Site Name **Stockgrove, near Heath & Reach**

BEDFORDSHIRE LOCAL GEOLOGICAL SITE DESIGNATION FORM		
SITE LOCATION, ACCESS, OWNERSHIP, STATUS & SUITABILITY		
(1) **Name of site:** Stockgrove, near Heath & Reach, Bedfordshire		
(2) **National grid reference:** SP 917 291		
(3) **Unitary authority:** Central Bedfordshire		
(4) **Site access and local amenities** Access is from a minor road linking Great Brickhill and Heath & Reach. Both these villages are only a few kilometres SW of the A5. Leighton Buzzard is a large town just to the south. There is some parking for cars at the Visitor Centre. Toilet facilities, a small cafe and picnic tables in a pleasant surrounding make this a good site for small parties. There is a surfaced path around the lake which is suitable for people using wheelchairs and pushchairs.		
(5) **Site ownership:** Rushmere Country Park has been made available for visitors through the Greensand Trust and Central Bedfordshire Council working in partnership for the benefit of people and wildlife.		
(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

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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:** 32 hectares (80 acres)		
(14) **Main interest(s):** a. Structural	b. Geomorphological ✓	c. Mineralogical
d. Palaeontological	e. Petrological	f. Stratigraphical
(15) **Summary description and reason for designation** A pleasant, safe and accessible Country Park with geomorphological features such as dry valleys and spring-sapping hollows. It provides a strong linkage between geology, geomorphology, soil type and vegetation.		
(16) **What threats exist for the site?** Possible overuse by the public, but the site is well managed, so the threat is low and controlled.		
(17) **What additional work is required to enhance the site?** Interpretation boards at three key locations would enhance public awareness and enjoyment of the site. The B&LGG information leaflet is currently out of print and therefore not available in the Visitor Centre. It needs to be redrafted with a better geology map and more explicit links between features that can be seen in the field and the geomorphological processes that formed them. The new BGG Western Geotrail, produced as part of the Greensand Country Landscape Partnership, starts at the Rushmere Country Park Visitor Centre and crosses this site.		
(18) **Published/unpublished references to the site and wider area** Friend, P. 2008. *Southern Britain.* HarperCollins Publishers. 414 pages. Shephard-Thorn, E. R. *et al.* 1994. *Geology of the country around Leighton Buzzard.* Memoir for the 1:50 000 geological sheet 220 (England and Wales), London, HMSO. *Stockgrove Country Park & Oak Wood*. Information and guidance for visitors. www.greensandtrust.org *Stockgrove Country Park – Ice Age landforms.* B&LGG information leaflet. www.bedsrigs.org.uk		

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
(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		

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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**

Geology: the bedrock here is Lower Cretaceous Woburn Sand Formation (formerly known as the Lower Greensand). Its presence is obvious from the loose brown and red sands and occasional blocks of ironstone that weather out of the paths across the site. More resistant blocks have been used to construct the sundial. Different types of superficial deposit dating from the Ice Age overlie the Woburn Sand. In Baker's Wood a small patch of glacial till is preserved, and elsewhere there are fluvioglacial sands and gravels containing water-worn pebbles of flint and sandstone.

Geomorphology: the site displays a number of dry valleys, some of which are sufficiently deep to cut through the Woburn Sand into the underlying impermeable Jurassic clay. The dry valleys formed during periglacial conditions in the Ice Age when the water in the porous Woburn Sand would freeze solid, often to great depths. The ice blocked the gaps between the sand grains, so any surface meltwater and rainfall had to flow over the surface. As rivulets and streams united they became strong enough to carve valleys down through the frozen soil. When the cold climatic phase ended, the soil thawed and water once again soaked into the soil (as it does today). The dry valleys are therefore relict features that inform us about past climates and geomorphological processes.

At the head of the dry valley north of the lake there is a small spring that probably issues from the junction between the sandstone and clay. Local erosion here, known as spring-sapping, enhances the valley feature.

Natural history: the bedrock gives rise infertile, sandy soils that produce a rare lowland heath habitat. A wide variety of environments are to be found here, including a lake, marshes, ancient oak woodland, conifer plantations, meadows, heaths and boggy areas.

History: the site has well-defined medieval woodbanks which are visible as distinct topographic features. The area has been used as an ancient coppice and historic Georgian parkland.

RECORDER'S DETAILS	
(26) **Name:** Dr Jill Eyers	(27) **Organisation:** Consultant geologist working on behalf of B&LGG
(28) **Date of designation:** August 2005	

CURRENT SITE CONDITION
(29) Site condition at 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 Anne Williams: annew36@hotmail.com