

REGISTER OF INDIVIDUAL CONSULTANTS – 2009

David C **BEALE** MSc BEng MICE MCIWEM

Robert P C **BROWN** BA BSc MSc DIC PGCTM DMS MCIWEM CEnv

Brian L **FAULKNER** BA MSc FCIWEM FConsE DipEM MCM

David S **FLOYD** MSc MCIWEM

Paul **GARRAD** BSc PhD AMCIWEM MIEnvS

Lindsey **McEWEN** MA (Hons) PhD FRGS ARSGS ILTM

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Jude **SMITH**, CEnv, MSc

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David C **BEALE** MSc BEng MICE MCIWEM

Telephone: 01 483 423768 **Fax:** 01 483 527178 **Email:** davidcbeale@yahoo.co.uk

Born: 1947 **Address:** 1 Mary Vale, Godalming, Surrey, GU7 1SW

Employment: 1970-1973 VSO/ODA Engineering Hydrologist Jamaica;
1974-1997 JD & DM Watson, Hydrologist & Engineer;
1977-1980, Sir M MacDonald and Partners Hydrologist & Irrigation Engineer;
1980-1981, Newcastle University, MSc Engineering Hydrologist;
1981-1991 Howard Humphreys & Ptnrs Hydrologist and Principal Engineer;
1991-2000 DHV Consultants Associate Director;
2000 to date, Independent Consultant. Worked in over 20 countries worldwide in both technical and supervisory roles

Expertise: Thirty five years of worldwide specialist work in sewerage, hydrology, flood studies, storm drainage and water resource assessment. Extensive experience in providing both long and short term project technical inputs. Specialist in managing integrated water supply, sewerage and or drainage projects. Experience of working with International Contractors, Consulting Engineers, Government Departments and International Agencies.

Recent jobs:

- Hydrologist and Drainage Engineer for three rural road projects in Albania and Ethiopia. Roughton International, Hydrological review of flood flows, design of structures, cross drains and roadside drainage.
- Hydraulic Analysis Engineer, Technical Assistance and Supervision for ISPA Contracts in Caras Severin County, Romania, DHV BV. Construction of models for water supply schemes in Resita and seven major County Towns and construction of a model of the sewerage system in Resita
- Project Manager, Uttar Pradesh Sewerage and Drainage Masterplans; Feasibility Studies and Design Reports for sewerage in 8 Cities, India, DHV BV. Jamuna Action Plan scheme to collect and treat all sewerage from the cities to remove pollution from the sacred river
- Project Manager ,Asmara Wastewater Management Plan, Eritrea. Preparation of designs for sewerage, drainage and sewage treatment by wastewater stabilisation ponds for Asmara
- Advisor, Kolkata Municipal Corporation, India, DHV BV. .Preparation of a programme for desilting of large trunk sewers and programme for renovation for 200km of large brick sewers
- Infrastructure Engineer, Basic Social Infrastructure Development Project, Sri Lanka. IPE. Identification and outline design of infrastructure projects to provide a vehicle for local government reform and improvement.
- Team Leader, Adama Sewerage project, Ethiopia, DHV Water. Preparation of detailed designs and contract documents for the sewerage and wastewater treatment for a district town
- Drainage and Sanitation Specialist. Kolkata Environmental Improvement Project, India, DHV Water. Project Management Consultancy to assist in the design and implementation of \$US 150m drainage and sewerage works and canal improvements
- Project Manager, Addis Ababa Water and Sewerage Project., Ethiopia, DHV Water. Detailed design of new water and sewerage works, including supply reservoirs, pumping stations and waste stabilization ponds.
- Team Leader Sanitation, Delhi Water Supply and Sewerage Project, India, DHV Water. Identification of rehabilitation options, preparation of project implementation plan and overview of detailed design for the rehabilitation of the Delhi Sewerage system
- Project Manager, Addis Ababa Sanitation Improvement Plan, Ethiopia, DHV Water. Update of Masterplan and preparation of preliminary designs and EIA's for Euro 35m funding of sewerage works.

Countries: Abu Dhabi, Bangladesh, Bhutan, Cyprus, Eritrea, Ethiopia, The Gambia, Ghana, Hong Kong, India, Iraq, Jamaica, Jordan, Kenya, Kuwait, Malaysia, Nigeria, Qatar, Sierra Leone, St Lucia, Sri Lanka, Thailand, Trinidad, Vietnam and Zambia

Languages: Spanish (basic), French (basic)

Robert P C **BROWN** BA BSc MSc DIC PGCTM DMS MCIWEM CEnv

Chartered Environmentalist, Chartered Water and Environmental Manager.

