



Down Farm SSSI Dorset

***Notification under section 28 of the Wildlife
and Countryside Act 1981***

Supporting Information

Issued by Natural England's Dorset, Hampshire and Isle of Wight Team on **7 February 2019**

Contact points and further information

This supplement is issued on request by Natural England's Dorset, Hampshire and Isle of Wight Team and is intended to be read in conjunction with the notification document for owners, occupiers and other notified parties.

Our address for correspondence is:

Natural England
W4
County Hall
Colliton Park
Dorchester
DT1 1XJ

Telephone: 0208 026 8075

Email: Sean.Cooch@naturalengland.org.uk

Online: <https://consult.defra.gov.uk/natural-england/down-farm>

Your contact point for specific enquiries relating to this notification is **Sean Cooch**.

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Summary

Down Farm SSSI is notified under section 28 of the Wildlife and Countryside Act 1981 (as amended).

Down Farm SSSI is considered to be of special interest for its:

- **Species-rich lowland meadows** – the site supports species-rich examples of the National Vegetation Classification (NVC) type MG5 crested dog's-tail *Cynosurus cristatus* – common knapweed *Centaurea nigra* grassland.
- **Assemblage of grassland fungi** – the site supports a rich assemblage of grassland fungi.

1. Information used to support the selection of Down Farm SSSI

Feature	Data Source	Author	Date	Content
General	Revised Guidelines for the Selection of Biological SSSIs. Part 1: Rationale, Operational Approach and Criteria for Site Selection. JNCC, Peterborough. Published online: http://jncc.defra.gov.uk/pdf/SSI_GuidelinesPart1_PUBLICATION_Dec2013v2.pdf	Bainbridge, I., Brown, A., Burnett, N., Corbett, P., Cork, C., Ferris, R., Howe, M., Maddock, A. & Pritchard, S. (eds)	2013	National selection guidelines for biological SSSIs
	Sites of Nature Conservation Importance (SNCI) package. Unpublished Dorset Wildlife Trust report	James, M.	2013	Survey and monitoring report of SNCI for Beaminster Down
Lowland meadows	The changing extent and conservation interest of lowland grasslands in England and Wales: a review of grassland surveys 1930-1984. <i>Biological Conservation</i> 40 , 281-300. https://www.sciencedirect.com/science/article/pii/0006320787901212	Fuller, R.M.	1987	Information on the national status of grassland habitats
	British Plant Communities. Volume 3: Grasslands and montane communities. Published by Cambridge University Press	Rodwell, J.S. (ed)	1992	National Vegetation Classification (NVC) for grasslands
	Monitoring the condition of lowland grassland SSSIs. English Nature Research Report 315. Published online: http://publications.naturalengland.org.uk/publication/64033	Robertson, H.J. & Jefferson, R.G.	2000	National extent of MG5 grassland
	The condition of lowland BAP priority grasslands: results from a sample survey of non-statutory stands in England. English Nature Research Report 636. Published online: http://publications.naturalengland.org.uk/publication/106007	Hewins, E.J., Pinches, C., Arnold, J., Lush, M., Robertson, H. & Escott, S.	2005	Information on the national status of grassland habitats
	State of the Natural Environment 2008. Natural England, Peterborough. Published online: http://publications.naturalengland.org.uk/publication/31043	Natural England	2008	Review of the state of England's natural environment

