Natural England Executive Board

Meeting number: 76

Date: 1 October 2012

Item number: 01

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Title: Proposal for SSSI – Chattenden Woods and Lodge Hill, Kent

Sponsor: Jim Smyllie, Executive Director – People, Landscape & Biodiversity

Chattenden Woods and Lodge Hill lies on the Hoo Peninsula in north Kent, north-east of Rochester. The site comprises a mosaic of habitats, including long-established semi-natural woodland (areas of which are recorded as ancient semi-natural woodland), dense scrub and neutral grassland. The site is also of importance for its breeding birds. The total area proposed for notification as Chattenden Woods and Lodge Hill is 350.49 ha. The site includes all of the land previously notified as Chattenden Woods SSSI by reason of its nationally important woodland, neutral grassland and breeding birds.

1. Notification and confirmation process

1.1. The attached notification and supporting information documents are presented to the Executive Board for approval to notify Chattenden Woods and Lodge Hill as a SSSI under section 28C of the Wildlife and Countryside Act 1981, as inserted by Schedule 9 to the Countryside and Rights of Way Act 2000.

1.2. The notification document will be sent (if approved) to the owners, occupiers and statutory authorities. It includes a summary of the special interests and site boundary, information on the consultation process and the legal documents. The supporting information document presents the detailed information which has been used to assess the importance of this site and will be available on request from the local team.

1.3. Having determined that land within and extending beyond an existing SSSI is of special interest for reasons including and exceeding those previously notified, Natural England's normal practice is to enlarge the existing site under section 28C. This enables us to include land not previously notified and to subsume any other existing sites within the area in question, as well as to revise the reasons for notification and other legal documents. The rationale for the use of section 28C in this case is set out below under 'the decision-making process'. In this regard, the attention of the Executive Board is drawn to section 2.1 of the notification document, in particular the enlargement of the previously notified Chattenden Woods SSSI (128.37 ha). With effect from the date of this proposed notification under section 28C (if approved), the previous notification of Chattenden Woods SSSI would cease to have effect.

1.4. Subject to approval, the formal notification will be issued before the end of September 2012, initiating a four month consultation period with owners, occupiers and other interested parties. The local team will seek to resolve all objections as far as possible. The notification of Chattenden Woods and Lodge Hill under section 28C would take immediate effect when notified. Natural

England may confirm or withdraw the notification under section 28C within nine months of the notification date. If it does neither, the notification ceases to have effect.

1.5. If there are no outstanding objections, the approval to confirm notifications under section 28C has been delegated to the Director of Landscape and Biodiversity. Otherwise, the case must be considered by the Board of Natural England.

2. The decision-making process

2.1. These decisions are often contentious as they can cause considerable concern to landowners and occupiers or third parties who are affected by the proposed changes to the SSSI. For this reason the notification and confirmation of any SSSI raises the very real prospect of a legal challenge being brought against Natural England. It is therefore imperative that the Executive Board has an understanding of their powers and duties and the law which governs the manner in which decisions on SSSI ought to be made.

2.2. Section 28C(1) provides that, where Natural England is of the opinion that any area of land which includes, but also extends beyond, a SSSI is of special interest, Natural England may decide to notify that fact. The attached notification and supporting information documents provide information on the scientific case. The main decision for the Executive Board is a scientific one – does the science support the proposal? However when considering enlarging a SSSI, Natural England has discretion about whether to notify (enlargement of SSSIs is a power, not a duty).

2.3. Natural England also has a number of general legislative duties under the Natural Environment and Rural Communities Act 2006 (NERC Act) and the Countryside Act 1968 that it needs to take account of when considering SSSI notification. Any judgment must be based on the scientific case for the special interest of the site in question. So ordinarily the regard which is due to other general legislative duties will be minimal, though each case must be treated on its own merits.

2.4. Having taken account of the general legislative requirements outlined above, if approved, Natural England will be exercising its discretion in terms of section 28C for the following reasons:

a) non-scientific – Having taken account of our duties under the NERC Act and the Countryside Act, we are satisfied that these duties require no further consideration at this stage and we consider that the enlargement of Chattenden Woods SSSI is a proportionate exercise of our powers under section 28C.

b) sound ecological principles:
   - Specialist surveys have identified nationally important numbers of breeding nightingale, an assemblage of breeding birds associated with scrub habitats, and ancient and long-established semi-natural woodlands within and adjacent to the previously notified SSSI.
   - Inclusion of the additional areas of special interest with the previously notified SSSI as a single enlarged site, is compatible with a 'whole system' approach to the management and protection of the special interests.

2.5. However, if we are of the opinion that an area is of special interest in its own right, but fail to notify that area, exercising our discretion under section 28C, Natural England would be under a duty to notify the area under section 28.

