



# Australasian Chapter

## Newsletter

### IECA (Australasia) Presidents Report.

Michael Frankcombe



I've recently got back from the IECA Conference at Long Beach in California. It was our most successfully conference ever with just under 3000 delegates attending the event. This year saw a significant interest in the short course training program with

the majority of the courses selling out prior to the conference.

IECA launched its "IECA Trained" program at the Long Beach conference. This program is aimed at providing direction, improving standards and obtaining recognition for erosion and sediment control training in the USA. Part of the program is proposed "webinar" web based training packages. While not providing exactly the same experiences as one on one, person to person training, the webinars offer a pretty good alternative particularly for those people that need erosion and sediment control training but do not have the time or resources to travel to a major centre to attend training. All that is needed to access the webinars is a pc with internet access.

I'm working with Kim Kline to determine if this is something we should bring to our region.

Our Chapter was once again recognised for the hard work we've put in by IECA. This year we picked up two awards – the Membership Development/Services Award of Achievement and the Education/Outreach Award of Achievement. We also received an Honourable Mention Award for Chapter Management. It's great to beat the sepo's at their own game.

I also attended a CPESC Council meeting while I was in Long Beach. One of the more significant outcomes from that meeting was an agreement to establish an inspector level CPESC certification. The idea has been tossed around for a number of years but no one had come up with a workable solution. Jerry Fifield has been very passionate about this issue and has developed a comprehensive proposal. CPESC Inc expect to have the inspection certification operational by the end of 2006.

Planning for our 2006 conference is on track with the training courses and many of the technical sessions locked in. It's great to be running a con-

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#### Emerald Member



ference in Sydney again and even more importantly, running the conference with the NSW Branch of Stormwater Industry Association again. There are more details on the conference later in this Newsletter.

I look forward to seeing you in Sydney in June

*Michael Frankcombe*  
IECA (Australasia) President.

## 2006 Joint Annual Conference

NSW Stormwater Industry Association  
and the Australasian Chapter of the International  
Erosion Control Association



**Carlton Hotel, Parramatta,  
NSW**

**27<sup>th</sup> – 30<sup>th</sup> June, 2006.**

**Tuesday 27<sup>th</sup> June**

**Pre Conference Workshop Program**

**Wed 28<sup>th</sup> & Thurs 29<sup>th</sup> June  
Conference Plenary and  
Concurrent Sessions**

**Friday 30<sup>th</sup> June  
Technical Tours**

**For more information or to register contact:**

**Ph: 1800 354 322,**

**Email: [admin@austieca.com.au](mailto:admin@austieca.com.au)**

**Conference website:**

**[www.gemspl.com.au/soilwater](http://www.gemspl.com.au/soilwater)**

## Introducing IECA Australasia Directors for 2006

On behalf of the members of IECA (Aust) I would like to congratulate and welcome our new Director's; Dale Chaychuk from Maccaferri, based in NSW and Neil Taylor from Treemax, based in Victoria. I would also like to congratulate Graeme Ridley from Environmental Management Services in Auckland, New Zealand, who has been re-elected for another 3 year term.



*Dale Chaychuk*

Dale Chaychuk: NHD.Civ.Eng. Dale graduated from Technikon Natal, Durban, South Africa in 1992 with a National Higher Diploma in Civil Engineering. During this time, Dale worked part time for a local water authority where he was involved in the design of large water storage and reticulation projects. Dale then moved to Vancouver, Canada where he joined a consultancy practice and assisted in the design and inspection on large-scale, environmentally sensitive, property development projects. Dale joined Maccaferri South Africa in 1998 and worked in both the technical and sales departments where he was actively involved in the design of hydraulic structures using Gabions, Reno Mattresses and bioengineering solutions. Dale was a member of a number of wetland and erosion control forums during this time and provided specialised technical input to these non-profit organizations. Dale then joined Maccaferri Australia in 2004 as an Applications Engineer / National Product Manager where he provides technical design assistance to various engineering bodies using the Maccaferri range of solutions.



