## EROSION AND SEDIMENT CONTROL TRAINING IN DARWIN

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Environment Institute of Australia and New Zealand

Grant Witheridge, Des Bolton & Ross Coventry will be presenting soil, vegetation and water management in Queensland in the Northern Territory. This training program aims to initiate competency-based training for people responsible for construction erosion and sediment control works, including consulting engineers, environmental practitioners and construction supervisors and foremen.

It provides a practical introduction to the key principles of erosion and sediment control (ESC) and the necessary training to design, implement, and assess soil erosion and sediment control plans.

The course provides the information necessary to identify the issues relating to a particular site during the planning phase, and then the options to implement effective controls through to the rehabilitated stage of a project.



- Understanding of local and state laws regarding erosion and sediment control
- Understanding of soil properties, soil testing, and soil amendments
- Knowledge of revegetation techniques, management, and maintenance
- Ability to assess site constraints and erosion hazard risk
- Ability to prepare ESC plans and supporting documentation/reports
- Ability to supervise the construction of a wide range of ESC techniques
- Ability to carry out site inspections and compliance reporting

### DON'T MISS THIS OPPORTUNITY... REGISTER TODAY!

DATE: 9 –13 September 2013 (5 day course)

TIME: 8:30am to 5:00pm (Registration from 8am on Monday only)

VENUE: DARWIN – 9<sup>th</sup> – 13<sup>TH</sup> SEPTEMBER 2013

Rydges Darwin Airport Resort - 1 Henry Wrigley Drive, Marrara



### **PRESENTERS**



**Grant Witheridge** is a hydraulic (civil) engineer with both Bachelor and Masters degrees from the University of NSW. He has over 30 years' experience in the fields of hydraulics, creek engineering and erosion & sediment control, during which time he has worked for a variety of federal, state, local governments and private organisations. Grant is the principal author of the IECA's 2008 Best Practice Erosion and Sediment Control documents, the revised Queensland Urban Drainage Manual (2013) and various engineering guidelines on creek erosion and fish passage.

**Ross Coventry**, until his recent retirement, was Associate Professor, Tropical Plant Sciences, at James Cook University. He has 30 years' experience in the field of soil science, and has presented this component of the 5-day course over the past eight years.

**Des Bolton** is the Director of Revegetation Contractors, a Queensland-based company that specialises in re-vegetation and sediment control. He is a Certified Professional in Erosion and Sediment Control. Des will explain the practicalities and costs associated with various rehabilitation options including the requirements for stream diversions. He will also explain how to audit such practices.

#### Steps to becoming a CPESC

A CPESC (Certified Professional in Erosion and Sediment Control) is a recognised specialist in soil erosion and sediment control. Certified professionals are required to have approved educational training, demonstrated expertise, experience in controlling erosion and sedimentation, and must meet certification standards. Certified professionals must subscribe to the Code of Ethics of CPESC.

This 5-day course is considered the first step in becoming a CPESC.

To qualify as a CPESC you must satisfy the following:

- Complete the on-line application form. Applicants must provide contact information for four (4) referees. Prospective referees must be
  fully qualified to provide information about your skills and experience in erosion and sediment control. It is recommended, where
  possible, that at least one individual familiar with the applicant's expertise be a CPESC. Referees may be peers or clients, but no more
  than two should be coworkers. At least one of the referees chosen must be able to comment on work undertaken three or more years
  ago.
- Have a minimum of three (3) years erosion and sediment control experience plus a Bachelor Degree in an approved course or complete seven (7) years or more of professional level experience in the erosion and sediment control profession.
- Pay your application fee to the Australasian Chapter of the International Erosion Control Association (IECA). The application fee is (2013): \$450 for members of IECA (Australasia) and \$495 for non-members of IECA (Australasia). This fee is non-refundable.
- Sit the 'Fundamentals in Erosion and Sediment Control' exam and achieve a minimum score of 70%.
- Undertake a take home exercise and achieve a minimum score of 70%.