3. Science

3.1. Chattenden Woods and Lodge Hill supports a diverse mosaic of semi-natural habitats, including ancient and long-established semi-natural woodland, scrub and neutral grassland. It is of special interest by reason of the following nationally important features that occur within and are supported by the wider habitat mosaic:

3.2. Ancient and long-established semi-natural woodland – The extensive woodland represents one of the best examples of coppice-with-standards woodland on the London Clay. The dominant woodland community is of the National Vegetation Classification (NVC) type W10 pedunculate oak *Quercus robur* – bracken *Pteridium aquilinum* – bramble *Rubus fruticosus* woodland. Two sub-communities are represented: the W10a typical sub-community and the W10b wood anemone *Anemone nemorosa* sub-community. The woodland is largely comprised of pedunculate oak standards with ash coppice of varying age structure. 'Lowland mixed deciduous woodland', which includes the woodland communities present in Chattenden Woods and Lodge Hill, is a habitat of principal importance for the conservation of biodiversity in England.

3.3. Unimproved neutral grassland – Rough Shaw is an area of dense and scattered scrub on a north facing slope with tall-herb neutral grassland along its upper margin. The tall-herb neutral grassland includes stands of the unimproved nationally scarce NVC type MG5 crested dog's-tail *Cynosurus cristatus* – common knapweed *Centaurea nigra* grassland, which conform mainly to the MG5b lady's bedstraw *Galium verum* sub-community. These grasslands form part of the 'lowland meadows' habitat, which is listed as being of principal importance for the conservation of biodiversity in England.

3.4. Breeding nightingale *Luscinia megarhynchos* – The site supports a nationally important number of nightingales during the breeding season. Nightingales use coppice woodland and scrub throughout the site. Nightingale is an amber-listed 'Bird of Conservation Concern'. The basis for using data from the 2012 national nightingale survey, assessed against the most recently published national population estimate for nightingales (based on the previous national survey in 1999) is set out in detail in the supporting information document. In short, the 2012 site data are used because:

- they are the most recently available data and therefore best reflect current conditions on the site;
- they result from a dedicated survey employing methods designed to locate singing nightingales and are therefore less likely to underestimate numbers; and
- they cover the full extent of the Chattenden Woods and Lodge Hill SSSI and the locations of all recorded territories are mapped.

3.5. The 2012 data have been fully validated by BTO and are assessed against the GB population of 6,700 singing male nightingales estimated in 1999, as that is the most recently available national population estimate. Given the evidence of a significant national decline since 1999 it is likely that the SSSI population represents an even greater proportion of the current national nightingale population. The supporting information document also summarises the nightingale population trends in Kent, Great Britain and Europe, and includes an analysis of the implications for the proposed SSSI. The statement of views about the management of the SSSI describes the coppice woodland and scrub management necessary to maintain the site in a favourable condition for nightingales.

3.6. Assemblage of breeding birds chiefly associated with scrub habitats – The site supports an assemblage of breeding birds chiefly associated with scrub habitats. At least 12 species comprise a breeding assemblage, including turtle dove *Streptopelia turtur*, cuckoo *Cuculus canorus*, nightingale, whitethroat *Sylvia communis*, lesser whitethroat *S. curruca*, garden warbler *S. borin*, blackcap *S. atricapilla*, long-tailed tit *Aegithalos caudatus*, linnet *Carduelis cannabina*, greenfinch *C. chloris*, goldfinch *C. carduelis* and bullfinch *Pyrrhula pyrrhula*. The species making up this assemblage breed in scrub and woodland edge habitats throughout the site, and many will also forage more widely in the woodland and grassland habitats. Turtle dove, cuckoo and linnet are red-listed 'Birds of Conservation Concern', and whitethroat and bullfinch are amber-listed. Turtle dove and cuckoo are also listed as being of principal importance for the conservation of biodiversity in England. The supporting information document describes the selection of this proposed feature with reference to revised selection guidelines for breeding bird assemblages of scrub (see 3.9 below).

The proposals in the context of the SSSI notification strategy

3.7. In July 2012, Natural England's Board approved Natural England's Designations Strategy. One of the work streams within the Designations Strategy relates to the notification of SSSIs, which is addressed in more detail in Natural England's SSSI Notification Strategy. The SSSI Notification Strategy is being implemented through two parallel and complimentary strands of work: review of the features and boundaries of all existing SSSIs; and assessment of SSSI coverage nationally on a habitat and species group basis. The proposal to notify Chattenden Woods and Lodge Hill under section 28C follows review of the previously notified Chattenden Woods SSSI. The proposed inclusion of breeding nightingale and an assemblage of breeding birds associated with scrub as features of interest is made in accordance with priorities for SSSI notification that have been identified by the draft SSSI notification strategy review for birds. The review has assessed coverage of all bird species within the SSSI series and identified those where further coverage may be required. It has not yet reached the stage of finalising lists of candidate sites to address shortfalls in coverage.