*Graeme Ridley*

Graeme Ridley graduated from university with a Bachelor of Agricultural Science degree and has since worked for various Regional Councils in New Zealand. His early focus was centred on rural land use farm planning, incorporating plantation and protection forestry on unsustainable rural land. He also spent time undertaking a range of assessments associated with indigenous logging operations and quarry proposals. Later Graeme focused on urban development, particularly erosion and sediment management on residential, commercial and industrial subdivisions. Graeme is currently an Environmental Consultant working with Environmental Management Services in Auckland. His focus is on both technical and programme issues associated with erosion and sediment control and he is also working with stormwa-

ter management and project management of development projects.

As an IECA Director Graeme is able to offer key linkages to both the regulatory and development industry within New Zealand. He is extremely interested in the erosion and sediment management business and works in this area with a wide range of groups from researchers to contracting firms. He also attends conferences and seminars and uses the opportunity to promote the industry and also the IECA. As a current director of IECA Graeme wishes to continue to promote the benefits to NZ members and potential new members and also to ensure that a NZ voice is heard in the Australasian Chapter. He has previously coordinated the involvement of the IECA in New Zealand conferences. Graeme wishes to use this position as an opportunity to advance contacts in the field of erosion and sediment control and stormwater management while promoting IECA and all associated aspects. He sees the position of IECA Director as one of importance and one which he wishes to continue with.



*Neil Taylor*

Neil graduated from Northern Metropolitan Institute in 1986 with certificates in horticulture and landscape construction. Neil spent 5 years in Victorian Local Government working on open space planning tender documents concentrating on revegetation projects. In 1991 he started his own business focusing on revegetation and erosion control projects mainly for local government. In 1998 Neil joined Mulch Master, a company producing Mulch and Compost from recycled green waste. He helped develop a compost suitable for use in berms. After 4 years with Mulch Master Neil went onto join the Treemax team in which he currently holds the position of Regional Sales Manager, covering NSW, VIC, TAS, SA & New Zealand.

As an IECA director Neil is keen to promote the association by working with the "hands-on" staff in the construction industry. He is keen to develop a series of IECA training and field days in order to promote erosion control best practice.

### APPLICATION TO JOIN.

Complete this form or a photocopy and send or fax to:

**IECA (Aust)**  
PO Box 33  
Picton, NSW, 2571  
Australia  
Fax: 1800 353 227 within Aust.  
Or +61 2 4677 0902  
Or send an email to [admin@austieca.com.au](mailto:admin@austieca.com.au)

And we will forward an application form and details.

I wish to join as:  
**STUDENT/RETIRED  
INDIVIDUAL  
CORPORATE  
EMERALD**

Please forward information to me:

Name: \_\_\_\_\_

Organisation: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_

Tel: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

### FOUNDATION MEMBERS:

- **Spraygrass Landscapes Aust.**
- **Aquaseeding**
- **Maccaferri**
- **Alliance Seeds & Revegetation**

## Changing of the Guard - Doug Wimble steps down from the IECA (Aust) Board.

Doug Wimble from Spraygrass Landscapes Australia is a foundation member of the Australasian Chapter. Doug has also been a member of the Australasian Board since the Chapter was formed in 1994. When nominations were called for Directors in 2005 Doug decided not to renominate. He felt it was time to let the "young" ones move into the running of the Chapter. The Chapter has seen a great deal of changes over the last 11 years and is in a stage of strong growth. 2005 saw an increase in membership of 18%. The Chapter is forming very positive linkages with other Associations. This has been one of Doug's aims. Even though Doug is no longer on the Board he has promised to be an active member and is happy for us to call on

his expertise at any time. On behalf of the Australasian Chapter I would like to say thank you to Doug for all the time, energy and support he has invested in the Chapter.

