



Langdon Ridge SSSI Essex

***Notification under section 28C of the Wildlife
& Countryside Act 1981***

Issued by Natural England's West Anglia Area Team on 29 June 2018.

Contact points and further information

This notification document is issued by Natural England's West Anglia Team

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Your contact point for enquiries relating to this notification is the Langdon Ridge SSSI Team consisting of Zoe Ringwood, Nicola Orchard, and Michael Parkin.

A second document (*Langdon Ridge SSSI - supporting information*) is available on request from the address above. This contains information and extracts from relevant documents that have been used in the decision to notify this SSSI under Section 28C.

The date of notification of the Langdon Ridge SSSI is 29 June 2018.

Contents

1. Summary.....	4
2. The legal background.....	4
3. Making representations.....	5
4. Reasons for notification.....	6
6. Site boundaries and relationships with other SSSIs.....	7
7. Management of the SSSI.....	8
8. Supporting information.....	8
9. Legal documents.....	8
<i>Annex 1 Citation.....</i>	<i>9</i>
<i>Annex 2 Views about Management.....</i>	<i>13</i>
<i>Annex 3 List of operations requiring Natural England's consent.....</i>	<i>19</i>
<i>Annex 4 Map(s) showing the land notified.....</i>	<i>23</i>

1. Summary

- 1.1 This document explains why the Langdon Ridge is notified by Natural England as a Site of Special Scientific Interest (SSSI).
- 1.2 Langdon Ridge SSSI supports a diverse mosaic of semi-natural habitats, including grasslands, broad-leaved woodlands, mature scrub, and species-rich hedgerows. It is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic: species-rich neutral grasslands and fen meadows, ancient and long-established semi-natural woodlands, assemblages of invertebrates chiefly associated with open short swards and scrub-heath, and populations of the plant Deptford pink.
- 1.3 Previously, one SSSI (Basildon Meadows SSSI notified in 1985) has been notified in the Langdon Ridge area; this consisted of three small fragmented meadows covering 6.7 ha. Langdon Ridge SSSI includes the land previously notified as Basildon Meadows SSSI along with substantial extensions (totalling 338.92 ha) stretching for 4.5 km across the landscape. This encompasses key elements of the local ecological network and secures connectivity between these areas through the inclusion of key linkages. The total area of the enlarged SSSI is 345.75 ha.
- 1.4 Langdon Ridge SSSI has a long history of public interaction with the natural environment and includes the Langdon Nature Reserve (including Dunton Plotlands, Lincewood Nature Reserve, Marks Hill Nature Reserve and Willow Park Nature Reserve) as well as Langdon Hills Country Park.
- 1.5 The Annexes to this document comprise the legal papers that detail the scientific interest of Langdon Ridge SSSI and the management required to maintain that interest, as well as maps of the site. You have a right to make representations or objections to the notification of Langdon Ridge SSSI. Part 3 of this document explains how to do this.
- 1.6 Additionally, Natural England's consent is required by owners and occupiers before the operations listed in *Annex 3* can be carried out. We will work closely with owners and managers, as well as other bodies, to ensure that existing operations and new works that are not considered likely to damage the special features of the SSSI can be carried out as usual.

2. The legal background

- 2.1 Basildon Meadows SSSI is enlarged under section 28C of the Wildlife and Countryside Act 1981 and is now known as the Langdon Ridge SSSI.
- 2.2 The Langdon Ridge SSSI includes land within and extending beyond Basildon Meadows SSSI (as previously notified in 1985).
- 2.3 With effect from the date of this notification under section 28C of the Wildlife and Countryside Act 1981, the previous notification of Basildon Meadows SSSI given in 1985 ceases to have effect (section 28C(5) of the Wildlife and Countryside Act 1981).
- 2.4 Part 8 of this notification document contains the following legal papers required by section 28C of the Wildlife and Countryside Act 1981:
 - a citation detailing the reasons for notification under section 28C (*Annex 1*)
 - a statement of Natural England's views on the management of the SSSI (*Annex 2*)
 - a list of operations requiring Natural England's consent (*Annex 3*)
 - maps identifying the land subject to the notification under sections 28C (*Annex 4*).

