survey examined the habitats within the site and the buildings for the presence evidence and suitability for owls.

3. DESK STUDY RESULTS

3.1 INTRODUCTION

From the details provided by the consultees, all relevant ecological data has been reviewed. The results from these investigations for the site are summarised below in Sections 3.2 and 3.3. Raw data is provided in Appendix 1.

3.2 NATURE CONSERVATION SITES

Reference to the Multi Agency Geographical Information for the Countryside (MAGIC) website and the local biodiversity information indicate that there is one nature conservation site with statutory protection within a 1 km radius of the study site: Ladderidge Country Park Local Nature Reserve (LNR). Nine nature conservation sites with non-statutory protection occur within a 1 km radius of the survey area. These sites are summarised in Table 3.1.

In addition to the sites included in Table 3.1, an Ancient Woodland (England) site was recorded approximately 970 m west south-west of the proposed development site. Also, ten sites listed on the National Inventory of Woodland and Trees (England) were recorded within the search area. These are listed as broad-leaved, young trees and mixed woodlands, and the closest is located approximately 480 m south south-east. Two sites listed as lowland grazing marsh were recorded, the closest being approximately 730 m south of the study site.

3.3 PROTECTED SPECIES

Table 3.2 provides a summary of protected species records within a 1 km radius of the study area. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area. Records of UK and local Biodiversity Action Plan have also been included within this table.

Site Name	Designation	Proximity to Survey Area	Description
Statutory Sites			
Ladderidge Country Park	LNR	820 m north-east	No information provided
Non-statutory Sites			
Park Lake Farm (north and east of), Caldon Canal. Ref: 95/43/77	SBI	800 m south	A stretch of Caldon Canal from Bridge 31 at Endon to Horse Bridge, Longsdon. Canal mainly bordered by improved or semi-improved grassland. A small stand of broad-leaved woodland is to the south of canal near Hazelhurst locks.
Denford (west of) Caldon Canal / Endon Brook. Ref: 95/43/97	SBI	870 m south-west	A very wet field adjacent to the canal.
Caldon Canal Ref: 95/63/53	SBI	900 m south south-west	A stretch of the Caldon Canal from Horse Bridge, Longsdon east to Cheddleton Flint Mill. Adjacent habitats include broad-leaved woodland, unimproved, semi-improved and marshy grassland, hedgerows and scrub.
Caldon Canal (south of Hollinhay Wood) Ref: 95/63/88	SBI	760 m south south-east	A 1.5 km stretch of the canal between Horse Bridge and Leek Tunnel with associated habitats beside the canal including Hollinhay Wood and areas of broad-leaved woodland, scattered scrub and unimproved grassland. A small wet flush is included within the site in addition to areas of marshy grassland and dense scrub.
Hollinhurst Farm (north of). Ref: 95/43/59	BAS	1000 m south-west	An area of marshy grassland and wet flushes with drains along the edge of the field and some areas of swamp.
Hazelhurst Aquaduct (west of). Ref: 95/53/27	BAS	870 m south south-west	A small north-facing field containing semi-improved grassland with areas of marshy grassland. Trees and scrub are also recorded.
Stanlowe Grassland. Ref: 95/54/43	BAS	40 m west	Semi-improved grasslands south of Stanlowe Hall. Acid flushes and scattered trees are present within the site.
Horse Bridge Ref: 95/63/06	BAS	700 m south south-east	A short length of the Caldon Canal, the embankment, semi-improved grassland and a recently created fishing pool.
Horse Bridge (east of) Ref: 95/63/55	BAS	740 m south west	A site situated between the Caldon Canal and a disused railway line. The River Churnet is within the site. Habitats include semi-improved and marshy grassland, tall ruderal, immature alder woodland, broad-leaved woodland and colonising vegetation.
Key: LNR – Local Nature Reserve SBI – Site of Biological Interest BAS – Biodivesrity Alert Site			

Table 3.1: Summary of Statutory and Non-Statutory Sites

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	UK BAP?	Local BAP?	NERC Sect.41 ?	Legislation / Conservation Status
Plants							
Pink waxcap ***Hygrocybe calyptriformis***	9	2002	1000 m west	✓	✓	✓	-
Birds							
Northern lapwing *Vanellus vanellue*	1	2007	Within 1 km*	✓	✓	✓	-
Invertebrates							
White-clawed crayfish ***Austropotamobius pallipes***	1	1993	830 m south	✓	-	✓	WCA Sch.5 (killing & injuring)
Wall *Lasiommata megera*	2	1999	Within 1 km*	✓	-	✓	-
Herpetofauna							
Adder *Vipera berus*	1	1963	More than 450 m*	✓	-	✓	WCA Sch.5 (killing & injuring)
Common lizard *Zootoca vivipara*	1	1960	Within 1 km*	✓	-	✓	WCA Sch.5 (killing & injuring)
Grass snake *Natrix natrix*	15	2001	670 m south -east	✓	✓	✓	WCA Sch.5 (killing & injuring)
Mammals							
Common pipistrelle *Pipistrellus pipistrellus*	3	2007	520 m south	✓	✓	✓	EC Hab. Directive WCA Sch.5 (killing & injuring)
Soprano pipistrelle *Pipistrellus pygmaeus*	2	2007	1000 m south south-west	✓	✓	✓	EC Hab. Directive WCA Sch.5 (killing & injuring)
Daunbenton's bat ***Myotis daubentonii***	1	2006	750 m south south-east	-	-	-	EC Hab. Directive WCA Sch.5 (killing & injuring)
Badger *Meles meles*	2	2007	Within 1 km*	-	-	-	PBA
Brown hare *Lepus europaeus*	5	2004	700 m north	✓	✓	✓	-
Hedgehog *Erinaceus europaeus*	2	2007	Within 1 km*	✓	-	✓	-

Key:
EC Hab. Directive - EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora)
WCA Sch.5 – Wildlife and Countryside Act 1981 Schedule 5: Animals which are protected
PBA – Protection of Badgers Act 1992
* Four figure grid reference only provided

Table 3.2: Summary of Protected/Notable Species Records Within 1 km Radius of Study Site

4. EXTENDED PHASE 1 HABITAT SURVEY

4.1 INTRODUCTION

The results of the Extended Phase 1 Habitat Survey are presented in Section 4.2. An annotated Extended Phase 1 Habitat Survey Drawing (Middlemarch Environmental Ltd Drawing Number C105333-01) is attached in Appendix 2. This drawing illustrates the location of all the habitat types recorded at the site. Target notes are also included to indicate notable areas and/or features of ecological interest and are referred to in the text e.g. Target Note 1. The survey was carried out on 18th June 2009 by Andrea Powell, Ecological Consultant. Table 4.1 details the weather conditions at the time of the survey.

Parameter	Condition
Temperature (ºC)	15
Cloud (%)	100
Wind	F3
Precipitation	Dry

Table 4.1: Weather Conditions During Survey Period

4.2 CONSTRAINTS

There were no constraints on the survey undertaken.

4.3 HABITATS

The following habitats were recorded during the site visit:

- Buildings;
- Defunct species-poor hedgerow;
- Hardstanding;
- Semi-improved grassland; and,
- Scattered-broadleaved trees.

These habitats are described below. They are ordered alphabetically, not in order of ecological importance.

Buildings

The site was dominated by buildings and areas of hardstanding (habitat described below). The buildings comprised a derelict public house with a single storey flat roofed extension, a series of three single storey outbuildings with a separate outhouse.

The public house comprised a two-storey, L-shaped painted brick building situated in the north western extent of the site with its front aspect running parallel to Denford Road. The outbuildings were situated towards the centre of the site and to the east and south of the main public house. They comprised a series of three adjoining brick and fabricated concrete barns and storage rooms, with a pitched corrugated roof and latched wooden stable doors.

An interior nest box, with an external access hole, was present in the northern gable end of the outbuildings and the presence of old nesting material suggested it had been previously occupied by breeding birds.

Defunct species-poor hedgerow

An unmanaged defunct hedgerow, dominated by hawthorn *Crataegus monogyna* with occasional damson *Prunus* sp. and holly *Ilex aquifolium* was located along the eastern edge of the semi-improved grassland in the north eastern corner of the site. The hedgerow was approximately 4 – 5 m in height and 30 m in length and separated the site from the adjoining arable field. A flower bed was present along the base of the hedgerow and a few cultivars such as aquilegia were present, however it was largely overgrown by nettle *Urtica dioica* and occasional bramble *Rubus fruticosus* agg.

Hardstanding

The buildings were surrounded to the west and south by areas of tarmac hardstanding forming the courtyard and former car park of the public house. The tarmac was in poor condition with numerous cracks and holes and areas of loose tarmac. The surface was largely devoid of vegetation however some herbs were beginning to colonise, particularly around the base of the building walls. Species present included annual meadow grass *Poa annua*, cleavers *Galium aparine*, groundsel *Senecio vulgaris*, hogweed *Heracleum sphondylium*, smooth sow thistle *Sonchus oleraceus* and willowherb *Epilobium* sp.

Semi-improved grassland

An area of tall semi-improved grassland approximately 15 m by 30 m was present in the north eastern corner of the site to the rear of the buildings. The sward was dominated by Yorkshire fog *Holcus lanatus* and creeping buttercup *Ranunculus repens* with a good mix of other grasses including couch *Elytrigia repens*, crested dog's-tail *Cynosurus cristatus*, false oat-grass *Arrhenatherum elatius*, meadow foxtail *Alopecurus pratensis* and rough meadow grass *Poa trivialis*. Tall ruderals were also beginning to colonise towards the edges of the grassland with nettle, teasel *Dipsacus* sp. and willowherb also identified within the sward. A small patch of tall ruderal (habitat described below) was also present in the south eastern corner.

The ground was rough and uneven and numerous piles of brick, rubble and fencing material were present within the grass and were largely overgrown by the vegetation.

Scattered-broadleaved trees

A semi-mature cherry *Prunus avium* tree, approximately 8 m in height, was present along the northern boundary of the area of grassland. A bird box was present in the tree and old nesting material suggested breeding birds had previously nested within the box.

Two damson trees, approximately 6 m tall, were situated along the eastern edge of the semi-improved grassland within the overgrown flower bed at the foot of the hawthorn hedge.

Tall Ruderal

A small patch of tall ruderal approximately 3 m by 3 m area surrounded a partially dismantled brick outhouse in the south eastern corner of the area of semi-improved grassland. Species identified included nettle, smooth sow-thistle, teasel and willowherb.

Other Habitat

<u>Stone Wall</u>

A short section of stoned wall extended from the eastern end of the property along the northern boundary of the site, separating the overgrown garden area from the A53 and pavement. The wall was approximately 1.2 m in height and was devoid of vegetation and largely in good repair but had some areas of mortar missing.

4.4 FAUNA

During the survey the potential of the site to support various faunal species was noted. The time of year at which the survey is undertaken will affect the species seen during the survey.

Birds

A range of common bird species, including blackbird *Turdus merula*, great tit *Parus major*, and swallow *Hirundo rustica* were recorded on site during the field survey.

Two swallow nests were identified in the eaves of the central building and swallows were seen frequently entering the building via a missing window on the eastern side of the building, indicating that they were actively nesting within the building. An abandoned wren nest was also identified within the central outbuilding within an internal cavity on the eastern wall in. Eggs were present within this nest but no bird was observed to be incubating.

Old nesting material was also present within the outhouse evidencing that breeding birds had previously occupied this building.

Mammals

Numerous mole hills were present in the area of semi-improved grassland in the north eastern corner of the site.

5. INITIAL BAT SURVEY

5.1 INTRODUCTION

The bat survey was conducted on 18th June 2009 by Tim Hextell (Principal Technical Ecological Consultant) and Andrea Powell (Ecological Consultant). Weather conditions at the time of the initial bat survey were recorded and are presented in Table 5.1.

Parameter	Condition
Temperature (ºC)	15
Cloud (%)	100
Wind	F3
Precipitation	Dry

Table 5.1: Weather Conditions During Survey Period

5.2 CONSTRAINTS

Access to some of the loft space within the New Inn was limited and therefore not all sections of the roof loft space were inspected during the survey.

5.3 EXTERNAL ASSESSMENT

Main Building

The New Inn (Plate 5.1) is an L-shaped two-storey derelict pub constructed from brick. The brickwork had been painted. The building had a pitched clay-tile roof.



Plate 5.1: The New Inn

The main building had reasonably well-sealed wooden fascias and tight lead flashing around the four chimney pots. The building had wooden window frames which were all intact. Gaps were noted between the tiles and the gable end, although the gaps were generally covered with cobwebs. Gaps were identified and mortar was missing along the ridge tiles.



Plate 5.2: Gaps and missing mortar under ridge tiles of roof

Two single-storey extensions were present on the north eastern and south eastern wing of the main pub building. The north eastern extension comprised a kitchen area with a pitched, clay tile roof and internal loft space. The ridge tiles and the majority of roof tiles were missing and the lath and sarking were exposed.



Plate 5.3: Missing ridge tiles, exposed laths and sarking on north eastern single storey extension

A latched wooden hatch leading into the roof space and an air vent were present on the north facing aspect of the pitched roofed extension. Gaps were present around the door and the between the vent slats allowing potential access points into the roof void.



Plate 5.4: Wooden Hatch and Air Vent providing access to the pitched roof extension loft space of the New Inn

The south eastern extension comprised a rendered brick structure with a flat, felt covered roof with wooden doors in poor repair. Gaps were noted along the eaves between the roof and the supporting wall that could provide potential access points into the building.



Plate 5.5: Flat Roofed Extension with Gaps Along the Top of the Supporting Wall

Outbuildings

A series of brick-built and concrete outbuildings were identified within the site (Plate 5.4). These buildings had corrugated plastic-coated tin pitched roofs. A number of open doors and missing/open windows provided access to this area.



Plate 5.6: Example of Outbuildings showing open doors

Gaps were present along the eaves of these structures, between the supporting wall and the corrugated sheets.



Plate 5.7: Example of Gaps Between Tin Sheets and Supporting Walls

A small, square, brick structure with a pitched clay tile roof that appeared to be a former outhouse was present between the main building and the series of outbuildings. The ridge tiles and a number of roof tiles along the roof ridge were missing, allowing access points into the building. An old robin nest was identified within a hole in the internal wall of this building.

In addition the remains of a second outhouse was recorded within the northeast corner of the area of semi-improved grassland along the northern boundary of the site. This structure was approximately 1 m high and 1.5 m long x 2.5 m wide and was colonised by a patch of tall ruderal vegetation.

5.4 INTERNAL

The New Inn

The ground floor of the building comprised a bar area, toilets and a chimney. The windows on the ground floor were intact and did not provide any access for bats into the building. No bat droppings were noted on the window ledges. A rendered brick cellar was noted which at the time of the survey contained approximately 0.30 m depth of water.



Plate 5.8: Cellar area of New Inn

The cellar was sealed with no access points for bats to access the area. No evidence of bats was noted within this area.

A kitchen area was located adjacent to the main pub area. The windows on this section of the pub were boarded with gaps too small to provide access for bats. Rodent droppings were noted on the kitchen counter. No evidence of bats was noted within this area.

On the first floor a loft space was identified above the south-western bedroom. The loft space comprised a wooden-formed structure with a central wooden ridge beam. Wooden supporting posts were located from the truss-work into the joints. The roof within this section was comprised of wooden lathes with slate tiles directly laid onto the laths. A water tank was recorded within the attic. Gaps were noted in the tiles, which were covered in a layer of cobwebs.



Plate 5.9: Example of Roof Space Above South Western Bedroom



Plate 5.10: Example of Cobweb Covered Hole in Tile

In addition, much cobwebbing was noted on the ridge beam and framework. The floor of this attic was covered in degraded insulation and scattered mortar. The attic in general was dirty and dusty.

In addition a brick chimney breast was noted which gaps either side of the chimney. This area was not possible to access to carry out any closer inspection. The attic had a brick gable-end which was dirty, dusty and covered in cobwebs. No evidence of bats was noted within this area.



Plate 5.11: Example of Gap at the Side of the Chimney Breast Leading to Further Roof Void.

Above the bathroom on the first floor was a space which it was not possible to access. Inspection identified that the main wooden beams were supporting the ceiling structure. No evidence of bats was noted within this area.

In the centre of the building a large loft space was located. This space had gaps to the outside. A wasp nest was identified within the loft. Cobwebs were noted across the ceiling and floor area and the gaps under the eves were also covered in cobwebs.



Plate 5.12: Central Loft Space

Rodent bait was noted within the loft space. Some old bat droppings thought to be from Serotine / noctule bats were identified within the loft space.

The central bedroom had a broken window and floorboards missing which provided access to electric cables etc. A gap was noted in the roof above the stairwell, again this was heavily cobwebbed and tiles were visible through the gap. No evidence of bats was noted within this area.



Plate 5.13 Hole in Ceiling and Exposed Tiles Above Stairwell.