I would also like to thank Brendan Swifte who has been on the Chapter Board for the last 3 years. Brendan has also been the Board Secretary for the past 2 years. He is a strong supporter of the Association and ensures that Geofabrics and or Maccaferri support all IECA events throughout Australasia. Brendan has always been great with ideas and direction for the Chapter. We would love to see you back on the Board in a couple of years.

## Regulation and Compliance Seminar and Field Day - Ballarat - March 2006

Following on from the success of the Jell's Park seminar the Regulation and Compliance seminar was held again in Ballarat. The day was expanded to include demonstrations of erosion control products.

Copies of the papers presented can be found on the Chapter website in the "Education and Training Section", [www.austieca.com.au](http://www.austieca.com.au).



Neil Taylor presenting Ballarat City Cr Geoff Hayes with a Corporate Membership to IECA(Aust) in recognition of their support in organizing and providing the venue for the event.



Howard Mitchell from Hume City Council talked about Local Laws in relation to erosion and sediment control.



Andrew McLorinan from KAB Vic reported on the Clean Site project.



L-R Neil Taylor, Branko Kezerle, Jencie McRobert, Rachel Pearce covered a number of topics including: sediment run off from unsealed roads, Site environmental management on developer constructed Melbourne Water projects, Subdivision Construction Site project.



Paul Jennings from We Blow demonstrates how easy it is to install Ecoberms.



Aquaseeding demonstrating hydromulching.



Neil Taylor and David Appleby discussing Straw-Soggs, Silt-worms and ReCover.



Michael Boeree from Omaru Engineering-traveled from Sydney to show the audience how easy it is to install silt fence with the Silt Fence Plow.



Ken Fraser discussing the various erosion control products Statewide Rivers & Stream Management are able to supply.



Brendan Swifte from Geofabrics informs the audience of geotextiles and geosynthetic materials available to the industry.

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International Erosion Control Association

We're on the web!  
[www.austieca.com.au](http://www.austieca.com.au)

## 2006 IECA (Australasia) Board and Committee Members.

**Michael Frankcombe**  
President and Chair CPESC committee,  
Education committee.

**Bill Gardyne**  
Vice-President, Education committee

**Bill Leggatt**  
Secretary and IECA(Aust) website developer.

**Tim Duckett,**  
Director, Education Committee

**Dale Chaychuk,**  
Director

**Graeme Ridley,**  
Director,

**Rachel Pearce,**  
Director,

**Neil Taylor,**  
Director,

**Grant Witheridge,**  
Director,

**Robert Coulsen,**  
Associate Director

**Ian Kiernan, OA, OAM**  
Patron

**Sandra Lanz**  
Communications Officer,  
[slanz@austieca.com.au](mailto:slanz@austieca.com.au)

**Suzan Frankcombe**  
Treasurer

## Presidents Technical Tip - Dispersive Soils, *Michael Frankcombe CPESC.*

Part of the joy of living and working in Australia is that we have the pleasure of dealing with some of the oldest and most weathered soils in the world. This unfortunately also means that our soils are often highly erosive. There are a number of factors that contribute to soil erosivity. One of most problematic and I would suggest most poorly understood of these factors is dispersion. Dispersive soils are structurally unstable and disperse in water back into their basic particles - sand, silt and clay. Dispersible soils are highly erodible and present problems for successfully managing erosion and sedimentation.

Dispersion is caused by the presence of sodium. When water is added, sodium attaches to the clay and forces the clay particles apart. If a clod of dispersive soil is placed in a beaker of water the soil will chemical break apart before your eyes. The fine clays remain in suspension while the coarser particles break apart and settle out.

