



Horsiculture Monitoring within Cannock Chase AONB

Methodology

Commissioned for:
Cannock Chase AONB Unit
Dairy Cottage
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Main Road
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Contents

1	Introduction	3
2	Background	3
3	Establishing number of horses and equine establishments	
	4	
3.1	Database compilation.....	4
3.2	Presenting results	5
3.2.1	Mapping	5
4	Determining types of equine activity	6
4.1	Consultation.....	6
4.2	Questionnaire	7
5	Identification of good and bad horse keeping practice .	8
5.1	Single Payment Scheme and Cross Compliance.....	8
5.2	Checklist of indicators	10
5.2.1	Standard of pasture management	10
5.2.2	Fencing	12
5.2.3	Hedgerows	13
5.2.4	Trees	13
5.2.5	Appearance of buildings and other infrastructure	14
5.2.6	General tidiness of the paddock and yard	14
5.3	Monitoring survey sites.....	15
5.4	Timing of survey	15
6	List of Maps	18
7	Useful Contacts	19
8	References	20
9	Appendices	20

1 Introduction

The Farming and Wildlife Advisory Group were commissioned by Cannock Chase AONB Unit to establish a methodology to determine the impact of horse keeping within Cannock Chase Area of Outstanding Natural Beauty (AONB).

In Great Britain, the number of horses including those kept by private owners and in professional establishments has reached 1.35 million (BETA National Equestrian Survey 2006).

There have been recent concerns regarding the growing land use of horse keeping within Cannock Chase AONB and its impact on the landscape. Although horses can be used to effectively graze small pastures, issues of overgrazing, untidy paddocks and inappropriate fencing have a significant affect on the local environment.

Cannock Chase AONB Management Plan identified the keeping of horses as having an impact in the landscape and Action 36C is "to review the impact that the keeping of horses is having on the AONB landscape" (Cannock Chase AONB Management Plan 2003).

The aim of this report is to provide a simple repeatable methodology to assess the impact of horse keeping that will highlight trends and determine the extent and type of impacts on the landscape and environment of Cannock Chase AONB.

2 Background

Agricultural land generally occupies the fringes of Cannock Chase AONB surrounding the central core of heathland and forestry plantations. It is estimated that the area of agricultural land occupies over 1500 ha which represents nearly 23% of the land area of the AONB. Much of the land is highly visible from surrounding roads and public rights of way. Of the agricultural land, nearly three quarters comprises pasture with the remainder made up of arable crops.

In recent years an increasing area of agricultural land has been given over to the keeping of horses particularly in the vicinity of urban areas such as Cannock and Rugeley. A scoping survey carried out in March 2008 has estimated the area of horse paddocks to occupy nearly 22% of the agricultural land area and nearly 5% of the total area of Cannock Chase AONB. The total area of horse paddocks recorded during the survey was 336 ha with a total count of at least 488 horses. A breakdown of the figures is shown in Appendix 1.

3 Establishing number of horses and equine establishments

3.1 Database compilation

A database of livery yards and horse paddock owners within the AONB was compiled made up of existing FWAG contacts together with new contacts gained through consultation with local organisations and landowners. Examination of maps and aerial photographs provided an indication of where the main areas of horse keeping are within the AONB. In areas where horse paddock owner contacts were sparse, site visits and conversations with local people provided useful contact information. Where owners could not be identified, paddocks were mapped and counts undertaken of horses.

The database includes name and contact details together with area of land owned or rented and the number of horses kept. Contacts were categorised into the following business types;

- Livery yards – large (>10 horses), Small (<10 horses)
- Private stables/ paddocks
- Trail riding/ trekking centre
- Riding schools
- Competition yards

A summary of the data is shown in Appendix 1. The database will require regular updating and will evolve as landowners change and new contacts are made.

3.2 Presenting results

To determine the distribution of horsiculture activity within Cannock Chase AONB, the area was divided according to Parish boundaries. There are 15 parishes within the AONB which are listed in Table 1 and their location is shown in Figure 1. 14 parishes contain agricultural land. Hednesford CP is comprised solely of plantation woodland.