3.8. Selection of this site is supported by Natural England's grassland, woodland, and bird specialists. In addition, the specialists have confirmed that selection of this site for the relevant features is consistent with ongoing work under the SSSI notification strategy, as summarised below:

3.9. The key features of this proposal in terms of the SSSI notification strategy are related to the extensions and additional interest features in the context of the previously notified SSSIs. Specifically:

- The site includes extensive areas of ancient and long-established semi-natural woodland, as well as adjoining areas of scrub and neutral grassland. Collectively, these habitats support nationally important breeding bird features. There is overlap between the features of each of the different components of the proposed SSSI; for instance, the scrub breeding bird assemblage utilises Rough Shaw (where it overlaps with neutral grassland) and the Lodge Hill former training area. Nightingales breed in coppice woodland and scrub habitats throughout the site. Accordingly, there is no basis for excluding parts of the site without diminishing the ecological coherence of the whole.
- The extensions significantly increase the area of suitable habitat for nightingale and the wider breeding bird assemblage over and above those included within Chattenden Woods SSSI. The inclusion of all of the suitable habitat for nightingale will help to ensure the long term sustainability of this species' population in the Chattenden Woods and Lodge Hill area.

- The inclusion of entire blocks of semi-natural habitat to form a near-continuous area of SSSI that supports common populations of breeding birds in particular, would make a significant contribution to ecological connectivity in this part of the Hoo Peninsula.
- Natural England's draft SSSI notification strategy for birds has identified breeding nightingales as a species not previously listed as a notified feature in its own right on any SSSI (although they are potentially included as a contributing species in woodland and scrub breeding bird assemblages). It is recommended that all known aggregations reaching or exceeding 1% of the GB population are notified. Improving coverage for nightingales, along with four other relatively scarce breeding woodland birds of conservation concern, is considered a priority.
- In 1999, the nightingale population was concentrated within five counties in south-east England. These five counties held 77% of the total population: Kent (26%), Suffolk (19%), Sussex (15%), Essex (9%) and Norfolk (7%). Available information indicates that the site is currently the most important location in Kent for nightingales, both in terms of numbers and density. Kent's position as the most important county for nightingales in Great Britain (as revealed by national surveys in 1980 and 1999) suggests that this, apparently the most important site in Kent, should receive highest priority for notification.
- Natural England's draft SSSI notification strategy for birds does not recommend any changes to the approach set out in the Guidelines for identification of breeding bird assemblages. However, bird population estimates and habitat associations, which all influence the composition of SSSI breeding bird assemblages, have changed significantly since the Guidelines were published in the 1980s. These changes have consequential effects on the lists of species in each assemblage, individual species ranking and the threshold site-index values for each habitat.
- The Guidelines (Chapter 14, Appendix C, p.257) describe the method for ascribing species rankings and deriving threshold site-index values. The same method has been used to derive revised species rankings and threshold site-index value for assemblages of breeding birds associated with scrub habitats, based on the most recently available published national population estimates. Table 2 in the supporting information document shows the resulting amendments to scrub breeding bird assemblage guidance (with justification for each change) and also provides an assessment of Chattenden Woods and Lodge Hill against the revised threshold site-index value. There are no proposed changes to the underlying rationale for breeding bird assemblage selection , merely the score attached to each species (based on its latest national population estimate) and the list of species associated with scrub (based on current understanding of habitat use).
- This is a provisional revision of the scrub breeding bird assemblage guidance which has not yet been formally adopted by the Joint Nature Conservation Committee (JNCC). However, it has been presented to JNCC, Countryside Council for Wales and the British Trust for Ornithology, all of whom have indicated their agreement in principle. It is considered unlikely that a more formal revision of the assemblage would result in new guidance significantly different to that presented here. It is therefore recommended that the scrub assemblage is included as a notified feature of the SSSI. The proposed revisions have been accelerated as part of our work to assess this site but were already in train as part of the notification strategy review for birds.

4. Management and condition

4.1. Chattenden Woods and Lodge Hill is made up of eight site units and all except one are assessed as being in favourable condition. The species-rich neutral grassland in unit 3 has been assessed as 'unfavourable – no change' due to the low frequency of positive indicator species, excessive cover

of coarse grasses and the sward height being above the recommended level. Altering the grazing regime to increase the grazing pressure will address these issues. The draft favourable condition tables are attached for information at annex 1.

4.2. Although ancient and long-established semi-natural woodlands have survived a large range of climatic events and thus demonstrated great resilience to changing conditions, the threat posed by climate change is serious. The biggest threats are thought to be from drought, which may be exacerbated by competition from neighbouring trees, and tree loss resulting from gales. However, Chattenden Woods and Lodge Hill is characterised by oak woodland and this species is not considered especially vulnerable to these threats.