2.5 The notification of the SSSI under section 28C has several effects. The key ones can be summarised as follows:

- owners and occupiers must give Natural England notice before carrying out, causing or permitting to be carried out any of the activities in the list of operations at *Annex 3*;
- owners of land included in the SSSI have a legal obligation to notify Natural England within 28 days if the ownership or occupancy of the land changes;
- it is an offence for any person intentionally or recklessly to destroy or damage the special features of the SSSI or to disturb any of the fauna; and
- other public bodies must consult Natural England before carrying out or authorising any works that may damage the SSSI.

If you require any further information or advice on how these notifications affect you, please do not hesitate to contact Natural England at the address shown at the beginning of this notification document.

3. Making representations

- 3.1 You have a legal right to make objections and representations about this notification. Any representations, including those supporting the notification or objections, should be made in writing to Natural England's West Anglia Area Team by **29 October 2018**. Representations can be sent by post, e-mail or online to the address shown on page 2. You may wish to seek legal or independent advice and your representative may wish to write to us on your behalf.
- 3.2 Natural England's West Anglia Area Team will consider your objections or representations and will try to resolve them. If there are no unresolved objections, approval to confirm the notification will be considered by an appropriate Natural England Director within nine months of this notification.
- 3.3 Any unresolved objections or representations will be considered by the Board of Natural England within nine months of this notification. If there are unresolved objections, confirmation of this notification is likely to be considered at the Board meeting provisionally scheduled for February 2019. Please note the desirability of the notification (for instance, for socio-economic reasons) will not form part of the Board's decision. Following consideration of objections and representations, the Board of Natural England may confirm or withdraw all or part of this notification. In reaching its decision the Board will consider whether, in light of the objections and representations received, Natural England remains of the opinion that the site is of special scientific interest. If you wish to emphasise any of your objections or representations to the Board in person, you should tell us when you write to us. You will then be advised of the date and location of the Board meeting.
- 3.4 Natural England will accept correspondence relating to unresolved objections up to seven days prior to the Board meeting at which the confirmation is due to be considered. Correspondence received after this date will only be presented to the Board in very exceptional circumstances and you will be expected to provide justification as to why there has been a delay in providing the information. The decision whether this information will be submitted to the Board is entirely at Natural England's discretion. The reason that there is a seven day cut off is to allow Board members sufficient opportunity to consider all of the issues and read all the relevant paperwork before they meet to take their decision.
- 3.5 Natural England has a policy of openness, which reflects our obligations under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000. This legislation provides a legal right of access to information held by public bodies. This means that we will provide information on how we make our decisions on SSSIs to any person on request. This includes details of objections and representations received. We will assume, therefore, that your representation or objection can be made publicly available unless you indicate with clear and valid reasons which (if any) part(s) of these you wish to be excluded from this arrangement. However, you should be aware that the requirements

of the legislation may mean that we cannot comply with your request that this information be withheld. We do, however, respect people's privacy and will take all reasonable steps to consult you before reaching a decision on disclosure of the information.

- 3.6 As an individual or organisation with an interest in the Langdon Ridge SSSI, your information will be stored and processed on a computer database that will be operated within the Data Protection Act 1998 and (from 25 May 2018) the General Data Protection Regulation 2016¹. The Act and the Regulation give individuals the right to know what data we hold on them, how we use it and to which third parties it is disclosed. The data controller is Natural England, Foss House, Kings Pool, 1-2 Peasholme Green, York, YO1 7PX.

4. Reasons for notification

- 4.1 Langdon Ridge SSSI supports a diverse mosaic of semi-natural habitats, including grasslands, broad-leaved woodlands, mature scrub, and species-rich hedgerows. It is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic:

- **Species-rich neutral grasslands and fen-meadows**

The network of species-rich neutral grasslands ranges from small pockets of less than a hectare, interspersed with woodland and scrub, to significant areas of interconnected meadows of over 10 ha. In drier areas, the grassland is dominated by crested dog's-tails *Cynosurus cristatus* and common knapweed *Centaurea nigra* with plentiful oxeye daisy *Leucanthemum vulgare*, common bird's-foot-trefoil *Lotus corniculatus* and meadow vetchling *Lathyrus pratensis*. Further diversity is provided by a number of nationally scarce species, including sulphur clover *Trifolium ochroleucon* and Deptford pink *Dianthus armeria*. Also of note is the large population of green-winged orchids *Anacamptis morio*, located in a peri-urban setting.