Feature	Data Source	Author	Date	Content
	Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 3 Lowland Grasslands. JNCC, Peterborough. Published online: http://jncc.defra.gov.uk/pdf/SSI_Chptr03_revision_2017(v2.0).pdf	Jefferson, R.G., Smith, S.L.N. & MacKintosh, E.J.	2014	Guidelines for selecting lowland grasslands for SSSI notification
	Fate of semi-natural grasslands in England between 1960 and 2013: A test of national conservation policy. <i>Global Ecology and Conservation</i> 4: 516-525. https://www.sciencedirect.com/science/article/pii/S2351989415300184	Ridding, L.E. Redhead, J.W & Pywell, R.F.	2015	National study on loss rates of semi-natural grasslands within and outside protected sites
	Vegetation survey of Down Farm Meadows. Unpublished Natural England and Dorset Environmental Records Centre (DERC) survey report	Cooch, S., Cox, J. & Edwards, B.	2015	Survey of grassland vegetation (revised in 2018)
	Lowland unimproved grassland in Dorset. Status, threats, opportunities and future management. Unpublished Dorset Wildlife Trust Report	Abbott, S. & Davenport, I.	2018	Extent of lowland meadow priority habitat in Dorset
	Specialist support for notification of Down Farm as a SSSI	Pinches, C.E.	2019	Support from Natural England's grassland specialist
Grassland fungi	Mycological survey of selected semi-natural grasslands in Carmarthenshire; Contract Science Report No. 340. Countryside Council for Wales, Bangor	Rotheroe, M.	1999	A detailed account of fungal grasslands in Carmarthenshire – with reference to quality indicators
	The fungi of Irish grasslands and their value for nature conservation. <i>Biology and Environment: Proceedings of the Royal Irish Academy</i> 101B (3): 225-242	McHugh, R., Mitchel, D., Wright, M. and Anderson, R.	2001	A detailed account of Irish grassland fungi sites that assesses and looks at scoring systems by weighting species to aid evaluation of sites.
	Waxcap grasslands – an assessment of English sites. English Nature Research Report 555. Published online: http://publications.naturalengland.org.uk/publication/131003	Evans, S.	2004	Review of fungus-rich grasslands and the most significant sites in England
	Charismatic megafungi: the conservation of waxcap grasslands. <i>British Wildlife</i> 15 (3): 31-43	Griffith, G.W., Bratton, J.L. & Easton, G.L.	2004	Conservation of waxcap grasslands and ways to assess them

Feature	Data Source	Author	Date	Content
	Red list status of European Fungi. In: Funga Nordica. Agaricoid, boletoid and cyphelloid genera. Published by Nordsvamp, Copenhagen	Knudsen, H & Vesterholt, J. (eds.)	2008	Includes country statuses of European waxcap fungi
	Identifying key fungal sites in England with potential for SSSI notification. Unpublished report to Natural England	Smith, J.H.	2012	Identification of sites apparently satisfying grassland fungi selection guidelines
	A fungal survey of Down Farm Meadows. Unpublished report to Natural England	Edwards, B., DERC	2014	Field survey of the meadows in 2014 (updated with surveys in 2015 and 2017).
	An introduction to Dorset waxcaps and grassland fungi	Edwards, B., DERC	2016	Status and distribution of waxcap grasslands in Dorset
	The IUCN Red List of Threatened Species. Version 2017-3. http://www.iucnredlist.org Accessed March 2018	IUCN	2017	Global red list of threatened species
	Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 14 Non-lichenised fungi. JNCC, Peterborough. Published online: http://jncc.defra.gov.uk/pdf/SSSI_Chapter14fungi_2018a.pdf	Bosanquet, S.D.S., Ainsworth, A.M., Cooch, S.P., Genney, D.R., & Wilkins, T.C.	2018	Guidelines for selecting fungal sites for SSSI notification
	Specialist support for notification of Down Farm as a SSSI	Wilkins, T.	2019	Support from Natural England's fungi specialist

2. Explanation of how Down Farm meets the SSSI selection guidelines

This section explains how the information listed in Section 1 has informed the decision to notify the SSSI, according to the *Guidelines for the selection of Biological SSSIs. Part 1: Rationale, Operational Approach and Criteria for Site Selection* (Bainbridge *et al.* 2013), and *Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 3 Lowland Grasslands* (Jefferson *et al.* 2014) and *Chapter 14 Non-lichenised fungi* (Bosanquet *et al.* 2018), hereafter referred to as 'the Guidelines'.