4.3. Lowland meadows are comprised of plant species that fall within the southern temperate, widespread temperate and temperate biogeographical elements of the British flora[1]. Thus, they do not support species at the edge of their range (e.g. Boreal and Arctic species) that are considered to be at the greatest risk under predicted climate change scenarios[2]. This suggests that the community might be relatively resilient to increases in temperature at least.

4.4. If spring/summer temperatures increase as predicted, resulting in longer growing seasons, then meadow plant phenology may change significantly, with earlier flowering and seed setting. This will also affect the timing of the peak in the quantity and quality of the hay crop. This may require a flexible approach to site management, for example by varying the timing of the hay cut or the timing/duration of aftermath grazing.

5. Issues

5.1. Natural England is required to form a view on the special interest strictly on the basis of the scientific information, informed as appropriate by published selection guidelines. The following issues are presented to give additional context to the Executive Board's decision.

5.2. Initial preparations for a detailed notification review of Chattenden Woods SSSI commenced in January 2012. From June 2012 land owners were contacted by email or telephone to request permission to survey land and offering the opportunity to discuss the Integrated Site Assessment and notification review process. The Director of the Chattenden Syndicate (which runs a small scale shoot within woodland that it owns) met with Local Team Advisers during a recent Integrated Site Assessment. In a subsequent telephone conversation, the Syndicate Director was supportive of the notification because he felt it would help to protect the woodland. No responses have been received from the other private landowners.

5.3. A substantial part of the existing SSSI and most of the proposed extension is owned by the Ministry of Defence (MoD). The proposed extension has been allocated for development in Medway Council's draft Core Strategy, which is currently subject to Examination in Public. It is also subject to an outline planning application for development, including 5000 houses, three schools and substantial employment uses. The allocation of this land for development has been in Medway Council's development plan for many years and is seen as critical to the soundness of the Core Strategy. Due to the expiry of the current adopted development plan, early next year, if the draft Core Strategy is found to be unsound, it could leave Medway without an adopted development plan.

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[1] Preston, C.D. & Hill, M.O. 1997. The geographical relationships of British and Irish vascular plants. *Botanical Journal of the Linnean Society* **124**: 1-120.

[2] Preston, C.D., Telfer, M.G., Roy, D.B., Carey, P.D., Hill, M.O., Meek, W.R., Rothery, P., Smart, S.M., Smith, G.M. & Walker, K.J. 2003. *The Changing distribution of the Flora of the UK: Technical Report*. CEH Project No. C01903. CEH, Monks Wood.

5.4. An outline planning application was submitted by Land Securities, the commercial partner of MoD. As part of the development process, it is expected that land ownership will pass from MoD to Land Securities in the coming months.

5.5. The overlap between the proposed development area and the proposed SSSI extension is great, because nightingales are distributed such that it has been necessary to draw the proposed extension boundary so that it coincides closely with the boundary of the development allocation. Land Securities and Medway Council have advised that the development proposal is not capable of substantial adjustment in scale. Thus if development were to proceed, the proposed SSSI extension would be lost almost in its entirety. Conversely if the existing habitat proposed for SSSI notification is to be retained, the development will not be able to proceed. There is little or no potential for the scientific interest and the development to be accommodated together within the area currently proposed for development.

5.6. It is the role of the planning system to balance the nature conservation interests against other interests. Notification of the development allocation would clarify the status of the land in relation to the guidance in the National Planning and Policy Framework (NPPF). This includes: *Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted.*

5.7. In the interim, on a precautionary basis, we have advised the Inspector of the Core Strategy Examination that the land should be considered as important, on the level of an SSSI. In addition we have advised that retention of the habitat on site is the lowest risk scenario for the local nightingale population but that, should planning permission be granted, compensatory habitat creation should be capable of reducing the impact.

5.8. We are actively engaged in a consultation organised by Medway Council to assess the deliverability of compensatory habitat. It is understood to be likely that after the completion of that consultation, the Inspector of the Core Strategy examination will reopen hearings to consider the development allocation. Through that process we will continue to communicate frequently with the Land Securities, Medway Council and other main stakeholders, including RSPB. MoD is not engaged in the planning process directly, and so we are keeping it informed through our account manager.

5.9. The RSPB have specifically asked Natural England to consider SSSI notification at Lodge Hill to include the nationally important number of breeding nightingales recorded by the 2012 survey. The RSPB have publicly expressed this in their submissions to the Examination in Public. The Kent Wildlife Trust have also asked that Natural England considers the importance of the neutral grassland interests when reviewing the SSSI notification. Both RSPB and Kent Wildlife Trust are likely to be highly supportive of SSSI notification.

