

# Warwickshire Geological Conservation Group

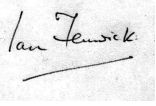
Warwickshire Local Geological Site	
Site No: 33	Burton Dassett Hills
Geological Formations	Marlstone Rock Formation (Jurassic) Dyrham Formation (Jurassic) Northampton Sand Formation (Jurassic) Whitby Mudstone Formation (Jurassic)
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Local Geological Sites (LoGS), designated by locally developed criteria, are currently the most important places for geology and geomorphology outside statutorily protected land such as Sites of Special Scientific Interest (SSSI). The designation of LoGS is one way of recognising and protecting important Earth science and landscape features for future generations to enjoy.

WGCG is responsible for the identification of LoGS in Warwickshire and the West Midlands.

Please note that designation of a site as a LoGS does not confer a legal right of access. Unless the site is on a designated public right-of-way, the landowner's permission is required before visiting.

## Warwickshire Local Geological Site - Criteria Form

<b>Site name:</b> Burton Dassett Hills		<b>Also known as:</b>	
<b>District:</b> Stratford-on-Avon		<b>County:</b> Warwickshire	
<b>Grid reference:</b> SP395 522 (centroid) (see Site Descpn. for features of interest)		<b>LoGS Number:</b> 33	<b>ESCC Class:</b> ED
<b>Brief Description:</b> A complex of disused quarries and intervening disturbed ground, mostly overgrown but with some good exposures of the Marlstone Rock Formation chiefly about 200m south west of Windmill Hill. This large site incorporates several stratigraphic units and lithologies ranging from the Lower Jurassic Dyrham Formation to the Middle Jurassic Northampton Sand.			
<b>This site qualifies as a Local Geological Site for the following criteria:</b>			
<b>A Good Example of</b> an accessible site with representative sections from the Lower Jurassic sequence, notably the Marlstone Rock Formation			
<b>Educational Fieldwork</b>			
1. Educational Potential	✓	2. Physical access	✓
		3. Safety	✓
<b>Scientific Study</b>			
1. Diversity of interest	✓	2. Rarity of interest	✓
4. Typicalness of feature	✓	5. Geological/physiographic linkage to: : <i>Napton Hill Quarry SSSI, Edge Hill Quarries (35), Meon Hill Barn (36), Avonhill Quarry (50), A422 Quarry, Hornton (59), Humpty Dumpty Field, Ilmington (77), Warmington Marlstone Exposure (85), Edge Hill Farm Quarry (88)</i>	✓
<b>Historical Value</b>			
1. Celebrity link		2. Pioneering research	
		3. Historical link: <i>Industrial archaeology of Northants-Oxon Ironstone (Burton Hill Iron Ore Co.)</i>	✓
<b>Aesthetic Value In The Landscape</b>			
1. Local importance in the landscape	✓	2. Promotion of Earth science: <i>rare opportunity to demonstrate a fault</i>	✓
<b>Signed</b>		<b>Date first selected</b> February 1992	
 I M Fenwick, Chairman, <b>Warwickshire Geological Conservation Group</b>		<b>Reviewed by LoGS panel</b> Oct. 2009	
		<b>Further survey required</b>	
		<b>LoGS Confirmed</b> ✓	
<b>Endorsed by</b>			
<b>Warwickshire Museum</b>		<b>Natural England</b>	
J Radley, Keeper of Geology		J A Irving, Conservation Adviser	
<b>In the event of any development or planning consultation relating to this site or its surrounds please inform:</b> The LoGS Officer WGCG, c/o Keeper of Geology, Warwickshire Museum, Market Place, Warwick CV34 4SA (tel: 01926-418182)			

**WARWICKSHIRE GEOLOGICAL CONSERVATION GROUP  
LOCAL GEOLOGICAL SITE (LoGS)**

<b>Site</b>	33	Burton Dassett Hills
<b>Parish</b>	Burton Dassett	
<b>District</b>	Stratford-on-Avon	
<b>County</b>	Warwickshire	
<b>National Grid Reference</b>	SP 395 522 (see below for features of interest)	
<b>Ordnance Survey Sheets 1:50000</b>	151	
<b>1:10000</b>	SP 35 SE	