Problems associated with dispersive soils include:

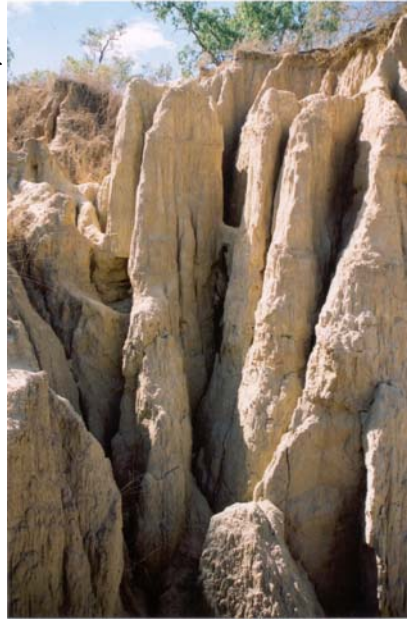
1. High to extreme erosion potential
2. Poor water infiltration and water holding capacity
3. Restriction of plant seedling and root movement
4. Water quality degradation due to suspension of fine clay particles.

There are three ways to deal with dispersive soils: 1- Removal, 2- Burial, and 3- Chemical treatment

Removal of dispersive soil is only feasible on a small scale due to the cost of excavation and transport of the material. Then there is the dilemma of how to dispose of the excavated soil.

Burial is feasible if suitable quantities of a non-dispersive soil or some over form on non-erosive material are available (gravel, rock mulch, organic mulch). Burial depth is dependent on the cover material and proposed future land use. For example, if the proposed cover material is non-dispersive soil and the intention is to maintain a permanent vegetation cover, then a burial depth of 1m may be appropriate.

Chemical treatment of dispersive soil using gypsum is the most common method of dealing with dispersive soils. Back in my NSW Soil Conservation Service days the recommended treatment rates ranged from 5 to 8 tons per hectare. More recently research undertaken in North Queensland by Ross Coventry from James Cook University has shown treatment rates ranging from 10 to 20 tons per hectare are needed. Such high rates of



*Classic tunnel erosion associated with a dispersive soil on Cape York*

gypsum application may alter some other key nutrient ratios so care should be taken.

Powdered gypsum can be purchased in bags or in bulk form. It is applied to the soil surface and incorporated into the soil to a depth of 0.3 – 0.5m using rippers or tynes. Optimally treated gypsum subsoils should be covered with topsoil prior to revegetation.

There are numerous environments where it may be difficult or impossible to apply and incorporate powdered gypsum (hilly topography, road cuttings etc). In these environments liquid gypsum can be “jetted” into the soil using hydro-seeding equipment. This method isn’t as effective as ripping at incorporating gypsum into the soil

profile however a significant reduction in soil dispersion can be achieved with careful application of liquid gypsum.

Chemical intervention is also required when trying to contain eroded sediments from dispersive soils. Preventing erosion of the dispersive is the ideal solution but seldom achievable. The fine clays that result from the erosion of dispersive soils (primarily generated by rain drop impact) must be contained in an appropriately designed Type F sediment basin and chemically flocculated. Traditional temporary measures of sediment control such as check dams, sediment fences, kerb inlets etc are totally ineffective at removing these clays. The function of the sediment basins can be assisted by the use of PAM floc blocks upstream in the feeder drains to the sediment basins but the primary reduction in the suspended clays is achieved by chemically flocculating the sediment basins.

Commonly used flocculants include gypsum, poly acrylamide (PAM) and poly aluminium chloride (PAC). Gypsum has poor solubility and requires mixing in a slurry prior to application. It also takes a number of days to act. PAC is very effective and fast acting but care must be taken when dosing as fill kills can occur from over dosing. Typical dosing rates are 10 – 20ppm. PAC is actually a coagulant not a flocculant. PAM’s are less effective than PAC’s for primary dosing of Type F sediment basins and generally should be used for less problematic soils.

The majority of chemical flocculants will lower the pH in sediment basins. I regularly see reduction in pH from 7.5 back to 4. In these cases the pH must be buffered back to the receiving environment or licence limit levels. I use agricultural lime for this purpose.