6. Summary and recommendations

6.1. It is recommended that the Executive Board:

a) **Note** the use of discretion in line with the provisions of sections 28C.
b) **Note** that the notification under section 28C would cause the previously notified Chattenden Woods SSSI to cease to have effect.
c) **Approve** the enlargement of the previously notified Chattenden Woods SSSI and change of name to Chattenden Woods and Lodge Hill SSSI.
d) **Approve** the extension of 222.12 ha to the previously notified area.

e) **Approve** the statement of Natural England's views about management and the lists of interest features and operations requiring Natural England's consent.

Definitions of Favourable Condition for designated features of interest

These definitions relate to all designated features on the SSSI, whether designated as SSSI, SPA, SAC or Ramsar features.

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Name of Site of Special Scientific Interest (SSSI)	
Chattenden Woods and Lodge Hill	
Names of designated international sites	
Special Area of Conservation (SAC)	n/a
Special Protection Area (SPA)	n/a
Ramsar	n/a
Relationship between site designations	
n/a	

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Status of this Version (Draft, Consultation Draft, Final)	Consultation Draft
Prepared by	Lorraine Smith
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Date of generic guidance on favourable condition used	CSM Guidance: Woodland (January 2003) CSM Guidance: Birds (January 2004) CSM Guidance: Grassland (February 2004)
Other notes/version history	No previous version

Quality assurance information		
Checked by	**Name** **Mick Oliver**	**Date** **12thSeptember 2012**
	Signature	

Definitions of Favourable Condition: notes for users

Definitions of Favourable Condition

The definitions comprise one or more condition definitions for the special interest features at this site. These are subject to periodic review and may be updated to reflect new information or knowledge. They will be used by Natural England to determine if a site is in a favourable condition. The standards for favourable condition have been developed and are applied throughout the UK.

Standards for favourable condition are defined with particular reference to the specific designated features listed in Table 1, and are based on a selected set of attributes for features which most effectively define favourable condition as set out in Tables 2, 2a and 3. When an SSSI's features meet these attributes, then they are said to be in 'favourable condition'.

Explanatory text for Tables 2 and 3

Tables 2, 2a and 3 set out the measures of condition which we will use to provide evidence to support our assessment of whether features are in favourable condition. They have been tailored by local staff to reflect the particular characteristics and site-specific circumstances of individual sites. Quality Assurance has ensured that such site-specific tailoring remains within a nationally consistent set of standards. The tables include an audit trail to provide a summary of the reasoning behind any site-specific targets etc. In some cases the requirements of features or designations may conflict; the detailed basis for any reconciliation of conflicts on this site may be recorded elsewhere.

Use under the Habitats Regulations

The Definitions of Favourable Condition (DFCs) are used to periodically measure and assess the condition of both notified SSSI features and designated European Site features.

Where SSSIs also form part of a European Site (such as a SAC or SPA), a separate document containing specific European Site Conservation Objectives will have been prepared. These objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and the Habitats Directive 1992. They are for use when either the appropriate nature conservation body or a competent authority is required to make an 'appropriate assessment' of the likely effects of a proposed plan or project on the integrity of a European Site under the relevant parts of the respective legislation. The European Site Conservation Objectives are available at www.naturalengland.org.uk.

The concepts of 'site integrity' and 'favourable condition' are similar and the assessment of a site's condition will measure attributes that also represent aspects of a site's ecological integrity. However, the periodic determination of a site's condition is separate from a judgement about the effect upon a site's overall integrity. This is because the DFCs do not represent a comprehensive or definitive list of all of the elements that might contribute to site integrity, merely those that are most appropriate to monitor in order to rapidly determine site condition. The full range of factors that are components of a site's integrity, and which may need to be considered by an appropriate assessment, will be specified in the European Site Conservation Objectives. Some of the information contained within the DFCs may however contribute to such assessments.

Table 1 Individual designated interest features

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI notified interest features	SAC qualifying interest features	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
Broadleaved, Mixed and Yew Woodland	*Quercus robur-Pteridium aquilinum-Rubus fruticosus* woodland (W10) Aggregation of breeding bird species; Nightingale *Luscinia megarhynchos*.	Lowland Pedunculate Oak – Bracken – Bramble woodland The sites coppice woodland and scrub habitat regularly supports 1% or more of the British breeding population.	*								
Lowland Neutral Grassland	MG5 *Cynosurus cristatus – Centaurea nigra*	Crested Dog's-tail – Common Knapweed lowland hay meadow and pasture	*								

Scrub habitat		Scrub habitat is not a notified feature but supports the features listed below.	(*)								
	Aggregation of breeding bird species; Nightingale *Luscinia megarhynchos*. The site regularly supports 1% or more of the British breeding population.	The sites coppice woodland and scrub habitat regularly supports 1% or more of the British breeding population.	*								
	Breeding bird assemblage of scrub		*								

NB. Features where asterisks are in brackets (*) indicate habitats which are not notified for specific habitat interest (under the relevant designation) but because they support notified species.