2.1 Species-rich lowland meadow grassland

Down Farm is considered to be of special interest for its nationally important species-rich meadows and pastures characterised by the nationally rare National Vegetation Classification (NVC) type MG5 Crested dog's-tail *Cynosurus cristatus* – Common knapweed *Centaurea nigra* grassland (see photographs 11 and 12 in section 6). This grassland vegetation community forms part of the 'lowland meadows' priority habitat, which is included on the list of habitats and species which are of principal importance for the conservation of biodiversity in England, as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Historically the area of semi-natural grassland in the UK (including MG5) has undergone a severe decline as a consequence of post-war agricultural intensification. It is estimated that by 1984 in lowland England and Wales, semi-natural grassland had declined by 97% over the previous 50

years (Fuller 1987). More recently a 47% loss has been reported between 1960 and 2013 on sites known to have supported species-rich grassland but SSSIs were found to have retained more grassland (91%), compared with non-protected sites (27%), thus highlighting their effectiveness as a means of protecting semi-natural grasslands (Ridding, Redhead & Pywell 2015).

Such widespread loss has led to extensive fragmentation, with remaining grasslands often isolated within the landscape. In addition to loss of habitat, the quality of unimproved grasslands has also declined. An assessment of the condition of semi-natural grasslands on non-statutory sites in England in 2002/2003 found that only 16% of lowland hay meadows were considered to be in good condition, with many lacking positive indicators in sufficient number and frequency due to neglect or agricultural intensification (Hewins *et al.* 2005). In England the remaining extent of MG5 grassland is estimated to be less than 6,000 ha (Robertson & Jefferson, 2000).

Lowland grasslands in Dorset have mirrored these national trends and outside of designated stands have continued to both decline in quality and contract in extent. In Dorset the total area of lowland meadow priority habitat is around 663 ha (Abbott & Davenport 2018). This resource is highly fragmented with the largest area of intact neutral grasslands in west Dorset centred in the Marshwood and Powerstock Vales National Character Area (NCA)¹, which lies to the south of Down Farm SSSI.

The Guidelines (Part 2, Chapter 3, section 4.10, p.7) state:

‘For those grassland communities that are now rare (less than 10,000 ha in Great Britain or less than 10,000 ha in the British lowlands, as shown in section A of Annex 1) the presumption is that all examples which are at least 0.5 ha should be selected for notification, singly or in combination.’

MG5 grassland is listed in Section A of Annex 1 of the Guidelines and is shown as a community that is rare; accordingly all examples of at least 0.5 ha should be selected. Down Farm SSSI supports just over 7.4 ha of MG5 grassland (Cooch *et al.* 2015). This includes a small stand (approximately 0.2 ha) of an interesting variant with frequent lousewort *Pedicularis sylvatica*, indicating a transition zone with evidence of seasonal flushing on more acid soils (see photographs 9 and 10 in section 6). Orchid species are well represented in the meadows (see photograph 8 in section 6), with small numbers of common *Dactylorhiza fuchsii* and heath spotted-orchids *Dactylorhiza maculata* and common twayblade *Neottia ovata*, as well as a significant population of green-winged orchid *Anacamptis morio* with counts of over 10,000 flowering spikes (see photographs 6 and 7 in section 6).

2.2 Assemblage of grassland fungi

The Guidelines (Part 2, Chapter 14, section 4, pp.17-21) are concerned with the distinctive species and assemblages of fungi associated with grasslands which have received no, or limited, agricultural improvements. These fungus-rich grasslands have been collectively termed as ‘waxcap-grasslands’. The five key groups of fungi (commonly referred to by the abbreviation ‘CHEGD’ formed by their initials) associated with these grassland habitats are:

- **Clavarioid** fungi (the clubs, corals and spindles)
- **Hygrocybe** (the waxcaps)
- **Entoloma** (the pinkgills)
- **Geoglossoid** fungi (the earthtongues)
- **Dermoloma** (the crazed caps)

Recent taxonomic changes have resulted in modifications to the CHEGD groups, which are reflected in the recently-published Guidelines (Part 2, Chapter 14). A full definition of genera included is given in the Guidelines (Part 2, Chapter 14, footnote on p.17).