Table 1: List of parishes and land areas within Cannock Chase AONB

Parish	Total area within AONB (Ha)	Proportion of agricultural land (%)
Teddersley Hay	290	23
Acton Trussell and Bednall	128	58
Brocton	814	9
Tixall	182	79
Huntington	260	21
Hatherton	139	38
Berkswich	213	17
Colwich	1302	29
Brindley Heath	2195	13
Rugeley	171	40
Brereton and Ravenshill	193	9
Longdon	538	32
Cannock Wood	238	49
Heath Hayes and Wimblebury	203	7
Hednesford	40	0

3.2.1 Mapping

The ArcMap GIS mapping system was used to map equine establishments within the AONB. Mapping tiles (25k and 50K) and the AONB outline layer was supplied by Staffordshire County Council.

4 Determining types of equine activity

4.1 Consultation

To determine the extent and type of equine activity within the AONB, several local organisations were consulted. Contacts of the following organisations are shown in Section 6.

Forestry Commission

The Forestry Commission manage a large proportion of land within the AONB (approximately 40% of the AONB land area is managed by Forestry Enterprise). They have recently introduced a permit system for horse riding on their land off bridleways. Numbers of permits sold could provide a future indicator of horse activity on Forestry Commission land.

British Horse Society

The British Horse Society (BHS) provided membership numbers living within the AONB. Data protection issues prevented the release of names and addresses of members. However they were able to give information of membership numbers categorised by postcode and this is shown in Appendix 2.

It should be noted that all of the postcodes extend beyond the AONB boundary to varying degrees. It is estimated that the number of members within the AONB boundary is half of the total figure shown in Appendix 2 which equates to approximately 75 members.

The total membership of BHS is 168,000 and it is estimated that there are 720,000 horse owners in Great Britain (BETA 2006). Although the number of BHS members cannot be accurately used to determine the horse population in the AONB because only a small proportion of horse owners are BHS members, it may give an indication of changing trends in horse activity.

Pony and horse clubs

The BHS also provided membership numbers of local affiliated riding clubs. The nearest BHS affiliated clubs to Cannock Chase AONB include Bradley Dale Riding Club, Forest of Needwood Riding Club and Mercia Trec Club. The total membership of these organisations is 213.

Staffordshire County Council

Within Cannock Chase Country Park, organised recreational events such as pleasure and endurance rides require an application to be

made to Staffordshire County Council for authority to hold an organised event. Since the event fee is based on number of riders, a total number of attendees for each event can be calculated. The event type and number of attendees is available from the Environmental and Countryside Unit who administer the applications. Figures for organised events held in 2006 & 2007 are shown in Appendix 3.

4.2 Questionnaire

A questionnaire sheet has been devised to gain information on equine establishments within Cannock Chase AONB. Contacts on the database have been questioned by telephone or sent a copy of the form. The questionnaire has also been devised for use when meeting new contacts as a means of gathering information on the type and extent of the enterprise, its facilities and paddock management issues. The form is shown in Appendix 4.

5 Identification of good and bad horse keeping practice

5.1 Single Payment Scheme and Cross Compliance

Landowners receiving direct payments under the Common Agricultural Policy support schemes i.e. the Single Payment Scheme (SPS) are required to comply with a series of standards known as Cross Compliance. As well as statutory Management requirements (SMR), there are 17 standards known as Good Agricultural and Environmental Condition (GAEC). Those that apply to horse paddock owners receiving SPS are listed below;

GAEC 9: Overgrazing & unsuitable supplementary feeding

This aim of this requirement is to protect important habitats that contain natural or semi-natural vegetation by preventing overgrazing and unsuitable supplementary feeding.

'Natural and semi-natural vegetation' is defined as self-seeded or self-propagated vegetation characteristic of the area. In Cannock Chase AONB this is likely to include unimproved grassland, grazed woodland and heathland.

Overgrazing is defined as 'grazing land with so many livestock that the growth, quality or diversity of natural or semi-natural vegetation is adversely affected'

Unsuitable supplementary feeding means 'providing supplementary feed for livestock in a way that adversely affects the quality and diversity of natural and semi-natural vegetation through trampling or poaching of land by livestock, or caused by ruts caused by vehicles used to transport feed.

GAEC 11: Control of weeds

This measure re-inforces the existing Weeds Act 1959 and Wildlife and Countryside Act 1981 and requires the control of the spread of injurious and invasive weeds that can damage habitats and agricultural land. Injurious weeds include common ragwort, spear thistle, creeping thistle, broad-leaved dock and curled dock. Invasive species include Himalayan Balsam and Japanese Knotweed.

GAEC 14: Protection of hedgerows and watercourses

The aim of these requirements is to protect sensitive field boundaries and their associated habitats which includes a 2m protection zone measured from the centre of the hedge or watercourse where

fertiliser and manures may not be applied. This does not apply to fields of 2 ha or less.