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Table 2 Habitat extent objectives

Extent - Dynamic balance	To maintain the designated features in favourable condition, which is defined in part in relation to a balance of habitat extents (extent attribute). Favourable condition is defined at this site in terms of the following site-specific standards.
	On this site favourable condition requires the maintenance of the extent of each habitat type (either designated habitat or habitat supporting designated species). Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Broadleaved, Mixed and Yew Woodland	163.5 hectares	• No loss of semi natural woodland • No loss of ancient woodland. • Maintain active management of young age growth in at least the following Units 2, 4, 5, 6.	• See map 1 for extent of feature. • Loss = .5 ha or 0.5% of the stand area whichever is smaller. • Nightingale requires young age growth coppice
Neutral Grassland	Found only in Unit 3 and amounts to 4.1 hectares in total: MG5b – 1 ha within an area of MG1e	• Total area (ha), mapped in relation to a reference level to be determined, in period mid-May - late July (pastures). • No reduction in area and any consequent fragmentation without prior consent	• Recoverable reduction = unfavourable • Non-recoverable reduction = partially destroyed. • See map 2 for extent of grassland.
Scrub habitat	Suitable habitat occurs across ENSIS units 1, 3, 7 and 8.	• No loss in scrub habitat (units 1, 3, 7, 8) • Scrub should be managed on a rotation to ensure a varying age structure (variation across 0 – 10 years)	• These targets define the habitat requirements for favourable condition for breeding nightingale and breeding bird assemblage associated with scrub.

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Audit Trail
Rationale for habitat extent attribute **(Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).**
Habitat extents taken from NVC survey of woodland and grassland (2012).
Rationale for site-specific targets (including any variations from generic guidance)
Other Notes

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Table 2a Species population objectives

Population balance	To maintain the designated species in favourable condition, which is defined in part in relation to their population attributes. Favourable condition is defined at this site in terms of the following site-specific standards.
	On this site favourable condition requires the maintenance of the population of each designated species or assemblage. Maintenance implies restoration if evidence from condition assessment suggests a reduction in size of population or assemblage.

Species Feature (species or assemblage)	**List supporting BAP Broad Habitats**	**Population Attribute (eg presence/absence, population size or assemblage score)**	**Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)**	**Comments**
Nightingales	Scrub habitat Broadleaved, Mixed and Yew Woodland	Number of territories at time of notification is 84.	Variation in territory numbers should be within 25 % of total at notification.	Requires scrub of varying age structure and actively managed coppice woodland.

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Breeding bird assemblage of scrub	Scrub habitat	Record presence/absence of breeding species within the assemblage. Breeding must be confirmed as proven or probable according to generic proof of breeding codes. A count of the numbers of breeding pairs/units in a site is not needed. On the basis of presence/absence recalculate the assemblage score using the SSSI Guidelines for the relevant habitat. The species present at designation and each monitoring event do not need to be the same as this is a score-based assessment only.	Assemblage score (BTO index) Maintain assemblage diversity: If the total score calculated for a breeding bird assemblage falls by the equivalent of 25% or more in points then the assemblage is in unfavourable condition. The target to be maintain for the woodland is thus 75% of the notification value of 17 which is 12.75. Note these figures are based on proposed revised guidelines (2012).	Original notification qualifying species: • Turtle Dove • Cuckoo • Nightingale • Whitethroat • Lesser Whitethroat • Garden Warbler • Blackcap • Long-tailed Tit • Linnet • Greenfinch • Goldfinch • Bullfinch

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Audit Trail
Rationale for species population attributes **(Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).**
Nightingale data provided by BTO national nightingale survey 2012. Target figures from the notification document produced for the 2012 notification and based upon the proposed revised guidelines for breeding bird assemblages (prepared by Natural England's Senior Specialist – Ornithology). The SSSI review recommends changes to the guidelines on selecting sites for breeding bird assemblages. Specifically, bird population estimates, habitat associations and national status which influence assemblage composition have changed significantly since the 1980s which will have consequent effects on the lists of species in each assemblage, individual species' ranking and the threshold site-index values. The list of species included in the scrub assemblage guidance are as follows: 1 point species - Whitethroat; Garden Warbler; Blackcap; Long-tailed Tit; Linnet; Greenfinch; Goldfinch; Bullfinch; Yellowhammer 2 points - Turtle Dove; Cuckoo; Stonechat; Grasshopper Warbler; Lesser Whitethroat 3 points - Long-eared Owl; Nightingale 4 points - Cirl Bunting
Rationale for site-specific targets (including any variations from generic guidance)
Other Notes

