

Dr Roger J Maddrell

Qualifications

BSc Geology, University of London, 1964
PhD Sedimentology, University of London, 1968
Diploma Port, Coastal & Hydraulic Engineering, Delft, 1974
Fellow of the Institution of Civil Engineers, 1985
Fellow of the Geological Society, 1964
Fellow of the Academy of Experts, 1995

Affiliations

Chairman/Committee Member of ICE, CIRIA, BSI and HR, 1989
Deputy Chairman, Academy of Experts, 1999-02
Executive Council Member, Academy of Experts, 1995-2003
Adjudicator, Mediator and Conciliator, Institution of Civil Engineers, 1998 - present
DRB Foundation Member, 2003
Associate, ADR Chambers, 2003-2005
Mediator from 1995: CEDR Solve, Consensus Mediation, Academy of Experts, Oxford Mediation, Middlesex and Thames Valley, Law Works
Member of Advisory Panel on Legal Affairs, Institution of Civil Engineers, 2003 to 2006
Adjudicator with the Construction Industry Council
Member of the International Project Finance Association
Member, Disputes Resolution Board Foundation, 2003-2006
Member of the Technical and Construction Court Users Group 2007 - present

Date of Birth

1942

Nationality

British

Languages

English, Spanish, French

Current Position at CWA

External Consultant, CWA Marine Department

Specific Expertise and Experience

Over forty years' worldwide professional experience principally in the fields of coastal engineering, harbours, port design, dredging and reclamation, including hydraulics, river engineering, groundwater development, dams, irrigation, mathematical and physical models. This includes project risk assessments and contracts

Management and design expertise includes coordination of large multi-disciplinary maritime, river, dam and power station projects, infrastructure, and environmental impacts; from feasibility studies through to contracts and construction

Expertise in geology, sedimentology, geomorphology and oceanography. Project experience includes the nuclear and insurance industries, and quality assurance

Experience in most Contract Forms and Procurement.

Author of over 40 internationally published papers.

Principal Expert Witness, over 40 appointments, with some 15 involving giving evidence in Court.

Summary of Previous Employment

2002-Present **Maddrell Consultancy Services Ltd, Consultant for the Halcrow Group Ltd and other Clients**

Actively involved in advising on numerous projects and providing expert advice to Halcrow and a number of other Private, Public, Insurers and Contractor Clients. These projects included ports, harbours and their development, LNG and LPG berths, Quay wall design in relation to specific industries, fendering, dredging and reclamation, coastal developments, canals, offshore pipelines, offshore energy developments, wind farms (including cable laying and land falls), airports, shipping, bridges and river basin developments in the UK and Overseas e.g., in Chile, China, Malaysia, Australia, Qatar, Qatar/Bahrain Causeway, UAE, Egypt, Albania, Hong Kong, Saudi Arabia, the Caribbean and South America.

Additional appointments include those as Expert Witness, Single Joint Expert and by the World Bank. Expert advisor on pipeline trenching to ICC Arbitration Tribunal (Vienna) as well as for damage claims for the Insurance Industry and on liabilities of parties in terms of claims, including a number of design and professional negligence cases. Expert witness work includes Flood Risk (UK), Dredging and Reclamation Development (UK, Malaysia, Egypt, Albania and Hong Kong), Reclamation and Port Development (UK-three projects), Unsafe Ports (China and South America), Coast Defences, Outfalls, Intakes, Bed Protection, Breakwaters and Revetment Failures, Soils, Ordnance, Berthing and Fender Design, Seawall Design and Professional Negligence on a number of cases, together with a shipping incident in Ecuador.

Appointments as Adjudicator, Conciliator and Mediator by a number of Bodies.
Advisor for Arbitrations, Adjudications, and design development teams.

1968-2002 Halcrow Group Ltd

1986-2002 UK: Chief Engineer, Project Director - various projects

Manager and Director for marine, coastal engineering, ports, harbour and risk projects in the UK and Overseas. These include studies, modelling, design, contract documents, site supervision and environmental assessments. This included five years seconded to Eurotunnel as their Chief Engineer (Marine) and as Technical Advisor for the Oresund tunnel Project (tunnel, island and bridge). Workload also covered managerial and technical assessments for a range of projects worldwide including:

- Expert Witness (Recent): Iraq dredging, Bahrain Airbase, Korean breakwater, Sovereign Harbour, Port Talbot, Xiaohu Dao Jetty (China), IoW Flooding, Lebanon Breakwater, Holderness Coast Erosion, Ethiopian Water Supply, UK Marina, Brunei Dredging, Beirut Airport, Scottish Gas Pipeline, Australian Dredging, Rock Blasting, Cofferdams, Cliff Failures, Oil Terminal Pipeline, Port Development, Professional Negligence, Port Construction and other cases including a number as the Single Joint Expert
- Adjudicator, Conciliator, Mediator, Expert Determinator and Single Joint Expert
- RLE River Medway Crossing, analysis and reporting on various surveys
- Sea Defences, Sovereign Harbour, studies, design, contract and Engineer to Contract
- Expert Determination: Bahrain Dredging and UK Sea Defence Construction Disputes
- Spoil disposal licence, UK, investigations for offshore wind farm
- Lee-on-Solent Coast Protection Study: reports, including Engineer's report, design development and obtaining various MAFF and DoE licences. Engineer to the contract
- Lee-on-the-Solent: beach management, beach profiling, surveys, reports and approvals. Engineer to the contract
- Caister: offshore breakwaters, reports, designs, contract documents and obtaining approvals from authorities eg EN, RSPB, EA etc
- Sovereign Harbour: emergency and mitigation designs

