



Drew BEWSHER

QUALIFICATIONS

Bachelor of Engineering (Hons), University of Tasmania, 1975.
Master of Science in Civil Engineering, California Institute of Technology USA, 1977

AFFILIATIONS AND AWARDS:

Fellow, Institution of Engineers, Australia.
Member, College of Civil Engineers, Institution of Engineers, Australia.
Chartered Professional Engineer, NPER-3 Registration
Registered Professional Engineer of Queensland
Awards by Floodplain Management Australia:
- 2016 Australian Flood Risk Manager of the Year (Allan Ezzy Award)
- 2013 Harold Sternbeck Medal

FIELDS OF SPECIAL COMPETENCE

Over thirty five years' experience in water related projects in Australia, America and South East Asia. This work has included floodplain management studies, river hydraulics and flood studies, computer modelling, hydrological studies, irrigation and salinity modelling, urban drainage investigation and design, water quality investigations, dam break studies, environmental planning and environmental impact assessment, construction supervision and the project management and economic evaluation of water resources projects. He has also provided expert testimony in legal proceedings related to flooding and drainage matters in the Supreme Court, District Court, and Land and Environment Court, and other tribunals in NSW, Victoria and Queensland.

EXPERIENCE

1986 to date | Bewsher Consulting Pty Ltd

Principal responsible for a number of projects including:

Floodplain Risk Management Studies and Plans for approximately 30 NSW councils including those for the Hawkesbury, Double Bay, Eastwood, Nundle, Woolomin, Macquarie Park, Georges River, Mullet/Brooks Creek, Fairy/Cabbage Creek, Bowral, Coffs Creek, Camden Haven, Upper Parramatta River, Grafton, Lower Clarence River, Salt Pan Creek, Lower Georges River, Ballina and Tweed (BMT-WBM projects), Gwawley Bay, Prospect Creek, Billabong Creek, Berrima, Towradgi Creek, Haslams Creek, Mudgee, North Wentworthville, Carlingford, Brickfield Creek, Cabramatta Creek, Boundary Creek, Eastern Creek, Narrabri, Scone, Molong and the Paterson River.

Independent technical audits and expert advice associated with flood risk management, hydrologic modelling and water resources issues in Australia. This has included advice to the Queensland Floods Commission of Inquiry, expert hydrological review of major highway projects, expert technical support to the Snowy Water Inquiry and numerous Government projects relating to water efficiency savings throughout the Murray-Darling Basin including Menindee Lakes, technical auditor of the Murray-Darling Basin Commission 'Cap' models comprising 24 valley models developed by four states and the ACT, expert advice on various projects related to the Murray-Darling Basin Salinity

Management Strategy, expert review of IQQM models and environmental flow objectives for the NSW government, expert independent assessment of hydrological components of major infrastructure projects and EISs (e.g. Tillegra and Traveston Crossing Dam projects), together with numerous reviews carried out for the private sector.

Flood risk assessment and computer modelling of flood behaviour for over 500 projects in urban and rural areas of Australia. This has included assessment of risks to life and property from flooding, simulation of flow behaviour using one and two dimensional models, stormwater and urban drainage assessments, and consideration of a range of related environmental, riparian corridor and water quality issues.

Expert testimony in excess of 60 court proceedings relating to development applications, valuation of flood prone land, personal injury claims and other issues relating to flooding, hydrology and stormwater drainage issues in NSW, Queensland and Victoria.

Policy formulation for floodplain development. This has included the preparation of over 25 Development Control Plans for local councils in NSW to ensure new developments meet best practice standards for floodplain management. The scope of these policies has also addressed flood prone caravan parks, on-site stormwater detention and a range of broader stormwater management issues.

Design and management of flooding and drainage infrastructure projects. These projects comprise detention basins, major trunk stormwater systems, creek rehabilitation, and the civil works associated with numerous floodplain and stormwater projects.

1980 to 1986 | Sinclair Knight & Partners Pty Ltd, Australia

Specialist Water Engineer working on numerous development, government aid, mining and World Bank projects in NSW, Malaysia, and the islands of Sumatra and Java in Indonesia.

1978 to 1980 | River Murray Commission, Australia

Investigation Engineer responsible for modelling of water resources of the Murray-Darling Basin, assisting the Executive Engineer with river operations and various investigations into the water resources of basin, and the preparation of water accounting procedures.

1977 | Camp, Dresser & McKee, USA

Engineering investigations of flood behaviour and river hydraulics in the Los Angeles Basin.

PAPERS

Grech, P and Bewsher, D. (2014). Fitting Flood Risk Management into the New NSW Planning Act.

Grech, P and Bewsher, D. (2013). Time to Stop Blaming the Planners: How Floodplain Managers Can Improve the Planning Process.

