

Rachel J EVANS MSc

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**Born:** 1964

**Address:** Rachel Evans Limited, Willow Lodge, 5 Tib Garth, Linton, Wetherby, West Yorkshire, LS22 4US, UK

**Employment:**

1983 – 1984 Midland Bank PLC, Bank Clerk  
1986 – 1987 Water Research Centre, Medmenham, Student placement  
1988 – 1989 SEMA Group, Computer programmer  
1990 – 1995 Thames Water Utilities Ltd, Water Resources Planner  
1995 – 1997 Funding Agency for Schools, Information Analyst  
1997 – 2001 Yorkshire Water Services Ltd, Senior Hydrologist  
2006 – 2010 Ove Arup & Partners Ltd, Senior Hydrologist  
2010 to date Independent Consultant

**Expertise:**

Rachel is a hydrologist/water resources planner with over 20 years' experience of water resources management within the UK water industry. As a consultant she has worked for both water companies and water industry regulators, providing technical advice and analysis on a range of water resources topics. Areas of experience include: rainfall-runoff modelling using HYSIM, water resources modelling, including model development and scenario evaluation using models such as WRAP/WRAPSim, Aquator and MISER, developing supply/demand balance scenarios, headroom and outage assessment using @RISK, climate change analysis, producing Water Resources Management Plan reports, analysis, reporting and audit trail documentation in support of water company Price Review submissions, hydrological impact assessment of drought schemes.

**Recent jobs:**

- Contributor to peer review of Anglian Water's Aquator model development, 2017.
- Development of Aquator water resources model for SES Water; simulation of company deployable output including climate change assessment.
- Several secondments to United Utilities during 2016-2019 to assist with preparation for Water Resources Management Plan and Business Plan 2019 submissions; tasks included Aquator modelling, regulatory reporting and Annual Water Resources Review production.
- Provision of hydrological input to Affinity Water's Options Appraisal for Water Resources Management Plan 2019, including yield assessment of reservoir options.
- Headroom and outage assessment using @RISK Monte Carlo analysis for Portsmouth Water's Draft and Final Water Resources Management Plan submissions (2017 - 2019).
- Hydrological impact assessment and reporting, of over 40 drought options in all of Dŵr Cymru Welsh Water's regions, as part of a project to produce environmental assessment reports for each drought order / drought permit option in the company's Drought Plan.
- Environmental impact assessment of major water resources scheme proposal in West Cumbria, using the IHA (Indicators of Hydrologic Alteration) methodology to interpret and report on Aquator modelled hydrological impacts.
- Short-term secondment to United Utilities to assist with preparation of Draft Water Resources Management Plan and Statement of Response (2013), as well as analysis, reporting and audit documentation for the company's Price Review 2014 submissions.
- Water resources and hydrology appraisal of proposed surface water abstraction from Woburn Lakes, using the water resources simulation model Aquator.
- Outage and headroom assessment using @RISK Monte Carlo analysis, for Portsmouth Water's Draft Water Resources Management Plan submission in March 2013.
- Extension of simulated flow series for 2 catchments in West Sussex, UK, using HYSIM rainfall-runoff model.
- Water resources modelling of Bristol Water's supply system using MISER.
- Technical review of Bristol Water's flow gauging, catchment inflow modelling and yield assessment for their Mendips reservoir sources. The review included recommendations for improvements to support the company's proposals for new resource developments.
- Preparation of the Water Resources and Flood Risk section of an Environmental Impact Assessment for a proposed new development in an arid desert environment near the Red Sea coast in Saudi Arabia.
- Preparation of key components of Portsmouth Water's Draft and Final Water Resources Management Plans for submission to the Environment Agency and Ofwat. This included liaison with the EA, review of resource zones, review of deployable output, water resources modelling (using MISER), climate change impact analysis and headroom analysis.
- Monitoring and auditing Scottish Water's delivery of Strategic Water Resource Studies to meet new environmental standards required under the Water Framework Directive and the Birds and Habitats Directives. This work was undertaken on behalf of the Water Industry Commission for Scotland.
- Update of catchment inflow data used by Yorkshire Water to run their WRAP / WRAPSim water resource models: extracting operational data from Yorkshire Water's regional operational database (ROD2), calculating derived data and converting to WRAPSim format.

**Countries:**

UK

**Languages:**

English, basic French