

Site Name

Dunstable and Whipsnade Downs

BEDFORDSHIRE LOCAL GEOLOGICAL SITE DESIGNATION FORM

SITE LOCATION, ACCESS, OWNERSHIP, STATUS & SUITABILITY

(1) **Name of site:** Dunstable and Whipsnade Downs, Bedfordshire

(2) **National grid reference:** TL 005 196

(3) **Unitary authority:** Central Bedfordshire

(4) **Site access and local amenities**

Access for the Dunstable Downs is best from the Chilterns Gateway Centre that is well signposted from Dunstable via the B4541. There are toilets, cafe and a gift shop where maps and guides can be purchased. This is a popular public area, although the majority of visitors stay close to the visitor centre.

(5) **Site ownership:** Central Bedfordshire and jointly managed with the National Trust

(6) **Mineral rights ownership:** N/A

(7) **Is permission needed to access the site?**

a. No ✓

b. Yes

(8) **Site status:** Active Disused Historical Managed ✓ Restored New Other

(9) **Suitable for visits by:** a. General public ✓

b. Small parties ✓

c. Large parties ✓

d. Primary school ✓

e. National Curriculum ✓

f. AS/A-Level ✓

g. Adult ✓

h. Undergraduate teaching

i. Research

(10) **Site suitable for frequent visits by parties?**

a. No

b. Yes ✓

(11) **Should collecting and hammering be encouraged at the site?**

a. No ✓

b. Yes

Site Name

Dunstable and Whipsnade Downs

SITE DESCRIPTION		
(12) Exposure type:	a. Inland natural outcrop ✓	b. Road cutting
	c. Railway cutting	d. Active quarry/pit
	e. Disused quarry/pit	f. Old mine workings
	g. Mine dump	h. Active mine
(13) Dimensions of area of interest: 73 hectares (181 acres).		
(14) Main interest(s):	a. Structural	b. Geomorphological ✓
	c. Mineralogical	d. Palaeontological
	e. Petrological	f. Stratigraphical
g. Other: Linkage between rocks, soils, landscape and natural history.		
(15) Summary description and reason for designation This is a beautiful landscape on the edge of a steep escarpment of Middle Chalk. Upper Chalk and other thin deposits are locally preserved at the top of the scarp. Rock type can be inferred at the grand scale by landscape features (e.g. chalk escarpment, clay vale with gravel-capped hills) and also from small exposures in pathways or in rabbit scrapings. This further encourages links to be made between rock type and soils/vegetation (the site is an SSSI for chalk grassland species) and the manner in which the geomorphological features of the chalk (escarpment, coombes, dry valleys) developed during the Quaternary.		
(16) What threats exist for the site? None envisaged under the current management plan.		
(17) What additional work is required to enhance the site? There is scope to put up an information board at the Chilterns Gateway Centre, complementing the existing B&LGG information leaflet (see below).		
(18) Published/unpublished references to the site and wider area <i>Cretaceous Chalk: Dunstable & Whipsnade Downs</i> . B&LGG information leaflet. www.bedsrigs.org.uk <i>Dunstable Downs</i> . Circular Walks leaflet available from the Chilterns Gateway Centre. <i>Dunstable and Whipsnade Downs SSSI notification</i> . 1987. English Nature. www.english-nature.org.uk Friend, P. 2008. <i>Southern Britain</i> . HarperCollins Publishers. 414 pages. <i>Highway to the Past</i> . Information leaflet produced by the National Trust. www.nationaltrust.org.uk . Shephard-Thorn, E.R. et al. 1994. <i>Geology of the country around Leighton Buzzard - Memoir for 1:50 000 geological map Sheet 220 (England and Wales)</i> . HMSO, London.		

SCIENTIFIC SIGNIFICANCE		
(19) Does the site exhibit features of local/regional importance?	a. No	b. Yes ✓
(20) Is the site already a designated SSSI?	a. No	b. Yes ✓ (Biological)
(21) Collector interest:	a. Rare species	b. Common species
	c. Local significance	d. Regional significance
	e. National significance	
(22) List of confirmed fossils, minerals, etc: N/A		

Site Name

Dunstable and Whipsnade Downs

HISTORICAL/AESTHETIC VALUE		
(23) Does the site have important historical associations?	a. No ✓	b. Yes
(24) Does the site form a key part of an attractive or evocative landscape?	a. No	b. Yes ✓
(25) Full description of site and its significance The whole stretch of the Dunstable to Whipsnade Downs is a typical example of a beautiful chalk landscape. It commands outstanding views across the clay vale of the Vale of Aylesbury. From this viewpoint the connection between rock type and landscape can be made very effectively. Visits can be made from either the Dunstable or the Whipsnade end, which could involve a circular walk via the public footpaths or bridleways. The underlying geology of the Downs comprises mostly Middle Chalk, with a little Upper Chalk towards the top of the hill (but most of the Upper Chalk outcrop lies just outside the nature reserve area). The pathways periodically cross onto clay-with-flints that rest on top of the Chalk. These are more clay-rich areas that become muddy when wet and also reveal small to medium sized flints. Occasionally these glacial deposits can be seen beneath the thin, calcareous soil. The chalk escarpment is steep which adds an evocative nature to the views. The undulations in the scarp slope also provide an interesting geomorphological story – that of shaping the bedrock into narrow, steep-sided coombes. They may have been cut by semi-permanent streams at a time when the regional water table in the Chalk was higher than at present, or during a permafrost period when the frozen ground would have enhanced surface run-off and erosion (Shephard-Thorn <i>et al.</i> , 1994). This is also a good area to illustrate human use of the natural landscape and resources over time. There are a number of historical and archaeological sites, including medieval strip lynchets and warrens, drover's ways, burial mounds (barrows) and the Icknield Way (described in the references provided above).		

RECORDER'S DETAILS	
(26) Name: Dr Jill Eyers	(27) Organisation: Consultant geologist working on behalf of B&LGG
(28) Date of designation: April 2006	

CURRENT SITE CONDITION
(29) Site condition in March 2009 is GOOD; assessed by Malcolm Oliver.

NOTES
(30) Form revised and updated by Dr Martin Whiteley, B&LGG Local Geological Site Manager, November 2009. For further details contact mjwhiteley@yahoo.co.uk