Certification is valid for the 12 months and must be renewed annually on the certification anniversary. Professional Development is a requirement for certification renewal. Professional Development consists of:

- A minimum of sixty (60) professional development units over a three year period.
- A minimum of ten (10) professional development units per year.

Applicants must complete certification requirements within one (1) year of receiving full certification candidacy. Individuals who do not qualify for professional certification because they do not meet the minimum professional experience requirement may apply for CPESC Associate status.

## **PROGRAMME**



Day 1	'Vegetation management, revegetation and plant selection' presented by Des Bolton							
	Introduction by NT-government officer (may be scheduled for another day of week).							
	Conservation values. Vegetation management: remnant vegetation, tree clearing. Desirable attributes of plants. Plant selection for landscaping. Revegetation techniques. Sustaining the plant cover: watering, fertilising, mowing, weed control. Revegetation products.							
	Plant maintenance. Measuring and monitoring performance. Contractual requirements. Inspection test plans. Non-performance reports. The planning process. ESCP standards and check list.							
Day 2	'Introduction to erosion and sediment control' presented by Grant Witheridge							
	This introduction to ESC is specifically developed for officers involved in the design and/or supervision of ESC measures. The course details the impacts of sedimentation, the various types of soil erosion, and the application of temporary drainage, erosion and sediment control measures to civil construction sites.							
	The course will be based around the principles of ESC presented within the IECA's 2008 <i>Best Practice Erosion and Sediment Control</i> documents.							
Day 3	'Introduction to soils' presented by Ross Coventry							
	Introduction to soil mechanics and soil properties. Physical properties (colour, texture, dispersion, compaction, soil water). Chemical properties (plant nutrition, pH, salinity, sodicity). Ameliorating soil deficiencies.							
Day 4	'Introduction to construction site hydrology and hydraulics' presented by Grant Witheridge							
(am)	Introduction to catchment hydrology and the Rational Method approach. Calculating design discharge and runoff volume.							
	Introduction to construction site drainage design and use of Manning's equation. Calculation of flow velocity. This session will focus on the hydraulics of a sediment basin spillway.							
Day 4 (pm)	'Development of ESC Plans' presented by Grant Witheridge							
	This session focusing on the preparation of Erosion and Sediment Control Plans (ESCPs) for construction sites. A significant amount of the course is spent in workshops reviewing ESCPs for a broad-acre construction and road construction.							
Day 5	'Sizing of drainage and sediment control measures' presented by Grant Witheridge							
(am)	This session discusses the hydraulic design (sizing) of various drainage and sediment control measures. A significant proportion of the session is spent on the sizing and operation of sediment basins.							
Day 5	'Course overview and site management' and exam presented by Grant Witheridge							
(pm)	Overview of erosion and sediment control as applied within the Northern Territory. Managing construction and mining sites in tropical and semi-arid environments.							
	The multiple-choice, closed-book course exam is presented after the afternoon break.							

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#### **REGISTRATION DETAILS:**

Don't miss out - register today to secure your spot - places are limited!

DATE: 9<sup>th</sup> – 13<sup>th</sup> September 2013

VENUE: Darwin: Rydges Darwin Airport Resort - 1 Henry Wrigley Drive, Marrara

TIME: 8:30am to 5:00pm daily (Registration from 8am on Monday only)

Please e-mail your completed registration form no later than Friday 6th September 2013 to:

**info@eianz.org** or alternatively Fax **07 5429 8486** | Post EIANZ, Suite 105, 1B/192 Ann Street BRISBANE QLD 4000.

For further information, please don't hesitate to contact **Danielle Bolton on 07 5429 8480**. A tax invoice will be supplied upon receipt of your registration. **ABN: 39 364 288 752** 



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Cancellation Policy Full refunds will be given for any cancellations made one week prior to the Forum. Cancellations made less than one week but more than 24 hours prior to the Forum will attract a 50% penalty. Cancellations made less than 24 hours prior to Forum will attract the full 100% attendance fee. Delegates unable to attend are welcome to send an alternative delegate.  Please tick here if you do not wish to be placed on our database for notification of future events.  This event will count as 80 points towards your EIANZ CEnvP Professional Development Log!!											