



Vincent NG

QUALIFICATIONS:

Bachelor of Engineering (Civil), 1st Class Hon. University of Newcastle, 1987
Doctor of Philosophy, University of Newcastle, 1993

AFFILIATIONS:

Corporate Member, Institution of Engineers, Australia

FIELDS OF SPECIAL COMPETENCE

Vincent has sixteen years of experience with over nine years in Australian hydrology, urban flooding, rural flooding and catchment runoff modelling and seven years in Hong Kong civil engineering investigation and design.

EXPERIENCE

2000 to date | **Bewsher Consulting Pty Ltd, NSW, Australia, Senior Modelling Specialist**

Use of TUFLOW for numerous studies including Western Sydney Orbital Road through the Liverpool and Fairfield City Councils' areas (for the RTA), Hoxton Park Road, Liverpool, upgrades (for the RTA). Brickmakers Creek floodplain (for Liverpool City Council). Mittagong Rivulet Floodplain Risk Management Study (for Wingecarribee Shire Council). Vaughan Street, Lidcombe (for Auburn Council), Metella Road Floodplain Risk Management Study and Plan (for Blacktown City Council and the Upper Parramatta River Catchment Trust), Carinya Road Floodplain Study (for Bankstown City Council). Terrys Creek Floodplain and Risk Management Study (for Ryde City Council) Double Bay Flood Study (for Woollahra Council) and a number of significant site specific flood studies for private clients.

Hydrologic analysis for Macquarie Generation, including use of IQQM package and Sacramento modelling of Barnard River Diversion scheme.

Development of Flood intelligence software "FloodPredict" for NSW State Emergency Services using MapBasic.

Assessment of urban flooding in Baulkham Hills Precinct flood study area. Use of HEC-RAS and MapInfo Vertical Mapper software to develop 100 year and PMF maps.

Assessment of urban flooding in five separate catchments for Baulkham Hills Shire Council using ILSAX, HGL and HEC-RAS analysis techniques. Involving assessment of existing 100 year flood regimes and examination of works options to reduce flood damages.

Assessment of rural catchment flooding for the Department of Land and Water Conservation's Hawkesbury-Nepean Emergency Flood Evacuation Strategy. Use of RAFTS-XP and Probabilistic Rational Method to calculate flows and culvert flow and HEC-RAS modelling to determine culvert performance under existing conditions and to assess upgrade options.

Hydraulic analysis and sizing of drainage structures along the route of Liverpool-Parramatta Bus Transitway.

Assessment of rural and urban catchment flooding for Mudgee Shire Council's Redbank Creek Flood Study. Development and use of RORB and HEC-RAS models.

Preparation of flood inundation maps for Camden Haven floodplain management study.

Site specific HEC-RAS modelling of overland flow regimes including Cabramatta Creek Cycle Crossing; Hillcrest Road, Epping; Quarry Road, Ryde, and Central Road, Avalon.

1996 to 1999 | Scott Wilson (HK) Ltd, Engineer

Engaged in various civil engineering projects including planning feasibility study of reclamation area, seawall design, channel decking design, road and drainage design for both government and private developments.

1993 to 1996 | Ove Arup HK, Graduate Engineer

Involved in a number of large scale civil projects such as Pagbilao Power Station in Philippines and railway tunnel to Hong Kong International Airport. Served as a site supervision engineer for projects including re-habitation of a bridge, rock tunnel boring and construction of a railway depot station in Hong Kong.

1991 to 1992 | University of Newcastle, Australia, Research Associate

Research and development of an economic approach to determine timing of water supply system of water headwork supply system, project funded by Urban Water Research Association of Australia.
Assessment of Probable Maximum Flood for Grahamstown Reservoir at Raymond Terrace.

1988 to 1991 | University of Newcastle, Australia, Phd Candidate

Research on the effect of demand uncertainty on performance of urban headworks water supply system.

PAPERS

"A Direct Comparison of Three Algorithm for Reducing Profile and Wavefront", Computer and structure, Vo 33, No2, 1989, (Co-author)

"Impact of Demand Uncertainty of Performance of Urban Headworks Water Supply Systems", Institution of Engineers, Australia, 1991, (Co-author)

"Incorporating Demand Uncertainty in Water Headworks Simulation", Water Resources Research, 1993, (Co-author)

"Stochastic Economic Approach to Headworks Augmentation Timing", Urban Water Research Association of Australia, Jan 1994.