



WENDY TIMMS
SENIOR PROJECT ENGINEER
BSc (Hons 1), PhD

Wendy has expertise in a range of field, laboratory and modelling studies, particularly in water management, groundwater hydraulics, water quality and geochemistry. She has a pragmatic approach to solving real world problems, based on sound science and engineering practices.

QUALIFICATIONS

B.Sc. University of Newcastle, 1995 (Geology, Chemistry)
B.Sc. Honours 1 (Hydrogeology) ANU, 1996
PhD (Environmental Engineering) UNSW, 2001

AFFILIATIONS

International Assoc. of Hydrogeologists (NSW Committee)
Australian Water Association
National Groundwater Association
Irrigation Association of Australia (WRL)

PROFESSIONAL HISTORY

1996 – 1997: Hydrogeologist, DLWC
1998 – 1998: Groundwater Management Secondment, DLWC
1998 – 2000: Consultant WRL, PhD Scholar, Tutor UNSW
2002 – 2003: Research Fellow, U of Saskatchewan, Canada
2003 – : Senior Project Engineer, WRL

Wendy has 9 years of international & local experience the following specialist fields of:

- Integrated Water Management
- Waste & Contaminant Assessment
- Groundwater Quality & Beneficial Use
- Clay Barrier Leakage
- Numerical Modelling
- Groundwater Hydraulics & Geophysics
- Research, Development & Training

RELEVANT EXPERIENCE

Integrated Water Management

Stormwater harvesting & groundwater supplies (2003 on)
Source water for Lakes Beach desalination plant (2004)
Urban daily water balance modelling, Waverley (2004)
Stormwater quality assessment, Darling Harbour (2004)
Discharge quality assessment, Kensington (2004)
Optimised urban water storages, St Peters (2004)
Infiltration through permeable pavements, Manly (2003)

Groundwater Quality & Beneficial Use

Water quality assessment, residential bores (2003 on)
Irrigation re-use site, Narromine (2000,2004)
Groundwater supply, Centennial Parks (2003)
Smiths Lake Baseline Groundwater Quality (2002)
Effluent re-use irrigation site, Tamworth (2001)
Murrumbidgee, Namoi groundwaters (1996-2001)
Baseline groundwater study, Mittagong Golf Course (1999)

Clay Barrier Leakage

Leachate-barrier compatibility, Canada (2002/3)
Aquitard window leakage and fracture flow (1998-2001)
Recharge processes at salinised sites (1996 on)
Permeability & consolidation testing, (1998-2001)

Numerical Modelling

PHREEQC reactive transport models for Hunter Valley coal mine & potash mines in Canada (2002/3, 2004)
2D & 3D FEFLOW models, Lakes Beach (2004)
3D FEFLOW models, Murrumbidgee (1998-2001)
NETPATH geochemical models assessing mixing & mineral precipitation (1998-2001)
Flow modelling, Tomago aquifer (1995)

Groundwater Hydraulics & Geophysics

Groundwater feasibility assessment, various sites (2004 on)
Step tests, aquifer tests, slug tests at various sites (2003 on)
Water supply & monitoring bores, various sites (1996 on)
Groundwater level interpretation, numerous sites (1996 on)
Stratigraphic analysis, numerous sites (1996 on)
Groundwater monitoring & packer testing, Newnes (2004)
3D resistivity imaging of contaminated site (2004)
2D resistivity imaging, Bondi, Cooks River etc. (2003 on)
Geophysical logging, fractured rock bores (2003-2004)
Hydrogeological mapping, Namoi (1996)

Waste & Contaminant Assessment

Sediment analysis, Prospect Reservoir (2004)
Effluent management, Ballina landfill (2004)
Stormwater hotspots sampling, RTA (2004)
Retention basin sediment analysis, RTA (2001)
Batch & column testing of nutrient fate, Canada (2002/3)
Cation exchange sorption, Potash mines, Canada (2002/3)
Atrazine & Metolachlor transport review (1999)
Saline Leakage in Lower Murrumbidgee (1998-2001)
Hunter Valley Nutrient Study, DIPNR (1998)
Liverpool Plains Water Quality, DIPNR (1996-1998)

Research, Development & Training

8+ papers in peer-reviewed international journals
15+ papers at local & international conferences
Aqueous Geochemistry course component (2003)
Groundwater Modelling shortcourse component (2000)