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Table 3 Site specific Habitat/geological condition objectives

To maintain the **Broadleaved, mixed and yew woodland** at **Chattenden Woods and Lodge Hill SSSI** in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:

Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)

Site-specific standards defining favourable condition

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
Broadleaved, mixed and yew woodland	Structure and Natural processes	Assess by field survey using structured walk. Age/size class variation within and between stands; presence of open space and old trees; dead wood lying on the ground; standing dead trees	• Understorey (2-5m) present over at least 50% of total stand area. (between 0 and 30 years with a full range of growth stages within this continuum) • Canopy cover present over 40-70% of stand area. At least three age classes spread across the average life expectancy of the commonest trees. • Up to 10% of total area maintained as permanent open ground - rides, glades • Maintain active management of young age growth in at least the following Units 2, 4, 5, 6. • At least 10% of the total area of woodland	• The woodland is a traditional coppice with much of it remaining in active management. • Dense understorey present in recently coppiced areas with much bramble growth. • Canopy will be sparse in recent coppice plots. • Optimal age structure of coppice habitat for nightingales is 3 – 10 years. • Deadwood mainly in areas	Yes

		to be relatively undisturbed mature/old growth stands or a scatter of large trees allowed to grow to over-maturity/death on site. • A minimum of 3 fallen lying trees >20 cm diameter per ha and 4 trees per ha allowed to die standing.	of unmanaged coppice.	
	Regeneration potential	Assess by field survey using structured walk. Successful establishment of young stems in gaps or on the edge of a stand	• In stands with growth maintained as less than 30 years old, re-growth from coppice stools to maintain canopy cover after 5 years (with new seedlings of native species 5/ha) • Seedlings growing in gaps in the canopy at levels to ensure maintenance of canopy. • All planting material of locally native stock. • No planting in sites where it has not occurred in the last 15 years.	• Regeneration generally by natural processes only. • Look for good regeneration from coppice stools following cutting • Assess this attribute by walking through the wood in spring/summer.	Yes
	Composition	Assess by field survey using structured walk. Cover for native versus non-native species (all layers)	• At least 95% of cover in any one layer of site-native. • At least 50% oak in canopy. • Wide variety of native species in canopy and scrub layer. • Death, destruction or replacement of native woodland species through the effects of introduced fauna or other external unnatural factors, not more than 5% by number of area in a 5 year period.	• Where cover in any one layer is less than 100% then the 95% figure applies to the area actually covered. • Oak is the dominant canopy tree and standard in coppice areas. • Species present include aspen, hazel, wild service, midland thorn, ash, field	Yes

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				maple, birch, wild cherry, hornbeam, sallow, birch wayfaring tree, pivet. • In recently coppiced areas the canopy will be very open.	
	Indicators of local distinctiveness	Assess by field survey using structured walk. Ground flora type	• 90% of ground flora cover referable to relevant NVC community: W10a/b Presence of notable plants including bluebells, wood anemone, stinking iris, wood mellick, bird's-nest orchid.	• W10a/b – oak bramble community • Ground flora will be surpressed under older coppice coups and under mature hornbeam. • 33 ancient woodland specialists recorded in 2012.	Yes

Audit Trail

Rationale for limiting standards to specified parts of the site

Rationale for site-specific targets (including any variations from generic guidance)

The site is a coppiced woodland hence the targets for young age growth and the open canopy flexibility.

Rationale for selection of measures of condition (features and attributes for use in condition assessment)
(The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).

Other Notes

Table 3 Site specific Habitat/geological condition objectives

To maintain the **Lowland neutral grassland** at **Chattenden Woods and Lodge Hill SSSI** in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:

Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)

Site-specific standards defining favourable condition

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
Lowland neutral grassland - MG5 *Cynosurus cristatus-Centaurea nigra* lowland	Sward structure: bare ground	Record extent of bare ground (not rock) distributed through the sward, visible without disturbing the vegetation. Record in period late May -early July, before hay cut. Also record sometimes in aftermath grazing period in hay meadows.	No more than 5%	Outside target indicates problems with stock management eg poaching, supplementary feeding.	Yes
	Sward structure: litter	Record cover of litter where in a more or less continuous layer, distributed either in patches or in one larger area. Record in period late May -early July, before hay cut. Also record sometimes in aftermath grazing period in hay meadows.	Total extent no more than 25% of the sward	Outside target indicates biomass removal is insufficient eg not cut for hay or insufficient grazing.	Yes