GAEC 15: Hedgerows

The aim of these requirements is to protect hedgerows particularly for nesting birds as well as its landscape value. Permission is required from the local authority to remove a existing hedgerow. Hedges, with a few exceptions must not be trimmed during the bird breeding season (1st March – 31st July).

GAEC 17: Tree Preservation Orders

This requirement re-inforces existing rules on TPOs. TPOs are made by local authorities to protect trees, groups of trees, and woodlands in the interests of amenity.

5.2 Checklist of indicators

Six main indicators have been selected for the assessment of horse paddocks. A checklist sheet is shown in Appendix 5 which lists data to be collected during the field survey.

There are three categories to choose from when assessing the condition of each of the indicators; Poor, Fair or Good. The condition of each indicator is assessed against a set of criteria and depending on the number of criteria that it meets, it will fall into one of the three categories.

POOR	Fails on two or three criteria
FAIR	Fails on one criterion
GOOD	Does not fail on any criteria

5.2.1 Standard of pasture management

The condition of the grass sward in a horse paddock is very much dependent on the stocking level of horse/ ponies and other livestock. Overstocked pasture may become overgrazed which can lead to problems of poaching and weeds.

Poor pasture management is even more damaging if the grassland is classed as unimproved or semi-improved and is likely to have a high floristic value.

Over grazing is determined by the height of the grass sward. It is considered good practice to keep the sward at about 5cm height during the growing season and at about 2cm during the winter.

Overgrazing during the winter months often causes 'poaching' (where land loses vegetation cover becoming very muddy). This can provide ideal conditions for weedy species such as ragwort, docks and thistle to colonise.

Condition Assessment

1. Cover of weed species (creeping thistle, spear thistle, curled dock, broad-leaved dock, common ragwort, common nettle, bracken) less than 5%.
2. Cover of bare ground less than 10%.
3. Paddock appears overgrazed (average sward height <2cm).

5.2.2 Fencing

There are two main fence types to consider, permanent and temporary. Boundary fences are generally permanent whilst fencing used to sub divide paddocks can be temporary or movable.

Fences need to be a visible physical barrier to the horse to prevent risk of injury. However the wrong type of fence can look out of place or visually obtrusive in the landscape.

The fence type(s) should be recorded and categorised as;

- Timber fencing – post and rail with possibly a top electric tape or wire
- Plain wire – Generally strained wire with possibly a top rail and/or electric tape or wire
- Wire netting – Includes sheep, pig or specialist horse netting
- Electric fencing – May be either strands of electric wire or tape, electric mesh or 'polyTM' rope.

Condition Assessment

- 1. Fence in good state of repair e.g. no missing rails or slack or loose wire/tape.**
- 2. Type of permanent fencing unobtrusive in local landscape.**
- 3. Low visual impact of temporary fencing i.e. use of brown/green electric tape as opposed to white tape.**

5.2.3 Hedgerows

Hedgerows are not only a vital part of the landscape and an important wildlife habitat, but they also provide shelter and protection for livestock. The assessment of hedgerows is based on the condition assessment used in the Environmental Stewardship Farm Environment Plan (Defra 2005).

Condition Assessment

- 1. Hedgerow measured from the base of the stems to the top of shoots is at least two metres in height.**
- 2. The average width of the hedge between shoot tips at the widest point is at least 1.5 metres in width.**
- 3. Gaps in the hedge represent no more than 10% of the hedgerow length excluding access points and gates. Gaps are complete breaks in the woody canopy of the hedgerow.**

NB. A hedgerow is defined as any boundary line of shrubs or trees over 20m long and less than five metres wide, provided that at any one time the trees and shrubs were more or less continuous.

5.2.4 Trees

Both infield and boundary trees are important landscape features within the agricultural landscape of Cannock Chase AONB. Unprotected, trees can be damaged by browsing horses which can lead to the death of even mature trees. If not killed by browsing, the form of young or newly planted trees can be distorted by horses nibbling the growing tips. Mature infield trees may also be prone to root damage caused by poaching of the ground under the canopy.

Condition Assessment

- 1. Mature/ ancient infield or boundary trees have no signs of horse damage including bark stripping, rubbing and soil compaction for the width of the canopy.**
- 2. Newly planted or young saplings fully protected from browsing damage. Fencing is at least 1m from tree.**
- 3. Trees are free of other damaging factors e.g. fencing material nailed to the trunk.**

5.2.5 Appearance of buildings and other infrastructure

Horse shelters and stables can look very intrusive in the landscape, particularly if they are badly sited or in a poor state of repair.

