

# Water Resource Associates

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

**Project title:** Palaeo-hydrology and hydrogeology of the Upper Kennet at Silbury Hill in 4200 BP

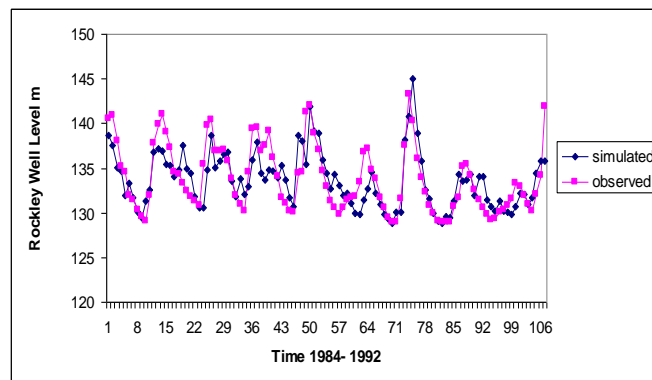
**Summary:** The project aimed to assess water resources in 2200BC (4400 BP) in the upper Kennet area using modelling techniques for water flows and well levels and using GCM past climate predictions to assess past climate.

<b>Client:</b> English Heritage	<b>Financed by:</b> English Heritage
<b>Period of assignment:</b> 2009-10	<b>Location:</b> UK
<b>Project Value:</b> £8k	<b>WRA services:</b> £8k
<b>In co-operation with:</b>	

**Background:** In a new project for English Heritage a study of the past groundwater and hydrology of the Upper Kennet in the area of Silbury Hill is being undertaken. Models of the hydrology based on the INCA model have been set up for the river system and a time series model has been established linking rainfall and temperature to groundwater levels at Rockley. Global Circulation Models have been run to simulate past climate and the data from these will be used to drive the models for the period 4500BP. The changed hydrology and groundwaters at this time have been evaluated to assess water availability for the large populations that were thought necessary to construct the man made Silbury Hill.



Silbury Hill



Simulated and Observed Well Levels near Silbury

## Scope of work by Water Resource Associates Ltd

Applications of the INCA Model and IHACRES to model flows and Groundwater Levels at Silbury Hill in the Upper Kennet

**Results** Report to English Heritage and Paper Published at the BHS International Conference. Paper

P. Whitehead and M. Edmunds 2010 Palaeo-hydrology and hydrogeology of the Upper Kennet at Silbury Hill in 4200 BP, BHS International Conference, BHS Web site

Contact Paul Whitehead for further information.

Project Number 280

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