Telephone: 016977 48797

Email: hydrology@rpcbrown.com

Born: 1963

Address: Stapleton House, Stapleton, Carlisle, Cumbria, CA6 6LD, UK

Employment:

Institute of Hydrology, Flow Regimes and Environmental Management, 1987-90. WS Atkins Water, Principal Hydrologist, 1990-95. Independent Consultant since 1995.

Expertise:

Water resources, river flow monitoring and naturalisation, resource system modelling and auditing, extensive Aquator resource model support including MS VBA programming and customisation, abstraction licence support, probabilistic yield assessment of river and reservoir systems, resource system operational modelling and control curve development, low flows and flow regime analysis, hydrological and river modelling (including HYSIM), groundwater/river flow interactions, arid zone flood hydrology and modelling, arid zone rainfall and flood frequency/magnitude analysis.

Recent jobs:

- Hydrological Consultant to Essex & Suffolk Water: including PR09 DO assessment; development of Aquator for operational simulation; resources system modelling using Aquator (including VBA customisation); Ely Ouse flow naturalisation, hydrological modelling using HYSIM; Drought Contingency Planning; probabilistic and marginal yield analysis; reliability-based operational policy and reservoir control curve development; technical support for Aquator. (1993-present).
- Hydrological Consultant to Palm Paper Ltd assessing available water resources in the Flood Relief Channel and the Ely Ouse through Aquator resource modelling and negotiations with the Environment Agency in support an abstraction licence application for a new paper manufacturing plant at Kings Lynn. Tidal river and flood gate release modelling.
- Rainfall frequency/intensity/duration analysis, arid zone rainfall-runoff modelling, and flood frequency/magnitude/volume analysis for Kuwait City storm water drainage master plan and Jeddah storm water drainage design, Saudi Arabia. Development of the Arid Regions Rainfall-Runoff Model (ARRRM) used for flood hydrograph design.
- Advice and assistance in assessing rainfall and resources of remote upland sources in the Highlands and Islands of Scotland on behalf of North of Scotland Water Authority.

Countries:

UK, Kenya, Kuwait, Saudi Arabia (in addition, worked with data from France, Libya, Norway, St Helena, Spain, Turkey)

Languages:

French (basic).

2008

Brian L FAULKNER BA MSc FCIWEM FConsE DipEM MCMI

Telephone: 01392 666 953 **Fax:** 020 7681 1084 **Email:** contact@waterconsultant.com
Website: www.waterconsultant.com

Born: 1958 **Address:** The Old Print Works, 9-10 Melbourne Street, Exeter, Devon, EX2 4AU, UK

Employment: 1983-86 Water Resources Planner with Dept of Water Affairs, South Africa.
1986-89 Urban Drainage Engineer with Water Research Centre, Swindon
1989-91 Senior Flood Defence Engineer with NRA Wessex Region
1991-96 Principal Engineer, later Associate Director with Parkman Consulting Engineers
1996- Independent Consultant

Expertise: Application of hydraulic, hydrological and economic analysis techniques for river engineering, catchment planning and water resource management purposes. Specialisms include – water resources master-planning, river hydraulic modelling - reservoir planning - urban-rural drainage interactions - sewerage modelling and planning - Geographic Information Systems - Irrigation Management - Risk Assessment - Cost-Benefit and Investment Appraisal

Recent jobs:

- Drainage Masterplan Strategy for Somerset Levels – Somerset DB Consortium
- Strategic Flood Risk Assessment – County of Herefordshire
- Water Cycle Strategy Study – County of Herefordshire
- Water Resources Masterplan for South West Kosovo – World Bank
- Flood Risk Assessments throughout Wales and Southern England
- Strategic planning of tidal and fluvial defences for Newport, South Wales
- Lecturing on CIWEM River Engineering Course, University of Bristol

Countries: UK, West Africa, Southern Africa, Mediterranean, Baltics, Eastern Europe

Languages: French

David S FLOYD MSc MCIWEM

Telephone: 01588 640771 **Fax:** 08704 877 669 **Email:** david.floyd@H2Ools.co.uk

Born: 1952 **Address:** Dingle House, Churchbank, Clun, Shropshire SY7 8LP, UK

Employment: Independent Consultant since 1987.
1984-86 Senior Hydrologist with ELC-Electroconsult, Milan, Italy.
1975-83 Hydrologist with Sir M MacDonald & Partners, Cambridge.

