

Severn Barrage Talk Details

- Speaker:** Professor Roger A. Falconer
- Job Title:** Halcrow Professor of Water Management and Director Hydro-environmental Research Centre
- Organisation:** School of Engineering, Cardiff University
- Presentation Title:** Severn Barrage and Other Options: Hydro-environmental Modelling Studies

Presentation Content:

The presentation will review the current main Severn Barrage proposals, as originally promoted by the Severn Tidal Power Group, together with giving a brief overview of alternative options such as the Shoots Barrage and Offshore Tidal Impoundments. In particular, emphasis will focus on assessing the potential hydro-environmental impact of a barrage, including the implications for geomorphological and flood risk changes. Finally, an outline will be given of recent research undertaken by the Hydro-environmental Research Centre, at Cardiff University, on bacterial-sediment interactions and the application of computational hydro-environmental models to predict the impacts of a Severn Barrage on the tidal currents, sediment transport concentrations and the background bacterial and water quality levels. The presentation will show that the Barrage has the potential to reduce the tidal currents in a highly dynamic estuary. This will lead to reduced suspended sediment loads (particularly upstream of the barrage), increased light penetration within the water column and, potentially, an increase in the benthic bio-diversity and the level of aquatic life in the estuary.