Outbuildings

The outbuildings formed a series of linked rooms with solid external brick walls and wooden double doors. Internal walls were comprised of wooden dividing walls. The building had brick floors. The ceilings were comprised of wooden laths with a boarded wooden ceiling and joists. Loose fitting sarking was present along the northern facing pitch of the roof, but was absent on the southern side. These features were heavily cobwebbed. Within the western section gaps were noted around the doors. No evidence of bats (roosting bats, droppings, urine staining, scratch marks) was noted within these buildings.



Plate 5.14: Example of interior of outbuildings.

Potential access points were also recorded between the sarking and the roof sheets.
The two eastern sections of the building were very cluttered with furniture and appliances, builders rubble, tiles and a coal store.



Plate 5.15: Ceiling of outbuildings with loose fitting sarking.

5.5 SURROUNDING AREA

The area surrounding the site consisted of a semi-rural area of Staffordshire including residential houses, grassland, hedgerows, trees and a canal approximately 700 m south of the site. This provides extensive areas within the immediate surroundings that would provide foraging for bats. In a wider context the landscape surrounding the building was within a semi-rural area with extensive habitat for bats to forage.

6. BARN OWL SURVEY

6.1 INTRODUCTION

The barn owl survey was conducted on 18th June 2009 by Tim Hextell (Principal Technical Ecological Consultant) and Andrea Powell (Ecological Consultant). Weather conditions at the time of the barn owl survey were recorded and are presented in Table 6.1.

Parameter	Condition
Temperature (ºC)	15
Cloud (%)	100
Wind	F3
Precipitation	Dry

Table 6.1: Weather Conditions During Survey Period

6.2 CONSTRAINTS

Access to some of the attic space within The New Inn was limited and therefore not all sections of the roof attic space were accessed during the survey.

6.3 SURVEY RESULTS

Descriptions of the main buildings within the site are provided in Section 5.3.

The main New Inn building did not provide suitable habitat for barn owls to nest given the enclosed spaces and lack of open access or large access holes into the building.

The outbuildings within the site did provide suitable habitat for barn owls as the buildings had obvious openings and entranceways including missing windows and open doors. A bird box was present on western gable end of the western outbuilding. This was unsuitable for barn owls as the opening was partially concealed by adjacent buildings, the nesting area was too exposed and the box was too small an area for nesting/roosting barn owls. No evidence of pellets, faecal staining, feathers or prey remains were observed around the outside of the structure.



Plate 6.1: Internal View of Bird Nest Box



Plate 6.2: External View of Bird Nest Box.

Active swallow nests and an abandoned wren nest were identified within the interior of the outbuildings.

7. DISCUSSION AND CONCLUSIONS

7.1 NATURE CONSERVATION SITES

Statutory Sites

One statutory site of nature conservation value was recorded within a 1 km radius of the proposed development site: Ladderedge Country Park LNR. Given the distance between the proposed development site and this nature conservation site, the existing site use and the type of proposed development, it is not anticipated that the proposed works would have an adverse effect on this nature conservation site.

Non-Statutory Sites

Nine non-statutory sites of nature conservation value were recorded within a 1 km radius of the proposed development site. The closest of these sites: Stanlowe Grassland Biodiversity Alert Site is located approximately 40 m west of the proposed development site. As no details of the development proposals for the site have been provided it cannot be determined whether there will be any direct or indirect impact on this site as a result of the proposed works.

Given the distance between the proposed development site and the eight remaining nature conservation sites (more than 700 m away), the existing site use and the type of proposed development, it is not anticipated that the proposed works would have an adverse effect on the nature conservation sites.

7.2 HABITATS

Details of the proposed development works at the site are not known.

The ecological importance of the habitats present on site is assessed against their presence on the UK and Local BAPs and on Section 41 of the NERC Act and their ability to support protected or notable species. Those habitats which meet any of these criteria and are considered likely to be impacted by the proposals are highlighted as notable considerations. This is summarised in Table 7.1 and further discussed in the text below.

Habitat Type	UK BAP Priority Habitat?	Local BAP?	NERC Act Section 41?	Is Habitat a Notable Consideration?
Hardstanding	×	×	×	No
Buildings and structures	×	×	×	Yes
Hedgerow	✓	×	✓	Yes
Semi-improved grassland	×	×	×	No
Scattered trees	×	×	×	Yes

Table 7.1: Summary of Ecological Importance of Habitats on Site

Hardstanding and semi-improved grassland are not notable considerations with respect to this site as they do not support populations of notable species and / or are limited in their extent.

The buildings offer opportunities for use by roosting bats and bat droppings were identified within the New Inn building. The outbuildings provide suitable opportunities for use by roosting / nesting barn owl. Therefore this feature is a notable consideration with respect to any proposed development of the site.

The scattered trees and hedgerows provide opportunities for use by nesting birds and are therefore a notable consideration with respect to the proposed re-development of the site.

7.3 PROTECTED/NOTABLE SPECIES

Table 7.2 summarises which species are notable considerations for any development of the survey area. It also states whether these species are targeted by national or local Biodiversity Action Plans (BAPs) or afforded some protection under the NERC Act 2006.

Plants

None of the species recorded during the survey are specifically protected by the Wildlife and Countryside Act (WCA) 1981 (as amended).

Species	UK BAP Priority Species?	Local BAP?	NERC Act Section 41?	Is Species a Notable Consideration?
Birds				
Barn owl *Tyto alba*	✗	✓	✗	Yes
Herpetofauna				
Adder *Vipera berus*	✓	✗	✓	No
Common lizard *Zootoca vivipara*	✓	✗	✓	No
Grass snake *Natrix natrix*	✓	✓	✓	No
Mammals				
Badger *Meles meles*	✗	✗	✗	No
Brown hare ***Lepus europaeus***	✓	✓	✓	No
Hedgehog Erinaceus europaeus	✓	✗	✓	No
Bats (various species)	#	#	#	Yes
Key # Inclusion of bats on BAP and NERC lists are species dependant				

Table 7.2: Summary of Ecological Importance of Species on Site

Herpetofauna

The local biological record centre provided records of adder, grass snake and common lizard within a 1 km radius of the site. Due to the type and small area of habitats present on site it is considered unlikely that reptiles are present on site.

The local biological record centre provided no records of great crested newts within a 1 km radius of the site. Due to the type of habitats present on site it is considered unlikely that great crested newts are present on site.

Bats

The local record centre provided records of various bat species within a 1 km area of the survey area. The New Inn provided opportunities for use by roosting bats, and old bat droppings were noted within the building. The outbuildings also provided suitable opportunities for use by roosting bats, although no evidence of use of bats were identified during the survey. Bats would therefore be a notable consideration with respect to any proposed development works at the site.

Nesting and Nest Building Birds

The desk study data included records of breeding birds within 1 km of the site. The outbuildings provided opportunities for nesting bird to use, indeed swallow nests were recorded within the buildings during the survey. The main New Inn building did not provide opportunities for birds

to nest. The scattered trees and hedgerow within the site provide opportunities for use by nesting birds. Nesting birds are therefore a notable consideration with respect to any proposed development at the site.

7.4 INITIAL BAT SURVEY

The majority of The New Inn could be fully inspected during the initial bat survey. Features which could be used by roosting bats were identified within the new Inn buildings and the associated outbuildings. During the survey old bat droppings, thought to be those of serotine or noctule bats were identified within the main New Inn attic. No evidence of bats were identified within the outbuildings.

7.5 BARN OWL SURVEY

The main New Inn building did not provide any opportunities for use by roosting or nesting barn owls. The outbuildings did however provide suitable opportunities for use, although no evidence of use by barn owls was recorded during the survey.

8. RECOMMENDATIONS

R1 Habitats

The following recommendations are made regarding the habitats present on site:

- **Habitat Loss:** In accordance with the provision of Planning Policy Statement 9 (Biodiversity & Geological Conservation) and Local Planning Policy, any landscaping proposals should be designed to incorporate native species and features considered to be of ecological value.

- **Trees:** Any trees either on site, or overhanging the site, which are not to be removed as a part of the development should be protected in accordance with British Standard "Trees in relation to construction - Recommendations" BS5837:2005.

R2 Protected Species

The following recommendations are made regarding the protected species which are potentially present on site:

- **Bats:** Potential access points were identified for bats to utilise within The New Inn building. In addition, bat droppings were identified within the main New Inn building. It is therefore recommended that a nocturnal bat survey be undertaken prior to the building being disturbed to establish current use of the building by bats. Nocturnal bat surveys can be undertaken between mid-April and September (weather dependant).

- **Nesting birds:** Removal of any of the outbuilding, scattered trees or hedgerows should be undertaken outside of the bird nesting season. This is weather dependent but generally extends between March and September inclusive. If this is not possible, then a suitably qualified ecologist should check the areas concerned, to ensure that no nesting, or nest-building birds are present, immediately prior to the clearance works.

- **Barn Owls:** If the outbuildings are not removed or made unsuitable for use by barn owls prior to March 2010 an updated barn owl survey should be undertaken prior to works commencing.

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APPENDICES

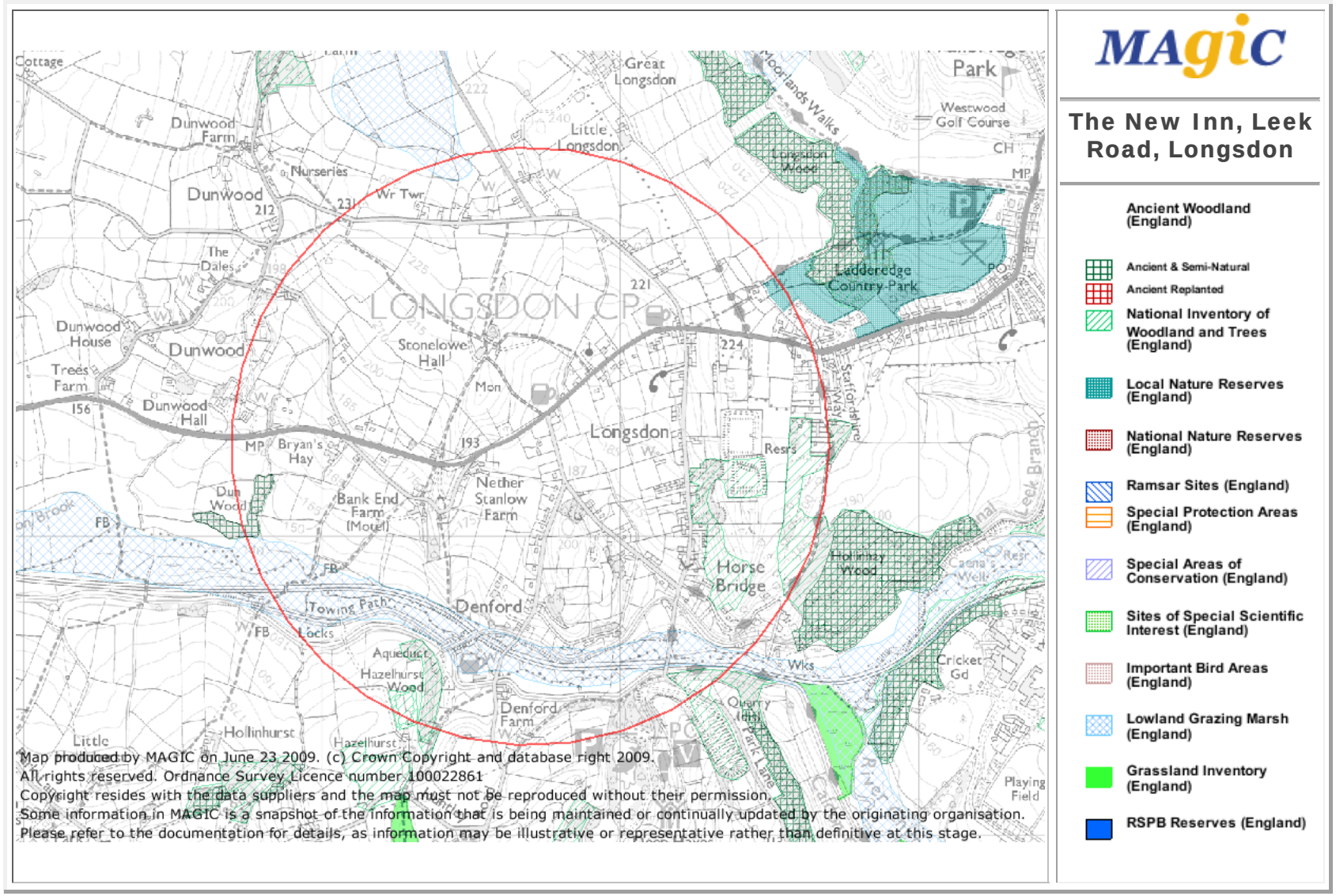
APPENDIX 1: Desk Study Data

APPENDIX 2: Middlemarch Environmental Drawing C105333-01
- Extended Phase 1 Habitat Survey Drawing

APPENDIX 3: Overview of Relevant Legislation

APPENDIX 1

Desk Study Data


MAgiC
The New Inn, Leek Road, Longsdon
Ancient Woodland (England)
Ancient & Semi-Natural
Ancient Replanted
National Inventory of Woodland and Trees (England)
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)
LONGSDON CP
Longsdon
Denford
Horse Bridge
Dunwood
Dunwood Farm
Dunwood House
Trees Farm
Dunwood Hall
Stonelowe Hall
Nether Stanlow Farm
Bank End Farm (Motel)
Bryan's Hay
Hazelhurst Wood
Denford Farm
Hollinhurst
Little Longsdon
Great Longsdon
Westwood Golf Course
Ladderedge Country Park
Hollinhay Wood
Cricket Gd
Playing Field
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Please refer to the documentation for details, as information may be illustrative or representative rather than definitive at this stage.

Site Check Report

Report generated on June 23 2009.

You clicked on the point:
Grid Ref: SJ957543
Full Grid Ref: 395700 , 354300

The following features have been found within 1,000 metres of your search point:

Counties, Metropolitan Districts and Unitary Authorities (GB)

Geographic Level	Name
COUNTY	STAFFORDSHIRE

NUTS1 - Government Office Regions (GB)

Hotlink	Name	Reference
http://www.statistics.gov.uk/geography/nuts_wm.asp	WEST MIDLANDS	UKG

Ancient Woodland (England)

Grid Reference	Wood Name	Theme ID	Theme Name
SJ947540		1411685	ANCIENT & SEMI-NATURAL WOODLAND

National Inventory of Woodland and Trees (England)

Feature type	Reference date	Update type
BROADLEAVED	310398	
BROADLEAVED	310398	
BROADLEAVED	310398	
BROADLEAVED	310398	
YOUNG TREES	310300	WGS
YOUNG TREES	310300	WGS
YOUNG TREES	310300	WGS
MIXED	310300	
MIXED	310300	
YOUNG TREES	310300	WGS

Local Nature Reserves (England)

Name	Reference
LADDEREDGE COUNTRY PARK	1009438

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)

There are no features within your search area.

Important Bird Areas (England)

There are no features within your search area.

Lowland Grazing Marsh (England)

Reference	ID
758	WM26
760	WM27

Grassland Inventory (England)

There are no features within your search area.

RSPB Reserves (England)

There are no features within your search area.

Staffordshire Ecological Record
Email: info@staffs-ecology.org.uk
Website: www.staffs-ecology.org.uk
Please reply to:

Andy Leak
Principal Environmental Information Officer,
(On behalf of SER),
Riverway,
STAFFORD,
ST16 3TJ

Tel: 01785 277257
Fax: 01785 211279
andy.leak@staffordshire.gov.uk.

18 June 2009

SER Reference: EC6020/SM/AL
Your Reference: PO 4575

Dear Mr. Hall,

Species Records & Site records with Citations 1Km of SJ957, 543 New Inn for Middlemarch

Thank you for your request for biological records 1Km of SJ957, 543.

Please note the local badger group has asked us to restrict the precision of locations of badger records to four figure grid references in documents which may reach the public domain. To help you with scoping your project SER proved a more complete set of badger information, which you must keep strictly confidential.

