



European Site Conservation Objectives: Supplementary advice on conserving and restoring site features

**Folkestone to Etchinghill Escarpment Special Area of Conservation (SAC)
Site Code: UK0012835**



Burnt-tip orchid © Natural England/Allan Drewitt

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About this document

This document provides Natural England's supplementary advice about the European Site Conservation Objectives relating to Folkestone to Etchinghill Escarpment SAC. This advice should therefore be read together with the SAC Conservation Objectives available [here](#).

You should use the Conservation Objectives, this Supplementary Advice and any case-specific advice given by Natural England when developing, proposing or assessing an activity, plan or project that may affect this site'.

This Supplementary Advice to the Conservation Objectives presents attributes which are ecological characteristics of the designated species and habitats within a site. The listed attributes are considered to be those that best describe the site's ecological integrity and which, if safeguarded, will enable achievement of the Conservation Objectives. Each attribute has a target which is either quantified or qualitative depending on the available evidence. The target identifies as far as possible the desired state to be achieved for the attribute.

The tables provided below bring together the findings of the best available scientific evidence relating to the site's qualifying features, which may be updated or supplemented in further publications from Natural England and other sources. The local evidence used in preparing this supplementary advice has been cited. The references to the national evidence used are available on request. Where evidence and references have not been indicated, Natural England has applied ecological knowledge and expert judgement. You may decide to use other additional sources of information.

In many cases, the attribute targets shown in the tables indicate whether the current objective is to 'maintain' or 'restore' the attribute. This is based on the best available information, including that gathered during monitoring of the feature's current condition. As new information on feature condition becomes available, this will be added so that the advice remains up to date.

The targets given for each attribute do not represent thresholds to assess the significance of any given impact in Habitats Regulations Assessments. You will need to assess this on a case-by-case basis using the most current information available.

Some, but not all, of these attributes can also be used for regular monitoring of the actual condition of the designated features. The attributes selected for monitoring the features, and the standards used to assess their condition, are listed in separate monitoring documents, which will be available from Natural England.

These tables do not give advice about SSSI features or other legally protected species which may also be present within the European Site.

If you have any comments or queries about this Supplementary Advice document please contact your local Natural England adviser or email HDIRConservationObjectivesNE@naturalengland.org.uk

About this site

European Site information

Name of European Site	Folkestone to Etchinghill Escarpment Special Area of Conservation (SAC)
Location	Kent
Site Map	The designated boundary of this site can be viewed here on the MAGIC website
Designation Date	1 April 2005
Qualifying Features	See section below
Designation Area	181.94 hectares
Designation Changes	N/A
Feature Condition Status	Details of the feature condition assessments made at this site can be found using Natural England's Designated Sites System
Names of component Sites of Special Scientific Interest (SSSIs)	Folkestone to Etchinghill Escarpment SSSI
Relationship with other European or International Site designations	N/A

Site background and geography

This extensive area of chalk grassland is located on the steep escarpment north of Folkestone located across the border of the [Wealden Greensand](#) and the [North Downs](#) National Character Areas. This site is situated in a heavily urbanised area on the outskirts of Folkstone and bisected by the A20, a major traffic route in southeast Kent.

The site is one of the largest remaining areas of unimproved chalk downland in Kent. Most of the downland is dominated by tor-grass *Brachypodium pinnatum* and fescues *Festuca* spp. in a mixed sward of quaking-grass *Briza media*, crested hair-grass *Koeleria macrantha* and upright brome *Bromopsis erecta*. This site hosts the priority habitat type "orchid rich sites". The site contains an important assemblage of rare and scarce species, including Early Spider orchid *Ophrys sphegodes*, Late Spider-orchid *Ophrys fuciflora* and Burnt orchid *Orchis ustulata*. The site supports a diverse insect fauna including a number of nationally rare flies, moths and butterflies. Of special interest is the annulet moth *Gnophos obscuratus* which is noted for its different genetic colour forms. This is the only known locality in Britain for the form *fasciata*. Part of the site, Holywell Coombe Geological Conservation Review Site, is of importance for its fossil remains.

Supporting the features of European interest requires grazing, low levels of recreational disturbance, minimal air pollution, no direct fertilisation and well drained soils.

