

**DATE AND****PLACE OF BIRTH:** 8 November 1958, Sydney**PRESENT POSITION:** Director  
Catchments & Creeks Pty Ltd**QUALIFICATIONS:** BE (Hons) Civil Engineering  
University of New South Wales 1977-1981MEngSc  
University of New South Wales 1985-1989

RPEQ No. 3591

**SPECIAL FIELDS OF COMPETENCE:** Creek Engineering, Hydraulic Structures, Soil Erosion and Sediment Control, Development of Engineering Guidelines, Stormwater and Catchment Management, Hydrology, River Hydraulics, Physical Model Studies, Wastewater Treatment Plant Hydraulics**AFFILIATIONS:** Registered Professional Engineer of Queensland (RPEQ) #3591  
Member of IEAust (MIEAust) # 857450  
Member of the Stormwater Industry Association (Qld) Inc.

- Director of National body, 2006-2007
- Committee member, 1997-1999, 2001-2008

Member of the International Erosion Control Association

- Director 2005-2007
- Member since 1994

**SHORT COURSE TRAINING:**

July	2005	DRAINS Design Techniques (Brisbane)
December	2000	Urban Drainage Planning and Design - QUT (QLD)
September	1999	Construction Site Erosion & Sediment Control - QDMR (QLD)
September	1998	Recent Developments in Stormwater Management - SIA (QLD)
July	1998	Urban Creek Management - SIA (NSW)
February	1998	Catchment Management Course, CRCFE-AWWA (ACT)
December	1996	XP-RAFTS Workshop - BCC (QLD)
July	1996	Constructed wetlands: principles, design and management (QLD)
February	1995	Practical approaches for effective erosion and sediment control (USA)
October	1994	Application of Soil and Water Management Plans (NSW)
October	1994	Wetland stormwater management systems (NSW)
February	1990	Ocean outfall design (NSW)
July	1990	Management of water quality in municipal supplies (NSW)
September	1987	Introduction to capital and maintenance dredging (QLD)

**PROFESSIONAL HISTORY:**

Oct 97 to present      **CATCHMENTS & CREEKS PTY LTD:** Director, engineering consultancy.

Review of the Queensland Urban Drainage Manual (QUDM) 2005-07.

Conduct over 250 training courses in Erosion and Sediment Control since 1995.

Internal consultant to Brisbane City Council (until May 1998) – Development application checking; Karawatha Forest track rehabilitation; Sandy Creek, Enoggera rehabilitation; Sheep Station Gully rehabilitation; Natural Channel Design Study; ESC Policy and Building Site ESC Guidelines, Norman Creek Rehabilitation Options, Sediment Basin Design Guidelines, Natural Channel Design Guidelines, Erosion & Sediment Control Field Guide.

Development of Gold Coast Council's Erosion & Sediment Control Field Guide (2003) and Inlet Safety Screen Guidelines (2005).

QRail Mackay - Havilah Station gully erosion; Hervey Bay Council - Eli Creek Rehabilitation Options.

Development of the Erosion & Sediment Control training CD-ROMs (1999).

Development of National Guidelines on fish passage requirements at waterway crossings with NSW Fisheries.

Development and presentation of over 300 industry training courses across Australia in topics such as:

- 1.1 Introduction to Erosion and Sediment Control
- 1.2 Building Site Erosion and Sediment Control
- 1.3 Application of Erosion and Sediment Control
- 2.2 Development of Erosion and Sediment Control Plans
- 2.3 Sizing Erosion and Sediment Control Measures
- 3.2 Instream Sediment Control
- 4.1 Application of the Rational Method
- 5.1 Aspects of Piped Drainage Design
- 5.2 Design of Stormwater Outlets
- 5.3 Energy Dissipater and Drop Structure Design
- 5.4 Introduction to Open Channel Design
- 5.5 Aspects of Culvert Design
- 6.1 Stormwater Pollution Management and Treatment
- 6.3 Water Sensitive Road Design
- 7.1 Natural Channel Design
- 7.2 Treatment of Creek and Gully Erosion
- 7.4 Design of Environmentally Sensitive Waterway Crossings

22/5/95 to 1997

**GRIFFITH UNIVERSITY:** Consulting engineer and part time lecturer in: Fluid Mechanics and Hydraulics, Design II, Soil Erosion and Sediment Control.

Brisbane City Council - consultancy to the Floodplain Development Section of the Department of Works. Checking development applications, creek erosion advice, training of Council officers in stormwater hydrology and hydraulics.