- Shoreline Management Plans, various areas including Christchurch / Bournemouth bays
- Blackpool: revetment design studies, site supervision and Engineer's report
- Blackpool: safety assessments (risk to public) of various structures
- Shoreham: sea defences, studies, designs, contracts and reporting
- UK Coasts and Rivers: Association of British Insurers, studies of coastal flooding and structure risk assessment for the whole of England and Wales. Assessment of the risks from single storms and risk to London from tides, global warming and freshwater flows
- Dungeness: annual beach replenishment, coastal management and flood risk, Nuclear Power Station
- Dungeness: successful implementation of coastal managed retreat
- Saltmarshes: managing the NRA's research projects, England and Wales
- Eurotunnel: design, construction and contract advice for the working marine platform accommodation over 5Mm³ of tunnel spoil, as Eurotunnel's Chief Engineer
- UAE: managing projects on beach management, regional development, harbour siltation, maintenance dredging and environmental controls, coastal erosion, the impact of structures and environmental enhancement
- Teesside and Hartlepool: analysis of dredging fleet requirements and disposal of polluted spoil
- Lappel: port planning, designs and consultations. Three contracts for dredging and reclamation and the preparation of designs (revetments, surfacing, lighting, drainage etc), site supervision and for future developments
- Oman: harbour design for fisheries development
- Kingsnorth: powerstation expansion and development, studies and data collection
- Dungeness: environmental assessment of development and flood risks and their remedial works
- UAE: four 20m high flood detention dams, management of the studies, designs and construction. Design of other flood relief works

- Denmark/Sweden: Øresund Link, dredging and reclamation, technical and Contract advice, spill monitoring and construction. Project risk assessments and claims analyses and contract advice
- Bangladesh: river engineering, river basin studies and geomorphology, various projects. Dredging contracts
- Rosyth Naval Dockyard: revetments, outfall design and dispersal studies
- Past departmental manager for staff resources, planning and technical training.

1984-1986 Halcrow (Cyprus) Ltd, Principal Engineer, Various Projects

Responsible for new and existing projects in the UAE and Oman including:

- Two 5m high rockfill Wurayyah dam and six Dhaid detention dams
- Das Island and Ras Al Khaimah coastal defences
- Fishing harbours and marinas at Sir Abu Nu'Air, Haira, Dibba, Sharjah Creek and Khor Fakkan
- Hamriyah harbour design, infrastructure and creek projects
- Marine outfalls at Al Khan and Haira
- Cooling water intake and outfall requirements for a methanol berth
- Commercial port design, Oman

1982-1984 UAE Dubai: Project Manager, Various Projects

Involved as project manager for a wide range of inter-disciplinary projects involving spring waters, rockfill and gravity dams, marina facilities, ship-lift facilities, flood drainage improvement, and commercial harbour design.

During this period, Roger continued to advise on coastal, creek and island development projects and beach protection works throughout the UAE and Oman.

1980-1982 UAE: Senior Engineer, Mina Jebel Ali, Dubai

Supervised the construction of the infrastructure for Mina Jebel Ali, a new 66 berth deepwater port. Works included two port office complexes, three transit sheds, a cool store, a cold store, two sets of four, 26m diameter, reinforced concrete, water tanks together with their 30m high, post-tensioned, reinforced concrete, water towers, steel tanks and pump-houses, six 33KV and seven 11KV substations, a sewage treatment works and a fire monitor tower.

Supervised concrete production of some 8000m³/month for over 4000 stabits and 900 quay wall blocks and other precast items. Resident engineer on Jebel Ali Hotel Marina breakwater extension. Gave advice on a variety of coastal engineering problems throughout the UAE.

1974-1980

UK: Senior Project Engineer, Various Projects

Engaged on a wide range of coastal and maritime projects and other interdisciplinary studies including cooling water intake basin at a nuclear power station, harbour design, reclamation and litigation.

In addition, responsible for internal research studies involving the design of a bund building machine for tidal barrages, a report on breakwater armour units and specialist advice for coastal, power station and water supply projects in Libya, Yemen, Dubai, Indonesia, Malaysia and the Bahamas.

Principal Expert Witness on estuarine hydraulics and dredging in a long, successful, court case which went to the House of Lords. Proof of Evidence for four Public Inquiries.

1973-1974

Technical University of Delft

The Netherlands: Diploma in Hydraulic Engineering
Attended the International Course on Hydraulic Engineering, specialising in coastal engineering, port planning and administration and hydraulic construction. Developed a mathematical two dimensional transport diffusion model. Received an endorsement in groundwater recovery.

1968-1973

UK/Overseas: Design Engineer, Various Projects

Based mainly in the UK but also working overseas. Projects included an environmental impact assessment in Anguilla, monitoring beach nourishment, Expert Witness experience, siltation, river sediment yields, collection of oceanographic, meteorological and geological data for tunnel and basin cooling water schemes for a nuclear power station.

Publications

A list of over 40 publications is available on request.