About the qualifying features of the SAC

The following section gives you additional, site-specific information about this SAC's qualifying features. These are the natural habitats and/or species for which this SAC has been designated.

Qualifying habitats:

- **H6120 Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco Brometalia*) (important orchid sites)**

Festuco-Brometalia grasslands are found on thin, well-drained, lime-rich soils associated with chalk and limestone. They occur predominantly at low to moderate altitudes in England and Wales. Most of these calcareous grasslands are maintained by grazing. A large number of rare plants are associated with this habitat, including purple milk-vetch *Astragalus danicus*, dwarf sedge *Carex humilis*, spotted cat's-ear *Hypochaeris maculata*, spring cinquefoil *Potentilla tabernaemontani*, pasqueflower *Pulsatilla vulgaris*, bastard-toadflax *Thesium humifusum* as well as various bryophytes and lichens. The invertebrate fauna is also noteworthy.

This Annex I category includes various forms of calcareous grassland referable in European terms to the *Mesobromion* and *Xerobromion* alliances. All forms of *Festuco-Brometalia* grassland comprise mixtures of grasses and herbs, in which there is at least a moderate representation of calcicolous species. The structural and floristic characteristics of the habitat are strongly influenced by climatic factors, slope, aspect and management practices, in particular the intensity of grazing. Various sub-types of *Festuco-Brometalia* grassland frequently occur in close association. Transitions between calcareous grasslands and heath, acid grassland, scrub and woodland communities are also widespread.

Orchid Rich Sites (Priority Habitat Type) comprises *Festuco-Brometalia* calcareous grasslands containing important orchid assemblages and/or rare orchids. 'Important orchid sites' are defined in the *Interpretation Manual of European Union Habitats* as localities which meet one or more of the following criteria:

1. the site hosts a rich suite of orchid species;
2. the site hosts an important population of at least one orchid species considered not very common on the national territory;
3. the site hosts one or several orchid species considered to be rare, very rare or exceptional on the national territory.

Folkestone to Etchinghill Escarpment SAC hosts the priority habitat type "orchid rich sites". This site consists of extensive CG4 *Brachypodium pinnatum* and CG5 *Bromus erectus* – *Brachypodium pinnatum* calcareous grasslands, together with smaller areas of short-turf CG2 *Festuca ovina* – *Avenula pratensis* grassland. The site contains an important assemblage of rare and scarce species, including early spider-orchid *Ophrys sphegodes*, late spider-orchid *O. fuciflora* and burnt orchid *Orchis ustulata*.

Table 1: Supplementary Advice for Qualifying Features: H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (important orchid sites); Dry grasslands and scrublands on chalk or limestone (important orchid sites) *

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
Extent and distribution of the feature	Extent of the feature within the site	Maintain the total extent of the feature at 115 hectares.	<p>There should be no measurable reduction (excluding any trivial loss) in the extent and area of this feature, and in some cases, the full extent of the feature may need to be restored. The baseline-value of extent given has been generated using data gathered from the listed site-based surveys. Area measurements given may be approximate depending on the methods, age and accuracy of data collection, and as a result this value may be updated in future to reflect more accurate information.</p> <p>The extent of an Annex I habitat feature covers the sum extent of all of the component vegetation communities present and may include transitions and mosaics with other closely-associated habitat features. Where a feature is susceptible to natural dynamic processes, there may be acceptable variations in its extent through natural fluctuations.</p> <p>Where a reduction in the extent of a feature is considered necessary to meet the Conservation Objective for another Annex I feature, Natural England will advise on this on a case-by-case basis.</p>	<p>Natural England. 2016. <i>Definitions of Favourable Condition for Designated Features of Interest; Folkestone to Etchinghill Escarpment SSSI (Final)</i>.</p> <p>This attribute will be periodically monitored as part of Natural England's SSSI Condition Assessments</p>
Extent and distribution of the feature	Spatial distribution of the feature within the site	Maintain the distribution and configuration of the feature, including where applicable its component vegetation types, across the site	<p>A contraction in the range, or geographic spread, of the feature (and its component vegetation and typical species, plus transitional communities) across the site will reduce its overall area, the local diversity and variations in its structure and composition, and may undermine its resilience to adapt to future environmental changes. This may also reduce and break up the continuity of a habitat within a site and how well its typical species are able to move around the site to occupy and use habitat. Such fragmentation can impact on their viability and the wider ecological composition of the Annex I habitat.</p> <p>Smaller fragments of habitat can typically support smaller and more isolated populations which are more vulnerable to extinction. These fragments also have a greater amount of</p>	<p>Natural England. 2016. <i>Definitions of Favourable Condition for Designated Features of Interest; Folkestone to Etchinghill Escarpment SSSI (Final)</i>.</p>

