



Andrew Macleod

B.Sc (Hons.) CPSS CPESC RSP-ESC CESSWI

Director and Principal Soil Conservationist



Andrew is an expert in soil and water management. He is a recognised industry leader in construction-phase erosion and sediment control and conducts regular training, consulting and expert witness services in this field.

Andrew has worked on a wide range of sites across a variety of sectors including major infrastructure (road and rail), pipelines, mines, energy renewables, utilities, industrial, commercial and residential.

He was also President of the International Erosion Control Association (IECA) in Australasia for 8 years between 2012 and 2021, a Director on the International Board for six years from 2020 to 2026, and continues to serve the Association on various committees.

Andrew is a Director of SEEC and one of our Principal Environmental Scientists. He is a Certified Professional in Erosion and Sediment Control (CPESC), Registered Soil Practitioner – Erosion and Sediment Control (RSP-ESC) and a Certified Professional Soil Scientist (CPSS). He has provided erosion and sediment control training to over 12,000 people in the past 19 years.

Qualifications

- Bachelor of Science (Applied Physical Geography) with Honours. UNSW (1999)
- Certified Professional in Erosion and Sediment Control (CPESC #3678)
- Registered Soil Practitioner – Erosion and Sediment Control (RSP-ESC)
- Director, International Erosion Control Association (IECA) Australasian Chapter 2011 to 2023
- Certified Professional Soil Scientist (CPSS # 1152)
- Director, IECA (HQ) 2021 to present
- President, International Erosion Control Association (IECA) Australasian Chapter 2012 to 2018, and 2019 to 2021
- Certified Erosion, Sediment and Stormwater Inspector (CESSWI #11792)
- Member of the Australian Society of Soil Science Incorporated (ASSSI)
- Member of the International Erosion Control Association (IECA)

Awards

- Kevin Bennet Memorial award for the Best Paper: “MUSIC Calibration Based on Soil Conditions.” Stormwater Industry Association (SIA) NSW and Qld Joint Annual Conference, 2008.
- Merit Commendation for Education or Innovation: SEEC Half-Day Erosion and Sediment Control Workshop, Stormwater Industry Association Awards, 2010.
- Presenter of the Year Award, 2021; International Erosion Control Association (IECA) EC21 Global Conference.

Papers Presented

- “Curb your enthusiasm. Performance expectations of erosion and sediment controls.” IECA Australasia Conference 2025, Melbourne
- “I was wrong. And you probably were too”. IECA EC22 Conference, February 2022, Minneapolis, USA
- “Down Under Erosion and Sediment Control”. IECA EC21 Global Conference (Virtual), February 2021.
- “Working in and Around Watercourses – In-Stream Erosion and Sediment Control During Construction.” IECA Australasia SIA Qld Joint Conference, Brisbane, 2017 and Noosa, 2023
- “50 Shades of Blue Book: Erosion and Sediment Control Compliance.” IECA, SIA NSW, EA Conference, Sydney, 2015
- “Watching the Grass Grow – A Field Study of Rehabilitation in Southern Queensland”. IECA Australasia National Conference, Wellington, NZ 2014.

- “Erosion reductions using spray-on soil stabilisers.” IECA National Conference, Gold Coast 2013, and IECA Environmental Connection Conference, Nashville, Tennessee, USA 2014.
- “CSG: Coal Seam Gas or Crops, Soils, Grasses. Lessons for Effective Rehabilitation on Gas Projects” IECA Australasia Mining Rehabilitation Conference, Hunter Valley 2013.
- “From Construction Phase to Completion: Sediment Pollution in Stormwater” SIA NSW and Vic Joint Annual Conference, Albury 2009.
- “MUSIC Calibration Based on Soil Conditions.” SIA NSW and Qld Joint Annual Conference, Gold Coast 2008.

Areas of Technical Expertise

- Construction site erosion and sediment control
- Water sensitive urban design
- Soil survey/soil landscape/land capability mapping
- Water quality modelling and surface water management
- Site rehabilitation and revegetation
- Research projects and field trials
- Dryland salinity (rural and urban)
- Fluvial and landscape geomorphology
- Onsite wastewater management
- Environmental impact assessment
- Presentation of seminars/workshops on soil and water management
- Water treatment, sediment and nutrient control

Short Courses/Workshops Completed

- WorkCover Occupational Health and Safety General Induction for Construction Work (CGI01253136SEQ1)
- Rail Industry Worker (20-00097348)
- MUSIC Version 2 and 3 Training, CRC for Catchment Hydrology (now eWater). March 2004 and May 2005
- Asbestos awareness training (2020)
- Microsoft Access Database Management and Design Training. March 2001
- ESRI ArcGIS 8 Training. September 2003
- Air Photo Interpretation Course. November 2000
- Advanced driver training. December 2010
- 4WD Safe Operations. June 2001

Career Highlights

Director, SEEC; August 2007 to present.

- Staff, client and business management.
- Recruitment and training.
- Budgeting and project management.
- Principal soil conservationist
- Expert advice on erosion and sediment control, soils, water cycle management, geomorphology, environmental management and water quality.
- Preparation and delivery of teaching programs.

Environmental Scientist, Morse McVey & Associates; Jan 2004 to Aug 2007.