¹ National Character Areas (NCAs) divide England into 159 natural areas, each defined by a unique combination of landscape, biodiversity, geodiversity and economic and cultural activity. Down Farm SSSI lies within the Dorset Downs and Cranborne Chase NCA. NCAs are now used as ‘areas of search’ for the purposes of SSSI selection (where appropriate) in England. For more information on NCAs, see <https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making>

SSSI selection for waxcap grasslands is largely determined by the number of CHEGD species known from a site, based on fruit-body records. Species totals might be derived from a single visit or from multiple visits over successive, though not necessarily consecutive, years. For each group there is a species-count threshold given in the Guidelines (Part 2, Chapter 14, section 4.3.2, p. 18 and Table 10, p.20) and reproduced below. The Guidelines (Part 2, Chapter 14, section 4.3.2, p.18 and section 4.4.1, p.19) recommend that any site that meets or exceeds one or more group thresholds should be considered for SSSI notification. The CHEGD species-count thresholds and respective scores for Down Farm SSSI are presented in Table 1, below.

Table 1 CHEGD species-count thresholds and scores (fruit-bodies) at Down Farm SSSI

CHEGD group	Species-count threshold	Score at Down Farm SSSI
Clavarioids	7	7
<i>Hygrocybe</i>	19	22
<i>Entoloma</i>	15	13
Geoglossoids	5	0
<i>Dermoloma</i>	3	0

Table 2 (below) lists the CHEGD species found at Down Farm SSSI (see photographs 2-5 in section 6). The count of 22 *Hygrocybe* s.l.² species exceeds the threshold and the count of seven clavarioids meets the threshold for that group. The 13 *Entoloma* s.l. species falls just short of the threshold. However, this makes the site one of the richest in Dorset for *Entoloma* s.l. species and further survey work is likely to find more species.

2.2.1 Further consideration of Down Farm SSSI’s national importance for grassland fungi

As described above, the Guidelines (Part 2, Chapter 14, section 4.3.2, p.18 and section 4.4.1, p.19) recommend that any site that meets or exceeds one or more CHEGD group thresholds should be considered for SSSI notification. Accordingly, having established that two thresholds are met, it is necessary to consider further whether the site should be notified.

The Guidelines (Part 2, Chapter 14, section 3.1, p.7) state:

“When evaluating and selecting sites for non-lichenised fungi, the principles outlined in Part 1 of the guidelines (Bainbridge et al 2013) should be followed. It is also advisable to consult the country specialist and an expert mycologist because of the taxonomic and ecological complexities of fungi.”

Such an approach is supported by Part 1 of the Guidelines (section 4.20, p.18) when scoring systems are employed, specifically that a mixture of attributes has to be evaluated, which requires expert judgement.

Natural England’s specialist in fungi has carried out an analysis (Wilkins 2019) of the national importance of Down Farm for grassland fungi, in line with the aforementioned recommendations in Parts 1 and 2 of the SSSI selection guidelines. The key elements and conclusions of that analysis are summarised below.

Comparison with similar sites

The Guidelines (Part 1, section 5.14, pp.29-30) provide advice on the identification of the best example of sites to represent habitats and species. Specifically, the Guidelines (Part 1, section 5.14.2, p.30) state that:

“The essence of the exemplary site principle procedure is that all of the examples of habitats and species assemblages within an AoS [Area of Search] are compared, to identify the best, and it is only these which are selected. If all similar sites can be arranged in order of merit, selection of the 'best' can vary from one to whatever number of examples is judged appropriate by the responsible SNCB [Statutory Nature Conservation Body].”

² *Sensu lato*, meaning ‘in a broad sense’, used here to indicate that the genus includes taxa previously assigned to it.

The AoS for Down Farm is the Dorset Downs and Cranborne Chase NCA. Table 3 (below) allows comparison of the quality of the assemblage of fungi at Down Farm SSSI with other sites in NCA known to exceed one or more of the CHEGD thresholds. The analysis was undertaken using the British Mycological Society Fungal Records Database of Britain and Ireland (FRDBI 2016) and the updated Down Farm survey report (Edwards 2015).