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
			open edge habitat which will differ in the amount of light, temperature, wind, and even noise that it receives compared to its interior. These conditions may not be suitable for some of the typical and more specialist species associated with the Annex I habitat feature.	
Structure and function (including its typical species)	Vegetation community composition	Ensure the component vegetation communities of the feature are referable to and characterised by the following National Vegetation Classification types: CG4 <i>Brachypodium pinnatum</i> grassland CG5 <i>Bromus erectus</i> - <i>Brachypodium pinnatum</i> grassland;	This habitat feature will comprise a number of associated semi-natural vegetation types and their transitional zones, reflecting the geographical location of the site, altitude, aspect, soil conditions (especially base-status and drainage) and vegetation management. In the UK these have been categorised by the National Vegetation Classification (NVC). Maintaining or restoring these characteristic and distinctive vegetation types, and the range of types as appropriate, will be important to sustaining the overall habitat feature. This will also help to conserve their typical plant species (i.e. the constant and preferential species of a community), and therefore that of the SAC feature, at appropriate levels (recognising natural fluctuations).	Natural England. 2016. <i>Definitions of Favourable Condition for Designated Features of Interest; Folkestone to Etchinghill Escarpment SSSI (Final)</i> .
Structure and function (including its typical species)	Vegetation: proportion of herbs (including <i>Carex spp.</i>)	Restore the proportion of herbaceous species within the range 40%-90%	A high cover of characteristic herbs, including sedges (<i>Carex</i> species) is typical of the structure of this habitat type. Low proportion outside target indicates eutrophication, usually from fertilisers, or insufficient removal of biomass, leading to dominance by grasses.	Natural England. 2016. <i>Definitions of Favourable Condition for Designated Features of Interest; Folkestone to Etchinghill Escarpment SSSI (Final)</i> . This attribute will be periodically monitored as part of Natural England's SSSI Condition Assessments
Structure and function (including its typical species)	Key structural, influential and/or distinctive species	Maintain the abundance of the typical species listed below to enable each of them to be a viable component of the Annex 1 habitat	Some plant or animal species (or related groups of such species) make a particularly important contribution to the necessary structure, function and/or quality of an Annex I habitat feature at a particular site. These species will include; • Structural species which form a key part of the Annex I	Natural England. 2016. <i>Definitions of Favourable Condition for Designated Features of Interest; Folkestone to Etchinghill Escarpment SSSI (Final)</i> .

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
		<ul style="list-style-type: none"> Constant and preferential plant species of CG4 and CG5 grassland NVC vegetation types which comprise the H6120 feature within this SAC Important orchid assemblage including early spider-orchid <i>Ophrys sphegodes</i>, late spider-orchid <i>O. fuciflora</i> and burnt-tip orchid <i>Orchis ustulata</i>. Adonis Blue <i>Polyommatus bellargus</i> 	<p>habitat's structure or help to define that habitat on a particular SAC (see also the attribute for 'vegetation community composition').</p> <ul style="list-style-type: none"> Influential species which are likely to have a key role affecting the structure and function of the habitat (such as bioturbators (mixers of soil/sediment), grazers, surface borers, predators or other species with a significant functional role linked to the habitat) Site-distinctive species which are considered to be a particularly special and distinguishing component of an Annex I habitat on a particular SAC. <p>There may be natural fluctuations in the frequency and cover of each of these species. The relative contribution made by them to the overall ecological integrity of a site may vary, and Natural England will provide bespoke advice on this as necessary. The list of species given here for this Annex I habitat feature at this SAC is not necessarily exhaustive. The list may evolve, and species may be added or deleted, as new information about this site becomes available.</p>	<p>JNCC. <i>Folkestone to Etchinghill Escarpment</i>. Available at: http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0012835</p>
Structure and function (including its typical species)	Vegetation: undesirable species	Maintain the frequency/cover of the following undesirable species to within acceptable levels and prevent changes in surface condition, soils, nutrient levels or hydrology which may encourage their spread.	<p>There will be a range of undesirable or uncharacteristic species which, if allowed to colonise and spread, are likely to have an adverse effect on the feature's structure and function, including its more desirable typical species. These may include invasive non-natives such as <i>Cotoneaster</i> spp, or coarse and aggressive native species which may uncharacteristically dominate the composition of the feature.</p> <p>Undesirable species include: Creeping thistle <i>Cirsium arvense</i>, Spear thistle <i>Cirsium vulgare</i>, Curly dock <i>Rumex crispus</i>, Broad leaved-dock <i>Rumex obtusifolius</i>, Ragwort <i>Senecio jacobaea</i> and Common stinging nettle <i>Urtica dioica</i>.</p>	<p>Natural England. 2016. <i>Definitions of Favourable Condition for Designated Features of Interest; Folkestone to Etchinghill Escarpment SSSI (Final)</i>.</p> <p>This attribute will be periodically monitored as part of Natural England's SSSI Condition Assessments</p>
Structure and function (including its	Vegetation community transitions	Maintain the pattern of natural vegetation zonations/transitions	Transitions/zonations between adjacent but different vegetation communities are usually related to naturally-occurring changes in soil, aspect or slope. Such 'ecotones' retain characteristics of	