There are no statutorily protected sites inside, intersecting with, abutting or within 500m of your search area. There are, however ten non-statutorily protected (Local) sites inside or intersecting with the 1Km search area, these include 5 Sites of Biological Importance (SBIs), 4 Biodiversity Alert Sites (BAS) and 1 Local Nature Reserve (LNR), Ladderedge Country Park, for more information about which contact Staffordshire Moorlands District Council:

SBIs, New Inn, for Middlemarch

SITE ID	GRID REF	SITE NAME
95/43/77	SJ947, 537	Park Lane Farm (north and east of), Caldon Canal
95/43/97	SJ949, 537	Denford (west of) Caldon Canal / Endon Brook
95/63/53	SJ965, 533	Caldon Canal
95/63/88	SJ968, 538	Caldon Canal (south of Hollinhay Wood)

BAS, New Inn for Middlemarch

SITE ID	GRID REF	SITE NAME
95/43/59	SJ945, 539	Hollinhurst Farm (north of)
95/53/27	SJ952, 537	Hazelhurst Aqueduct (west of)
95/54/43	SJ954, 543	Stanlowe Grassland
95/63/06	SJ960, 536	Horse Bridge
95/63/55	SJ965, 535	Horse Bridge (east of)

In addition I have records for the following BAP, Section 41, red list and Protected Species. These data comprise three lists. The protected species list comprises all local records for all European protected species (EPS) (These are shown on the accompanying plan as a red triangle upon

Partners:
Natural England
Cannock Chase District Council
East Staffordshire Borough Council
Lichfield District Council
The National Forest Company
Newcastle-under-Lyme Borough Council
South Staffordshire Council
Stafford Borough Council
Staffordshire County Council
Staffordshire Moorlands District Council
Staffordshire Wildlife Trust
Stoke-on-Trent City Council
Tamworth Borough Council
West Midland Bird Club

which is superimposed a white character denoting the species or species group.

The “UK Protected Species” list includes all protected species but not EPS or those species which are protected from sale only except where they are listed in Habitats Directive Annex V – “Animal and plant species of Community interest whose taking in the wild and exploitation may be subject to management measures”.

The BAP & Section 41 list comprises all local records for BAP species recorded on the UK BAP list 1, in Section 41 of the NERC Act 2006, the birds “red List” and Staffordshire BAP. It is important to realise that there is significant duplication in these lists as several species are both protected and subject to BAP targets. For the purposes of mapping the protected species have been placed above BAP species and so red symbols may obscure green ones below.

Please note that we now include on our location plans, indicative locations for BAP habitats; these are all derived from data sets compiled by Natural England and has not been obtained by primary survey conducted on behalf of SER and so SER cannot guarantee its accuracy.

The following records comprise a comprehensive list of all reports received by SER, but they are not to be seen as being a comprehensive statement of the total presence or absence of a protected or biodiversity target species. In particular, Great Crested Newts(GCN) are both widespread and relatively common in Staffordshire and so any cluster of ponds or pools should be viewed as having breeding potential. This is especially true at the edges of your search area, where an aggregation of potential breeding habitat may be only a short distance from records which your search missed. SER recommends, therefore, that you scrutinise ponds or pools at the edge of your search area very carefully for GCN potential.

EPS 1Km SJ957, 543, New Inn for Middlemarch

COMMON NAME	STATUS AT SITE	GRID REF	DATE
Common Pipistrelle	1 Count of adult	SJ955534	18/08/2007
Common Pipistrelle	1 Adult	SJ955534	18 Aug 2007
Daubenton's Bat	Adult Feeding	SJ962538	28 Apr 2006
Pipistrelle	1 Count of juvenile male; 1 Count of dying/moribund	SJ959539	09/08/1994
Soprano Pipistrelle	1 Count of adult	SJ955534	18/08/2007
Soprano Pipistrelle	1 Adult	SJ955534	18 Aug 2007

UK Protected Species 1Km SJ957, 543 New Inn for Middlemarch

COMMON NAME	STATUS AT SITE	GRID REF	DATE
Adder		SJ9553	1963
Common Frog	1 Count of ovipositing	SJ9554	11/03/1984
Common Frog	1 Count of egg/ovum	SJ9554	16/03/1983
Common Lizard		SJ9554	1840 - 1960
Eurasian Badger	1 Adult	SJ9554	25 Sep 2007
Eurasian Badger	1 Breeding (confirmed)	SJ9653	23 May 2005
Freshwater White-clawed Crayfish		SJ956536	06/01/1993
Grass Snake	1 Count of swimming	SJ959536	13/09/2000

UK Protected Species 1Km SJ957, 543 New Inn for Middlemarch

COMMON NAME	STATUS AT SITE	GRID REF	DATE
Grass Snake	1 Count of juvenile	SJ963540	11/07/2000
Grass Snake	1 Count of swimming	SJ957537	11/07/2000
Grass Snake	1 Count of sunbathing	SJ958537	June 2000
Grass Snake	1 Count of swimming	SJ955536	27/08/2001
Grass Snake		SJ948538	12/07/1987
Grass Snake		SJ963537	20/08/1975
Grass Snake		SJ964539	20/08/1975
Grass Snake		SJ961534	05/05/1974
Grass Snake		SJ955536	26/03/1974
Grass Snake		SJ9554	1959
Grass Snake	1 Count of adult	SJ9554	August 1989
Grass Snake	several Count of adult	SJ9554	15/07/1987
Grass Snake		SJ9553	19/07/1975
Grass Snake		SJ9553	08/10/1973
Spiky Bog-moss	locally frequent Count of present	SJ949537	18/05/1998

Section 41, BAP1, SBAP & RDB1 records 1Km SJ957, 543 New Inn for Middlemarch

COMMON NAME	STATUS AT SITE	GRID REF	DATE
Adder		SJ9553	1963
Brown Hare	1 Count of adult	SJ955535	20/02/2002
Brown Hare	1 Count of adult	SJ956552	07/01/2004
Brown Hare	1 Count of adult	SJ957551	31/07/2004
Brown Hare	1 Adult	SJ957551	31 Jul 2004
Brown Hare	1 Adult	SJ956552	07 Jan 2004
Common Lizard		SJ9554	1840 - 1960
Common Pipistrelle	1 Count of adult	SJ955534	18/08/2007
Common Pipistrelle	1 Adult	SJ955534	18 Aug 2007
Freshwater White-clawed Crayfish		SJ956536	06/01/1993
Grass Snake	1 Count of swimming	SJ959536	13/09/2000
Grass Snake	1 Count of juvenile	SJ963540	11/07/2000
Grass Snake	1 Count of swimming	SJ957537	11/07/2000
Grass Snake	1 Count of sunbathing	SJ958537	June 2000
Grass Snake	1 Count of swimming	SJ955536	27/08/2001
Grass Snake		SJ948538	12/07/1987
Grass Snake		SJ963537	20/08/1975
Grass Snake		SJ964539	20/08/1975
Grass Snake		SJ961534	05/05/1974
Grass Snake		SJ955536	26/03/1974
Grass Snake		SJ9554	1959
Grass Snake	1 Count of adult	SJ9554	August 1989
Grass Snake	several Count of adult	SJ9554	15/07/1987
Grass Snake		SJ9553	19/07/1975
Grass Snake		SJ9553	08/10/1973
Northern Lapwing	2 Breeding (probable)	SJ9554	17 May 2007
Pink Waxcap		SJ947544	1992
Pink Waxcap		SJ947544	1994
Pink Waxcap		SJ947544	1993
Pink Waxcap		SJ947544	1999
Pink Waxcap		SJ947544	1996
Pink Waxcap		SJ947544	1997
Pink Waxcap		SJ947544	1998
Pink Waxcap		SJ947544	2001
Pink Waxcap		SJ947544	2002
Pipistrelle	1 Count of juvenile male; 1 Count of dying/moribund	SJ959539	09/08/1994
Soprano Pipistrelle	1 Count of adult	SJ955534	18/08/2007
Soprano Pipistrelle	1 Adult	SJ955534	18 Aug 2007

Section 41, BAP1, SBAP & RDB1 records 1Km SJ957, 543 New Inn for Middlemarch

COMMON NAME	STATUS AT SITE	GRID REF	DATE
Wall	2 Adult	SJ9553	22 Aug 1999
Wall	2 Adult	SJ9553	27 Aug 1999
West European Hedgehog	1 Count of adult	SJ9554	03/09/2007
West European Hedgehog	1 Adult	SJ9554	03 Sep 2007

I trust that this answers your inquiry, if you have any questions, please do not hesitate to contact me. Please be aware that Staffordshire Wildlife Trust will shortly raise an invoice for £115.00+VAT to cover the cost of processing this inquiry.

Yours sincerely,

Andy Leak,
Principal Environmental Information Officer,
on behalf of Staffordshire Ecological Record.

Disclaimer

Introduction

The following outlines the limitations and restrictions covering the uses of data supplied by Staffordshire Ecological Record, together with the limitations of the original data.

Important Considerations

1. Information supplied by SER is always based on historical data of varying age and it only based upon the records supplied to SER. This should not be seen as an alternative to on site work. Absence of records should not be seen as definitive proof of the absence of the species or habitat in the search area.

2. Mobile species can move and their presence within the search area could be resident (present all year), seasonal (only present for part of the year) or incidental (species just passing through).

Species based information

The locations of protected and Biodiversity Action Plan priority species are supplied subject to the following limitations:

1. Unless otherwise stated, the information relating to species records is as accurate as possible, but is reliant on the quality of the original data supplied to SER. SER cannot be responsible for any errors in the data, nor the consequences of their use.
2. Unless otherwise stated, personal information is not normally supplied in reports, however, if present, it is deemed confidential under the Data Protection Act and should not be passed to a third party.
3. Unless otherwise stated, records of badger (*Meles meles*) and all bat species are deemed confidential and can only be published at reduced resolution (1km precision) even where precise information is supplied by SER for analysis purposes. Under certain circumstances, other species records may be deemed sensitive and need to be handled in a similar fashion.

Site based information

The boundaries of Sites of Biological Importance (SBIs), Biodiversity Alert Sites (BASs) or Regionally Important Geological/Geomorphological Sites (RIGS) are supplied subject to the following limitations:

1. Site boundaries are as precise as the original survey maps and base mapping allow.
2. The presence of a marked boundary on supplied maps does not infer any right of public access. Gaining permission to visit is the client's responsibility.
3. Site status is conferred by a Grading Committee and is correct at the time of survey. Changes may have occurred since survey which affect the site's quality, however, the grading remains in effect until reviewed by the Grading Committee.
4. The boundaries of Sites of Special Scientific Interest (SSSIs) and other statutory sites may be included on maps, but are not the property of SER.

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2. Information supplied free-of-charge for educational or private purposes must not be used for profit-making ends.
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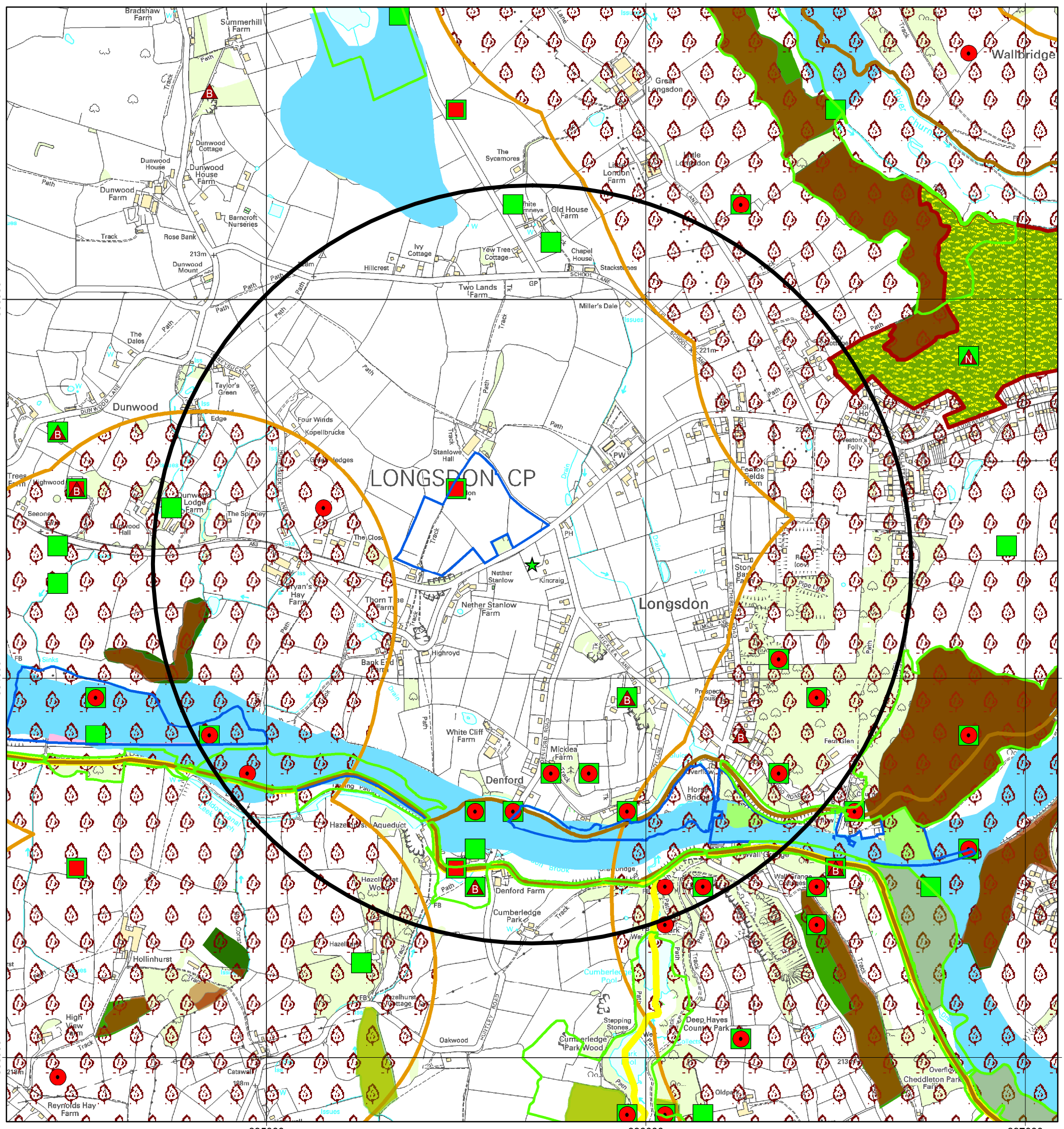

Sites and Species records 1Km SJ957, 543, New Inn for Middlemarch

- 1Km Sites and Species Shearch Area
- Centre Point of Radius Search
- Grade 1 SBIs
- Biodiversity Alert Sites

All ancient woodlands

STATUS

- ASNW
- PAWS
- Natural England Grassland Inventory Sites
- Local Nature Reserves

- Waterway known to support the passage of otters
- Waterway known to support water vole colonies

European Protected Species

COMMONNAME

- B — Bat (All species)
- O — European Otter
- P — Floating Water-plantain
- N — Great Crested Newt
- D — Hazel Dormouse
- T — Natterjack Toad

Other Protected Species

- 1Km Accuracy
- 100m Accuracy
- 10m Accuracy
- Section 74 & SBAP Species

- 500m FC Consultation zone for New Build

All BAP Habitats

PRIHABTXT

- Coastal and floodplain grazing marsh
- Fens
- Lowland mixed deciduous woodland
- Purple moor grass and rush pasture
- Reedbeds
- Undetermined woodland
- Wet woodland

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Date: 17/06/2009

1:10,000

Staffordshire Ecological Record SBI Report

95/43/77

Site Name: **Caldon Canal, Park Lane Farm (north-east of)**

Locality Type: **Canals**

Grid Ref.: SJ947537

GB Vice-County: Staffordshire

Civil Parish: Cheddleton (Staffordshire Moorlands, Staffordshire, England)

Civil Parish: Endon and Stanley (Staffordshire Moorlands, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	250132	no date

Conservation Status

Status	Details	Date
Public footpath		no date

Biotopes (Habitats)

Code	Habitat	Area
A22	Scrub: scattered	
B21	Grassland: neutral, unimproved	
B5	Grassland: marsh/marshy grassland	
F21	Marginal/inundation: marginal	
G11	Open water: standing, eutrophic	
J212	Boundaries, intact hedge, species-poor	
J25	Boundaries, wall	

Dimensions

Dimension	Value/units
length	3km

Contacts

Role	Date	Contact
field surveyor	1998	Radford, Dr Elaine
landowner	1998	British Waterways

Site Description

Source: **Radford, Dr Elaine, 1998**

Summary: A stretch of the Caldon Canal from Bridge 31 at Endon east to Horse Bridge , Longsdon.

Hazelhurst Locks are located approximately 0.75 km from Horse Bridge, and the Leek Branch of the Caldon Canal crosses the canal on the Hazelhurst Aqueduct a short distance east of the locks.

This part of the canal is mainly bordered by improved or semi-improved grasslands. Broad-leaved woodland which is part of Deep Hayes Country Park (SBI No 95/63/01) lies adjacent to the southern bank at the eastern end of the site, with a second very small stand south of the canal, a short distance west of Hazelhurst Locks.

Bridge 31 to Hazelhurst Locks.

For most of its length the canal towpath is bordered by a managed hawthorn hedge, beside which there is a verge which becomes progressively wider, where the canal is on an embankment. A

number of mature trees, principally ash with one crack willow, are interspersed along the length of the hedge. Where the embankment is at its steepest it is scattered with scrub , including patches of bramble, some blackthorn and an occasional sycamore . The verge is occupied by a rather coarse grassland sward in which meadow foxtail is quite conspicuous accompanied by a number of common herbs particularly cow parsley, dandelion, creeping buttercup and stinging nettle. Less abundant associates include common knapweed, germander speedwell and meadow vetchling. Reed canary-grass is seen quite regularly and in certain areas predominates, such as near Bridge 30, where the verge is at its widest.

