Wetherby Riverside Cliffs

STATUS: Local Geological Site
OTHER DESIGNATIONS:
COUNTY: West Yorkshire
DISTRICT: Leeds
OS GRID REF. SE 406 478 - SE 406 477
OS 1:50,000 Landranger 105 York & Selby
OS 1:25,000 EXPLORER 289 Leeds
BGS 1:50,000 SHEET 70 Leeds
FIRST DESIGNATED West Yorkshire Geology Trust in February 2010
DATE OF MOST RECENT SURVEY August 2010 by West Yorkshire Geology Trust
DESIGNATION SHEET UPDATED August 2010

SITE DESCRIPTION:
The site is a cliff of Upper Permian Cadeby Formation dolostone (formerly known as Magnesian Limestone) adjacent to the River Wharfe, flowing south-east from Wetherby. The cliff is about 150m long and 5-8m high and has probably been carved by the river during high flow conditions, possibly during the last glacial event. The rocks are very regularly bedded yellow and cream dolomitic limestone of the Wetherby member (lower member) of the Cadeby Formation.

HISTORICAL ASSOCIATIONS:

EDUCATIONAL VALUE:
This site shows many features typical of dolostone and is easily accessible for large parties.

AESTHETIC CHARACTERISTICS:
The river side footpath is lined with trees and forms an attractive public area, with good views of the Permian rocks next to the path. There is graffiti in one place on the cliff.

ACCESS AND SAFETY:
Parking is available in the Wilderness car park at SE 404 480. The cliff starts beyond the car park through a small area of parkland. The riverside footpath is wide and safe, though sometimes muddy. The west end of the cliff is more overgrown than the central section, though there are still good views of the face.

OWNERSHIP:
Leeds City Council

PERMISSION:
The footpath is a public right of way.

MANAGEMENT AND INTERPRETATION:
The site is ideal for groups on a guided visit, perhaps linked with the Local Geological Site at the Riverside Woods, Boston Spa, further down the Wharfe valley. A leaflet linking the geology and geomorphology of the Wharfe gorge in the Wetherby area would be valuable.
SCIENTIFIC IMPORTANCE:
The beds are horizontal with regular rubbly bedding several centimetres thick. In one place there is a channel about 0.5m deep which is incised into several beds below. One bed about 30-40cm thick is particularly unresistant and has been weathered deeply, forming an overhang at the E end. A small reef is exposed at the east end of the cliffs, which suggests that this dolostone is in the Wetherby Member of the Cadeby Formation.

REFERENCES:
East end of cliff, showing exposure of reef with drape of bedded limestone above.

Undercut section at west end of cliffs caused by thin beds of clay and siltstone.