Expertise: Hydrological analysis and software development in the fields of: flood risk assessment (FEH/FSR, HEC-RAS, PPG25/PPS25 and TAN15); water resources investigations; irrigation; water supply; hydropower development; catchment models; stochastic modelling; frequency analysis; design floods; reservoir operation; hydraulic modelling; environmental impact assessment.

Recent jobs:

- Ely Ouse Essex Transfer Scheme; low flow processing of Aquator model output, daily flows 1933-96 (flow duration, spells etc). Flow factoring for multi-site EIA modelling.
- Awash IV Hydropower Pre-Feasibility, Ethiopia.
- Design flood routing for reservoir inspections.
- Low flow studies and flow accretion modelling for Thames Water Drought Order application.
- Flood alleviation potential of former mill pool, Selly Oak – detailed FEH hydrological analysis and HEC-RAS unsteady modelling.
- Environmental impact assessment for proposed Yorkshire Water river abstractions.
- UK flood risk assessments for planning applications and appeals - various combinations of PPG25 / PPS25 / TAN15 guidelines, design floods using FEH, hydraulic modelling using HEC-RAS, LiDAR data processing :
 - Private residences;
 - Major residential developments;
 - Commercial;
 - Quarrying ;
 - Caravan parks;
 - Major supermarket/hospital development (Selly Oak).

Countries: UK, Italy, Oman, Yemen, Ethiopia, India, Indonesia, Malaysia, Vietnam, Laos, Thailand, Peru, Argentina .

Languages: Italian, French, Indonesian

Paul **GARRAD** BSc PhD AMCIWEM MIEnvS

Telephone: 01483 575433 **Fax:** 01483 823473 **Email:** PGarrad@CompuServe.Com

Born: 1958 **Address:** 66 Charlock Way, Guildford, SURREY, UK, GU1 1XZ

Employment: Assistant, Senior and Principal Hydrologist with FRPB (now SEPA) and Engineering Consultants 1984 to 1996. Independent Consultant in Hydrology from August 1996.

Expertise: Hydrology, hydrometry, flood warning, river and catchment modelling, water resources, flood risk assessments, FEH, FEH training courses, hydrogeology, water quality, groundwater modelling, EIA. Expert Witness on water quality, PPS25 and water resource issues.

Recent jobs:

- Review/recalculation of gauging station ratings including methods for rating extension.
- Hydrology for Section 105 studies, flood defence schemes, flood risk assessments, reservoir inspections and urban developments.
- River modelling for various flood defence schemes and developments
- Flood risk assessments.
- Review of EA flood mapping studies
- R & D project on trends in flood peaks across UK.
- Inspection of river and coastal flood defences and assets.
- Extreme sea level analyses for UK coastline.
- Groundwater and contaminant migration modelling for landfills, railway tunnels etc.
- River management, water resources, habitat creation schemes, mine water, abstraction licence applications.
- Aquatic aspects of EIAs - e.g Power Station, mines, road schemes, urban developments etc.
- Water resource studies for a marina, canal system, sand excavation and gold mine.

Countries: Bangladesh, Cote d'Ivoire, Hong Kong, Sierra Leone, South Africa, Thailand, Ukraine.

Languages: Basic French

Dec 2007

Lindsey McEWEN MA (Hons) PhD FRGS ARSGS ILTM

Telephone: 01 242 714675 or **Fax:** 01 242 714856 **Email:** lmcewen@glos.ac.uk
01 242 714572 (office)

Born: 1959 **Address:** Geography and Environmental Management Research Unit, School of Natural and Social Sciences, University of Gloucestershire, Francis Close Hall, Swindon Road, Cheltenham, GL50 4AZ, UK

Employment: Professor in Physical Geography. Teaches on undergraduate and postgraduate courses in pure and applied hydrology, fluvial geomorphology, flood hazard management and river conservation and management. Undertaken environmental research and consultancy since 1986 through University.

Expertise: Hydrological and river processes in hydrological assessments and fluvial audits; catchment sediment budgets; historical reconstruction of flood chronologies in flood risk assessment– placing recent extremes in a longer-term context; geomorphological assessments of river landscape sensitivity to climate, land use changes and flood impacts; river sediment assessment and management; river conservation and management – specific interest in upland, high energy cold and temperate river environments.