- Preparation of soil and water management studies and reports.
- Preparation of water quality modelling and management plans.
- Preparation of erosion and sediment control plans.
- Teaching workshops on erosion and sediment control on construction sites.

Spatial Analyst, NSW Department of Infrastructure, Planning and Natural Resources; March 2003 to Jan 2004.

- Soil landscape mapping
- Map analysis and derivation using GIS
- Derivative map development
- Spatial database maintenance and development.

Soil Surveyor and Technical Officer, NSW Department of Land and Water Conservation; Feb 2000 to March 2003.

- Development and maintenance of soil landscape database
- Field soil survey and mapping
- Soil conservation and land management
- Interpretation of laboratory results.

Recent Projects

- Expert erosion and sediment control specialist for major projects including Warringah Freeway Upgrade (NSW), WestConnex M8 and Rozelle Interchange (NSW), M7-M12 Integration (NSW), Western Harbour Tunnel (NSW), Bruce Highway C2CA3 (Qld), Gateway Upgrade (Qld), Sydney Metro (NSW), Kingsford Smith Drive upgrade (Qld), Pacific Highway Woolgoolga to Ballina, Snowy 2.0, Nowra Bridge, Parramatta Light Rail (NSW), Humelink East (NSW).
- Teaching comprehensive 4-day workshops about erosion and sediment control on construction sites. Recent workshops run over four days have been conducted in Sydney, Melbourne and Brisbane.
- Preparation or input into environmental documentation (Soil and Water Management Plans) for major construction projects including Western Sydney Airport Metro, Warringah Freeway Upgrade.

- Wet-season ESCPs for Ichthys Project, Darwin, plus wet season NT EPA auditing and certification of contractor works for Ichthys Project, Darwin.
- Expert witness in the NSW Land and Environment Court on erosion and sediment control and water quality issues, numerous projects. For NSW Department of Planning and Environment (DPE).
- Preparation of Surface and Ground Water Assessments or Management Plans, Nowra Brickworks Quarry, Dargues Reef Gold Mine, Rocla Green Valley Quarry, Tomingley Gold Project.
- Erosion and sediment control management for MCJV Narrows, Gladstone Qld.
- Review and advice on erosion issues across solar farm assets in SE Australia for Mytilineos.
- Develop and prepare template deemed-compliance Erosion and Sediment Control Plans (ESCPs) for Arrow Energy gathering network, Surat and Bowen Basins, Qld and for Santos, NSW Pilliga Gas Exploration.
- Expert advice and planning for soil and water management - proposed downhill mountain bike track, Hassans Walls (Lithgow).
- Review of river diversion geomorphology and stability, major zinc and lead mine, NT, Australia.
- Auditing of erosion and sediment controls, Bruce Highway C2C-C (Qld), Mackay Ring Road, Qld, residential subdivisions and land releases (ACT).
- Preparation of Construction-phase Soil and Water Management Plans for various developments including:
 - Botany Rail Duplication (NSW)
 - M4 Smart Motorways, Sydney
 - Raising London Circuit (ACT).
- Periodic site audits of erosion and sediment control, Rye Park Windfarm, NSW, Granville Harbour Windfarm, Tasmania.
- Rehabilitation advice and soil testing. Biala Windfarm, NSW, Floodway upgrades, Bundaberg.
- Undertake monthly audits of erosion and sediment control across industrial and commercial development sites in Western Sydney.
- Preparation of planning and design-phase erosion and sediment control plans for major transport projects including Milton-Ulladulla Bypass, M1 Princes Highway, Newcastle Inner City Bypass, Lachlan Valley Way, M12 Motorway, Coffs Harbour Bypass, Great Western Highway Upgrades, Mamre Road upgrades.
- Preparation and delivery of half and full-day workshops on best-practice erosion and sediment control throughout NSW and Qld. Recent clients include Wollongong Council, John Holland, CPB Contractors, Fulton Hogan, Gold Coast City Council, NSW DPE, Transport for NSW, ARTC, Lake Macquarie City Council, Mid-Western Regional Council, Christie Civil, Zenviron, and WaterNSW.
- Pipeline erosion management, Goulburn and Oberon, NSW (APA Group) and Moranbah (Arrow Energy).
- Preparation of Technical Guidance Manual for cross-formation drainage and erosion and sediment control during major road construction (for NSW RTA).
- Prepare and deliver toolbox training sessions for contractors on the commuter carparks program, Sydney Greater Metropolitan area; TfNSW.
- Preparation of numerous Water Cycle Management Studies and Surface Water Management Plans for various projects including:
 - Rural residential subdivision, Goulburn
 - Golf resort, Darkes Forest
 - Quarry and mine developments, Southern Highlands and Central West.
- Coordination of field trials of soil stabilisers to determine erosion reductions under rainfall, Toowoomba, Qld and Picton, NSW.
- Fluvial geomorphology assessment of parts of the Nepean and Georges Rivers for proposed Sewage Treatment Plant discharge points (Sydney Water).
- Preparation of Onsite Wastewater Management Studies for numerous rural and rural residential developments; Southern Highlands, Hunter, Blue Mountains etc. Also for a commercial and tourist development at Darkes Forest, NSW.
- Erosion and sediment control plans for industrial and commercial developments, Western Sydney.

Contact Details

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