Bewsher, D; Grech, P and Yeo, S. (2012). Hawkesbury's Flood Risk Management Plan: 15 Years in the Making

De Silva, N; Bewsher, D; Himsley, N & Seton, A. (2010). Is Inundation Resulting from Basin & Dam Failure, 'Flooding'?

Bewsher, D & Grech P (2009). Flood Risk Mapping: What, Why, How?

Grech, P & Bewsher, D (2009). Land-Use Planning For Floodplains In NSW — It's Time To Change The FRM Process

- Bewsher, D; Maddocks, J; Grech, P & Yeo S (2010). Mapping Overland Flowpaths — Good Practice or Political Suicide?
- Yeo, S W; Bewsher, D. (2007). Flood Risk Management for Caravan Parks in Victoria.
- Yeo D; Heubusch, D; Bewsher, D; Grech, P; Bergs, M; Lowe, K; Hug, A; Murtagh, J; (2008). What are Acceptable Flood Risks in Caravan Parks?
- Maddocks J; Bewsher, D; Dinham, I. (2007). Big Levees — Are They A Good Idea?
- Grech, P; Bewsher, D. (2007) Getting Planners on Board — The Key to Successful Floodplain Management.
- Gillespie, C; Grech, P; Bewsher, D. (2002). Reconciling Development with Flood Risks: The Hawkesbury-Nepean Dilemma.
- Bewsher, D; Maddocks, J. (2003). Notifying Residents of the PMF. Wise Practice or Political Suicide?
- Bewsher, D; Maddocks, J. (2002). How Are Councils Managing Their Overland Flow Risks?
- Bewsher, D. (2001) Floodplain Planning. How to Stay Out of Court after the Next Big Flood. August 2001.
- Bewsher, D; Grech, P. (2000). Floodplain Planning: Beware of the PMF.
- Bewsher, D. (1997) Managing Floodplain Development with Improved Planning Controls.
- Bewsher, D; Grech, P. (2000). Redevelopment of Flood Prone Areas.
- Grech, P; Bewsher, A. (1999). Floodplain Planning — Time for a New Approach.
- Bewsher D; Still, D. (1999). On-Site Stormwater Detention in the Upper Parramatta Catchment — Lessons for All Councils.
- Romano, P; Grech, P; Bewsher, D. (1999). "Towards Better Floodplain Planning".
- Walsh, M; Benning, N; Bewsher, D. (1998). Defining Flood Hazard in Urban Environments.
- Bewsher, D; Grech, P; Maddocks, J. (1998). Using Flood Certificates to Raise Flood Awareness.
- O'Loughlin, G; Nguyen, V; Bewsher, D; Lees, S. (1998). Refining On-Site Stormwater Detention Practice in Sydney.
- Bewsher, A; Grech, P. (1997). A New Approach to the Development of Planning Controls for Floodplains.
- Frost, S; Wiese, R; Schaffer, B; Bewsher, D. (1997). Stream Restoration: The 'Restoring the Waters' Project.
- Tysoe, V; Paynter, P; Bewsher, D. (1997). Development of an OSD Policy for Gosford.
- Bewsher, D; Paynter, P; Pearcey, G. (1996). Auditing Water, What's Really Happening In The Rivers?
- Bewsher, D. (1996). Increasing Flood Awareness in Blacktown.
- Bewsher, D. (1995). OSD - Panacea or Problem.
- Bewsher D; Still, D. (1995). OSD in NSW - Past, Present and Future.
- Ribbons, S; Bewsher, A; Booby, R. (1995). You Can't Move Narrabri Out of the Floodplain.
- Bewsher, D. (1994). Retro-Fitting Trunk Drainage Improvements.
- Bewsher, D; Prior, N; Mawson, J. (1994). Flooding and Stormwater Inundation Notations - The Section 149 Dilemma.
- Bewsher, D; Milner, H; Harriss, D. (1994). Water Resources Investigations of Menindee Lakes and the Lower Darling River.
- Bewsher, D. (1993). On-Site Stormwater Detention Systems in NSW.
- Bewsher, D. (1992). An Innovative Approach to Stormwater Management in a Local Gov't Area of Sydney.
- Wong, M.H; Patarapanich, M; Bewsher, D. (1992). Design of a Detention Basin Using Physical and Computer Modelling.
- Bewsher, D; Prior, N. (1992). Section 149 Certificates with Flooding and Stormwater Inundation Notations.
- Bewsher, D; Macleod, J; Francis, R.J; Tilleard, J; Elphinstone, R. (1991). Water Management of the Barmah-Millewa Forests.
- Bewsher, D; Stewart, M.R; Flavel, R.J. (1983). Salinity Mitigation on the River Murray between Lock 2 and Lock 3.