On the towpath edge there is a band of marshy grassland merging with the marginal vegetation fringing the canal, which is up to 1 m wide. The marginal fringe is dominated by reed sweet-grass with locally frequent yellow flag and occasional reed canary-grass, water dock and greater tussock sedge, which is uncommon in Staffordshire. On the inner edges of this marginal fringe meadow sweet is a major component of the vegetation with frequent creeping buttercup, lesser celandine and stinging nettle. Herbs such as marsh woundwort, angelica, cuckooflower and common valerian are more occasionally seen.

On the opposite bank the marginal fringe is also dominated by reed sweet grass, although generally it is not as wide (0.5 m wide or less) and is interspersed with lengths where there are only intermittent clumps of soft rush, particularly between bridge 31 and 32.

The small stand of broad-leaved woodland adjacent to and south of the canal just west of Hazelhurst Locks was viewed with binoculars from the opposite (towpath) side. The canopy appears to be principally of alder with a scattered shrub layer which includes holly, hawthorn and a willow. Nearest to the canal the ground flora includes wetland plants such as kingcup, large bittercress and soft rush all of which are quite abundant while on the drier ground bluebells are conspicuous with some greater stitchwort and an occasional foxglove.

From this woodland westwards to the top of the locks the southern bank is lined with trees, mainly birch with occasional hawthorn, holly and rowan.

Hazelhurst Locks to Denford

At Denford there are permanent moorings and both sides of the canal are lined with steel shutters while the towpath edge has a stone surface. From the permanent moorings east to the top of Hazelhurst Locks the towpath side is edged with steel shutters and there is no marginal vegetation. The opposite bank is lined with trees in places, mainly alder with frequent hawthorn and birch , beneath which lesser celandine is conspicuous. In one locality bracken will be dominant later in the year. Where the banks are unshaded and open to the adjoining pastures there are sporadic clumps of soft rush accompanied by cuckooflower. Some of these adjacent pastures are quite steeply sloping and there are wet flushes dominated by soft rush running down the slope. Kingcup , large bittercress and great hairy willowherb are to be seen amongst the rushes, particularly near the foot of the slope adjoining the canal.

A band of marshy grassland occurs on the towpath edge in which meadow sweet is abundant with frequent creeping buttercup, lesser celandine and common valerian. There are a number of additional species though most are more occasionally seen. They include angelica, cuckooflower, bulbous buttercup, marsh woundwort and young alder. Beside the locks butterbur is frequent.

The towpath is bounded by a stone wall, which has fallen into disrepair in places. A barbed wire fence has been erected above the derelict stretches. A variety of typical mosses, such as Bryum capillare and Grimmia pulvinata are found in some profusion on the wall with additionally several lichen species. In the grassy verge beside the wall a range of broad-leaved herbs are encountered including germander speedwell, goldilocks buttercup, meadow vetchling and foxglove. One plant of dog's mercury was noted beside the boundary wall by the locks and Russian comfrey was growing next to the Lock Keeper's Cottage.

Bridge 38 to Bridge 39

Between Bridge 38 and 39 there is an almost continuous, but narrow fringe of marginal vegetation on the side opposite the towpath, the main species in this fringe being reed sweet-grass. There is no marginal vegetation on the towpath side where the bank is lined with steel shutters.

Marshy grassland similar to that between Denford and Hazelhurst Locks runs along the towpath edge. Meadowsweet is again conspicuous as are soft rush, creeping buttercup and reed canary-grass. More occasionally herbs such as great hairy willowherb, greater tussock sedge, angelica, sweet cicely and water figwort were recorded.

Along this stretch the towpath is bounded by a managed hawthorn hedge adjacent to which there is a narrow grass verge. Herbs found in the verge included barren strawberry, greater stitchwort and red campion.

Fauna.

Mallard with young were seen along the canal and moorhen were also noted. A variety of common resident birds such as blackbird, wren, bluetit, great tit, dunnock and chaffinch were also seen. Peacock butterflies were in flight along the towpath while a grey squirrel was spotted in the woodland on the opposite bank.

Bibliography

described **SWT (1998)**
The SBI Resurvey of Staffordshire Moorlands 1998 - 2000 (Sites Surveyed in 1998); Staffordshire Wildlife Trust, Sandon, Stafford

Species List

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Staffordshire Ecological Record SBI Species List

Staffordshire Ecological Record

Species List for Caldon Canal, Park Lane Farm (north-east of)

& verge / embankment., Caldon Canal, Park Lane Farm (north-east of)

Boundaries, intact hedge, species-poor

Radford, Dr E. (28 APR 1998)

Vascular Plants (Tracheophyta)

Equisetum arvense	Field Horsetail	rare
Ranunculus repens	Creeping Buttercup	frequent
Rumex acetosa	Common Sorrel	occasional
Rumex obtusifolius	Broad-leaved Dock	occasional
Urtica dioica	Common Nettle	locally frequent
Crataegus monogyna	Hawthorn	dominant
Malus pumila	Apple	rare
Prunus spinosa	Blackthorn	occasional
Rosa		rare
Rubus fruticosus agg.	Bramble	frequent
Lathyrus pratensis	Meadow Vetchling	occasional
Trifolium pratense	Red Clover	occasional
Trifolium repens	White Clover	occasional
Vicia sepium	Bush Vetch	occasional
Chamerion angustifolium	Rosebay Willowherb	rare
Ilex aquifolium	Holly	occasional
Acer pseudoplatanus	Sycamore	occasional
Hedera helix	Ivy	occasional
Anthriscus sylvestris	Cow Parsley	frequent
Fraxinus excelsior	Ash	occasional
Plantago lanceolata	Ribwort Plantain	frequent
Veronica chamaedrys	Germander Speedwell	occasional
Galium aparine	Cleavers	occasional
Lonicera periclymenum	Honeysuckle	occasional
Sambucus nigra	Elder	occasional
Bellis perennis	Daisy	occasional
Centaurea nigra	Common Knapweed	occasional
Cirsium vulgare	Spear Thistle	rare
Taraxacum aggregate		frequent
Alopecurus pratensis	Meadow Foxtail	frequent
Dactylis glomerata	Cock's-foot	frequent
Festuca rubra agg.		locally frequent
Phalaris arundinacea	Reed Canary-grass	locally frequent
Poa trivialis	Rough Meadow-grass	frequent

Bridge 39 to bridge 38., Caldon Canal, Park Lane Farm (north-east of)

Boundaries, intact hedge, species-poor

Radford, Dr E. (24 APR 1998)

Equisetum arvense	Field Horsetail	rare
Ranunculus ficaria	Lesser Celandine	locally abundant
Silene dioica	Red Campion	occasional
Stellaria holostea	Greater Stitchwort	occasional
Urtica dioica	Common Nettle	occasional
Alliaria petiolata	Garlic Mustard	occasional
Crataegus monogyna	Hawthorn	dominant

Filipendula ulmaria	Meadowsweet	occasional
Potentilla sterilis	Barren Strawberry	occasional
Ribes alpinum	Mountain Currant	locally frequent
Trifolium repens	White Clover	frequent
Vicia sepium	Bush Vetch	occasional
Anthriscus sylvestris	Cow Parsley	frequent
Heracleum sphondylium	Hogweed	occasional
Plantago lanceolata	Ribwort Plantain	occasional
Veronica chamaedrys	Germander Speedwell	occasional
Bellis perennis	Daisy	frequent
Taraxacum aggregate		frequent
Festuca rubra agg.		frequent
Lolium perenne	Perennial Rye-grass	occasional
Poa pratensis agg.		occasional

Marginal/inundation: marginal

Radford, Dr E. (24 APR 1998)

Cardamine pratensis	Cuckooflower	frequent
Mentha aquatica	Water Mint	rare
Glyceria maxima	Reed Sweet-grass	frequent
Phalaris arundinacea	Reed Canary-grass	occasional
Juncus effusus	Soft-rush	frequent

Denford to Hazelhurst locks., Caldon Canal, Park Lane Farm (north-east of)

Boundaries, wall

Radford, Dr E. (28 APR 1998)

Ranunculus auricomus	Goldilocks Buttercup	rare
Ranunculus ficaria	Lesser Celandine	locally frequent
Cerastium fontanum	Common Mouse-ear	rare
Rumex obtusifolius	Broad-leaved Dock	occasional
Urtica dioica	Common Nettle	frequent
Cardamine pratensis	Cuckooflower	locally frequent
Crataegus monogyna	Hawthorn	rare
Filipendula ulmaria	Meadowsweet	locally frequent
Rosa		rare
Lathyrus pratensis	Meadow Vetchling	occasional
Trifolium dubium	Lesser Trefoil	locally frequent
Trifolium pratense	Red Clover	locally frequent
Trifolium repens	White Clover	occasional
Vicia sepium	Bush Vetch	occasional
Epilobium hirsutum	Great Willowherb	rare
Mercurialis perennis	Dog's Mercury	rare
Angelica sylvestris	Wild Angelica	occasional
Anthriscus sylvestris	Cow Parsley	frequent
Symphytum x uplandicum	Russian Comfrey	occasional
Plantago lanceolata	Ribwort Plantain	occasional
Digitalis purpurea	Foxglove	rare
Veronica agrestis	Green Field-speedwell	rare
Veronica chamaedrys	Germander Speedwell	occasional
Galium aparine	Cleavers	occasional
Valeriana officinalis	Common Valerian	occasional
Bellis perennis	Daisy	locally frequent
Centaurea nigra	Common Knapweed	occasional
Cirsium palustre	Marsh Thistle	rare
Senecio jacobaea	Common Ragwort	rare
Taraxacum aggregate		frequent

Tussilago farfara	Colt's-foot	occasional
Dactylis glomerata	Cock's-foot	frequent
Deschampsia cespitosa	Tufted Hair-Grass	occasional
Festuca rubra agg.		frequent
Holcus lanatus	Yorkshire-fog	frequent
Poa trivialis	Rough Meadow-grass	frequent
Carex hirta	Hairy Sedge	occasional

Mosses & Liverworts (Bryophyta)

Polytrichum juniperinum	Juniper Haircap	occasional
Bryum capillare	Capillary Thread-moss	frequent
Brachythecium rutabulum	Rough-stalked Feather-moss	locally frequent
Eurhynchium praelongum	Common Feather-moss	occasional
Homalothecium sericeum	Silky Wall Feather-moss	occasional
Hypnum cupressiforme sensu lato		locally frequent
Grimmia pulvinata	Grey-cushioned Grimmia	frequent

Marginal/inundation: marginal

Radford, Dr E. (28 APR 1998)

Vascular Plants (Tracheophyta)

Pteridium aquilinum	Bracken	locally abundant
Dryopteris dilatata	Broad Buckler-fern	occasional
Dryopteris filix-mas agg.		occasional
Caltha palustris	Marsh-marigold	locally frequent
Ranunculus ficaria	Lesser Celandine	frequent
Alnus glutinosa	Alder	locally abundant
Betula pendula	Silver Birch	frequent
Urtica dioica	Common Nettle	frequent
Salix caprea	Goat Willow	occasional
Cardamine amara	Large Bitter-cress	locally frequent
Crataegus monogyna	Hawthorn	locally frequent
Rubus idaeus	Raspberry	locally frequent
Epilobium hirsutum	Great Willowherb	frequent
Ilex aquifolium	Holly	occasional
Angelica sylvestris	Wild Angelica	occasional
Digitalis purpurea	Foxglove	occasional
Glyceria maxima	Reed Sweet-grass	occasional
Juncus effusus	Soft-rush	locally dominant

Denford to Hazlehurst locks: towpath., Caldon Canal, Park Lane Farm (north-east of)

Radford, Dr E. (28 APR 1998)

Athyrium filix-femina	Lady-fern	locally frequent
Dryopteris dilatata	Broad Buckler-fern	rare
Ranunculus bulbosus	Bulbous Buttercup	occasional
Ranunculus ficaria	Lesser Celandine	frequent
Ranunculus repens	Creeping Buttercup	frequent
Alnus glutinosa	Alder	occasional
Rumex acetosa	Common Sorrel	occasional
Rumex hydrolapathum	Water Dock	occasional
Urtica dioica	Common Nettle	locally frequent
Cardamine amara	Large Bitter-cress	rare
Cardamine pratensis	Cuckooflower	occasional
Filipendula ulmaria	Meadowsweet	abundant
Trifolium repens	White Clover	occasional
Vicia sepium	Bush Vetch	occasional
Chamerion angustifolium	Rosebay Willowherb	occasional
Angelica sylvestris	Wild Angelica	occasional

Anthriscus sylvestris	Cow Parsley	frequent
Plantago lanceolata	Ribwort Plantain	occasional
Valeriana officinalis	Common Valerian	frequent
Centaurea nigra	Common Knapweed	occasional
Cirsium arvense	Creeping Thistle	rare
Petasites hybridus	Butterbur	locally frequent
Taraxacum aggregate		occasional
Tussilago farfara	Colt's-foot	occasional
Alopecurus pratensis	Meadow Foxtail	frequent
Dactylis glomerata	Cock's-foot	occasional
Glyceria maxima	Reed Sweet-grass	occasional
Lolium perenne	Perennial Rye-grass	occasional
Phalaris arundinacea	Reed Canary-grass	locally frequent
Juncus effusus	Soft-rush	rare
Carex panicea	Carnation Sedge	rare
Mosses & Liverworts (Bryophyta)		
Pellia epiphylla	Overleaf Pellia	locally frequent

Hazelhurst locks to bridge 31., Caldon Canal, Park Lane Farm (north-east of)

Marginal/inundation: marginal

Radford, Dr E. (28 APR 1998)

Birds (Chordata: Aves)

Anas platyrhynchos	Mallard	proved breeding
Gallinula chloropus	Common Moorhen	
Vascular Plants (Tracheophyta)		
Equisetum arvense	Field Horsetail	rare
Ranunculus ficaria	Lesser Celandine	frequent
Ranunculus repens	Creeping Buttercup	frequent
Alnus glutinosa	Alder	locally frequent
Rumex acetosa	Common Sorrel	occasional
Rumex hydrolapathum	Water Dock	occasional
Urtica dioica	Common Nettle	frequent
Cardamine pratensis	Cuckooflower	occasional
Cardamine pratensis	Cuckooflower	locally frequent
Crataegus monogyna	Hawthorn	occasional
Filipendula ulmaria	Meadowsweet	frequent
Rubus fruticosus agg.	Bramble	rare
Vicia sepium	Bush Vetch	occasional
Epilobium hirsutum	Great Willowherb	occasional
Angelica sylvestris	Wild Angelica	occasional
Heracleum sphondylium	Hogweed	rare
Fraxinus excelsior	Ash	rare
Stachys palustris	Marsh Woundwort	occasional
Plantago lanceolata	Ribwort Plantain	frequent
Galium aparine	Cleavers	occasional
Valeriana officinalis	Common Valerian	occasional
Centaurea nigra	Common Knapweed	occasional
Cirsium arvense	Creeping Thistle	rare
Cirsium vulgare	Spear Thistle	rare
Taraxacum aggregate		occasional
Alopecurus pratensis	Meadow Foxtail	frequent
Festuca rubra agg.		locally frequent
Glyceria maxima	Reed Sweet-grass	abundant
Glyceria maxima	Reed Sweet-grass	abundant
Phalaris arundinacea	Reed Canary-grass	occasional

Poa trivialis	Rough Meadow-grass	frequent
Juncus effusus	Soft-rush	locally dominant
Juncus effusus	Soft-rush	occasional
Carex panicea	Carnation Sedge	occasional
Carex panicea	Carnation Sedge	occasional
Iris pseudacorus	Yellow Iris	locally frequent

Woodland: broadleaved

Radford, Dr E. (28 APR 1998)

Caltha palustris	Marsh-marigold	locally abundant
Alnus glutinosa	Alder	frequent
Stellaria holostea	Greater Stitchwort	occasional
Salix	Willow	occasional
Cardamine amara	Large Bitter-cress	locally abundant
Ilex aquifolium	Holly	occasional
Hedera helix	Ivy	occasional
Angelica sylvestris	Wild Angelica	occasional
Digitalis purpurea	Foxglove	occasional
Holcus lanatus	Yorkshire-fog	frequent
Juncus effusus	Soft-rush	locally frequent
Hyacinthoides non-scripta	Bluebell	locally frequent

S. of canal at Denford., Caldon Canal, Park Lane Farm (north-east of)

Grassland: poor semi-improved

Radford, Dr E. (18 MAY 1998)

