

Water Resources Modelling

JBA offers a specialist service in Water Resources and Drought Management.

We have a detailed understanding of the physical processes operating at catchment scale during periods of water scarcity.

Our awareness and appreciation of the practical limitations as well as the advantages of standard methodologies enable us to draw the best from data, techniques and software to deliver realistic, defensible and useful results to our clients. These include water companies (United Utilities, Northumbrian Water and Yorkshire Water) and regulatory bodies (Environment Agency of England and Wales and SEPA).

We work closely with our clients as they developing and improving the modelling tools and analyses that they need to underpin their water resource management plans, statutory drought plans and to carry out their operational activities.

We have particular expertise in water resources planning and drought management; flow naturalisation; low flow hydrology and we deliver training in these areas.

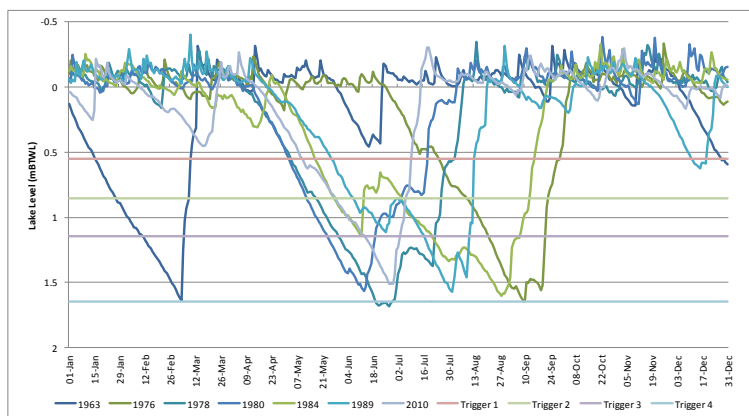
Upland Water Supply Catchment



Crummock Water - Lake District Water Supply Source



Drought Trigger Analysis for United Utilities Statutory Drought Plan



Projects

- Modelling of water resource options to assess deployable output for PR14
- Derivation of reservoir and river inflow sequences using rainfall runoff modelling and water balance methods
- Validation of historical data during drought periods
- Provision of expert advice on drought frequency analysis and development of Drought Indices for SEPA
- Review of climate change assessments in water company draft water resource management plans.

Modelling Tools

- AQUATOR
- MIKE BASIN
- iThink
- Low Flows Enterprise
- Bespoke spreadsheet models and tools
- ARC GIS