Brisbane City Council - consultancy to the Catchment Management Unit of the Department of Works. Preparation of stormwater management plans of Council's Pine Mountain and Mt Coot-tha quarries, and Soil Erosion and Sediment Control Programs for various Council construction programs.

Department of Housing (Qld) - investigations into the hydraulic failure of an open channel drop structure in Alexandra Hills.

Rust PPK Pty Ltd - preparation of urban creek erosion guidelines for Brisbane City Council.

Noosa Council and Gold Coast Council - advice on stormwater management issues.

On-site Erosion and Sediment Control short course training in Brisbane, Gold Coast, Sunshine Coast and Toowoomba.

Development Consulting Pty Ltd - On-site Erosion and Sediment Control training.

27/8/94 to 21/5/95

**SELF EMPLOYED - STUDY SABBATICAL**

Preparation of the Institution of Engineers, Australia (Qld) publication: *Soil Erosion and Sediment Control - Engineering Guidelines for Queensland Construction Sites*.

Attend IECA conference Atlanta, Georgia USA (March 1995) and tour US eastern states observing stormwater management and erosion & sediment control practices (March-April 1995).

1/5/91 to 26/8/94

**BRISBANE CITY COUNCIL:** Engineer in the Department of Works - Design Branch, Hydraulics Section

(a) **Engineer, Floodplain Management, May 1991 to April 1992**

Investigation and design of stormwater drainage structures, review of development plans (hydraulics), creek erosion, public consultation on flood studies.

**Design:** Lang St drop structure, Mt Gravatt Bus Depot stormwater outlet energy dissipator, Downfall Creek realignment, Johnson Road bridge erosion control, Various minor erosion control designs.

**Investigations:** Perrin Creek Master Drainage Study (project supervision and public consultation).

(b) **Acting Supervisor Engineer, Hydraulics, April 1992 to October 1993**

Supervision of engineering staff on Development checking.

**Special Projects:** Brighton Trial Beach (project supervision and public consultation), numerous creek erosion control and tree planting investigations, Donaldson Road WWTP hydraulic upgrade (investigation and design). Eagle Farm pumping station (investigation).

(d) **Acting Supervising Engineer, Catchment Management Unit, October 1993 to August 1994**

Establishment of stormwater monitoring programs at Sandy Creek (Indooroopilly), Enoggera Creek (Brisbane Forest Park) and Kedron Brook (Wavell Heights).

Establishment of the stormwater awareness campaign and production of the "Stormwater" brochure in cooperation with the Institution of Engineers, Australia and the Queensland, Department of Environment and Heritage.

Drafting of the "Queensland Erosion and Sediment Control Guidelines for Engineers".

4/2/85 to 26/4/91

**UNIVERSITY OF NSW - UNISEARCH LTD.** Water Research Laboratory, Manly Vale, Sydney. Project Engineer.

**Hydrology:** (operation of numerical models)  
Prospect and Cabramatta Creeks (NSW)  
Toongabbie Creek (NSW)  
Georges River and Nepean River (NSW)

**Hydraulics:**

Mount Druitt Waterworks  
Tuggeranong Trunk Sewer  
Springvale Drain, Botany

**Physical Model Studies:**

Georges River, NSW  
Oxygenation Plant  
Toongabbie Detention Basin  
Smeaton Grange Drop Structure  
Penrith Lakes Development Scheme

**Wastewater Treatment:**

Tomakin Plant Ocean Outfall (NSW)  
Kiama Aeration Equipment Vibration (NSW)  
Decant operations of Intermittent Extended Aeration  
Tanks at North Richmond, Bowral, Sawtell and Port Macquarie.  
(Master Engineering Science Project)

**Field Data Collection:**

Flood gauging Georges River 1986

Flood gauging Nepean River 1988

14/3/83 to 29/1/85

**NSW PUBLIC WORKS DEPARTMENT**, Head Office - Sydney, Sewerage Branch - Treatment and Trade Waste Section: Junior engineer.

Hydraulic research into sewerage treatment plant inlet works including: screens, flumes, grit traps. Produced a report on the hydraulic problems of the 'Pista' grit arrester and the PWD publication. A Guide to the Design of Flow Measuring Flumes - Research Bulletin No. 5.

Research into the hydraulic problems of the decant system use on intermittent extended aeration treatment systems.