Other infrastructure may include ménages or exercise areas, treadmills and horse walkers.

Condition Assessment

- 1. Stable(s)/ shelter(s) not intrusive in landscape e.g. on the skyline, made of inappropriate materials**
- 2. Stable(s) or shelter(s) in a good state of repair**
- 3. Other infrastructure not intrusive in landscape**

5.2.6 General tidiness of the paddock and yard

The appropriate siting of the manure heap is important both in terms landscape and environmental protection. Any heaps should be kept well away from a watercourse/ ditch to avoid pollution and possible legal action by the Environment Agency. Environmental Agency guidelines for good practice state;

‘Temporary field heaps should be sited where there is no risk of run-off polluting watercourses. They should be at least 10 metres from a watercourse and 50 metres from a well, spring or borehole that supplies water for human consumption or for use in farm dairies’.

It is also poor practice to tip droppings in hedge bottoms and woodland which can smother and kill any floristic interest.

The general tidiness of the paddock is important both from a welfare and landscape point of view e.g. horse jumps should ideally be removed and stored after use to prevent damage to the sward and ensure the paddock does not appear cluttered. In addition foodstuffs such as bales of hay that are stored under sheeting in a field can also look unsightly.

Condition Assessment

- 1. Manure is stored in an appropriate location. Not near watercourses, hedge bottoms or woodland edge.**

2. Paddock is free of clutter. e.g. jump poles, disused feed containers
3. The yard and areas of hard standing are generally in a tidy condition.

5.3 Monitoring survey sites

A total of 20 monitoring sites have been selected which are distributed throughout Cannock Chase AONB and are listed in Table 2 below. The location of the sites is shown in the overview map in Figures 2 and at a more detailed scale in Figures 3-10 (See Section 6).

Sites are chosen for the ease of access and visibility from public rights of way or roads and comprise a mixture of livery yards and private paddocks together with a trekking centre and competition yard. The monitoring sites total an area of 73 ha representing nearly a quarter of the land occupied by horse paddocks within the AONB. It is intended that the first monitoring survey is carried out in June 2008.

5.4 Timing of survey

It is recommended that monitoring is carried out during summer and winter due to the variation in ground conditions at these times of year. To ensure consistency between monitoring surveys it is suggested that fieldwork is always carried out in June and December.

Table 2: List of horsiculture monitoring sites in Cannock Chase AONB

Site Number	Location	Parish	Grid Reference	Business type	Area (ha)	Visible from
1	Paddocks opposite Tixall Farm	Tixall	SJ986232	Private	3.7	Bridleway, road
2	Paddocks south of A513	Colwich	SK002207	Livery	8.6	Road (A513)
3	Navigation Farm	Colwich	SK005212	Livery	3	Footpath
4	Scarborough Farm	Brindley Heath	SK018178	Livery	2.3	Road/ Footpath
5	Paddocks off Post Office Lane	Rugeley	SK027168	Private	1.6	Road
6	Paddocks next to the Stonehouse	Rugeley	SK026175	Livery	1.8	Road, Footpath
7	Paddocks in Etchinghill	Rugeley	SK025181	Private	1.9	Road
8	Paddocks south of Rugeley Road	Brereton & Ravenshill	SK042151	Private	0.9	Road
9	Paddocks off Bardy Lane	Longdon	SK062142	Private	1.1	Footpath
10	Paddock south west of Brook Farm	Longdon	SK059109	Livery	3.1	Bridleway
11	Paddocks east of Hazleslade	Heath Hayes & Wimblebury	SK025132	Livery	8.7	Road
12	Pinetrees Farm	Huntington	SJ975141	Livery	1.8	Road, Bridleway
13	Shoal Hill Farm	Hatherton	SJ964108	Livery	2.7	Road, Bridleway
14	Paddock north east of Doveleys Livery	Hatherton	SJ963104	Livery	1.6	Road
15	Meadows Farm	Brocton	SJ966184	Livery	2.8	Road
16	Paddocks south of sawpit Lane	Brocton	SJ965192	Private	6.1	Footpath

17	Paddocks north of Buds lane	Cannock Wood	SK051122	Private	1.3	Road (Buds Lane) / Footpath
18	Cannock Wood Farm	Cannock Wood	SK045119	Livery	6.2	Road/Footpath
19	Paddocks north of Holly Hill Road	Cannock Wood	SK047127	Competition yard	1.4	Road
20	Cannock Chase Trekking Centre	Teddesley Hay	SJ968162	Trekking Centre	12.4	Road, Bridleway