Recent jobs:

- Assessment of sediment budgets associated with an upland catchment with ecological conservation status for Scottish Natural Heritage.
- Scoping study on water resource applications of pumped mine drainage in Forest of Dean for the Environment Agency.
- Flood hazard assessment of the Avon catchment, West Midlands for the Environment Agency.
- Geomorphological assessment of the River Dee, Aberdeenshire for Scottish National Heritage.
- Hydrological assessment of the Great Witcombe Roman Villa for English Heritage.
- Hydrological Assessment of Painswick Rococo Garden, Gloucestershire for Painswick Rococo Garden Trust
- Impacts of gravel extraction on lamprey and salmonid habitats: Endrick Water, Scotland, for Scottish Natural Heritage
- Scoping study of the sediment character of the Gavenny for Environment Agency, Wales
- Assessment of sedimentation and siltation impacts on fish habitat quality on sub-catchments of the River Wye for Environment Agency, Wales
- Fluvial Audit of the Afon Tywi for Countryside Council for Wales
- Reconstruction of historical flood patterns on the middle Severn as part of a COPUS Connecting People to Science project.

Countries: UK, research experience in Iceland, Norway and Canada.

Languages: English (mother tongue), French (intermediate).

Duncan W **REED** BSc PhD MCIWEM

Telephone: 01491 651441

Fax: 01491 651441

Email: duncanreed@dwrconsult.demon.co.uk

Website: www.dwrconsult.demon.co.uk

Born: 1951

Address: DWRconsult, 32 Ilges Lane, Cholsey, Wallingford, Oxfordshire, OX10 9PA, UK

Employment:

Independent consultant since 2001. Previously, Institute of Hydrology (1979-2000), North West Water Authority (1976-79).

Expertise:

Applied hydrology with emphasis on: flood-risk estimation, inter-site dependence, statistical/mathematical analysis, and R&D. Led research team that developed UK Flood Estimation Handbook.

Recent jobs:

- Technical advisor to Irish Flood Studies Update R&D programme (for OPW, 2004-present)
- Expert witness on Lower Thames flood risk, with emphasis on non-stationarity effects (for developer via PBA, 2007-2008)
- Development and mapping of wetness index for Ireland (for OPW, 2007)
- Hydrological reviewer/advisor on river flood-risk estimation and mapping (various)
- Research on inter-site dependence in rainfall extremes (inc. drought), river flooding and sewer flooding (various)
- Rainfall analysis in relation to sewer flooding performance (for Atkins Water, 2006)
- Researching flood chronologies for specific sites/ivers (various)
- Teaching/training (Atkins Water, Bureau Veritas, Capita Symonds, Faber Maunsell, Imperial College, JBA, OPW, Reading Univ, United Utilities)
- Review of national hydrometric network, Estonia (for EU via Jacobs, 2002)

Countries:

UK, Ireland, Estonia

Languages:

English (mother tongue), French (basic reading)

Name: Jude Smith, CEnv, MSc

Telephone:

07971 861515

Born: 08:03:55

Employment:

Expertise:

Recent jobs:

Countries:

Languages:

Fax: 01453 835168

Email: jude@wildworksecology.co.uk

Address: WildWorks Ecology, Meadow Cottage, Whiteway Bank, Horsley, Stroud, GL6 0PH
Freelance Ecologist for 15 years with specialism in wetland ecology and management. Used to working with Associates in a multi-disciplinary capacity.

Interest in eco-hydrology and floodplain processes. Botanist with experience including riparian habitats, mires, wet woodland, wet grasslands and estuarine habitats. Sphagna ID. Floodplain restoration. Management plans. Eco-hydrological monitoring. GIS and accurate GPS (satellite plus base station) mapping.

Floodplain research with the RSPB in 2006 – 2007.

UK, Ireland, Spain, Dominica

English, limited Spanish and French.

J H W Turner BSc CEng CEnv MICE FCIWEM

Telephone: 0113 2675251 *Email:* johnhw.turner@ntlworld.com

Born: 1946 *Address:* 44 Moseley Wood Drive, Cookridge, Leeds LS16 7HJ

Employment:

1969 – 1971 Chesterfield BC Borough Engineers Dept

1971 – 1983 Sheffield CC City Engineers Department – Senior Engineer

1983 – 2000 Leeds CC City Engineers Department – Chief New Works Engineer/ Head of Main Drainage

2000 – 2008 Environment Agency Flood Risk Management – Team Leader/ Technical Specialist

Expertise:

