

Totternhoe Knolls Common, Central Bedfordshire

Grid ref: SP 979221	Area: approx 14ha	District: Central Beds	Parish: Totternhoe
Designations: SSSI, SAM, Local Nature Reserve		Management plan:	
Current grant aid schemes:			

Introduction

This brief Conservation Statement – one of 15 such statements for commons within the Chilterns AONB- has been prepared by Footprint Ecology under contract to the Chilterns AONB HLF Project. It is based on a site visit, discussions with the Project Officer, any readily available resource material and in most cases discussion and/or meeting with the site manager, site owner or local Friends Group. The Statement offers observations on management of the site and suggests some projects that might be taken forward. It is not in any way a comprehensive management plan for the site though it should contain ideas that may usefully be incorporated into a management plan when that is written or next revised.

Background

Totternhoe Knolls comprises open chalk grassland and steep wooded slopes on a ridge projecting north from the main Chiltern escarpment. Totternhoe village and some farm fields fringe the southern side of the site and extensive open quarrying immediately adjoins the northern edge. The common is in the ownership of Central Bedfordshire Council and is managed by the National Trust and on the northern section in partnership with the Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough Wildlife Trust. There is a small car park to the southeast of the site with access to the common along a footpath. This joins a green lane/bridleway that runs along the northern side of the site. The common is designated as a Site of Special Scientific interest for its chalk grassland vegetation and insects; and it is a Scheduled Ancient Monument because of the remains of a Norman motte and bailey castle that occupies the highest point of the ridge – about 160 m elevation.

History & archaeology

Totternhoe is recorded as a substantial settlement of 4 manors in the Domesday survey of 1086 but clearly the history extends well back in pre-Conquest times, with Roman, Iron Age and even earlier finds from the area and surrounds. The castle that crowns the high point at Totternhoe Knolls is a classic motte and bailey structure dating from about 1170, though it may itself have been superimposed on a Saxon or perhaps an Iron Age hill fort. The site – an elevated spur rising steeply above the valley of the River Ouzel and its southern tributary, is easily imagined as a defensive position and the name of Totternhoe derives from this 'lookout' character. In addition to the motte (castle) and three baileys enclosed by banks, there are the remains of cultivation terraces (lynchets) on the steep slopes, and mediaeval stone quarries. These quarries were to extract Totternhoe Clunch – a hard chalk from the Lower Chalk outcrop that has been used extensively in buildings especially for high quality interior carved features both in various local churches and in buildings such as Westminster Abbey and Woburn Abbey. The castle, lynchets and mediaeval stone quarries are scheduled as an Ancient Monument. Totternhoe had the last open field, from the mediaeval period of farming in Bedfordshire, to be enclosed, in 1891. When Manor Farm at the foot of the castle slopes was sold in 1916, the existence is recorded of 95 stints (common grazing rights) on the 31 acres of Castle Hill. It is assumed the commons rights have now lapsed.

Geology & soils

The common lies on shallow soils derived from the underlying lower chalk that forms a ridge here projecting from the slightly higher main Chiltern escarpment. The resulting soils are highly calcareous and free-draining, except at the foot of the steep slopes where their proximity to the underlying gault clay may give them a seasonally wetter character. The steepened north slopes of the castle knoll give way to very hummocky terrain, the result of centuries of quarrying for the building stone - Totternhoe Clunch.

Habitats

The calcareous soils of Totternhoe Knolls support high quality chalk grassland where the land has remained open but dense chalk scrub and woodland now clothes the areas where the effects of grazing have been lost for longest. The flatter expanse of open grassland southeast of the castle mound has a rather taller turf than that on steeper slopes. Unimproved chalk grassland is an uncommon (BAP) habitat persisting only where grassland improvement has been limited or absent. Such grassland is particularly well represented on common land where the incentive for individual commoners to carry out improvements was low (as this was a shared resource), but management by extensive grazing was continuous down the centuries. This resulted in a flower rich grassland community. With the cessation of grazing on many commons, this unusual type of grassland has greatly declined as many commons have become scrub or woodland so the resource here should be conserved. The SSSI status of the site reflects its outstanding importance.

Species

The wildlife of Totternhoe is well recorded and the site is SSSI and LNR. The herb-rich grassland is of particular note and includes many characteristic chalk downland flowers including several species of orchids. Butterflies include local and restricted species such as chalk hill blue and Duke of Burgundy.

Recreation and access

The common is open to public access on foot and there is access from a small car park at the southeast corner of the site where there is a notice board. There are several rights of way including the bridleway/green lane along the northern edges of the site. On the steeper banks of the motte, the pedestrian paths have eroded deep gulleys into the chalk. Vehicle access onto the common from this lane, especially by motorcycles, is potentially a problem. There have also been problems in the past from the unauthorised use of metal detectors.

Management

The grassland of most of the castle and the eastern outer bailey area is maintained by the National Trust by cutting to keep it open; the north slopes of the castle mound and the undulating ground below this is managed by BCNPWT with occasional sheep grazing. The spread of scrub, including coppice growth from cut bushes and wild clematis also clothing the ground is not that well controlled by cutting. Grazing would better maintain all of the open grassland areas. Some of the earthworks are obscured by tree and scrub growth and may also benefit from some clearing, both to reveal the form of the ancient monument and to prevent damage that can be caused by tree roots.

Management Plan

There are several bodies involved in management of the site and there are the important national and local designations for nature conservation and archaeology. The site would benefit from a comprehensive management plan to incorporate the input and effort of all parties and secure a unified approach to management of the whole site. As well as conservation of the heritage features this should also aim to enhance public access, in order to encourage wider use and to raise local awareness of the common's value, and engender support for safeguarding its valuable archaeological and wildlife features.