Down Farm SSSI is ranked 2nd in the analysis. The highest ranked locality, Lower Kingcombe, is partly within the Toller Porcorum SSSI, although that site is not notified for its grassland fungi.

Additionally, at a national level, Down Farm SSSI has been compared to inventories of waxcap grasslands compiled by Evans (2004), against which it would be ranked the 13th most important in England (based on CHEG species-count), and Smith (2012), where it would be ranked 19th (based on number of *Hygrocybe* s.l. taxa). Furthermore, the count of 22 *Hygrocybe* s.l. taxa, means the site would be considered to be of international importance (based on Evans 2004).

Key species

Part 1 of the Guidelines (section 5.14.3, p30) states that:

“The occurrence of a greater number of rare communities or species will place one site ahead of another, other conditions being similar.”

Down Farm supports a number of key species. Citrine waxcap *Hygrocybe citrinovirens* and dingy waxcap *Neohygrocybe ingrata* are both listed as ‘Vulnerable’ on the global IUCN Red List, whilst pink waxcap *Porpolomopsis calyptriformis* is a species of conservation concern in Europe. All three species are included in the assemblage of special interest, although their populations at Down Farm SSSI are not individually considered nationally important in their own right. It is also worth noting that while most of the *Hygrocybe* s.l. species are not especially rare in the UK, a number of them appear on the Red Lists of threatened species for several European countries (Knudsen & Vesterholt, 2008).

Conclusions

In addition to meeting the CHEGD species-count thresholds for clavarioids and *Hygrocybe* s.l. taxa, Down Farm SSSI is ranked 2nd in the relevant Area of Search and in the top 20 sites for grassland fungi in England; is considered to be of international importance; and supports several key species that are of conservation concern internationally. Furthermore, it represents a feature for which just two SSSIs have been notified in England prior to 2019.

Table 2 Grassland fungi (fruit-bodies) recorded at Down Farm SSSI from October 2014-December 2017. Some of these species have undergone taxonomic/nomenclatural change (synonyms are listed below in parentheses).

Clavariaceae (C)	Hygrocybe s.l. (H)*	Entoloma s.l. (E)
<i>Clavaria fragilis</i> agg. (<i>Clavaria fragilis</i>)	<i>Cuphophyllus flavipes</i> (<i>Hygrocybe flavipes</i>)	<i>Entoloma asprellum</i>
<i>Clavaria fumosa</i>	<i>Cuphophyllus pratensis</i> (<i>Hygrocybe pratensis</i> var. <i>pratensis</i>)	<i>Entoloma chalybeum</i> var. <i>chalybeum</i> (<i>Entoloma chalybeum</i>)
<i>Clavaria incarnata</i>	<i>Cuphophyllus russocoriaceus</i> (<i>Hygrocybe russocoriacea</i>)	<i>Entoloma conferendum</i>
<i>Clavulinopsis corniculata</i>	<i>Cuphophyllus virgineus</i> (<i>Hygrocybe virginea</i>)	<i>Entoloma corvinum</i>
<i>Clavulinopsis laeticolor</i>	<i>Gliophorus irrigatus</i> (<i>Hygrocybe irrigata</i>)	<i>Entoloma griseocyaneum</i>
<i>Clavulinopsis luteoalba</i>	<i>Gliophorus psittacinus</i> (<i>Hygrocybe psittacina</i> var. <i>psittacina</i>)	<i>Entoloma infula</i>
<i>Ramariopsis subtilis</i> (<i>Clavulinopsis subtilis</i>)	<i>Hygrocybe acutoconica</i> var. <i>acutoconica</i>	<i>Entoloma mougeotii</i>
	<i>Hygrocybe cantharellus</i>	<i>Entoloma papillatum</i>
	<i>Hygrocybe ceracea</i>	<i>Entoloma poliopus</i>
	<i>Hygrocybe chlorophana</i>	<i>Entoloma porphyrophaeum</i>
	<i>Hygrocybe citrinovirens</i>	<i>Entoloma prunuloides</i>
	<i>Hygrocybe coccinea</i>	<i>Entoloma sericellum</i>
	<i>Hygrocybe conica</i>	<i>Entoloma sericeum</i>
	<i>Hygrocybe glutinipes</i>	
	<i>Hygrocybe insipida</i>	
	<i>Hygrocybe intermedia</i>	
	<i>Hygrocybe punicea</i>	
	<i>Hygrocybe quieta</i>	
	<i>Hygrocybe reidii</i>	
	<i>Hygrocybe splendidissima</i>	
	<i>Neohygrocybe ingrata</i> (<i>Hygrocybe ingrata</i>)	
	<i>Porpolomopsis calyptriformis</i> (<i>Hygrocybe calyptriformis</i>)	
7	22	13
CHEGD 7/22/13/0/0: total = 42		

