

ESC TRAINING SHORT COURSES – 2014

Level 2 Site Managers and Supervisors Course



COURSE SUMMARY

This 1 day course aims to suitably prepare attendees in the assessment, identification and compliance with Erosion and Sediment Control (ESC) requirements and form a solid learning base for staff involved with ESC. The course is focussed towards Site Supervisors, Foreman, Engineers and Project Managers.

The content of the Level 2 course is based on the training package developed by Grant Witheridge, the Author of the IECA 2008 document *“Best Practice Erosion and Sediment Control”* and delivered by O2 under exclusive licence.

O2 Environment + Engineering is a specialist environmental and engineering consultancy that focuses on ESC plan preparation and implementation. In addition, O2 is widely regarded within the industry by both construction personnel and regulators as leaders within the field of erosion and sediment control.

Courses are delivered by Terry Clark (Technical Services Manager – ESC) or Tom Bailey (Environmental Engineer) of O2. Both Terry and Tom hold the internationally recognised accreditation ‘Certified Professional in Erosion and Sediment Control’ (CPESC) and both have years of experience in plan preparation, auditing and on ground advice in Erosion and Sediment Control for a wide variety of linear infrastructure (roads, pipelines, rail, transmission lines), major developments (residential, commercial, industrial, major plant and fixed infrastructure), mines, landfills and quarry based projects.

SUMMARY

Key Learning Outcomes include:

- Environmental impacts of sediment discharge
- Review of relevant legislation
- Erosion processes, hazard and risk assessment
- Basic soil science relevant to erosion management and revegetation
- Water quality monitoring (turbidity, suspended solids and pH)
- An awareness of best management practice ESC requirements and their limitations.
- Appreciation of why some erosion and sediment control techniques are more effective than others.
- An understanding of basic construction and maintenance requirements for drainage, erosion and sediment control measures.
- Principles of sediment basin design and operation
- Familiarity with types and suitability of revegetation techniques for different circumstances
- Site inspection and auditing requirements

PROGRAM

COURSE INTRODUCTION

Introduction and environmental consequences of sedimentation

Overview of relevant legislation and case law.

Forms of erosion and erosion processes

Erosion Risk Assessment (RUSLE)

Soil Sampling, Chemical and Physical analysis

Sodic and dispersive soils

Soils as growing media

SEDIMENT CONTROL MEASURES

Performance/effectiveness, limitations and design considerations associated with Type 1, 2 or 3 sediment control measures

Compliance requirements for sediment capture onsite

Overview of sediment basin design, operation, treatment and maintenance requirements

DRAINAGE CONTROL MEASURES

Design standards for temporary drainage structures

Requirements and function of clean and dirty water diversion

Assessment of rock check dams Vs drain lining options

Temporary water coarse crossings

EROSION AND REVEGETATION MEASURES

Best practice erosion control requirements

Erosion control tools for soil management, stockpiles, stabilised site access, temporary covers and stabilisation and permanent site stabilisation.

Assessing suitability of various revegetation methods for different circumstances

PRACTICAL COMPONENTS

Bench testing of flocculants

Dispersion test

pH field test

OUTCOMES

All participants will be awarded a Certificate of Completion.

Attendees can also be issued with a Certificate of Attainment from Sunshine Coast TAFE, following successful completion, with O2's Level 2 ESC course aligned to Nationally Recognised Training, namely unit AHCSAW402A *Supervise On-site Implementation of Conservation Earthworks* part of a Certificate 4 (Cert IV) in *Conservation and Land Management*. Issue of the Certificate of Attainment will incur a \$50/person fee associated with RTO charges.

Knowledge gained from Level 2 course will form a solid learning base for all staff involved with ESC. Specific elements or areas which a participant may wish to further improve knowledge and skills can be addressed by undertaking one of our Masterclasses. Some of our Masterclasses include soil amendment & amelioration, sediment basin flocculation, dealing with regulators, drainage and stabilisation, inspections and auditing and use of regulatory tools.

FOR MORE INFORMATION CONTACT

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PRESENTERS

Terry Clark

Terry is a Senior Environmental Engineer with over 10 years direct experience in the area of soil and water. During this time Terry has undertaken many site and office based projects for a wide range of developments and locations throughout Queensland.

Terry has broad experience within the environmental field having previously worked within both private industry and Government. He has developed an appreciation and detailed understanding of the entire development process from the initial project conception, design and construction phases and subsequent final delivery. Terry has gained a high level appreciation of the challenges, constraints and impacts associated with application, monitoring, training and compliance with ESC requirements for both clients and contractors.



Terry is currently employed as Technical Services Manager for ESC within O2. As such he is focused on improving awareness within both industry and the wider community regarding the importance of managing ESC. Terry has completed over 100 ESC plans within QLD and NT and has worked on some of the biggest infrastructure and mining projects in the country including CSG for all major proponents and most contractors.

Terry regularly presents ESC training, under license of the author of the IECA Best Practice Manual. Terry has trained over 500 people in QLD and NSW.

Terry is a Certified Practitioner in Erosion and Sediment Control (CPESC) and a Certified Professional Soil Scientist (CPSS) (level 1).

Tom Bailey

Tom is an experienced Environmental Engineer who specialises in erosion and sediment control and stormwater management. Tom has experience in a wide range of land development, landfill, quarry, mining and gas projects and is experienced in the planning and design phase as well as the construction and operational phases.

Tom has applied his skills on numerous major infrastructure projects via long term secondments. Through these roles Tom has successfully lead negotiations with the regulator, client, principle contractor and various other stakeholders to review, amend and ensure compliance with project related environmental conditions.



As a Certified Professional in Erosion and Sediment Control (CPESC), Tom is experienced in developing erosion and sediment control plans as well as providing field advice and auditing. Tom provides his clients with exceptional time management and team work abilities, whilst providing cost-effective and practical solutions to many soil and water management constraints in today's industry.

COURSE DELIVERY

- A practical by the book approach delivered by experienced professionals who deal with ESC day in day out.
- Flexible delivery structure to focus on aspects most relevant to participant needs, interest and job specific requirements.
- Hands on exercises including pH and dispersion tests as well as bench testing of basin flocculants (subject to venue suitability).
- Assessment material aligned to Nationally Recognised Training, namely unit AHCSAW402A *Supervise On-site Implementation of Conservation Earthworks* part of a Certificate 4 (Cert IV) in *Conservation and Land Management*.

COURSE FEES

- Private booking
 - o \$3900 ex GST
 - o Travel expenses for presenter may be additional depending on venue location
 - o Host organisation to provide suitable training room and catering. Printing of course notes will attract additional fee, however an electronic copy can be provided free of charge for in-house printing.
 - o Timing of course flexible to suit group of attendees
- Public Course (limited to 25 participants)
 - o \$500 ex GST
 - o Upcoming courses can be found [here](#).
 - o Additional registrations can be offered at 20% discount (subject to available seats)
 - o Fees include catering (morning tea, lunch and refreshments), venue hire, training tools and printed course notes.