Thirty six years experience in urban drainage and watercourse hydrology, design and construction, including major interceptor sewerage systems in tunnel. Drainage system analysis and modelling, water quality modelling, drainage area studies and strategies. Pioneered application of sewer flow measurement techniques and modelling of surcharged sewerage systems (WASSP/ Wallingford Procedure/ Hydroworks/ Infoworks). Planning and delivery of major strategy and programme for centralisation of sewage treatment for City of Leeds. Financial justification, design and construction of flood alleviation and land drainage urban river schemes, including flood balancing reservoirs. Project management of major engineering schemes under ICE Conditions of Contract/ NEC, including acting as Engineer to the Contract/ Project Manager for certification of payments and settlement of claims and disputes. Urban river restoration techniques. Setting of planning consent policy for surface water drainage for new development, including the requirements for sustainable urban drainage systems (SUDS). Design and implementation of SUDS. Monitoring and maintenance of major sewerage systems and urban rivers, including setting policy and standards. Application of telemetry to monitor real time performance and reduce frequency of maintenance. Hydrological analysis and hydraulic modelling of major rivers. Project management, design and implementation of major river flood alleviation strategies and schemes, and works to large raised reservoirs under the Reservoirs Act 1975. Flood Risk Analyses to satisfy requirements of PPG25/ PPS25. Control of operational response to major flood events, including interaction with other authorities and services in accordance with Civil Contingencies Act. Ensuring environmental issues addressed in relation to above, including procurement of Strategic Environmental Assessments and Environmental Impact Assessments, and implementation of Environmental Action Plans. Compliance with EU and UK water quality, environmental and habitat directives and legislation, including responsibility for operation of washland reservoir SSSI's.

Recent Jobs:

- River Aire modelling and Flood Risk Management Strategy
- Chesterfield Flood Risk Management Strategy (paper awarded first prize at 2004 DEFRA River and Coastal Management Conference)
- Feasibility and business case for Leeds Flood Risk Management Scheme
- Feasibility and design of major flood balancing reservoir, flood plain and river restoration on R. Rother, Chesterfield, in conjunction with £100m remediation of former coking works site (Paper in September edition of ICE Municipal Journal)
- UK flood risk assessments for planning applications
- Professional advice in connection with expert witness reports regarding sewerage and river flooding issues

Countries: UK

Languages: English, basic French.

Robin **WARDLAW** BSc PhD FICE CEng MCIWEM

Telephone: 01968 660697

Email: Robin.Wardlaw@wrpmc.co.uk

Born: 1953

Address: 32 Lyne Park, West Linton, Peebleshire EH46 7HP, UK

Employment:

2008 – date, WRPMC Ltd.

1993 – 2008 Senior Lecturer, Civil & Environmental Engineering, University of Edinburgh

1978 – 1992, Mott MacDonald, Divisional Director from 1989.

1978 Hydrologist, Secretariat of Dams and Water Resources, Libya

Expertise:

Hydrological and hydraulic modelling, water resources systems modelling, water resources assessment planning and management, flood mitigation, hydrological risk assessments.

Recent Jobs:

- Principal hydrologist, Balloki Barrage and Lower Bari Doab Canal Rehabilitation Project, Pakistan.
- Climate change impact assessments, Water Resources Demand Management Assistance Project, China.
- Surface water modelling specialist, Water Resources Demand Management Assistance Project, China.
- Hydrological and hydraulic modelling, conservancies flood management studies, Guyana.
- Landfill site hydrological risk assessment, UK.
- Technical review, flood mitigation projects, UK.
- Updating forecasts of Caspian Sea level probabilities.
- On-farm water distribution modelling specialist, Water Resources Planning and Land Improvement Project, Kazakhstan.
- Hydrology and water resources assessments, Drainage and Irrigation Systems Rehabilitation Project, Guyana.
- Expert witness, hydrological assessment, UK.
- Coastal flood risk assessment, Portencross.
- Modelling specialist, Caspian Environmental Programme, Kazakhstan.
- Technical advisor, modelling on Water Utilization Programme, Mekong River Commission Secretariat, Cambodia.
- Flood assessments and forecasting approaches for River Great Ouse, UK.
- Hydrological forecasting, National Water Plan Project, Bangladesh.
- Modelling specialist, Water Resources Assessment Project, Uganda.

Countries:

UK, Bangladesh, Cambodia, China, Guyana, Hong Kong, Indonesia, Iran, Kazakhstan, Libya, Malaysia, Pakistan, Russia, Panama, Spain, Sudan, Uganda, Uzbekistan.