6 List of Maps

Figure 1: Distribution of livery yards within Cannock Chase AONB

Figure 2: Horsiculture Monitoring Sites within Cannock Chase AONB – Overview
Map

Figure 3: Location of horse paddock monitoring sites – Sites 1-3

Figure 4: Location of horse paddock monitoring sites – Sites 4-7

Figure 5: Location of horse paddock monitoring sites – Sites 8-9

Figure 6: Location of horse paddock monitoring sites – Sites 10, 17-19

Figure 7: Location of horse paddock monitoring sites – Site 11

Figure 8: Location of horse paddock monitoring sites – Sites 13-14

Figure 9: Location of horse paddock monitoring sites – Sites 12, 20

Figure 10: Location of horse paddock monitoring sites – Sites 15, 16

7 Useful Contacts

Organisation	Contact	Contact details
British Horse Society	Emma Day Senior Executive Membership Development Andrea Jackman Development Officer West Midlands	Tel: 01926 707854 e-mail: e.day@bhs.org.uk Tel: e-mail: a.jackman@bhs.org.uk
British Riding Clubs	Lucie Formosa	Tel: 01926 707855 e-mail: L.Formosa@bhs.org.uk
South Staffs Pony Club	Jane Beharrell Colton Hall Farm Rugeley, Staffs WS15 3HJ	Tel: 01889 574592
Forestry Commission	Jason Maclean Environmental Manager	Tel: 01889 586593 e-mail: Jason.maclean@forestry.gsi.gov.uk
Staffordshire County Council	Gaenor Kelly Environmental & Countryside Department Alison Bowyer GIS Liaison Officer	Tel: 01785 277251 e-mail: Gaenor.kelly@staffordshire.gov.uk Tel: 01785 277453 e-mail: alison.bowyer@staffordshire.gov.uk

8 References

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O'Beirne-Ranelagh. E. 2005. Managing Grass for Horses. The Responsible Owners Guide. J.A. Allen, London

9 Appendices

Appendix 1: Summary of information contained in Cannock Chase AONB equine database

Appendix 2: Organised horse events in Cannock Chase Country Park

Appendix 3: Number of BHS members within Cannock Chase AONB

Appendix 4: Horse establishment questionnaire

Appendix 5: Horse monitoring recording form

Total	336	851.8	369.8	1557. 6	21.6	488	19	58	1	1
% of total agricultural area	21.57	54.69	23.74							

Appendix 2: Number of BHS members within Cannock Chase AONB

Postcode prefix	Numbers of BHS members
ST17 0	40
WS15 1	11
WS15 2	17
WS15 4	12
WS11 1	10
WS12 0	0
WS12 4	10
ST18 0	50
Total	150

Appendix 3: Organised horse events in Cannock Chase Country Park

Date	Event	Approx. No.
2006		
26/02/06	Pleasure Ride	30
24/04/06	Pleasure Ride	12
30/04/06	Pleasure Ride	60
09/07/06	Horseshow	150
24/09/06	Pleasure Ride	60
07/10/06	Endurance Ride	50
	Total	362
2007		
03/03/07	Long distance charity ride	100
29/04/07	Charity ride	60
08/07/07	Charity pleasure ride	100
01/09/07	BHS orienteering	100
30/09/07	Pleasure ride	60
	Total	420

Appendix 4: Horse establishment questionnaire

Name:.....

Address:.....

.

.....

Tel No: E-Mail

Address:.....

1. **What area of land are horses kept on?** (show fields on map)
ha acres (Delete as applicable)
2. **How many horses are kept on your land?**
3. **Which category of horse establishment?** (please circle)
Private Stables
Livery yard
Competition yard
Stud
Trekking/ trail riding centre
4. **What other facilities do you have?**
Stables Number of stables
Menage
Cross country course
Riding school
5. **Which are the main issues affecting management of your paddocks?** (please circle)
Poaching of pasture
Fencing
Weed control
Manure disposal
Landscape / Wildlife issues
6. **Do you claim Single Farm Payment ?**
 Yes No
7. **Do you graze paddocks with other livestock ?**
 Yes No

8. Can we contact you again in future to discuss future projects within the AONB?

Yes

No

Please write any other comments overleaf.

Appendix 5: Horse monitoring recording form