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
typical species)			each bordering community and can add value in often containing species not found in the adjacent communities. Retaining such transitions can provide further diversity to the habitat feature, and support additional flora and fauna.	
Structure and function (including its typical species)	Soils, substrate and nutrient cycling	Maintain the properties of the underlying soil types, including structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, to within typical values for the habitat.	Soil is the foundation of basic ecosystem function and its properties strongly influence the colonisation, growth and distribution of those plant species which together form vegetation types, and therefore provides a habitat used by a wide range of organisms. Soil biodiversity has a vital role to recycle organic matter. Changes to natural soil properties may therefore affect the ecological structure, function and processes associated with this Annex I feature.	
Structure and function (including its typical species)	Supporting off-site habitat	Maintain the extent, quality and spatial configuration of land or habitat surrounding or adjacent to the site which is known to support the H6210 feature.	<p>The structure and function of the qualifying habitat, including its typical species, may rely upon the continued presence of areas which surround and are outside of the designated site boundary. The connectivity of the site to its wider landscape may take the form of landscape features, such as habitat patches, hedges, watercourses and verges, outside of the designated site boundary which are either important for the migration, dispersal and genetic exchange of those typical species closely associated with qualifying Annex I habitat features of the site. These features may also be important to the operation of the supporting ecological processes on which the designated site and its features may rely.</p> <p>In most cases increasing actual and functional landscape-scale connectivity would be beneficial. Changes in surrounding land-use may adversely (directly/indirectly) affect the functioning of the feature and its component species. This supporting habitat may be critical to the typical species of the feature to support their feeding, breeding, population dynamics ('metapopulations'), pollination or to prevent/reduce/absorb damaging impacts from adjacent land uses e.g. pesticide drift, nutrient enrichment.</p> <p>There are additional areas of lowland calcareous grassland, good quality semi-improved grassland, and areas of deciduous</p>	<p>Natural England, Priority habitat inventory (available on interactive mapping system MAGIC: http://www.natureonthe-map.naturalengland.org.uk/)</p> <p>Natural England. 2016. <i>Definitions of Favourable Condition for Designated Features of Interest; Folkestone to Etchinghill Escarpment SSSI (Final)</i>.</p>