Athyrium filix-femina	Lady-fern	locally frequent
Ranunculus acris	Meadow Buttercup	abundant
Ranunculus repens	Creeping Buttercup	occasional
Alnus glutinosa	Alder	locally frequent
Betula pendula	Silver Birch	occasional
Quercus robur	Pedunculate Oak	occasional
Cerastium fontanum	Common Mouse-ear	frequent
Rumex acetosa	Common Sorrel	frequent
Urtica dioica	Common Nettle	occasional
Cardamine flexuosa	Wavy Bitter-cress	occasional
Cardamine pratensis	Cuckooflower	locally frequent
Crataegus monogyna	Hawthorn	occasional
Trifolium pratense	Red Clover	frequent
Trifolium repens	White Clover	frequent
Anthriscus sylvestris	Cow Parsley	occasional
Plantago major	Greater Plantain	locally frequent
Bellis perennis	Daisy	frequent
Cirsium arvense	Creeping Thistle	locally frequent
Cirsium vulgare	Spear Thistle	rare
Taraxacum aggregate		frequent
Alopecurus pratensis	Meadow Foxtail	frequent
Anthoxanthum odoratum	Sweet Vernal-grass	frequent
Lolium perenne	Perennial Rye-grass	frequent
Poa trivialis	Rough Meadow-grass	frequent
Juncus effusus	Soft-rush	locally frequent
Hyacinthoides non-scripta	Bluebell	locally frequent

Mosses & Liverworts (Bryophyta)

Polytrichum commune	Common Haircap	locally frequent

Towpath, Bridge 39 to bridge 38., Caldon Canal, Park Lane Farm (north-east of)

Radford, Dr E. (24 APR 1998)

Vascular Plants (Tracheophyta)

Ranunculus ficaria	Lesser Celandine	occasional
Ranunculus repens	Creeping Buttercup	frequent
Silene dioica	Red Campion	occasional
Rumex acetosa	Common Sorrel	occasional
Rumex hydrolapathum	Water Dock	occasional
Rumex obtusifolius	Broad-leaved Dock	occasional
Urtica dioica	Common Nettle	frequent
Salix caprea	Goat Willow	occasional
Filipendula ulmaria	Meadowsweet	frequent
Trifolium repens	White Clover	occasional
Vicia sepium	Bush Vetch	occasional
Epilobium hirsutum	Great Willowherb	occasional
Angelica sylvestris	Wild Angelica	occasional
Anthriscus sylvestris	Cow Parsley	frequent
Heracleum sphondylium	Hogweed	occasional
Myrrhis odorata	Sweet Cicely	rare
Fraxinus excelsior	Ash	rare
Lamium album	White Dead-nettle	rare
Plantago lanceolata	Ribwort Plantain	occasional
Scrophularia auriculata	Water Figwort	occasional
Veronica chamaedrys	Germander Speedwell	occasional
Symphoricarpos albus	Snowberry	rare
Valeriana officinalis	Common Valerian	frequent
Tussilago farfara	Colt's-foot	occasional
Agrostis capillaris	Common Bent	locally frequent
Anthoxanthum odoratum	Sweet Vernal-grass	occasional
Dactylis glomerata	Cock's-foot	frequent
Deschampsia cespitosa	Tufted Hair-Grass	occasional
Glyceria maxima	Reed Sweet-grass	occasional
Holcus lanatus	Yorkshire-fog	occasional
Phalaris arundinacea	Reed Canary-grass	frequent
Juncus effusus	Soft-rush	frequent
Carex panicea	Carnation Sedge	occasional

Staffordshire Ecological Record SBI Report

95/43/97

Site Name: **Denford (west of), Caldon Canal**

Parent Site: **Caldon Canal/Endon Brook (west of Denford)** (95/43/97)

Locality Type: **Fen, marsh and swamp {B}**

Grid Ref.: SJ949537

GB Vice-County: Staffordshire

Civil Parish: Cheddleton (Staffordshire Moorlands, Staffordshire, England)

Civil Parish: Endon and Stanley (Staffordshire Moorlands, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	5519	no date

Biotopes (Habitats)

Code	Habitat	Area
B52	Grassland: marshy, lowland	

Dimensions

Dimension	Value/units
altitude	145m
area	4ha

Contacts

Role	Date	Contact
field surveyor	1991	Slawson, Mr G.Craig
record compiler	1988	Slawson, Mr G.Craig
field surveyor	1979	Marsden, Ms Carol A.
field surveyor	1979	Hiskett, Mrs Lesley A.

Site Description

Source: **Slawson, Mr G.Craig, 1991**

Summary:

The western end of the field has been mown and badly chewed up by a tractor at the time of the visit (the portion to the west of the parish boundary in Endon and Stanley).

To the west of the track is dominated by very tussocky $Deschampsia cespitosa$ and $Juncus effusus$, with a fairly low species diversity. There is standing water in the ditch along the base of the canal wall, with meadowsweet, water forget-me- not, marsh bedstraw, greater birds-foot-trefoil and marsh thistle. The northern boundary with the railway is a hawthorn hedge with some elder. There is a small patch of red campion by the Endon Brook, and $Glyceria fluitans$ in the brook. The area has been recently grazed, the lusher grasses being cropped, and many of the dicotyledons, including meadowsweet showed some grazing. A succinid snail was seen.

To the east of the track was much taller herbage, dominated in places by docks with tall grasses and $Juncus$. The area looks to have been recently re-fenced (no access) and consequently not grazed. At the east end were mature $Salix fragilis$. The spider $Larinioides cornutus$ was noted.

The fields further east (outside the grade 1 site) were (in order west to east)

(1) semi-improved, but drier, with more dock and very little if any $Juncus$ and only a little meadowsweet (no access).

(2) damper, including more meadowsweet, valerian and angelica and a patch of possibly tussock

sedge (no access).

(3) the easternmost field is dominated by dock and grasses, slightly higher and therefore drier than the previous with $Lolium$, $Holcus lanatus$, $Ranunculus repens$, $Trifolium repens$, $Matricaria matricarioides$, $Matricaria inodorum$, $Dactylis glomerata$, $Polygonum aviculare$ and $Anthriscus sylvestris$.

Source: **Hiskett & Marsden, 1979**

Summary: A very wet field adjacent to the canal. $Sparganium erectum$ was present in the ditch.

Bibliography

described **SWT (1989-93 checking) (1993)**
Re-checking of SBI conditions; Staffordshire Wildlife Trust, Sandon, Stafford

described **SNCT (County Survey) (1984)**
The Phase 1 Survey of Staffordshire - 1978-1984; Staffordshire Nature Conservation Trust, Sandon, Staffs.

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Staffordshire Ecological Record SBI Species List

Staffordshire Ecological Record

Species List for Denford (west of)

Hazelhurst Locks, Denford (west of)

Boundaries, wall

Fergusson, Mr R. (12 JUL 1987)

Reptiles and Amphibians (Chordata; Reptilia/Amphibia)

Natrix natrix	Grass Snake

Staffordshire Ecological Record SBI Report

Staffordshire Ecological Record

95/63/53

Site Name: **Caldon Canal**

Locality Type: **Canals**

Grid Ref.: SJ962535

GB Vice-County: Staffordshire

Civil Parish: Cheddleton (Staffordshire Moorlands, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	250144	no date

Conservation Status

Status	Details	Date
Public footpath		no date

Biotopes (Habitats)

Code	Habitat	Area
A111	Woodland: broadleaved, semi-natural	
A21	Scrub: dense/continuous	
B5	Grassland: marsh/marshy grassland	
F21	Marginal/inundation: marginal	
G11	Open water: standing, eutrophic	
J211	Boundaries, intact hedge, species-rich	
J212	Boundaries, intact hedge, species-poor	

Dimensions

Dimension	Value/units
length	1.35km

Contacts

Role	Date	Contact
field surveyor	1998	Radford, Dr Elaine
landowner	1998	British Waterways

Site Description

Source: **Radford, Dr Elaine, 1998**

Summary: A stretch of the Caldon canal from Horse Bridge, Longsdon east to Cheddleton Flint Mill.

For approximately 0.5km the canal runs in an easterly direction. To the north of this length there is an area of scrub which has developed between the canal towpath and an old mineral railway line. To the south broad-leaved woodland into which an occasional conifer has been planted occupies the slope directly above the canal. The canal then follows a south-easterly course to Cheddleton. Cheddleton Marsh (Site No 95/63/74) lies directly adjacent to the canal embankment along this stretch while on the opposite side (west of the canal) unimproved and semi-improved grasslands occupy the steep slopes above the canal edge. Approaching Cheddleton Flint Mill several wet flushed areas drain down these slopes to the canal.

A stone-lined channel has been constructed towards the southern end of this stretch to allow water to drain from the canal to the River Churnet which follows a meandering course to the east.

For most of its length the canal towpath is bounded by a managed hawthorn hedge in which there are occasional gaps. Dog's mercury and lesser celandine are particularly conspicuous in the hedge bottom

with additional species such as barren strawberry, greater stitchwort and ivy. Meadow sweet, foxglove and creeping cinquefoil are occasionally encountered.

The scrub between the towpath and the mineral railway line is dominated by goat willow with patches of raspberry, while further east adjacent to Cheddleton Marsh the canal embankment supports broad-leaved woodland, with frequent alder and hawthorn and occasional hazel, blackthorn and elder. The ground flora includes a number of characteristic woodland herbs such as wood anemone, bluebell, moschatel and extensive patches of dog's mercury. A drain runs along the foot of the embankment where the typical wetland flora includes kingcup and in places large stools of greater tussock sedge, which is uncommon in Staffordshire.

The towpath edge supports quite species-rich marshy grassland in which meadow sweet is a major component with frequent lesser celandine and common valerian. Associated species include herbs characteristic of wetter soils such as great hairy willowherb, cuckooflower, reed canary-grass, soft rush and angelica. The opposite bank is lined by mature alders amongst which there are a variety of other trees and shrubs including blackthorn, rowan, holly and rose. Lesser celandine is often found in the ground flora, as is wood anemone, foxglove and bracken but only in localised areas. In the wet flushed areas on the edge of the canal where water drains down the adjoining slope kingcup grows amongst large tussocks of greater tussock sedge.

On the towpath side the canal is edged with steel shutters for the majority of its length with a stone retaining wall for the final 300 m included in the site. Consequently there is little marginal vegetation although some is present at the western end where there is a mix of greater tussock sedge, lesser pond sedge and reed sweet-grass with frequent large bittercress and meadow sweet. Great water dock, soft rush and common valerian are occasional. Reed sweet-grass forms an intermittent marginal fringe on the opposite edge, although this is restricted mainly to the south-western end of the site.

The stone wall on the canal edge carries cushions of the moss Grimmia pulvinata and the stone-lined drainage channel has patches of the liverwort Pellia epiphylla. Wavy bittercress is found on the edges of the channel.

Bibliography

described **SWT (1998)**
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Staffordshire Ecological Record SBI Species List

Staffordshire Ecological Record

Species List for Caldon Canal

hedges, scrub and woodland, Caldon Canal

Radford, Dr E. (24 APR 1998)

Vascular Plants (Tracheophyta)

Pteridium aquilinum	Bracken	locally frequent
Anemone nemorosa	Wood Anemone	occasional
Caltha palustris	Marsh-marigold	locally frequent
Ranunculus ficaria	Lesser Celandine	abundant
Alnus glutinosa	Alder	locally abundant
Betula pendula	Silver Birch	occasional
Corylus avellana	Hazel	locally frequent
Silene dioica	Red Campion	occasional
Stellaria holostea	Greater Stitchwort	frequent
Hypericum hirsutum	Hairy St John's-wort	rare
Urtica dioica	Common Nettle	locally frequent
Salix caprea	Goat Willow	locally abundant
Alliaria petiolata	Garlic Mustard	occasional
Cardamine flexuosa	Wavy Bitter-cress	rare
Cardamine pratensis	Cuckooflower	locally frequent
Crataegus monogyna	Hawthorn	locally dominant
Filipendula ulmaria	Meadowsweet	locally frequent
Potentilla reptans	Creeping Cinquefoil	occasional
Potentilla sterilis	Barren Strawberry	occasional
Prunus spinosa	Blackthorn	occasional
Rosa		locally frequent
Rubus fruticosus agg.	Bramble	frequent
Rubus idaeus	Raspberry	locally frequent
Sorbus aucuparia	Rowan	occasional
Chrysosplenium oppositifolium	Opposite-leaved Golden-saxifrage	locally frequent
Ulex europaeus	Gorse	occasional
Epilobium hirsutum	Great Willowherb	occasional
Ilex aquifolium	Holly	occasional
Mercurialis perennis	Dog's Mercury	locally dominant
Acer pseudoplatanus	Sycamore	occasional
Hedera helix	Ivy	frequent
Angelica sylvestris	Wild Angelica	occasional
Heracleum sphondylium	Hogweed	occasional
Fraxinus excelsior	Ash	occasional
Symphytum x uplandicum	Russian Comfrey	rare
Lamium album	White Dead-nettle	occasional
Stachys sylvatica	Hedge Woundwort	occasional
Digitalis purpurea	Foxglove	occasional
Galium aparine	Cleavers	locally frequent
Adoxa moschatellina	Moschatel	locally frequent
Sambucus nigra	Elder	occasional
Valeriana officinalis	Common Valerian	occasional
Cirsium arvense	Creeping Thistle	occasional
Phalaris arundinacea	Reed Canary-grass	occasional
Poa trivialis	Rough Meadow-grass	frequent

Carex panicea	Carnation Sedge	locally abundant
Hyacinthoides non-scripta	Bluebell	locally frequent
Mosses & Liverworts (Bryophyta)		
Pellia epiphylla	Overleaf Pellia	occasional
Eurhynchium praelongum	Common Feather-moss	frequent
Grimmia pulvinata	Grey-cushioned Grimmia	locally frequent

Marginal vegetation, Caldon Canal

Marginal/inundation: marginal

Radford, Dr E. (24 APR 1998)

Birds (Chordata: Aves)		
Anas platyrhynchos	Mallard	
Vascular Plants (Tracheophyta)		
Rumex hydrolapathum	Water Dock	occasional
Cardamine amara	Large Bitter-cress	locally abundant
Filipendula ulmaria	Meadowsweet	locally abundant
Valeriana officinalis	Common Valerian	occasional
Glyceria maxima	Reed Sweet-grass	locally abundant
Phalaris arundinacea	Reed Canary-grass	locally frequent
Juncus effusus	Soft-rush	occasional
Carex acutiformis	Lesser Pond-sedge	locally frequent
Carex panicea	Carnation Sedge	locally frequent

Towpath., Caldon Canal

Radford, Dr E. (24 APR 1998)

Ranunculus acris	Meadow Buttercup	rare
Ranunculus ficaria	Lesser Celandine	frequent
Ranunculus repens	Creeping Buttercup	frequent
Alnus glutinosa	Alder	occasional
Betula		rare
Rumex acetosa	Common Sorrel	occasional
Rumex obtusifolius	Broad-leaved Dock	occasional
Urtica dioica	Common Nettle	occasional
Cardamine pratensis	Cuckooflower	occasional
Filipendula ulmaria	Meadowsweet	frequent
Rubus fruticosus agg.	Bramble	occasional
Lathyrus pratensis	Meadow Vetchling	occasional
Trifolium pratense	Red Clover	occasional
Vicia sepium	Bush Vetch	occasional
Chamerion angustifolium	Rosebay Willowherb	occasional
Epilobium hirsutum	Great Willowherb	occasional
Acer pseudoplatanus	Sycamore	seedling rare
Angelica sylvestris	Wild Angelica	occasional
Anthriscus sylvestris	Cow Parsley	frequent
Heracleum sphondylium	Hogweed	occasional
Fraxinus excelsior	Ash	rare
Plantago lanceolata	Ribwort Plantain	frequent
Plantago major	Greater Plantain	locally frequent
Veronica chamaedrys	Germander Speedwell	occasional
Veronica officinalis	Heath Speedwell	frequent
Bellis perennis	Daisy	occasional
Centaurea nigra	Common Knapweed	occasional
Petasites hybridus	Butterbur	locally frequent
Senecio jacobaea	Common Ragwort	rare
Taraxacum aggregate		locally frequent
Tussilago farfara	Colt's-foot	locally frequent
Dactylis glomerata	Cock's-foot	occasional

Deschampsia cespitosa	Tufted Hair-Grass	occasional
Festuca rubra agg.		locally frequent
Holcus lanatus	Yorkshire-fog	frequent
Lolium perenne	Perennial Rye-grass	locally frequent
Phalaris arundinacea	Reed Canary-grass	occasional
Juncus effusus	Soft-rush	occasional
Mosses & Liverworts (Bryophyta)		
Brachythecium rutabulum	Rough-stalked Feather-moss	occasional

Staffordshire Ecological Record SBI Report

Staffordshire Ecological Record

95/63/88

Site Name: **Caldon Canal (south of Hollinhay Wood)**

Locality Type: **Broadleaved, mixed and yew woodland {B}**
Canals

Grid Ref.: SJ968538

GB Vice-County: Staffordshire

Civil Parish: Longsdon (Staffordshire Moorlands, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	250146	no date

Biotopes (Habitats)

Code	Habitat	Area
A111	Woodland: broadleaved, semi-natural	11.12
A122	Woodland: coniferous, plantation	1.56
A21	Scrub: dense/continuous	0.93
A22	Scrub: scattered	
B11	Grassland: acid, unimproved	0.84
B21	Grassland: neutral, unimproved	1.44
B5	Grassland: marsh/marshy grassland	1.16
C11	Tall herb and fern: Bracken, continuous	0.64
C3	Tall herb and fern: other tall herb or fern	
D5	Heathland: dry heath/acid grassland mosaic	
E21	Mire: Flush/spring, acid/neutral	0.08
F21	Marginal/inundation: marginal	
G11	Open water: standing, eutrophic	2.16
J22	Boundaries, defunct hedge	
J26	Boundaries, dry ditch	

Dimensions

Dimension	Value/units
area	19.9ha

Contacts

Role	Date	Contact
landowner	2005	Edwards, Patricia
interested person	2005	Edwards, Mrs Patricia
field surveyor	1998	Radford, Dr Elaine
field surveyor	1998	Radford, Dr Elaine
landowner	1998	Severn Trent Water
landowner	1998	British Waterways
landowner, previous	1998	Clowes, Mr S.G.
tenant	1998	Gee, Mr C.B.