In damper areas, the grassland takes on a more marshy appearance characterised by rushes including blunt-flowered rush *Juncus subnodulosus* and flowering plants including marsh thistle *Cirsium palustre* and greater birds-foot trefoil *Lotus pedunculatus*.

In some areas, coarser grasses such as false-oat grass *Arrhenatherum elatius* are more abundant and although these meadows may be flower-rich, they represent grasslands in transition to more species-rich communities.

The neutral grasslands and fen-meadow habitats of Langdon Ridge are respectively included within the 'lowland meadows' and 'purple moor grass and rush pastures' priority habitats, which are listed as being of principal importance for the conservation of biodiversity in England under section 41 of the Natural Environment and Rural Communities Act 2006 (hereafter referred to as priority habitats and species).

- **Ancient and long-established semi-natural woodland**

Langdon Ridge supports an extensive network of around 220 ha of semi-natural woodlands ranging from ancient semi-natural woodland, other long-established semi-natural woodlands and areas of mature scrub. The mosaic of woodland and mature hedgerows and significant areas of species-rich neutral grassland is of considerable importance for nature conservation

Around 56 ha of woodland is ancient semi-natural woodland, with the largest block of 18 ha at Northlands Wood. The underlying geology of Bagshot Beds and London Clay influences the composition of the woodlands creating a complex mosaic of ash *Fraxinus excelsior* – field maple *Acer campestre* – dog's mercury *Mercurialis perennis*

¹ Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation) 2016.

woodland and pedunculate oak *Quercus robur* – bracken *Pteridium aquilinum* – bramble *Rubus fruticosus* agg. woodland communities. Ground flora characteristic of historic woodlands is present throughout with carpets of bluebells *Hyacinthoides non-scripta* and brambles, interspersed with bracken, dog's mercury, three-nerved sandwort *Moehringia trinervia*, yellow archangel *Lamium galeobdolon* and wood anemone *Anemone nemorosa*.

At Dunton Plotlands, historic land use has led to the development of large areas of mature scrub, characteristic of hawthorn *Crataegus monogyna* – ivy *Hedera helix* communities. The woodlands also support locally important populations of breeding birds and butterflies. The woodland communities of the Langdon Ridge are included within the 'deciduous woodland' priority habitat.

- **Invertebrates**

The complex network of grassland, woodland, scrub and hedgerow semi-natural habitats on the Langdon Ridge supports a diverse range of invertebrates, including those characteristic of open short swards and scrub-heath habitats. These invertebrate habitats are particularly associated with the grasslands, including flower-rich meadows, open habitat mosaics and the transitional areas of rougher grassland associated with scrub and woodland edges. The assemblage is characterised by true flies, beetles, true bugs, bees, wasps and ants. A number of nationally scarce² and priority invertebrate species have been recorded at the site. Some of these have a significant county population in the Langdon Ridge area, including the thin weblet spider *Meioneta mollis*, the beetle *Cryptocephalus bilineatus*, the fly *Dicraeus tibialis*, the carder bumble bee *Bombus humilis* and the grizzled skipper butterfly *Pyrgus malvae*.

- **Deptford pink**

The grasslands in the southern part of Langdon Ridge support populations of Deptford pink *Dianthus armeria*, a vascular plant species that is both nationally scarce and has suffered a drastic decline to the extent that it is classified as an endangered species in England and Great Britain.