30/8/82 to 11/2/83

**BARRY LEPLASTRIER AND ASSOCIATES**, (Water Research Laboratory, University of NSW): Junior engineer doing variety of physical and numerical modelling work.**MAJOR  
PUBLICATIONS:*****Best Practice Erosion and Sediment Control:*** International Erosion Control Association (Australasia), November 2008.***Queensland Urban Drainage Manual:*** 2nd edition, Department of Natural Resources & Water, Institute of Public Works Engineering Australia, Queensland Division Ltd. and Brisbane City Council, Brisbane, Australia, 2007.***Sediment and Erosion Control Field Guide:*** Built Environment, Planning Environment and Transport, Gold Coast City Council, March 2006.***Erosion and Sediment Control Field Guide:*** Brisbane City Council, 2005.***Why do fish need to cross the road? – Fish Passage Requirements for Waterway Crossings:*** Fairfull and Witheridge. 2003, NSW Fisheries, Cronulla.***Fish Passage Requirements at Waterway Crossings:*** Catchments & Creeks Pty Ltd. 2002 (CD-ROM).***ESC Field Guide:*** Gold Coast City Council (drafted 2003).***Natural Channel Design Guidelines:*** Brisbane City Council, December 2000. (*winner of 2004 SIA Award for Excellence in Stormwater Management*)***Instream Sediment Control:*** Brisbane City Council (internal publication).***Sediment Basin Design, Construction and Maintenance Guidelines:*** Brisbane City Council, February 2000.***Erosion and Sediment Control Training CD-ROM*** Catchments & Creeks Pty Ltd 1999.

***Best Practice Guidelines for the Control of Stormwater Pollution from Building Sites:*** Brisbane City and Gold Coast City Councils, 1998.

***Erosion Treatment for Urban Creeks – Guidelines for Selecting Remedial Works:*** Guidelines for Brisbane City Council, prepared by Griffith University and RUST PPK, February 1997. (*winner of 2004 SIA Award for Excellence in Stormwater Management*)

***Soil Erosion and Sediment Control – Engineering Guidelines for Queensland Construction Sites:*** prepared by G. Witheridge and R. Walker, The Institution of Engineers Australia, Queensland Branch, June 1996.

#### PAPERS:

*Erosion and Sediment Control*, Environmental Design Guide DES-52, The Royal Australian Institute of Architects, February 2003.

*Fish Passage Requirements at Waterway Crossings*, Stormwater Industry Association Qld Inc. Regional Conference, Hervey Bay, 12-13 September 2002.

*Instream Sediment Control Practices* Institution of Engineers Australia, National Urban Infrastructure Forum, Brisbane, 15-17 May 2002.

*Review of Regime Equations used in the Rehabilitation of Urban Creek Systems within Brisbane City* Second Australian Stream Management Conference, Adelaide, 8-11 February, 1999.

*Erosion & Sediment Control in Road Design and Construction:* Main Roads Northern Region Symposium, Townsville, 27-28 November 1997.

*Erosion and Sediment Control on Building Sites:* Stormwater and Soil Erosion 97, joint SIA & IECA Conference, Brisbane 10-12 September 1997.

*Design of Energy Dissipators:* Engineering Update Vol. 5 No. 2 July 1997, Institution of Engineers, Australia, Brisbane 1997.

*Development of the Queensland Soil Erosion and Sediment Control Guidelines:* Clear Water – A Technical Response, Stormwater Industry Association First Regional Conference, Coffs Harbour, 28-29 April, 1997.

*Erosion and Sediment Control EBMP:* Landscape Design Forum #3, Australian Institute of Landscape Architects, Brisbane, 3 March 1997.

*Soil Erosion and Sediment Control:* Southern Engineering Conference, Toowoomba 18-19 October 1996.

*17 Steps to On-Site Erosion and Sediment Control:* Stormwater 96 Conference, Brisbane, 9 September 1996.

*Erosion and sediment control guidelines:* CCF 1996 National Conference, Gold Coast, published in *The Earthmover and Civil Contractor*, May 1996.

*Urban Erosion and Sediment Control: ASSS (Qld) Land Management for Urban Development*, Brisbane 22-24 April 1996, in partnership with P.N. Truong.

*Water Under the Bridge: Engineering Update*, IEAust. (Qld) Technical Papers, March, April, May-August, and September-October 1995, a series of five papers on aspect of culvert design prepared in partnership with R.B. Tomlinson.

*Don't shoot me! – I'm just a water engineer*. Geography Support Group, Brisbane, September 1995.

*Drop Structure Design Problems: Engineering Update*, IEAust. (Qld) Technical Papers, March, 1994.

*Density Measurement of Particle and Floc Suspensions: ASCE Journal of Hydraulic Engineering*, March, 1989.