
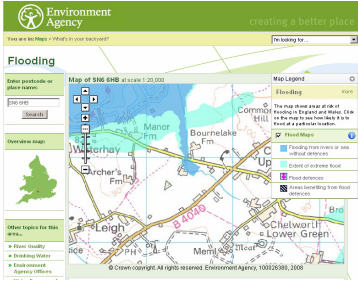



# Water Resource Associates

*A network of consultants in hydraulics, hydrology, groundwater & environmental issues*

**Project title:** Chelworth Lodge Flood Risk Assessment

**Summary:** To undertake a flood risk assessment of a proposed travellers' site (to house gypsy families)

<b>Client:</b> Mr Alan Olding	<b>Financed by:</b> Mr Alan Olding
<b>Period of assignment:</b> Feb 2008 – Jan 2009	<b>Location:</b> Upper Thames Valley, Wiltshire [United Kingdom]
<b>Project Value:</b> £4,258	<b>WRA services:</b> £4,258
 <p>Location of Chelworth Lodge and general view of site</p>	<p><b>Background</b></p> <p>A developer planned to use a small site at Chelworth Lodge located about 2 km south west of Cricklade in the Upper Thames basin as a travellers' park, to house 16 or more gypsy families.</p> <p>The Environment Agency flood risk map suggested that the site is within flood zone 3, that is, subject to flooding during the 1% annual flood (the 1 in 100 year event).</p> <p>The objective was to devise a development scheme which would permit part of the site to be used for mobile homes with safe, dry access to the northern boundary road.</p>
 <p>Extract from Environment Agency Flood Risk map</p>	<p><b>Approach</b></p> <p>WRA used the FEH 'no data' approach to estimate floods for the site, where there were no locally available flood records. These flood estimates were input to the HEC-RAS hydraulic modelling software to determine flood levels over the site, and confirmed that much of the site would flood during the 100 year event.</p> <p>The objective was to determine how the site could be used to house the 16 gypsy pitches above the flood level whilst ensuring that flooding upstream and downstream was not affected.</p>
<p><b>Results:</b></p> <p>The solution to the site's flooding problems was to excavate soil from the lower-lying southern and western parts of the site to create a higher elevation flood platform at a minimum elevation of 83.3 m AOD in the north and east of the site upon which the gypsy pitches with their mobile homes, parking spaces and gardens could be sited. The loss of flood storage resulting from this flood platform was compensated for on a 1:1 basis by the excavation of material from the lower-lying parts of the site, ensuring that there was no adverse upstream flood impact from the development.</p> <p>The proposal went to a public enquiry, but was ultimately accepted by the EA and Local Authority planning department.</p>	

Project Number 000253

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