5. Site boundaries and relationships with other SSSIs

- 5.1 The site is situated on the southern edge of Basildon, stretching from Dunton Hall in the west to the A126 in the east and comprises four main blocks: i) the woodlands and grasslands of Plotlands, Lincewood Nature Reserve and Hall Wood; ii) the woodlands at Mark's Hill Nature Reserve; iii) the mosaic of woodlands and grasslands at Langdon Hills Country Park, Westley Heights, Willow Park Nature Reserve and Lee Chapel South; and iv) south of these blocks, the woodlands and grasslands at One Tree Hill, Old Wood, Northlands Wood and Hawkesbury.
- 5.2 The boundary of the SSSI has been drawn to include land supporting the features of special interest and those areas required to ensure the viability and long-term sustainability of these features. The boundary follows the nearest physical feature on the ground where possible. This usually follows existing walls, fence lines, ditches, drains, tracks and roadsides. Further clarification of the precise location of the boundary in specific parts of the SSSI can be obtained from Natural England's West Anglia Area Team at the address on page 2 of this document.
- 5.3 As a general principle, the boundary follows management units, such as enclosure and property boundaries. Where the boundary follows a major road, the inner edge of the road has been used and the road has therefore been excluded from the site.
- 5.4 There are three SSSIs in close proximity to Langdon Ridge. The woodland and parkland of Thorndon Park SSSI is located 4 km from the western edge of Langdon Ridge, whilst

² Species recorded from 16-100 10 km x 10 km squares of the British National Grid.

Vange and Fobbing Marshes SSSI and Pitsea Marshes SSSI with habitats supporting rare plants and invertebrates lie approximately 2 km to the east of the site.

6. Management of the SSSI

- 6.1 Landowners and managers are critical to the ongoing management of the SSSI. Natural England aims to foster the best possible relationship with those managing the land so that its biodiversity can be conserved whilst also securing wider benefits. This notification includes a statement (*Annex 2*) of the management that Natural England considers is needed to conserve and enhance the features of special interest. Different management may be appropriate in different parts of the site and this statement is not intended to detail the exact requirements at specific locations. The statement is intended to explain how we can work with and support owners and managers in continuing to achieve positive management of the SSSI.
- 6.2 Owners and occupiers will require consent before undertaking some operations in the SSSI. This notification also includes a list of the operations requiring Natural England's consent in *Annex 3*. The basis for the selection of these operations is set out in the supporting information document. Some of the operations may already be taking place and where they do not cause any damage they will be given consent. We will work with landowners and managers to agree lists of such existing and planned activities, which can be approved.
- 6.3 Where an operation has been granted a consent, licence or permission from another public body a separate consent will not generally be required from Natural England; other public bodies are required to consult Natural England before such consents, licences or permissions are issued.

7. Supporting information

- 7.1 The detailed information, which has been used to assess the importance of this SSSI (*Langdon Ridge – supporting information*), is available on request from the address on page 2 of this document.

8. Legal documents

- 8.1 Attached at *Annexes 1 - 4* are the legal documents that are required by section 28C of the Wildlife and Countryside Act 1981.

Annex 1

Citation

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification document

Site Name: Langdon Ridge

Unitary Authority/County: Essex, Thurrock

District: Basildon

Status: Site of Special Scientific Interest (SSSI) notified under section 28C of the Wildlife and Countryside Act 1981

Local Planning Authority: Basildon District Council, Essex County Council, Thurrock Council

**Ordnance Survey
1:50,000 sheets:** 178

National Grid reference: TQ684868

Notification date: 29 June 2018

Area: 345.75 ha

Reasons for notification:

Langdon Ridge SSSI is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic:

- species-rich neutral grasslands
- fen meadows
- ancient and long-established semi-natural woodlands
- assemblages of invertebrates chiefly associated with open short sward and scrub-heath
- populations of the plant Deptford pink *Dianthus armeria*

General description:

Langdon Ridge SSSI is a landscape-scale interconnected area of conservation priority located to the south and west of the town of Basildon. It supports a diverse mosaic of semi-natural habitats, including grasslands, fen meadows, woodlands, scrub, species-rich hedgerows and ponds. The SSSI includes the following areas: Dunton Plotlands and Lincewood, Langdon Hills Recreation Ground, Hall Wood and Gravelhill Wood, Marks Hill Wood, Westley Heights, Long Wood, Willow Park, Coombe Wood and The Park, Old Hill and Great Sutton Woods, Northlands Wood, One Tree Hill and Hawkesbury Bush.