Site Description

Source: **Radford, Dr Elaine, 1998**

Summary: The site comprises a 1.5km stretch of the Leek Branch of the Caldon Canal between Horse Bridge in the west and the entrance to the Leek Tunnel in the east, together with associated habitats beside the canal including Hollinhay Wood directly adjacent and to the north of the canal, and areas of broad-

leaved woodland, scattered scrub and unimproved grassland to the south of the canal. A small wet flush is also included in the site and substantial areas of marshy grassland and dense scrub. An area of woodland called Soils Wood, whose western boundary is almost directly adjacent to the substantial area of scrub south-east of the canal is also included in the site and has been described under sub-site no 95/84/00.

The site is situated a short distance north-west of the River Churnet, which follows a course almost parallel to this stretch of the canal, and lies to the east of the village of Longsdon. A pumping station is situated south of the canal at the eastern end of the site and a surfaced track provides access to it. Most of the site north of the canal was surveyed from public rights of way or was viewed from the canal towpath with the assistance of binoculars, as access for survey had not been obtained.

The Canal

There is a steep embankment on the southern edge of the canal along the top of which there is a fragmentary, managed hawthorn hedge, replaced by a barbed wire fence in some stretches. Between Horse Bridge and the next Bridge to the east (No 7), house gardens run down to the northern edge of the canal. From Bridge 7 eastwards the steep slopes directly above the northern canal bank are mainly occupied by broad-leaved woodland. Near the entrance to Leek tunnel these slopes are covered by scattered scrub.

The canal is lined with steel shutters for most of its length and there is generally very little marginal vegetation. However at the eastern end of the stretch beyond Bridge 7, there is a narrow band on the southern edge dominated by greater tussock sedge which is uncommon in Staffordshire, accompanied by frequent soft rush and more occasionally by lesser pond sedge, meadow sweet, large bittercress, cuckooflower, reed sweet-grass and reed canary-grass.

The edge of the towpath supports neutral grassland with Yorkshire fog, creeping buttercup, hogweed and reed canary-grass occurring frequently with herbs such as meadow sweet, common knapweed , marsh woundwort, angelica, common valerian and great hairy willowherb more occasionally seen. At the eastern end of the towpath there are areas where this grassland is more acidic in character with much sheep?s fescue, field woodrush, sweet vernal-grass and sheep?s sorrel accompanied by devil?s-bit scabious, common cat?s-ear and a little wood sage. In one locality between Horse Bridge and Bridge 7 small amounts of bilberry and wavy hair-grass are apparent.

A number of woodland herbs are to be found at the foot of the hedge which bounds the towpath including dog?s mercury which is locally abundant, locally frequent bluebell and greater stitchwort. Additional species include meadow foxtail and Yorkshire fog, which provide most of the vegetation cover, accompanied by a range of broad-leaved herbs such as red campion, meadow sweet, common valerian and germander speedwell. Pink purslane, an introduced species which has become quite widely naturalised, is locally abundant adjacent to and west of Bridge 7. Bramble and bracken are also conspicuous in places. The hedge bank too has patches where the herbs present are characteristic of more acidic soils, with sheep?s fescue, common cat?s-ear, devil?s bit scabious and heath bedstraw.

The woodland and scrub

Hollinhay Wood on the rather steep slope to the north of the canal is mainly broad-leaved although a compartment towards the centre has been planted with conifers .The broad-leaved canopy is quite open and is dominated by birch with locally frequent oak. Sycamore occurs occasionally. Alders are conspicuous on the southern edge adjacent to the canal. There is only a very scattered understorey which includes rowan , elder and a little rhododendron, mainly found on the southern edge adjacent to the canal bank. The ground flora is dominated by bracken, although bluebells were abundant on the slopes directly above the canal in the spring. Bracken is also dominant beneath the conifers. An open area on the north western edge is dominated by bracken.

The steep embankment on the southern edge of the canal supports broad-leaved woodland for part of its length, with acidic grassland and scattered scrub at the eastern end. The woodland canopy is composed of oak with some ash, beech and sycamore, although west of bridge 7 birch and sycamore are frequent. Some of the oaks have been planted and are now quite mature, although a few older specimens, probably a remnant of the original semi-natural woodland which may once have occupied this area, still remain amongst them. The scattered understorey includes holly, hazel and rowan while the ground layer has quite extensive areas carpeted with bluebells . Elsewhere Yorkshire fog is prevalent with locally frequent wood anemone, common violet and greater stitchwort. Areas dominated by soft rush occur at the foot of the embankment on the woodland edge. In open glades on the bank west of Bridge 7 bracken and rosebay willowherb are each abundant in places. The woodland is unfenced and is grazed by cattle.

On the lower lying ground at the foot of the canal embankment there is a further stand of birch woodland in which alder is locally frequent. The ground flora is mainly dominated by Yorkshire fog accompanied by broad buckler fern and patches of bramble, although quite a substantial area supports large stools of greater tussock sedge, some of which have been colonised by the woodland herb wood sorrel. Velvet bent which is uncommon in the county grows between the stools, with some purple moor-grass and small amounts of common valerian, marsh violet which is uncommon in the county, and tormentil.

Patches of scrub are found on the slope to the north of the canal and on the southern embankment. A more extensive area of scrub covers the steep slope above the access track to the water pumping station on the north-eastern boundary of the site. Such areas are usually dominated by hawthorn or by gorse. The most extensive area is interspersed with stands of rosebay willowherb and pockets of acidic grassland and dry dwarf shrub heath.

Scrub, dominated by willow has also developed in the area referred to as Coena?s Well. The area is securely fenced with steel shuttering. A small area of scrub, where there is a mix of alder, birch and hawthorn, situated on the lower edge of the woodland on the southern embankment has also been fenced securely, presumably to exclude grazing animals to allow the trees and shrubs to regenerate.

The grasslands(excluding those on the canal towpath)

Acidic grassland occurs on the southern embankment of the canal. The sward is composed of common bent, wavy hair-grass and sheep?s fescue, with locally frequent mat-grass. Broad leaved herbs typical of acidic soils are found in the sward, particularly tormentil, heath bedstraw and sheep?s sorrel. Locally mouse-ear hawkweed is frequent. Harebell is seen occasionally. In places betony and devil?s-bit scabious are also encountered and heather is locally abundant. Towards the lower edges of the slope species more typically associated with neutral soils such as red clover, common mouse-ear and common knapweed are found in the sward.

Grassland on the slopes to the north of the canal, where there are exposed sandstone buffs, are probably of a similar nature.

Scrub has begun to colonise some of these areas and there are sporadic hawthorn, young oak, silver birch and common gorse.

Patches of rather species-poor neutral grassland typified by Yorkshire fog and tufted hair-grass are present at the foot of the southern canal embankment.

The most extensive grassland area, which is cattle-grazed, has a very tussocky sward dominated by purple moor-grass. Velvet bent grows amongst these tussocks with very occasionally a little hare?s-tail cotton-grass, tormentil, common valerian , common sorrel and lesser stitchwort. A few specimens of marsh cinquefoil, which is rare in the county, were found on the edge of the stand. Soft rush is locally abundant.

The flush

In one locality on the southern embankment there is a small flushed area where soft rush is prevalent accompanied by a variety of typical wetland plants including ragged robin, common valerian, marsh thistle, marsh bedstraw, marsh willowherb and water mint. A few stools of greater tussock sedge are also present , with some star sedge and small amounts of reed sweet-grass. Jointed rush is locally frequent and bristle club-rush, which is rare in the county, grows on the lower edge of the stand adjacent to the surfaced track. These species overlie a carpet of mosses including Polytrichum commune, Sphagnum palustre, Sphagnum recurvum and Calliergon cuspidatum. Part of the flushed area has been colonised by birch.

Fauna

A variety of common resident birds were noted in the area including chaffinch, wren, yellow hammer and bluetit. A green woodpecker was present in the woodland and pairs of mallard and a pair of swans frequented the canal. Several species of butterfly were seen in flight along the canal towpath including orange tip and peacock in the spring visit, and later in the season wall brown, green-veined white and large white. Other invertebrates recorded included the banded demoiselle damselfly, the common green grasshopper and the common carder bee (Bombus pascuorum). The ubiquitous grey squirrel inhabits the wooded areas.

Bibliography

described **SWT (1998)**
The SBI Resurvey of Staffordshire Moorlands 1998 - 2000 (Sites Surveyed in 1998); Staffordshire Wildlife Trust, Sandon, Stafford

described **SWT (1989-93 checking) (1993)**
Re-checking of SBI conditions; Staffordshire Wildlife Trust, Sandon, Stafford

described **SNCT (County Survey) (1984)**
The Phase 1 Survey of Staffordshire - 1978-1984; Staffordshire Nature Conservation Trust, Sandon, Staffs.

Subsites

95/63/89	**Hollinhay Wood**
95/63/88	**Hollinhay Wood (south of), Caldon Canal**

Species List

Rock Names and Rock Unit Terms based on the Rock Classification and Rock Unit Lexicon © BGS, 2002
Mineral Terms based on the Hey Classification of Mineral, 2nd Edition © NHM, 1993
Administrative Areas based on the National Biodiversity Network Dictionary © NBN, 1999-2002
Biotope Classification based on the National Biodiversity Network Dictionary © NBN, 1999-2002
Chronostratigraphy and Taxonomy based on the systems compiled by the authors © G.C.Slawson, 2002

Staffordshire Ecological Record SBI Species List

Staffordshire Ecological Record

Species List for Caldon Canal (south of Hollinhay Wood)

Birch / alder woodland., Caldon Canal (south of Hollinhay Wood)

Woodland: broadleaved, semi-natural

Radford, Dr E. (08 SEP 1998)

Vascular Plants (Tracheophyta)

Pteridium aquilinum	Bracken	occasional
Athyrium filix-femina	Lady-fern	occasional
Ranunculus repens	Creeping Buttercup	frequent
Alnus glutinosa	Alder	frequent
Betula pendula	Silver Birch	abundant
Quercus	Oak	seedling rare
Silene dioica	Red Campion	occasional
Rumex acetosa	Common Sorrel	occasional
Rumex acetosella	Sheep's Sorrel	locally frequent
Viola palustris	Marsh Violet	occasional
Salix fragilis	Crack-willow	rare
Potentilla erecta	Tormentil	occasional
Rubus fruticosus agg.	Bramble	locally frequent
Rubus idaeus	Raspberry	occasional
Chamerion angustifolium	Rosebay Willowherb	occasional
Oxalis acetosella	Wood-sorrel	locally frequent
Galeopsis tetrahit agg. sensu lato		occasional
Digitalis purpurea	Foxglove	occasional
Valeriana officinalis	Common Valerian	occasional
Cirsium palustre	Marsh Thistle	occasional
Lapsana communis	Nipplewort	occasional
Senecio jacobaea	Common Ragwort	rare
Agrostis canina	Velvet Bent	occasional
Deschampsia cespitosa	Tufted Hair-Grass	occasional
Holcus lanatus	Yorkshire-fog	frequent
Molinia caerulea	Purple Moor-grass	locally frequent
Phalaris arundinacea	Reed Canary-grass	occasional
Juncus effusus	Soft-rush	occasional
Luzula		rare
Carex panicea	Carnation Sedge	locally abundant

Mosses & Liverworts (Bryophyta)

Lepidozia reptans	Creeping Fingerwort	locally frequent
Lophocolea bidentata	Bifid Crestwort	occasional
Mnium hornum	Swan's-neck Thyme-moss	locally frequent
Eurhynchium praelongum	Common Feather-moss	locally frequent
Dicranella heteromalla	Silky Forklet-moss	occasional

Bridge 7 to Leek tunnel., Caldon Canal (south of Hollinhay Wood)

Marginal / inundation: marginal

Radford, Dr E. (08 SEP 1998)

Vascular Plants (Tracheophyta)

Cardamine amara	Large Bitter-cress	occasional
Cardamine pratensis	Cuckooflower	occasional
Filipendula ulmaria	Meadowsweet	occasional
Glyceria maxima	Reed Sweet-grass	occasional

Phalaris arundinacea	Reed Canary-grass	occasional
Juncus effusus	Soft-rush	locally frequent
Carex acutiformis	Lesser Pond-sedge	occasional
Carex panicea	Carnation Sedge	locally abundant
Sparganium erectum	Branched Bur-reed	occasional

Bridge 7 to Leek tunnel: Towpath., Caldon Canal (south of Hollinhay Wood)

Radford, Dr E. (08 SEP 1998)

Equisetum sylvaticum	Wood Horsetail	rare
Athyrium filix-femina	Lady-fern	locally frequent
Ranunculus ficaria	Lesser Celandine	locally frequent
Ranunculus repens	Creeping Buttercup	frequent
Betula		occasional
Rumex acetosa	Common Sorrel	occasional
Rumex acetosella	Sheep's Sorrel	locally frequent
Rumex obtusifolius	Broad-leaved Dock	occasional
Ulmus glabra	Wych Elm	seedling rare
Cardamine pratensis	Cuckooflower	occasional
Lysimachia vulgaris	Yellow Loosestrife	locally frequent
Filipendula ulmaria	Meadowsweet	occasional
Potentilla erecta	Tormentil	occasional
Rubus fruticosus agg.	Bramble	occasional
Trifolium repens	White Clover	locally frequent
Epilobium hirsutum	Great Willowherb	occasional
Angelica sylvestris	Wild Angelica	occasional
Conopodium majus	Pignut	occasional
Heracleum sphondylium	Hogweed	frequent
Ajuga reptans	Bugle	locally frequent
Stachys palustris	Marsh Woundwort	locally frequent
Teucrium scorodonia	Wood Sage	occasional
Plantago lanceolata	Ribwort Plantain	frequent
Plantago major	Greater Plantain	occasional
Lonicera periclymenum	Honeysuckle	occasional
Succisa pratensis	Devil's-bit Scabious	locally frequent
Achillea millefolium	Yarrow	occasional
Centaurea nigra	Common Knapweed	occasional
Cirsium vulgare	Spear Thistle	rare
Hypochaeris radicata	Cat's-ear	locally frequent
Pilosella officinarum	Mouse-ear-hawkweed	occasional
Senecio jacobaea	Common Ragwort	rare
Taraxacum aggregate		frequent
Tussilago farfara	Colt's-foot	occasional
Agrostis capillaris	Common Bent	locally frequent
Anthoxanthum odoratum	Sweet Vernal-grass	locally frequent
Arrhenatherum elatius	False Oat-grass	frequent
Cynosurus cristatus	Crested Dog's-tail	locally frequent
Dactylis glomerata	Cock's-foot	occasional
Deschampsia cespitosa	Tufted Hair-Grass	locally frequent
Festuca ovina agg.		locally abundant
Glyceria maxima	Reed Sweet-grass	occasional
Holcus lanatus	Yorkshire-fog	locally dominant
Phalaris arundinacea	Reed Canary-grass	locally frequent
Poa annua	Annual Meadow-grass	occasional
Juncus effusus	Soft-rush	occasional
Luzula campestris	Field Wood-rush	locally abundant

Mosses & Liverworts (Bryophyta)

Polytrichum piliferum	Bristly Haircap	locally frequent
Rhytidiadelphus squarrosus	Springy Turf-moss	locally frequent

Caldon Canal (south of Hollinhay Wood)

Grassland: acid, unimproved

Radford, Dr E. (08 SEP 1998)

Vascular Plants (Tracheophyta)