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
			<p>woodland that connect to the SAC.</p> <p>Additional grassland occurs as part of the wider landscape. Dover to Kingsdown Cliffs SAC and Lydden and Temple Ewell Downs SAC are located approx. 10km away with a number SSSI's in-between; Folkstone Warren SSSI and Alkham, Lydden and Swingfields Woods. In addition Lypne Escarpment SSSI, Otterpool Quarry SSSI and Great Shuttlesfield SSSI further contribute to grassland within the wider landscape. In some locations the connectivity is good, however, other stretches of the scarp would benefit from appropriate management of grassland and woodland rides and glades to improve the linkages of the network.</p>	
Structure and function (including its typical species)	Adaptation and resilience	Maintain the feature's ability, and that of its supporting processes, to adapt or evolve to wider environmental change, either within or external to the site	<p>This recognises the increasing likelihood of natural habitat features to absorb or adapt to wider environmental changes. Resilience may be described as the ability of an ecological system to cope with, and adapt to environmental stress and change whilst retaining the same basic structure and ways of functioning. Such environmental changes may include changes in sea levels, precipitation and temperature for example, which are likely to affect the extent, distribution, composition and functioning of a feature within a site. The vulnerability and response of features to such changes will vary.</p> <p>The overall vulnerability of this SAC to climate change has been assessed by Natural England (2015) as being low taking into account the sensitivity, fragmentation, topography and management of its habitats. This means that this site is considered to be vulnerable overall but are a lower priority for further assessment and action. Individual species may be more or less vulnerable than their supporting habitat itself. In many cases, change will be inevitable so appropriate monitoring would be advisable.</p> <p>Using best available information, any necessary or likely adaptation or adjustment by the feature and its management in response to actual or expected climatic change should be</p>	Natural England. 2015. Climate Change Theme Plan and supporting National Biodiversity Climate Change Vulnerability assessments ('NBCCVAs') for SACs and SPAs in England [Available at http://publications.naturalengland.org.uk/publication/4954594591375360].

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
			allowed for, as far as practicable, in order to ensure the feature's long-term viability.	
Supporting processes (on which the feature relies)	Air quality	Maintain as necessary, the concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on the Air Pollution Information System (www.apis.ac.uk).	<p>This habitat type is considered sensitive to changes in air quality. Exceedance of these critical values for air pollutants may modify the chemical status of its substrate, accelerating or damaging plant growth, altering its vegetation structure and composition and causing the loss of sensitive typical species associated with it.</p> <p>Critical Loads and Levels are recognised thresholds below which such harmful effects on sensitive UK habitats will not occur to a significant level, according to current levels of scientific understanding. There are critical levels for ammonia (NH₃), oxides of nitrogen (NO_x) and sulphur dioxide (SO₂), and critical loads for nutrient nitrogen deposition and acid deposition. There are currently no critical loads or levels for other pollutants such as Halogens, Heavy Metals, POPs, VOCs or Dusts. These should be considered as appropriate on a case-by-case basis.</p> <p>Ground level ozone is regionally important as a toxic air pollutant but flux-based critical levels for the protection of semi-natural habitats are still under development. It is recognised that achieving this target may be subject to the development, availability and effectiveness of abatement technology and measures to tackle diffuse air pollution, within realistic timescales.</p> <p>There are concerns about the risk of atmospheric nitrogen deposition which have been flagged as needing further investigation but currently the critical load for the site is within acceptable limits.</p> <p>Nitrogen Deposition (kg N/ha/yr): 15.1 which is between Critical Loads (kg N/ha/yr): 15-25</p>	<p>More information about site-relevant Critical Loads and Levels for this SAC is available by using the 'search by site' tool on the Air Pollution Information System (www.apis.ac.uk).</p> <p>Natural England. 2015. Site Improvement Plan: Folkestone to Etchinghill Escarpment SAC.</p>

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
Supporting processes (on which the feature relies)	Conservation measures	Restore the management measures (either within and/or outside the site boundary as appropriate) which are necessary to restore the structure, functions and supporting processes associated with the feature.	<p>Active and ongoing conservation management is needed to protect, maintain or restore this feature at this site. Further details about the necessary conservation measures for this site can be provided by contacting Natural England.</p> <p>This information will typically be found within, where applicable, supporting documents such as Natura 2000 Site Improvement Plan, Site Management Strategies or Plans, the Views about Management Statement for the underpinning SSSI and/or management agreements.</p> <p>The Site Improvement Plan identifies undergrazing as a pressure to the site. Scrub and woodland encroachment and a dominance of Tor grass are occurring at Dolls House Hill and Hunger Down due to insufficient grazing at Dolls House Hill, and lack of any management at Hunger Down. This is reducing the extent and quality of the grassland feature.</p> <p>Inappropriate scrub control is identified as a threat to the site. Extensive scrub development on Creteway Down is reducing the extent of the grassland feature.</p>	Natural England. 2015. Site Improvement Plan; Folkestone to Etchinghill Escarpment SAC.
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