The underlying geology of the area is composed of Bagshot Sand overlying Claygate Beds and London Clay. The southerly slopes that characterise the Hawkesbury Bush area lie on a transition zone onto the Claygate formations. The higher points are capped with flint gravel, known as 'Pebble Gravel' or 'Stanmore Gravel'. Historically this gravel was used for road mending and depressions from such excavations can still be detected. The sands and clays of the ridge once supported historic brick and tile making industries in the area.

The Langdon Ridge is influenced by the history of the 'Plotlands'. These were small plots of rural land sold, mainly to Londoners, in the first half of the 20th century. These plots were used to build weekend cottages, holiday bungalows or small holdings. The last of the 'Plotlands' were abandoned in the 1980s but the grid of grass avenues and remains of bungalows can be seen amongst the mature scrub at Dunton Plotlands.

The building of Basildon New Town during the 1950s to the 1970s transformed the area and Langdon Ridge is now situated directly on the urban fringe. Several of the meadows, especially in Willow Park, were top-soil stripped in preparation for development as part of the New Town proposals but the development plans were later abandoned. The resulting removal of nutrients has almost certainly benefited the botanical richness of these meadows.

Species-rich neutral grasslands and fen-meadows

A network of species-rich neutral grasslands is present across the Langdon Ridge complex. These range from small pockets of less than a hectare, interspersed with woodland and scrub, to significant areas of interconnected meadows of over 10 ha.

The majority of meadows support an abundance of crested dog's-tail *Cynosurus cristatus* and common knapweed *Centaurea nigra* with plentiful oxeye daisy *Leucanthemum vulgare*, bird's-foot-

trefoil *Lotus corniculatus*, agrimony *Agrimonia eupatoria* and meadow vetchling *Lathyrus pratensis*. Added diversity is provided by a number of nationally scarce species, including sulphur clover *Trifolium ochroleucon* and Deptford pink *Dianthus armeria*. Other species of note include green-winged orchid *Anacamptis morio*, quaking-grass *Briza media*, fairy flax *Linum catharticum*, adder's-tongue *Ophioglossum vulgatum* and pepper-saxifrage *Silaum silaus*.

In damper areas the grassland becomes more of a fen-meadow characterised by sedges and rushes, including glaucous sedge *Carex flacca*, compact rush *Juncus conglomeratus* and hard rush *J. inflexus*. In these areas the herb devil's-bit scabious *Succisa pratensis* is common, along with an abundance of greater bird's-foot-trefoil *Lotus pedunculatus* and marsh thistle *Cirsium palustre*.

In some areas, coarser grasses such as false oat-grass *Arrhenatherum elatius* are more abundant and although these meadows may be flower-rich, they represent grasslands in transition to more species-rich communities.

Ancient and long-established semi-natural woodland

Langdon Ridge supports an extensive network of semi-natural woodlands ranging from ancient semi-natural woodland to other long-established semi-natural woodlands and areas of mature scrub. The mosaic of woodland and mature hedgerows and significant areas of species-rich neutral grassland is of considerable importance for nature conservation

The largest block of ancient semi-natural woodland is at Northlands Wood. The underlying geology of Bagshot Beds and London Clay influences the composition of the woodlands creating a complex mosaic of ash *Fraxinus excelsior* – field maple *Acer campestre* – dog's mercury *Mercurialis perennis* woodland and pedunculate oak *Quercus robur* – bracken *Pteridium aquilinum* – bramble *Rubus fruticosus* agg. woodland. Ground flora characteristic of historic woodlands is present throughout with carpets of bluebells *Hyacinthoides non-scripta* and brambles, interspersed with bracken, dog's mercury, three-nerved sandwort *Moehringia trinervia*, yellow archangel *Lamium galeobdolon* and wood anemone *Anemone nemorosa*. At Dunton Plotlands, historic land use has led to the development of large areas of mature scrub, characteristic of hawthorn *Crataegus monogyna* – ivy *Hedera helix* communities. The woodlands also support locally important populations of breeding birds and butterflies.