Specific prescriptions for any new or reviewed management should include:

Practical conservation

- After appropriate discussion and liaison, ensure there is a single overall management plan, with costed actions and responsibilities detailed, in place by end 2011
- Seek advice from statutory agencies – Natural England and English Heritage – on the requirements for successful conservation of the SSSI and SAM and discuss and agree management techniques that might be appropriate

- Continue to maintain the existing open grass areas by regular removal of any invasive scrub or clematis and in the short term retain the annual grass cutting regime. In order to prevent the turf becoming taken over by coarse grasses, aim to cut the grass in summer at the latest by the end of July and again late in the season
- Explore the practicalities of establishing grazing, currently employed by BCNPWT on the northern part of the site, over the rest of the open grassland of the castle and the flatter eastern areas. In the short term this could be achieved with temporary enclosures and advice should be sought on the size of fenced enclosures to avoid a requirement for consent under commons legislation. However, the possibility should be explored for removing the fence currently dividing the castle itself, and extending a stock fence around the north-east edge of the site, against the bridleway/lane, returning along the top edge of the wooded steep slopes of the south-west margin of the open grassland. This would make a single grazing unit encompassing all of the open grassland into one undivided unit. All current path access points would be gated to maintain full public access on foot
- Repeat surveys of wildlife and carry out monitoring to ensure key species are being maintained and use this information to direct future management

Site access/interpretation

- Keep open the path system to facilitate easy access on foot, by trimming back branches and scrub growth and keeping the green lane open while deterring unauthorised vehicle access
- Seek advice on ways of repairing the eroded paths on the Motte and the maintenance of access without erosion in the future
- Make available suitable and updated interpretation (leaflet, notice board, online information etc) for visitors

Historic environment

- Subject to agreement from English Heritage, remove the scrub and tree growth from the earthworks including the impressive bank and dry ditch demarking the south-east grassland of the outer bailey
- In consultation with EN/County Archaeologist and others, encourage historical investigation of the site, with the aim of producing a leaflet or website page on the history and archaeology of the common. Use this to encourage further local studies of the common's role in village life and its relationship to other nearby commons
- Update and maintain an archive of former common rights, their extent and the properties associated with rights holders

Community engagement

- Carry out a programme of public consultation and awareness raising to promote and explain the purpose of re-instating the historic and traditional grazing management of the common
- Conduct occasional guided walks, led by members of the BCNPWT, rangers or suitable experts, to show local people aspects of the history and natural history of the common
- Engage the local community over the future management of the Common through attendance at local events, talks to local organisations, articles in local newsletter etc. to raise the profile of the site's conservation and prepare the way for future management including the possibility of grazing
- Maintain and expand training opportunities for volunteers, adult learners and schools – eg use of tools, hedge laying, survey techniques, leading events and walks, H&S

(Note: prescriptions are assigned to the most appropriate heading but may have relevance to others)

Project costs (G – generic S – site specific)

Project	Cost estimate*	Outcome	Notes	Type & timing
Overall management plan		Updated detailed plan with actions and costs	Ranger with expert advice if needed	G Short term
Consult EH & NE		Advice and agreement on management actions	NT/CBC/BCNP also to discuss	S Short term
Cut back fringing scrub and branches beside paths		Keep informal paths open	Volunteers/ranger	G Ongoing
Repair eroded paths	Possible need to transport material from elsewhere on site £100	Repair and prevent further damage to motte	Volunteers/ranger (after advice from EH)	S Short term
Continue to manage grassland by annual cut and removal	Contract work (£500/yr) or volunteers	Maintain good native flora	Contractor or volunteers	S Ongoing
Engage with local community through talks, articles, events		Greater understanding and appreciation and management needs of site	Ranger/volunteers	S Ongoing
Explore potential for grazing using temporary enclosures	Fencing and water trough £1000	Maintain open flower-rich grassland	Grazier/BCNP with volunteers to act as 'lookers' for stock	S Short - Medium term
Continue to control clematis and scrub by cutting (or spraying?)	Contractor for spraying - £500	Woody spp controlled to benefit grassland	If cutting, volunteer or ranger	S Ongoing
Explore possibilities of grazing all open grassland in single unit with SAM undivided by fence		Better managed grassland in more sustainable way, and SAM enhanced	Discuss with BCNP, CBC, EH, NE	S Short - Medium term
Carry out public consultation to prepare for grazing	Obtain professional advice £1500	Explain need and engage local community	Volunteers	S Short term
Remove scrub and trees from earthworks	4 days chain saw £250/day	Enhance SAM and reveal to view	Ranger/EH and contractor	S Short - Medium term
Repeat wildlife surveys for plants, butterflies and insects, birds	£500/ survey if not volunteers	Ensure key species retained and guide management	Experts if needed Survey at 5-yr intervals	G Medium term & ongoing
Conduct programme of guided walks on history/natural history		Community engagement and learning	Volunteers or invited experts to lead	G Short term and ongoing

Provide training for use of tools, hedge laying, strimming, H&S	£250/person/day	Skills for local use; new skills for individuals		G Short term and ongoing
Provide training for guides and history researchers	Training day £250 for several people	Community engagement and learning	Interested volunteers	G Short term and ongoing
Use historical research to update leaflet, web site and info boards		Community engagement and learning	Interested volunteers	G Short- Medium term
Research historic common rights		Maintain historic archive	Interested volunteers	G Short term
Total	£4350 in yr 1 (excl fencing & grazing costs)			
Total for HLF support	£850+ in yr1			

*All costs are approximate