**Location**

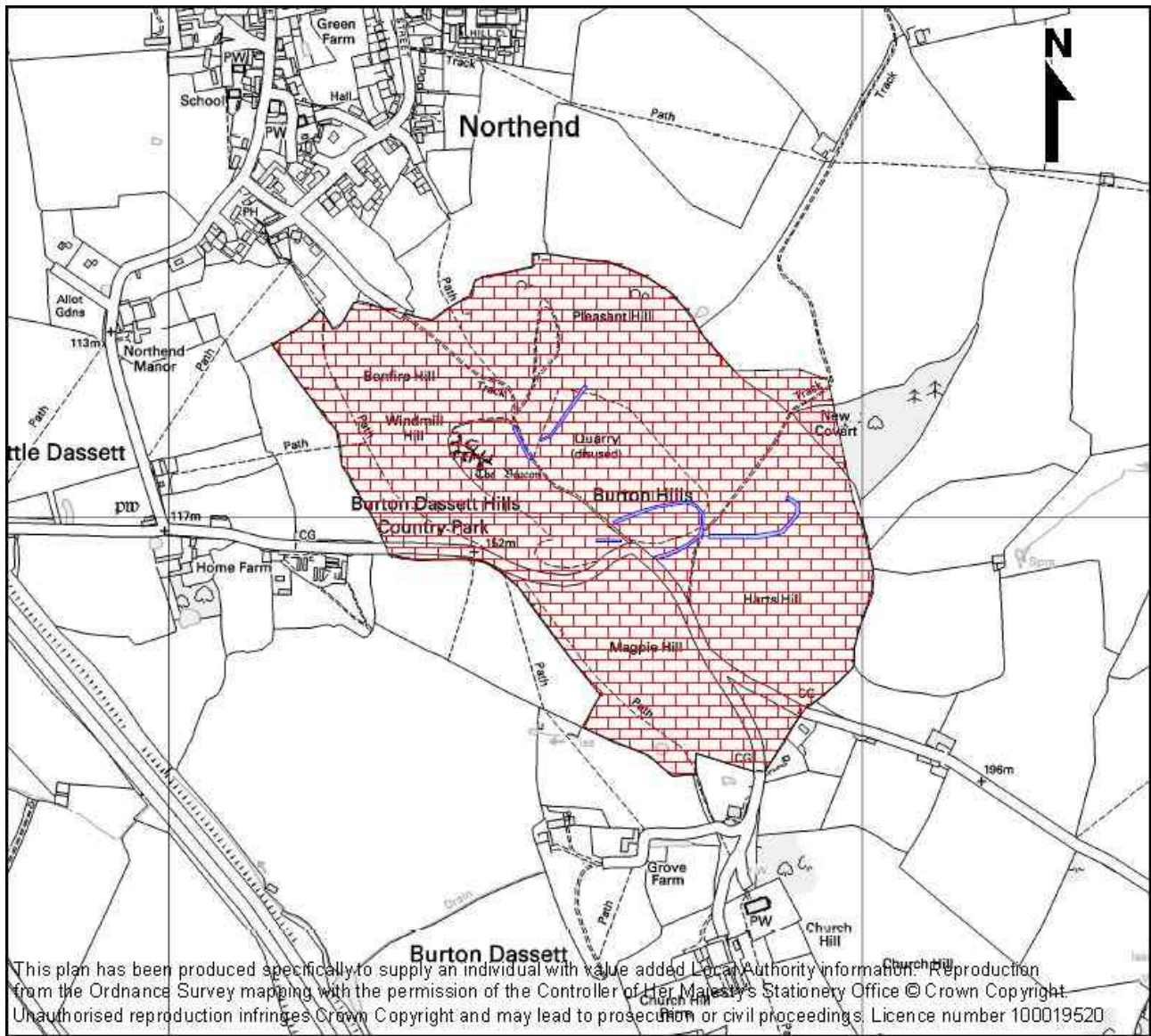
A complex of disused quarries and intervening disturbed ground, mostly overgrown but with some good exposures of Marlstone Rock Formation chiefly about 200m SW of Windmill Hill. Contact with the underlying Dyrham Formation can be seen. The total area of the site is c.38ha (94 acres). The Burton Dassett Hills are a County Council owned country park situated just to the E of the B4100. The M40 cuts across the foot of the hills.

**Summary of Interest**

This large site incorporates much-faulted strata of Lower and Middle Jurassic age including the Dyrham, Marlstone Rock, Whitby Mudstone and Northampton Sand formations. In old quarries in the Windmill Hill area the contact between the Dyrham Formation and the Marlstone Rock Formation is exposed (SP 39556 52111) while cross-bedding (at SP 39711 51964) and slickensides (at SP 39818 51993) are revealed in these same quarries. Exposures of the Whitby Mudstone Formation are very poor but some 10m to the NW of the toilet block at SP 39603 51973 a greyish buff clay, containing diagnostic ammonites, belemnites and limestone fragments, appears to be derived from this formation. These clays are very poorly exposed in Warwickshire due to the fact that they weather very easily. The Whitby Mudstone Formation forms the steep slope that rises up to the highest point of the Hills (Harts Hill) where it is capped by the harder Northampton Sand.

The extensive faulting of the Burton Dassett inlier is in sharp contrast to the unfaulted nature of the nearby Edge Hill ironstone escarpment.





The areas in blue are considered to be specific 'areas of interest'.