Invertebrates

The landscape-scale suite of habitats provided within the Langdon Ridge supports a complex mosaic of vegetation structures and habitats. Many of the meadows are very flower-rich, providing an important resource for pollinators, whilst others support more grass but provide important cover for invertebrates and linkages across the landscape. The thick hedgerows and woodland edges bounding the meadows provide shelter and the southerly facing slopes and undulating landscape provide warm sunny areas and a variety of microclimates. All of these factors are important in meeting the nesting, foraging, hunting and overwintering requirements of invertebrates.

The site is particularly important for invertebrate assemblages characterised by open habitat mosaics. Specifically these are an open short sward assemblage, which is found within open areas across the Langdon Ridge landscape, and a more specialised scrub-heath assemblage associated with the damper areas at Willow Park.

The assemblage is characterised by true flies, beetles, true bugs, bees, wasps and ants. A number of nationally scarce and priority invertebrate species have been recorded at the site. Some of these have a significant county population in the Langdon Ridge area, including the thin weblet spider *Meioneta mollis*, the beetle *Cryptocephalus bilineatus*, the fly *Dicraeus tibialis*, the carder bumble bee *Bombus humilis* and the grizzled skipper butterfly *Pyrgus malvae*.

Deptford pink

The grasslands in the southern part of Langdon Ridge support populations of Deptford pink *Dianthus armeria*, a flowering plant species that is both nationally scarce and has suffered a drastic decline leading to its 'Endangered' status in England and Great Britain.

Annex 2

Views about Management

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification document.



Views About Management

Wildlife and Countryside Act 1981 Section 28(4) as inserted by
Schedule 9 to the Countryside and Rights of Way Act 2000

A statement of Natural England's views about the management of Langdon Ridge Site of Special Scientific Interest (SSSI)

Natural England has a duty to inform the owners and occupiers of land within the Langdon Ridge Site of Special Scientific Interest (SSSI) of its views on how to manage the habitats and species of interest for nature conservation. This statement sets out our views on how the SSSI's special conservation interest can be conserved and enhanced.

Please be aware not all of the management principles outlined in this statement will be equally appropriate to all parts of the SSSI. There may also be other management activities, not outlined here, which could be beneficial to the conservation and enhancement of the features of interest.

Also be aware that this statement does not provide consent for any of the 'operations requiring Natural England's consent'. You need to have written consent from Natural England if you want to carry out any of those operations. Natural England welcomes discussion with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the habitats and species of interest, and to ensure that all necessary prior consents are obtained.

Background

Langdon Ridge SSSI supports a diverse mosaic of semi-natural habitats, including grasslands, broad-leaved woodlands, mature scrub and species-rich hedgerows. It is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic: species-rich neutral grasslands, fen meadows, ancient and long-established semi-natural woodlands, assemblages of invertebrate species and the plant Deptford pink *Dianthus armeria*.

Management principles

Woodland and scrub

There may be several different ways in which the wood can be managed to best conserve its value for wildlife; by promoting an appropriate woodland structure, by ensuring regeneration and by maintaining the special features of the woodland. A diverse woodland structure with some open space, some areas of dense understorey, and an overstorey of more mature trees (which may be the standard trees under a coppice-with-standards regime) is important. A range of ages and species within and between stands is desirable.

Some dead and decaying wood such as fallen logs, old hollow trees or old coppice stools is essential for providing habitats for fungi and dead wood invertebrates. Work may, however, be needed to make safe dangerous trees where they occur in areas of high public access.

Open space, either temporary gaps created by felling or coppicing, or more permanent areas such as rides and glades, benefit other groups of invertebrates such as butterflies. Open spaces should be of sufficient size to ensure that sunny conditions prevail for most of the day. Rides and glades may require cutting to keep them open. Where the woodland is spreading on to valuable open habitat, it may be necessary to periodically clear areas of vegetation to allow temporary and permanent open space within the habitat.

Felling, thinning or coppicing may be used to create or maintain variations in the structure of the wood, and non-native trees and shrubs can be removed at this time. To avoid disturbance to breeding birds the work is normally best done between the beginning of August and the end of February. Work should be avoided when the ground is soft, to prevent disturbing the soil and

ground flora. Normally successive felling, thinning or coppicing operations should be spread through the wood to promote diversity but where there is open space adjacent plots should be worked to encourage the spread of species that are only weakly mobile.