Table 3 Comparison with other localities in the Dorset Downs and Cranborne Chase NCA known to meet or exceed at least one CHEGD species-count threshold

Locality	County	Total CHEGD	CHEGD scores
Lower Kingcombe	Dorset	52	6/27/16/2/1
Down Farm Meadows	Dorset	42	7/22/13/0/0
Valley of Stones (nr. Portesham)	Dorset	34	7/22/5/0/0

2.3 Site boundary determination

Down Farm SSSI comprises two fields, separated by a hedge (see photograph 1 in section 6), supporting predominantly species-rich grassland which is in turn surrounded by mature hedges (see photograph 13 in section 6), which are included within the SSSI. The boundary of the SSSI has been drawn to include the vegetation communities and the assemblage of grassland fungi of special interest described above. The boundary follows readily identifiable features, including hedgerows and fence lines, as well as straight lines between defined points.

In addition to the key grassland communities described above, there are small stands of communities of generally lower botanical interest, typically forming narrow strips at the field margins. These include approximately 0.6 ha of MG1 false oat-grass *Arrhenatherum elatius* grassland, along with a patch of common nettles *Urtica dioica*.

The Guidelines (Part 2, Chapter 3, Section 5.1) state:

“SSSI boundaries should be drawn to encompass the special features of the site and all land necessary to ensure the protection and sustainability of those features...Consideration should be given to the inclusion of whole management units, entire ecological units and land required for supporting processes, such as hydrology. Thus, for example, this may require the inclusion within a site boundary of areas of land supporting grassland communities of lower botanical interest (section B of Annex 1), or non-grassland vegetation.”

The MG1 grassland and non-grassland vegetation on the site are an integral part of the management units and they fall within the readily identifiable boundaries.

3. Assessment of the current condition of Down Farm SSSI

Site units*	Interest features	Reported condition**	Date of last assessment
1	Lowland meadows, assemblage of grassland fungi	Favourable	May 2018

* **Site units** are divisions used by Natural England for administrative purposes only.

** Reported condition

SSSIs are notified because of special biological or geological features. When these features are being managed so that their special nature conservation interest is being maintained they are said to be in favourable condition. This is a United Kingdom standard and the terminology and definitions are more fully described in ‘A Statement on Common Standards Monitoring’, produced by the Joint Nature Conservation Committee in 1998.

4. Selection of ‘operations requiring Natural England’s consent’

Natural England selects operations from a master list when determining the list of operations requiring consent for individual SSSIs. The selection is based on the likelihood that the operations may cause damage to the special features that are the reasons for notification of the SSSI. As well as selecting operations from the master list, the precise wording of each operation may be tailored to suit the particular circumstances at the site.

It is not possible to predict every possible eventuality that may arise on a site but the aim is to identify all operations where it is reasonably foreseeable that, if carried out at certain times or in a particular manner somewhere within the SSSI, they are likely to damage the special interest features. The table below records at least one reason justifying the inclusion of each operation in the list for Down Farm SSSI. It is not intended to be exhaustive and in most cases there will be other ways in which the specified operation is likely to cause damage.