Betula pendula	Silver Birch	occasional
Quercus robur	Pedunculate Oak	occasional
Cerastium fontanum	Common Mouse-ear	occasional
Stellaria graminea	Lesser Stitchwort	occasional
Rumex acetosa	Common Sorrel	occasional
Rumex acetosella	Sheep's Sorrel	locally frequent
Calluna vulgaris	Heather	occasional
Crataegus monogyna	Hawthorn	occasional
Potentilla erecta	Tormentil	frequent
Potentilla reptans	Creeping Cinquefoil	locally frequent
Rubus fruticosus agg.	Bramble	occasional
Trifolium pratense	Red Clover	occasional
Trifolium repens	White Clover	locally frequent
Ulex europaeus	Gorse	occasional
Chamerion angustifolium	Rosebay Willowherb	occasional
Stachys officinalis	Betony	occasional
Plantago lanceolata	Ribwort Plantain	occasional
Digitalis purpurea	Foxglove	occasional
Campanula rotundifolia	Harebell	occasional
Galium saxatile	Heath Bedstraw	frequent
Sambucus nigra	Elder	occasional
Succisa pratensis	Devil's-bit Scabious	locally frequent
Centaurea nigra	Common Knapweed	locally frequent
Hypochaeris radicata	Cat's-ear	occasional
Pilosella officinarum	Mouse-ear-hawkweed	locally frequent
Taraxacum aggregate		occasional
Agrostis capillaris	Common Bent	frequent
Anthoxanthum odoratum	Sweet Vernal-grass	occasional
Deschampsia cespitosa	Tufted Hair-Grass	occasional
Deschampsia flexuosa	Wavy Hair-grass	frequent
Festuca ovina agg.		occasional
Holcus lanatus	Yorkshire-fog	occasional
Nardus stricta	Mat-grass	occasional
Juncus effusus	Soft-rush	occasional
Luzula campestris	Field Wood-rush	locally frequent

Mosses & Liverworts (Bryophyta)

Rhytidiadelphus squarrosus	Springy Turf-moss	locally frequent
Scleropodium purum	Neat Feather-moss	frequent
Dicranum scoparium	Broom Fork-moss	occasional

Grassland: marsh / marshy grassland

Radford, Dr E. (08 SEP 1998)

Vascular Plants (Tracheophyta)

Betula pendula	Silver Birch	occasional
Quercus	Oak	seedling rare
Stellaria graminea	Lesser Stitchwort	occasional
Rumex acetosa	Common Sorrel	occasional
Potentilla erecta	Tormentil	occasional
Potentilla palustris	Marsh Cinquefoil	rare

Galeopsis tetrahit agg. sensu lato		rare
Galium saxatile	Heath Bedstraw	occasional
Valeriana officinalis	Common Valerian	rare
Agrostis canina	Velvet Bent	frequent
Arrhenatherum elatius	False Oat-grass	occasional
Holcus lanatus	Yorkshire-fog	locally frequent
Molinia caerulea	Purple Moor-grass	dominant
Juncus articulatus	Jointed Rush	occasional
Juncus effusus	Soft-rush	occasional

Mire: Flush / spring, acid / neutral

Radford, Dr E. (08 SEP 1998)

Alnus glutinosa	Alder	occasional
Betula pendula	Silver Birch	locally abundant
Lychnis flos-cuculi	Ragged-Robin	occasional
Rumex acetosa	Common Sorrel	frequent
Potentilla erecta	Tormentil	frequent
Lotus pedunculatus	Greater Bird's-foot-trefoil	frequent
Trifolium repens	White Clover	occasional
Epilobium palustre	Marsh Willowherb	occasional
Mentha aquatica	Water Mint	occasional
Galium palustre	Marsh-bedstraw	occasional
Valeriana officinalis	Common Valerian	locally frequent
Glyceria maxima	Reed Sweet-grass	occasional
Holcus lanatus	Yorkshire-fog	frequent
Molinia caerulea	Purple Moor-grass	occasional
Juncus articulatus	Jointed Rush	locally frequent
Juncus effusus	Soft-rush	abundant
Carex echinata	Star Sedge	occasional
Carex panicea	Carnation Sedge	locally abundant
Isolepis setacea	Bristle Club-rush	locally frequent

Mosses & Liverworts (Bryophyta)

Sphagnum palustre	Blunt-leaved Bog-moss	locally frequent
Sphagnum recurvum		occasional
Polytrichum commune	Common Haircap	frequent

canal, Horse Bridge, Caldon Canal (south of Hollinhay Wood)

Stailing, Miss P. (20 AUG 1975)

Reptiles and Amphibians (Chordata; Reptilia / Amphibia)

Natrix natrix	Grass Snake

Dense scrub / tall ruderal / Dry heath & grassland mosaic., Caldon Canal (south of Hollinhay Wood)

Radford, Dr E. (08 SEP 1998)

Vascular Plants (Tracheophyta)

Betula pendula	Silver Birch	occasional
Cerastium fontanum	Common Mouse-ear	occasional
Calluna vulgaris	Heather	occasional
Crataegus monogyna	Hawthorn	locally dominant
Rubus fruticosus agg.	Bramble	frequent
Trifolium campestre	Hop Trefoil	rare
Trifolium repens	White Clover	locally frequent
Ulex europaeus	Gorse	occasional
Chamerion angustifolium	Rosebay Willowherb	locally dominant
Plantago lanceolata	Ribwort Plantain	occasional
Galium saxatile	Heath Bedstraw	locally frequent
Sambucus nigra	Elder	occasional

Achillea millefolium	Yarrow	locally frequent
Centaurea nigra	Common Knapweed	locally frequent
Cirsium arvense	Creeping Thistle	locally abundant
Hypochaeris radicata	Cat's-ear	occasional
Pilosella officinarum	Mouse-ear-hawkweed	locally frequent
Senecio jacobaea	Common Ragwort	occasional
Sonchus		rare
Agrostis capillaris	Common Bent	locally abundant
Anthoxanthum odoratum	Sweet Vernal-grass	locally frequent
Dactylis glomerata	Cock's-foot	occasional
Deschampsia cespitosa	Tufted Hair-Grass	occasional
Deschampsia flexuosa	Wavy Hair-grass	locally abundant
Festuca rubra agg.		locally frequent
Holcus lanatus	Yorkshire-fog	frequent
Phalaris arundinacea	Reed Canary-grass	occasional
Mosses & Liverworts (Bryophyta)		
Scleropodium purum	Neat Feather-moss	occasional

Hollinhay wood., Caldon Canal (south of Hollinhay Wood)

Woodland: broadleaved, semi-natural

Radford, Dr E. (08 SEP 1998)

Birds (Chordata: Aves)

Dendrocopos major	Great Spotted Woodpecker	occasional
Vascular Plants (Tracheophyta)		
Pteridium aquilinum	Bracken	dominant
Athyrium filix-femina	Lady-fern	locally frequent
Dryopteris dilatata	Broad Buckler-fern	occasional
Dryopteris filix-mas agg.		frequent
Pinus	Pine	locally dominant
Anemone nemorosa	Wood Anemone	occasional
Caltha palustris	Marsh-marigold	locally frequent
Ranunculus repens	Creeping Buttercup	locally frequent
Alnus glutinosa	Alder	locally frequent
Betula pendula	Silver Birch	locally dominant
Corylus avellana	Hazel	locally frequent
Quercus robur	Pedunculate Oak	occasional
Silene dioica	Red Campion	occasional
Stellaria media	Common Chickweed	locally frequent
Rumex obtusifolius	Broad-leaved Dock	locally frequent
Urtica dioica	Common Nettle	occasional
Rhododendron ponticum	Rhododendron	locally frequent
Crataegus monogyna	Hawthorn	occasional
Rosa		occasional
Rubus fruticosus agg.	Bramble	locally frequent
Rubus idaeus	Raspberry	locally frequent
Sorbus aucuparia	Rowan	occasional
Trifolium pratense	Red Clover	occasional
Chamerion angustifolium	Rosebay Willowherb	occasional
Ilex aquifolium	Holly	occasional
Acer pseudoplatanus	Sycamore	occasional
Hedera helix	Ivy	locally abundant
Angelica sylvestris	Wild Angelica	rare
Glechoma hederacea	Ground-ivy	locally frequent
Plantago major	Greater Plantain	occasional
Galium aparine	Cleavers	occasional
Lonicera periclymenum	Honeysuckle	locally frequent

Sambucus nigra	Elder	occasional
Valeriana officinalis	Common Valerian	locally frequent
Taraxacum aggregate		occasional
Agrostis capillaris	Common Bent	occasional
Dactylis glomerata	Cock's-foot	occasional
Deschampsia flexuosa	Wavy Hair-grass	locally abundant
Holcus lanatus	Yorkshire-fog	frequent
Hyacinthoides non-scripta	Bluebell	abundant

Horse bridge to 7 to Leek tunnel: Hedge & verge., Caldon Canal (south of Hollinhay Wood)

Boundaries

Radford, Dr E. (28 APR 1998)

Equisetum arvense	Field Horsetail	occasional
Equisetum sylvaticum	Wood Horsetail	rare
Pteridium aquilinum	Bracken	locally frequent
Ranunculus ficaria	Lesser Celandine	locally abundant
Corylus avellana	Hazel	occasional
Silene dioica	Red Campion	occasional
Stellaria holostea	Greater Stitchwort	locally frequent
Claytonia sibirica	Pink Purslane	locally frequent
Rumex acetosa	Common Sorrel	frequent
Rumex acetosella	Sheep's Sorrel	locally frequent
Urtica dioica	Common Nettle	locally frequent
Cardamine pratensis	Cuckooflower	occasional
Crataegus monogyna	Hawthorn	dominant
Filipendula ulmaria	Meadowsweet	occasional
Rosa		occasional
Rubus fruticosus agg.	Bramble	frequent
Chamerion angustifolium	Rosebay Willowherb	occasional
Ilex aquifolium	Holly	occasional
Mercurialis perennis	Dog's Mercury	locally frequent
Angelica sylvestris	Wild Angelica	occasional
Anthriscus sylvestris	Cow Parsley	locally frequent
Conopodium majus	Pignut	occasional
Heracleum sphondylium	Hogweed	locally frequent
Ajuga reptans	Bugle	locally frequent
Stachys palustris	Marsh Woundwort	occasional
Plantago lanceolata	Ribwort Plantain	locally frequent
Plantago major	Greater Plantain	occasional
Veronica chamaedrys	Germander Speedwell	locally frequent
Galium saxatile	Heath Bedstraw	locally frequent
Lonicera periclymenum	Honeysuckle	occasional
Valeriana officinalis	Common Valerian	locally frequent
Succisa pratensis	Devil's-bit Scabious	locally abundant
Bellis perennis	Daisy	frequent
Centaurea nigra	Common Knapweed	occasional
Hypochaeris radicata	Cat's-ear	locally frequent
Taraxacum aggregate		frequent
Agrostis capillaris	Common Bent	locally frequent
Alopecurus pratensis	Meadow Foxtail	frequent
Anthoxanthum odoratum	Sweet Vernal-grass	locally frequent
Arrhenatherum elatius	False Oat-grass	locally frequent
Dactylis glomerata	Cock's-foot	occasional
Deschampsia cespitosa	Tufted Hair-Grass	locally frequent
Deschampsia flexuosa	Wavy Hair-grass	locally frequent

Festuca ovina agg.		locally abundant
Holcus lanatus	Yorkshire-fog	frequent
Luzula campestris	Field Wood-rush	locally abundant
Hyacinthoides non-scripta	Bluebell	locally abundant
Mosses & Liverworts (Bryophyta)		
Rhytidiadelphus squarrosus	Springy Turf-moss	locally frequent

Horse bridge to bridge 7., Caldon Canal (south of Hollinhay Wood)

Woodland: broadleaved, semi-natural

Radford, Dr E. (08 SEP 1998)

Vascular Plants (Tracheophyta)

Pteridium aquilinum	Bracken	locally frequent
Dryopteris dilatata	Broad Buckler-fern	occasional
Dryopteris filix-mas agg.		occasional
Ranunculus repens	Creeping Buttercup	locally frequent
Betula pendula	Silver Birch	locally frequent
Corylus avellana	Hazel	occasional
Quercus robur	Pedunculate Oak	locally frequent
Silene dioica	Red Campion	occasional
Stellaria holostea	Greater Stitchwort	locally frequent
Stellaria media	Common Chickweed	occasional
Claytonia sibirica	Pink Purslane	locally frequent
Rumex acetosa	Common Sorrel	occasional
Urtica dioica	Common Nettle	occasional
Crataegus monogyna	Hawthorn	frequent
Rosa canina agg.		occasional
Rubus fruticosus agg.	Bramble	locally frequent
Sorbus aucuparia	Rowan	occasional
Chamerion angustifolium	Rosebay Willowherb	locally frequent
Ilex aquifolium	Holly	occasional
Acer pseudoplatanus	Sycamore	abundant
Hedera helix	Ivy	locally abundant
Angelica sylvestris	Wild Angelica	occasional
Heracleum sphondylium	Hogweed	occasional
Fraxinus excelsior	Ash	occasional
Galium aparine	Cleavers	occasional
Sambucus nigra	Elder	occasional
Succisa pratensis	Devil's-bit Scabious	occasional
Petasites hybridus	Butterbur	occasional
Dactylis glomerata	Cock's-foot	occasional
Glyceria maxima	Reed Sweet-grass	occasional
Holcus lanatus	Yorkshire-fog	frequent
Holcus mollis	Creeping Soft-grass	frequent
Phalaris arundinacea	Reed Canary-grass	occasional
Juncus effusus	Soft-rush	occasional
Hyacinthoides non-scripta	Bluebell	locally abundant
Mosses & Liverworts (Bryophyta)		
Eurhynchium praelongum	Common Feather-moss	occasional

Horse bridge to bridge 7: towpath., Caldon Canal (south of Hollinhay Wood)

Radford, Dr E. (08 SEP 1998)

Vascular Plants (Tracheophyta)

Ranunculus ficaria	Lesser Celandine	frequent
Ranunculus repens	Creeping Buttercup	frequent
Quercus robur	Pedunculate Oak	seedling rare

Rumex acetosa	Common Sorrel	frequent
Rumex acetosella	Sheep's Sorrel	occasional
Rumex obtusifolius	Broad-leaved Dock	occasional
Urtica dioica	Common Nettle	occasional
Salix caprea	Goat Willow	locally frequent
Cardamine amara	Large Bitter-cress	occasional
Cardamine pratensis	Cuckooflower	occasional
Vaccinium myrtillus	Bilberry	occasional
Lysimachia nemorum	Yellow Pimpernel	locally frequent
Filipendula ulmaria	Meadowsweet	frequent
Rosa		occasional
Rubus fruticosus agg.	Bramble	occasional
Acer pseudoplatanus	Sycamore	sapling rare
Angelica sylvestris	Wild Angelica	occasional
Anthriscus sylvestris	Cow Parsley	frequent
Heracleum sphondylium	Hogweed	occasional
Mentha aquatica	Water Mint	locally frequent
Stachys palustris	Marsh Woundwort	locally frequent
Plantago lanceolata	Ribwort Plantain	frequent
Plantago major	Greater Plantain	occasional
Digitalis purpurea	Foxglove	occasional
Valeriana officinalis	Common Valerian	frequent
Succisa pratensis	Devil's-bit Scabious	occasional
Centaurea nigra	Common Knapweed	occasional
Senecio jacobaea	Common Ragwort	occasional
Taraxacum aggregate		frequent
Agrostis capillaris	Common Bent	locally frequent
Alopecurus pratensis	Meadow Foxtail	frequent
Anthoxanthum odoratum	Sweet Vernal-grass	occasional
Arrhenatherum elatius	False Oat-grass	occasional
Dactylis glomerata	Cock's-foot	frequent
Deschampsia cespitosa	Tufted Hair-Grass	occasional
Deschampsia flexuosa	Wavy Hair-grass	occasional
Festuca ovina agg.		locally frequent
Glyceria maxima	Reed Sweet-grass	frequent
Holcus lanatus	Yorkshire-fog	frequent
Lolium perenne	Perennial Rye-grass	frequent
Phalaris arundinacea	Reed Canary-grass	frequent
Luzula campestris	Field Wood-rush	locally frequent
Grasshoppers & allies (Orthoptera, etc.)		
Omocestus viridulus	Common Green Grasshopper	
Mosses & Liverworts (Bryophyta)		
Conocephalum conicum	Great Scented Liverwort	locally abundant
Homalothecium sericeum	Silky Wall Feather-moss	locally abundant
Bees & Wasps (Hymenoptera; Aculeata)		
Bombus pascuorum	Common Carder Bee	

Oak woodland S of canal., Caldon Canal (south of Hollinhay Wood)

Woodland: broadleaved, semi-natural

Radford, Dr E. (08 SEP 1998)

Vascular Plants (Tracheophyta)