Natural regeneration from seed or stump re-growth (as in coppice) is preferred to planting because it helps maintain the local patterns of species and the inherent genetic character of the site. Deer management and protection from rabbits or livestock are often necessary. Whilst light or intermittent grazing may increase woodland diversity, heavy browsing can damage the ground flora and prevent successful regeneration.

Scrub habitats are low-growing communities where the main woody components are bushes or small trees, such as blackthorn and hawthorn. Scrub supports a wide variety of species and ecological communities, including invertebrates. In particular, the transitional zone between scrub and other habitats can be important for wildlife, especially birds and invertebrates.

Often, scrub is a transitional stage that will develop into woodland if unmanaged. Maintaining structural diversity and a mosaic of age classes within areas of scrub is important for maintaining the diversity of species the scrub is able to support. For example, hawthorn and blackthorn scrub supports the greatest variety of bird and insect species in the early and middle stages of growth. As scrub habitats mature they develop a tall, continuous cover which is unsuitable for a number of lowland scrub bird species.

In some locations it may be impracticable to manage scrub due to inaccessibility; in these circumstances this may create structural diversity and a mosaic of age classes without active management. Elsewhere, scrub can be managed by rotational cutting (which should aim to maintain a mosaic of patches at different stages of growth) or by burning and grazing.

Although it is entirely appropriate to maintain areas of scrub as part of the habitat mosaic it is also necessary to control the extent of scrub to prevent it heavily invading other habitats of nature conservation importance, particularly species-rich neutral grassland and fen-meadow. In many locations it would be beneficial to maintain a small amount of scattered scrub rather than seeking to eradicate it entirely.

Grasslands and fen meadows

Grasslands and fen meadows require active management if they are to retain their conservation interest. In order to maintain a species-rich sward, each year's growth of vegetation must be removed. Otherwise the sward becomes progressively dominated by tall vigorous grasses and rushes which, together with an associated build-up of dead plant matter, suppress less vigorous species and reduce the botanical diversity of the site.

In neutral hay meadows, the above objective is traditionally achieved by closing the fields to stock in the autumn and cutting the resultant growth as hay. The precise timing of the cut depends on local factors, including past management, current weather conditions and other key species present, but should be after ground-nesting birds have fledged their young and any short-lived, characteristic plants have set seed. The aftermath is then grazed in late summer/autumn. Aftermath grazing is important for maintaining a species-rich sward, both through controlling competitive grasses and through hoof-prints providing suitable sites for seedlings to establish. Heavy poaching must be avoided, however.

On pasture land and fen meadows this management is achieved by grazing. Cattle are often the preferred stock, being relatively tolerant of wet conditions and able to control tall grasses and rank vegetation; however traditional sheep breeds can also be used on the drier areas of grassland. The precise timing and intensity of grazing will vary both between and within sites, according to local conditions and requirements (such as, for example, type or availability of stock or the needs of individual plants or animals of conservation concern) but should aim to keep a relatively open sward without causing excessive poaching. Light trampling can be of benefit by breaking down leaf litter and providing areas for seed germination.

Careful maintenance of existing ditches and drains is usually acceptable practice, but abandonment or deepening of ditches can be harmful. Cultivation, increased drainage or the application of pesticides, including herbicides, or fertilizer is likely to be damaging and should be

avoided. Occasional dressings of lime may be acceptable. Any surrounding, well-managed hedgerows may considerably add to the habitat in providing shelter for invertebrates.

In areas important for invertebrates management should aim to ensure availability of nectar sources and create structural diversity in the grassland. Where grasslands are managed as hay meadows, varying the timing of the hay cut between individual fields and between different years, as well as leaving some areas uncut will help improve structural diversity. The plant species, Deptford pink requires short grassland to thrive and benefits from limited soil disturbance.

Date Notified: 29 June 2018

Annex 3

List of operations requiring Natural England's consent

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification document.

Operations requiring Natural England's consent

Wildlife and Countryside Act 1981 Section 28 (4)(b) as substituted by Schedule 9 to the Countryside and Rights of Way Act 2000

The operations listed below may damage the features of interest of **Langdon Ridge SSSI**. Before any of these operations are undertaken you must consult Natural England, and may require our consent.