Standard reference number	Type of operation	At least one reason for listing
1.	Cultivation, including ploughing, rotovating, harrowing and re-seeding.	Grassland and fungi could be destroyed.
2.	Grazing and alterations to the grazing regime (including type of stock, intensity or seasonal pattern of grazing).	Features sensitive to over or under grazing, which could lead to changes in community composition.
3.	Stock feeding and alterations to stock feeding practice.	Could lead to localised nutrient enrichment or poaching which would damage grassland and fungi.
4.	Mowing or cutting vegetation and alterations to the mowing or cutting regime (such as from haymaking to silage).	Grassland and fungi sensitive to cutting or mowing, which could lead to changes in community composition if carried out inappropriately.
5.	Application of manure, slurry, silage liquor, fertilisers and lime.	Grassland and fungi sensitive to nutrient enrichment, which could lead to dominance by competitive species.
6.	Application of pesticides, including fungicides and herbicides (weedkillers) whether terrestrial or aquatic, and veterinary products.	Grassland, fungi and associated flora/fauna all sensitive to these, both through direct loss and changes to community composition.
7.	Dumping, spreading or discharging of any materials.	Risk of obscuring/smothering grassland, damaging fungi and effects of leachate.
8.	Burning.	Grassland and fungi sensitive to burning, both through direct loss and change to community composition.
9.	Release into the site of any wild, feral, captive-bred or domestic animal, plant, seed or micro-organism (including genetically modified organisms).	Could lead to unforeseen interactions with indigenous species and changes in community composition.
10.	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.	Could lead to unforeseen changes in community composition, for instance if key herbivores, pollinators or predators affected. Direct damage to sward and fungi could result from some methods.
11.	Destruction, displacement, removal or cutting of any plant, fungus or plant remains,	Damage to grassland habitats and constituent species and fungi.

Standard reference number	Type of operation	At least one reason for listing
	including tree, shrub, herb, hedge, dead or decaying wood, moss, 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).	Risk of incidental damage to grassland and fungi, direct loss and changes in community composition due to shading.
13a.	Draining (including the use of mole, tile, tunnel or other artificial drains).	Risk of incidental damage and direct loss to grassland and fungi.
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.	Grassland sward sensitive to changes in hydrology. Direct damage to grassland and fungi in the immediate vicinity.
15.	Infilling or digging of ditches, dykes, drains, ponds, pools, marshes or pits.	Direct damage to grassland and fungi.
20.	Extraction of minerals including hard rock, sand and gravel, topsoil, subsoil, chalk and spoil.	Direct loss of grassland and fungi.
21.	Destruction, construction, removal, re-routing or re-grading 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.	Direct loss of or incidental damage to grassland and fungi.
22.	Storage of materials.	Risk of obscuring/smothering grassland and fungi, and effects of leachate.
23.	Erection of permanent or temporary structures or the undertaking of engineering works, including drilling.	Direct loss of important habitats and fungi.
26.	Use of vehicles or craft.	Damage to grassland fungi, for instance from soil compaction or wheel-rutting.
27.	Recreational or other activities likely to damage or disturb the interest features of special interest.	Damage to grassland and fungi, for instance due to excessive trampling.
28a.	Game and waterfowl management and hunting practices and alterations to game and waterfowl management and hunting practice.	Inappropriate location and types could damage grassland and fungi, for instance nutrient enrichment around feeders.

5. Site unit map/s

The map on the following page show the provisional boundary of the site unit, which is/are divisions used by Natural England for administrative purposes only.

Insert site unit map here

6. Photographs



Photograph 1

**Down Farm SSSI boundary
shown in red**



Scale (at A3): 1:1,617

Map produced by Denise Rose,
Landscape, Biodiversity & Designation Team
Date: 11/01/2019.

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Photograph 2: Key waxcap species found at Down Farm SSSI.

Top left – *Hygrocybe citrinovirens*

Top right – *Neohygrocybe ingrata*

Bottom left – *Hygrocybe punicea*

Bottom right – *Porpolomopsis calyptriformis*



Photograph 3: Examples of the clubs, spindles and corals (clavarioids) at Down Farm SSSI.