	Sward composition: grass/herb ratio	Proportion of non-Graminae (“herbs”), in period mid- May - early July, before hay cut (meadows).	40-90% herbs	Low proportion outside target indicates eutrophication, usually from fertilisers, or insufficient removal of biomass, leading to dominance by grasses.	Yes
	Sward composition: positive indicator species	Record the frequency of positive indicator species in period mid May -early July, before hay cut, (meadows), or mid-May - late July (pastures). *Agrimonia eupatoria, Alchemilla spp., Anenome nemorosa, Centaurea nigra, Euphrasia spp., Filipendula ulmaria, Filipendula vulgaris, Galium verum, Genista tinctoria, Lathyrus linifolius (=montanus), Lathyrus pratensis, Leontodon hispidus/L. saxatilis, Leucanthemum vulgare, Lotus corniculatus, Pimpinella saxifraga, Polygala spp., Potentilla erecta, Primula veris, Rhinanthus minor, Sanguisorba minor, Sanguisorba officinalis, Serratula tinctoria, Silaum silaus, Stachys officinalis,Succisa pratensis, Tragopogon pratensis,* small blue-green *Carex spp.* (leaves less than 5mm wide) *(C. flacca).*	At least two species/taxa frequent plus at least four species/taxa occasional throughout the sward.	Choice of species related to NVC type and restriction to unimproved grassland, considered satisfactory when inside target.	Yes
	Sward composition: indicators of waterlogging	Record % cover of *Juncus* spp, *Deschampsia cespitosa*, large *Carex* spp. (leaves more than 5mm wide) eg *Carex acutiformis,* large grasses (leaves more than 10mm wide, stout stems) ie *Glyceria maxima, Phalaris arundinacea, Phragmites australis.* Record in period mid-May - late	No species/taxa together or singly covering more than 10% of the sward	Species chosen to indicate waterlogging problems when outside target eg from raised water tables	Yes

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		July (as it is a pasture).			
	Sward composition: negative indicator species	Record the frequency and % cover of negative indicator species in period mid May -early July, before hay cut, (meadows): *Anthriscus sylvestris, Cirsium arvense, Cirsium vulgare, Galium aparine, Plantago major, Pteridium aquilinum, Rumex crispus, Rumex obtusifolius, Senecio jacobaea, Urtica dioica.*	No species more than occasional throughout the sward or singly or together more than 5% cover	Invasive species chosen to indicate problems of eutrophication and disturbance from various sources when outside target eg poaching, stock feeding.	Yes
	Sward composition: negative indicator species	Record the frequency and % cover of all tree and scrub species, considered together.	No more than 5% cover.	Invasive species outside target shows that habitat is not being managed sufficiently eg not cut for hay each year or inadequately grazed	Yes

Audit Trail

Rationale for limiting standards to specified parts of the site

Rationale for site-specific targets (including any variations from generic guidance)

Generic targets have been used.

Rationale for selection of measures of condition (features and attributes for use in condition assessment)
(The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).

Other Notes

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Table 3 Site specific Habitat/geological condition objectives

To maintain the **nightingale populations and breeding bird assemblage** at **Chattenden Woods and Lodge Hill SSSI** in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:

Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)

Site-specific standards defining favourable condition

Criteria feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment?
Aggregation of breeding bird species; Nightingale *Luscinia megarhynchos*. Breeding bird assemblage of scrub	Scrub habitat	• Suitable habitat occurs across ENSIS units 1, 3, 7 and 8.	• No loss in scrub habitat (units 1, 3, 7, 8) • Scrub should be managed on a rotation to ensure a varying age structure (variation across 0 – 10 years)	These targets define the habitat requirements for favourable condition for breeding nightingale and breeding bird assemblage associated with scrub.	Yes
Aggregation of breeding bird species; Nightingale *Luscinia megarhynchos*.	Broadleaved woodland	• Suitable habitat occurs across ENSIS units 2, 4, 5 and 6.	• Maintain active management of young age growth in at least the following Units 2, 4, 5, 6.	• Optimal age structure of coppice habitat for nightingales is 3 – 10 years.	Yes

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Rationale for limiting standards to specified parts of the site
These units are where the assemblage of breeding birds and nightingale numbers are supported by the scrub habitat and coppice woodland.
Rationale for site-specific targets (including any variations from generic guidance)
Rationale for selection of measures of condition (features and attributes for use in condition assessment) (The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).
Other Notes

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Annex 1 Map(s) of key areas for monitoring
(These may be habitat maps, areas where specific targets apply, location maps etc, NOT just boundary map of SSSI or units)

[Insert electronic images of maps]

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Annex 2 Location of features by unit

Features units	1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23	24	25	26
Broadleaved, mixed and yew woodland		*		*	*	*	*																		
Lowland neutral grassland			*																						
Aggregation of breeding bird species; Nightingale *Luscinia megarhynchos*	*	*	*	*	*	*	*	*																	
Breeding bird assemblage of scrub	*		*				*	*																	

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