It is usually possible to carry out some of these operations in certain ways, or at specific times of year, or on certain parts of the SSSI, without damaging the features of interest. If you wish to carry out any of these activities please contact your Natural England Area Team who will give you advice and where appropriate issue a consent. Please help us by using the 'notice form' (provided at notification and available on request) to ask us for consent to carry out these operations.

In certain circumstances it will not be possible to consent these operations, because they would damage the features of interest. Where possible the Area Team will suggest alternative ways in which you may proceed, which would enable a consent to be issued. To proceed without Natural England's consent may constitute an offence. If consent is refused, or conditions attached to it, which are not acceptable to you, you will be provided with details of how you may appeal to the Secretary of State.

Standard reference number	Type of operation
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| 1. | Cultivation, including ploughing, rotovating, harrowing and re-seeding. |
| 2. | Grazing, and alterations to the grazing regime (including type of stock, intensity or seasonal pattern of grazing). |
| 3. | Stock feeding, and alterations to stock feeding practice. |
| 4. | Mowing or cutting vegetation, and alterations to the mowing or cutting regime (such as from haymaking to silage). |
| 5. | Application of manure, slurry, silage liquor, fertilisers and lime. |
| 6. | Application of pesticides, including herbicides (weedkillers) whether terrestrial or aquatic, and veterinary products. |
| 7. | Dumping, spreading or discharging of any materials. |
| 8. | Burning and alterations to the pattern or frequency of burning. |
| 9. | The release into the site of any wild, feral, captive-bred or domestic animal, plant, seed or micro-organism (including genetically modified organisms). |
| 10. | The killing, injuring, taking or removal of any wild animal (including dead animals or parts thereof), or their eggs and nests, including pest control and disturbing them in their places of shelter. |
| 11. | Destruction, displacement, removal or cutting of any plant or plant remains, including tree, shrub, herb, hedge, dead or decaying wood, moss, liverwort, lichen, fungal fruiting body, leaf-mould, or turf. |
| 12. | Tree and/or woodland management and alterations to tree and/or woodland management (including planting, felling, pruning and tree surgery, thinning, coppicing, changes in species composition, removal of fallen timber). |
| 13a. | Draining (including the use of mole, tile, tunnel or other artificial drains). |

Standard reference number	Type of operation
13b.	Modification to the structure of water courses (rivers, streams, springs, ditches and drains), including their banks and beds, as by re-alignment, regrading, damming or dredging.
13c.	Management of aquatic and bank vegetation for drainage purposes.
14.	Alterations to water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes). Also the modification of current drainage operations (e.g. through the installation of new pumps).
15.	Infilling or digging of ditches, drains, ponds, pools, marshes, pits or shafts.
20.	Extraction of minerals including clay, hard rock, sand and gravel, topsoil, subsoil and spoil.
21.	Destruction, construction, removal, rerouting, or regrading of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, including soil and soft rock exposures or the laying, maintenance or removal of pipelines and cables, above or below ground.
22.	Storage of materials.
23.	Erection of permanent or temporary structures or the undertaking of engineering works, including drilling.
26.	Use of vehicles or craft other than on made up roads and tracks.
27.	Recreational or other activities likely to damage or disturb the features of special interest.
28a.	Game and waterfowl management and hunting practices and alterations to game and waterfowl management and hunting practice.

Notes

- i. This is a list of operations appearing to Natural England to be likely to damage the special features of the SSSI, as required under section 28 (4) (b) of the Wildlife and Countryside Act 1981 (as amended).
- ii. Where an operation has been granted a consent, licence or permission from another authority, separate consent will not be required from Natural England. However, other authorities are required to consult Natural England before such consents, licences or permissions are issued.
- iii. Any reference to 'animal' in this list shall be taken to include any mammal, reptile, amphibian, bird, fish, or invertebrate.

Date notified: 29 June 2018

National Grid reference: TQ684868

Annex 4

Map(s) showing the land notified

This is a legal document on which you have a legal right to make objections or representations, as explained in part 3 of this notification document.

Insert boundary maps (1 x summary plus maps 1- 11) here: – A3 portrait format in colour