Pteridium aquilinum	Bracken	locally frequent
Athyrium filix-femina	Lady-fern	occasional
Dryopteris dilatata	Broad Buckler-fern	occasional
Dryopteris filix-mas agg.		occasional
Anemone nemorosa	Wood Anemone	locally frequent

Ranunculus repens	Creeping Buttercup	occasional
Alnus glutinosa	Alder	locally frequent
Betula pendula	Silver Birch	occasional
Corylus avellana	Hazel	occasional
Fagus sylvatica	Beech	occasional
Quercus robur	Pedunculate Oak	dominant
Stellaria holostea	Greater Stitchwort	locally frequent
Stellaria media	Common Chickweed	occasional
Rumex obtusifolius	Broad-leaved Dock	occasional
Urtica dioica	Common Nettle	occasional
Cardamine flexuosa	Wavy Bitter-cress	occasional
Rhododendron ponticum	Rhododendron	locally frequent
Crataegus monogyna	Hawthorn	occasional
Potentilla erecta	Tormentil	occasional
Rosa		occasional
Rubus fruticosus agg.	Bramble	occasional
Sorbus aucuparia	Rowan	frequent
Ulex europaeus	Gorse	occasional
Ilex aquifolium	Holly	frequent
Acer pseudoplatanus	Sycamore	locally frequent
Oxalis acetosella	Wood-sorrel	locally frequent
Hedera helix	Ivy	
Fraxinus excelsior	Ash	occasional
Ligustrum vulgare	Wild Privet	rare
Stachys sylvatica	Hedge Woundwort	occasional
Digitalis purpurea	Foxglove	occasional
Sambucus nigra	Elder	occasional
Taraxacum aggregate		occasional
Agrostis capillaris	Common Bent	occasional
Deschampsia cespitosa	Tufted Hair-Grass	locally frequent
Glyceria fluitans	Floating Sweet-grass	locally frequent
Holcus lanatus	Yorkshire-fog	abundant
Phalaris arundinacea	Reed Canary-grass	rare
Juncus effusus	Soft-rush	occasional
Hyacinthoides non-scripta	Bluebell	frequent
Mosses & Liverworts (Bryophyta)		
Mnium hornum	Swan's-neck Thyme-moss	locally frequent
Brachythecium rutabulum	Rough-stalked Feather-moss	occasional
Eurhynchium praelongum	Common Feather-moss	locally frequent

Staffordshire Ecological Record SBI Report

95/63/89

Site Name: **Hollinhay Wood**

Parent Site: **Caldon Canal (south of Hollinhay Wood)** (95/63/88)

Locality Type: **Broadleaved, mixed and yew woodland {B}**

Grid Ref.: SJ968539

GB Vice-County: Staffordshire

Civil Parish: Longsdon (Staffordshire Moorlands, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	5338	no date

Conservation Status

Status	Details	Date
Ancient Woodland Inventory		no date

Biotopes (Habitats)

Code	Habitat	Area
A111	Woodland: broadleaved, semi-natural	
A122	Woodland: coniferous, plantation	
A131	Woodland: mixed, semi-natural	

Dimensions

Dimension	Value/units
altitude	150-180m

Contacts

Role	Date	Contact
field surveyor	1991	Slawson, Mr G.Craig
landowner	1982	Adams, J.
field surveyor	1982	Hayes, Mr Colin J.
field surveyor	1982	Hopkins, Mr Ian J.

Site Description

Source: **Slawson, Mr G.Craig, 1991**

Summary: Bracken is quite noticeable in the undergrowth. There is a good variety of trees along the side of the canal, but the centre appears to be predominantly conifers. The eastern section appears much better, with alder and oak along the canal and considerably less bracken. The ground flora appeared to be mainly $Deschampsia cespitosa$, but there are some steep rocky areas with $D. flexuosa$.

Source: **Hayes & Hopkins, 1982**

Summary: The wood was not surveyed in detail, but the maturity of the trees could clearly be seen from the canal towpath. Trees are predominantly broadleaved, but some areas have a dense interplanting of now mature Corsican pines. Very little bracken was noted. $Epipactis helleborine$, china mark moth and redstart were note previously by G.A. Lovenbury.

Bibliography

described **SWT (1989-93 checking) (1993)**
Re-checking of SBI conditions; Staffordshire Wildlife Trust, Sandon, Stafford

described **SNCT (County Survey) (1984)**
The Phase 1 Survey of Staffordshire - 1978-1984; Staffordshire Nature Conservation Trust, Sandon, Staffs.

Rock Names and Rock Unit Terms based on the Rock Classification and Rock Unit Lexicon © BGS, 2002
Mineral Terms based on the Hey Classification of Mineral, 2nd Edition © NHM, 1993
Administrative Areas based on the National Biodiversity Network Dictionary © NBN, 1999-2002
Biotope Classification based on the National Biodiversity Network Dictionary © NBN, 1999-2002
Chronostratigraphy and Taxonomy based on the systems compiled by the authors © G.C.Slawson, 2002

Staffordshire Ecological Record SBI Report

Staffordshire Ecological Record

95/63/88

Site Name: **Hollinhay Wood (south of), Caldon Canal**

Parent Site: **Caldon Canal (south of Hollinhay Wood)** (95/63/88)

Locality Type: **Canals**

Grid Ref.: SJ96855380

GB Vice-County: Staffordshire

Civil Parish: Longsdon (Staffordshire Moorlands, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	4813	no date

Conservation Status

Status	Details	Date
Ancient Woodland Inventory	in part	no date

Biotopes (Habitats)

Code	Habitat	Area
F21	Marginal/inundation: marginal	
G125	Open water: canal	

Dimensions

Dimension	Value/units
altitude	145m
length	1.6km

Contacts

Role	Date	Contact
field surveyor	1991	Slawson, Mr G.Craig
field surveyor	1982	Hopkins, Mr Ian J.
field surveyor	1982	Hayes, Mr Colin J.
field surveyor	no date	Lovenbury, Mr George A.

Site Description

Source: **Slawson, Mr G.Craig, 1991**

Summary: (1) SJ 962 537 - SJ 965 536 : There are few emergents, predominantly $Glyceria$.

(2) SJ 965 536 - SJ 971 539 : This stretch is between the trees of Hollinhay Wood and an open birch plantation to the south.

(3) SJ 971 539 - SJ 974 543 : From the end of the birch plantation there is some tussock sedge bordering both sides throughout the stretch. Harebell was common on the towpath.

Two mute swans were near the entrance to the tunnel, together with many $Ischnura$ and $Coenagrion$ damselflies.

Source: **Hayes & Hopkins, 1982**

Summary: Canal-side and emergent vegetation along a stretch of the Caldon Canal between Horse Bridge (SJ 9620 5373) and Tunnel Pool (SJ 9748 5430).

Bibliography

described **SWT (1989-93 checking) (1993)**
Re-checking of SBI conditions; Staffordshire Wildlife Trust, Sandon, Stafford

mentioned **SNCT (County Survey) (1984)**
The Phase 1 Survey of Staffordshire - 1978-1984; Staffordshire Nature Conservation Trust, Sandon, Staffs.

Species List

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Biotope Classification based on the National Biodiversity Network Dictionary © NBN, 1999-2002
Chronostratigraphy and Taxonomy based on the systems compiled by the authors © G.C.Slawson, 2002

Staffordshire Ecological Record SBI Species List

Staffordshire Ecological Record

Species List for Hollinhay Wood (south of)

by canal, Hollinhay Wood (south of)

Grassland: marsh / marshy grassland

Bratt, J. (JUN 2000)

Reptiles and Amphibians (Chordata; Reptilia / Amphibia)

Natrix natrix	Grass Snake	1

Cauldon Canal, Longsdon, Hollinhay Wood (south of)

Open water: canal

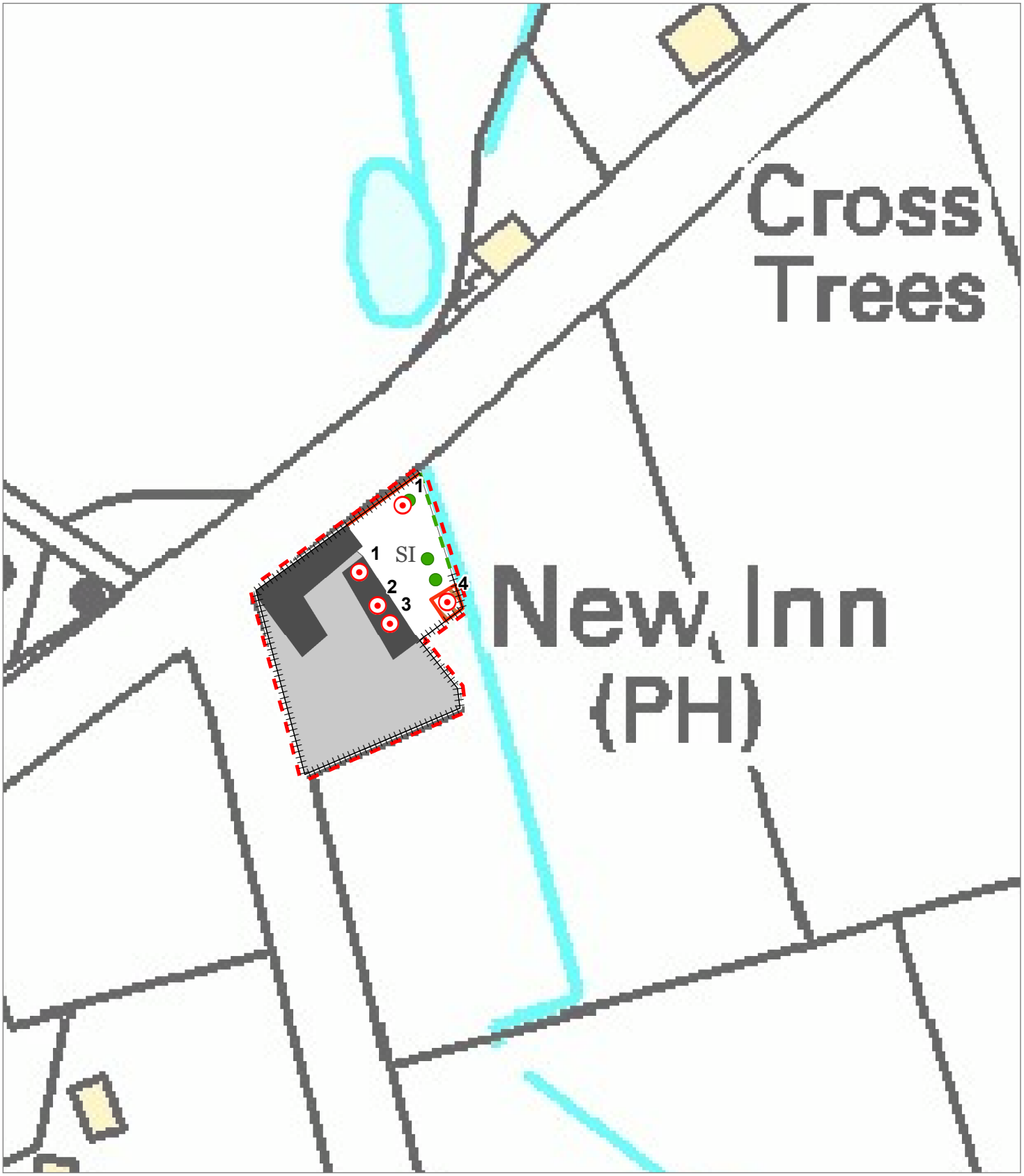
Wood, Mr A. (19 JUL 1975)

Natrix natrix	Grass Snake
Natrix natrix	Grass Snake

APPENDIX 2

Middlemarch Environmental Ltd Drawing C105333-01

- Extended Phase 1 Habitat Survey



Legend

- Scattered trees
- Target note
- Fence (heras)
- Species-poor defunct hedgerow
- Survey boundary
- Wall
- Building
- Hardstanding
- SI — Poor semi-improved grassland
- Tall ruderal

Target notes:

1 Nest box
2 Swallow's nest
3 Abandoned wren's nest
4 Partially dismantled outhouse, overgrown

N

Client: John Pointon and Sons	Project: Public House, Denford Road Longsdon
Drawing: Extended Phase 1 Habitat Survey	Drawing Number: C105333-01
Revision: 00	Date: June 2009
Scale at A4: 1:1,000	Drawn By: SKS
Approved By: KR/AP	Notes: -

MIDDLEMARCH ENVIRONMENTAL
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C105333-01

APPENDIX 3

Overview of Relevant Legislation

GENERAL LEGISLATION AND POLICY OVERVIEW

This section provides an overview of the framework of legislation and policy which underpins nature conservation and is a material consideration in the planning process in England.

THE CONSERVATION (NATURAL HABITATS. &C.) REGULATIONS 1994 (AS AMENDED)

The Habitat Regulations 1994 (as amended 2009) transpose EEC Council Directive 92/43 (The Habitats Directive) into UK law. The regulations place duty upon the relevant authority of the UK government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the UK government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000.

The regulations also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 4 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species in the UK. Schedule 4 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

THE WILDLIFE AND COUNTRYSIDE ACT (WCA)1981

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It compliments the Conservation (Natural Habitats. &c.) Regulations 1994 (as amended), offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species. All relevant species specific legislation is detailed later in this Appendix.

THE COUNTRYSIDE AND RIGHTS OF WAY (CROW) ACT 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

THE NATURAL ENVIRONMENT AND RURAL COMMUNITIES (NERC) ACT 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England)

and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These species and habitats are a material consideration in the planning process.

THE HEDGEROW REGULATIONS 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK BIODIVERSITY ACTION PLAN

The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. Lists and Broad and Local habitats are also included. The priority habitats and species correlate with those listed on Section 74 of the CRoW Act and Section 41/42 of the NERC Act.

The UKBAP requires that conservation of biodiversity is addressed at a County level through the production of Local BAPs. These are complimentary to the UKBAP, however are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs.

UKBAP and Local BAP targets with regard to species and habitats are a material consideration in the planning process.

PLANNING POLICY

Planning Policy Statement 9

Planning Policy Statement 9 provides guidance to local authorities regarding the protection of biodiversity and geology through the planning system in England. Key principles relating to biodiversity include:

- Development plan policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas. These characteristics should include the relevant biodiversity and geological resources of the area. In reviewing environmental characteristics local authorities should assess the potential to sustain and enhance those resources.

- Plan policies and planning decisions should aim to maintain, and enhance, restore or add to biodiversity and geological conservation interests. In taking decisions, local planning authorities should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; and to biodiversity and geological interests within the wider environment.

- Plan policies should promote opportunities for the incorporation of beneficial biodiversity and geological features within the design of development.

National planning policy is implemented through local and regional planning policies.

SPECIES SPECIFIC LEGISLATION

Bats

Bats and the places they use for shelter or protection (i.e. roosts) are protected under both European Law (The Conservation (Natural Habitats &c.) Regulations 1994) and UK law (the Wildlife and Countryside Act (WCA) 1981). This protection means that bats, and the places they use for shelter or protection, are a material consideration in the planning process.

European Law

The most recent amendment (2009) to Regulation 39 of the Habitat Regulations, states that a person commits an offence if he-

- deliberately captures, injures or kills a bat;
- deliberately disturbs bats; or,
- damages or destroys a bat roost (breeding site or resting place).

It is an offence for any person to-

- have in his possession or control;
- to transport;
- to sell or exchange; or
- to offer for sale,

any live or dead bats, part of a bat or anything derived from bats which has been unlawfully taken from the wild. A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months and/or to a fine not exceeding level 5 on the standard scale.

UK Law

Whilst broadly similar to the above legislation, the following differences occur:

- Section 9(1) of the WCA 1981 (as amended) makes it an offence to *intentionally* (rather than deliberately) kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside Rights of Way Act 2000.

The Natural Environment and Rural Communities Act 2006 places a duty on public bodies to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. Bats are included on these lists.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The reader is referred to the original legislation for the definitive interpretation.

Nesting and Nest Building Birds

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

Subject to the provisions of the act, if any person intentionally

(a) kills, injures or takes any wild bird;
(b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
(c) takes or destroys an egg of any wild bird,

he shall be guilty of an offence.

'Reckless' offences with regard to the disturbance of nesting wild birds included in Schedule 1 of the Wildlife and Countryside Act were added by the Countryside and Rights of Way Act 2000.

MIDDLEMARCH ENVIRONMENTAL LTD

QUALITY ASSURANCE

TITLE: THE NEW INN, LEEK ROAD,
LONGSDON, STAFFORDSHIRE

EXTENDED PHASE 1 HABITAT SURVEY,
INITIAL BAT SURVEY
AND BARN OWL SURVEY

A Report to John Pointon and Sons

Contract Number: C105333

Report Number: RT-MME-105333

Revision Number: 00

Description: Final

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Checked by:

James Calow
Principal Consultant

Approved by:

Dr Philip Fermor
Managing Director