Left – *Clavaria incarnata*

Right – *Clavaria fumosa*



Photograph 4: Other waxcaps found at Down Farm across both fields.

Top left – *Hygrocybe splendidissima*

Bottom left - *Cuphophyllus pratensis*

Top right - *Cuphophyllus flavipes*

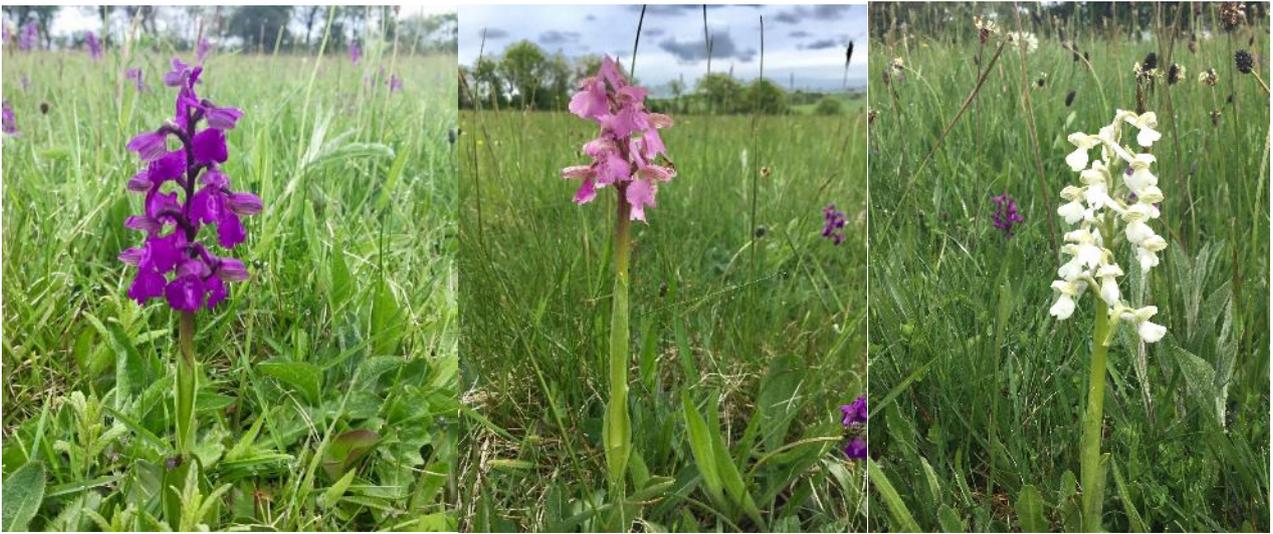
Bottom right - *Hygrocybe coccinea*



Photograph 5: Examples of the pinkgills (*Entoloma* species) found at Down Farm.

Left – *Entoloma prunuloides*

Right - *Entoloma polioopus*



Photograph 6: Green-winged orchids *Anacamptis morio*, showing the colour forms at Down Farm, with the typical and common dark purple form and the scarcer salmon pink and white (alb) forms.



Photograph 7: An abundance of green-winged orchids in the roadside field at Down Farm in May 2018.



Photograph 8: The Sanctuary field from the western corner showing locally abundant heath spotted-orchid *Dactylorhiza maculata* and more green-winged orchids.



Photograph 9: Small stand of flushed and more acid soils on the lower slopes of the Sanctuary field supporting an unusual variant of the grassland with lousewort *Pedicularis sylvatica*.



Photograph10: Detail of the lousewort community.



Photograph 11: The Sanctuary field in June with a typical mix of MG5 species.



Photograph 12: The roadside field in mid-June, a riot of colour with species-rich and typical MG5 grassland.



Photograph 13: Base of hedge on western side of Sanctuary field. Vegetation more typical of ancient woodland with bluebell *Hyacinthoides non-scripta*, yellow archangel *Lamiastrum galeobdolon*, red campion *Silene dioica*, greater stitchwort *Stellaria holostea* and in places ferns, such as *Dryopteris* species.