

Australasian Chapter

Newsletter

IECA (Australasia) Presidents Report.

Michael Frankcombe



The CPESC committee has been debating for some time about the small percentage of CPESC course attendees that go on to apply for CPESC certification. I've argued for some time that the CPESC training courses most likely highlight to the course attendees that becoming a CPESC is much more involved than simply attending a training course.

Others have argued that the CPESC assessment process should be simplified and the need to prepare an industry standard erosion and sediment control plan is much too onerous and the primary reason that less than 25% of course attendees achieve CPESC certification.

Erosion and sediment control plans (ESCP's) have three primary purposes:

- To demonstrate to an approval authority/regulator that the application has identified and understood relevant erosion and sediment control risks and have nominated necessary drainage, erosion and sediment control measures to manage and mitigate those risk;
- To provide an overarching understanding of erosion and sediment control risks and controls for a specific project; and
- To provide a detailed description of erosion and sediment control risk and specific controls for a section or sections of a project.

ESCP's are extremely important for ensuring drainage, erosion and sediment

(Continued on page 7)



Emerald Members



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“What’s new in construction re-vegetation?”

Seminar and demonstrations held February 2012.

The time of year was against us, the weather was against us and everyone’s work load was against us but we managed to pull together two great events in early February this year.

IECA Australasia worked closely with PGG Wrightson on the “What’s new in construction re-vegetation” seminar and demonstrations. The seminar was held at Cameron Park near Newcastle and Brisbane. The Brisbane event incorporated our AGM.

We had 5 presentations in the morning, 3 were home grown and 2 came from the US so we had a great cross section to help encourage cross pollination of ideas.

Michael Frankcombe opened both days stressing to the audience that the industry has come a long way but we still need to do things better. Those in the game need to ask the question, Are they putting in place a program of re-vegetation or do they just want to landscape the environment? Each has their place. Michael stressed the need to understand all the parameters you are dealing with and to start at the beginning with a simple soil test.

Our next speaker Wally Butman, from the US and gave us a quick history lesson on the evolution of hydraulic erosion control. He explained how the products used in the industry have changed and are now specific for different situations. He agreed with Michael regarding the importance of an initial soil test. Wally made the following comment. “Prescription without diagnosis is malpractice in the medical industry, why would the erosion control industry

be any different?”

Tim Bowyer from the US and Dr Ian Chivers from Australia both made presentations on the importance of choosing the right seed. Tim detailed different grass varieties that can be used for different situations depending on your needs. He explained that there are many different varieties to choose from to minimize the amount of maintenance such as irrigation, mowing, fungicide applications. Ian discussed Australian native seeds and their advantages. As we are all aware, in the past it was difficult to get good supplies of native seed, however this has changed now that the industry actually produces native seed commercially and you do not have to rely on people harvesting the back paddock. The viability of native seed if purchased from a reputable source is now very reliable. Ian discussed research that is taking place looking at germination technologies, the identification and production of northern grass types and the rehabilitation of mine site waste lands.



The last speaker for the day, Tony Rees encouraged the

audience to do things differently. He emphasized the need to put “quality” into the system and the need to develop good processes and systems. Tony detailed a number of projects he has been involved in and their successes due to the development and implementation of good systems and processes within his business.

The plan for after lunch was to have a field demonstration of the application of different Hydromulching products. Unfortunately the weather was not conducive to holding the demonstration at Cameron Park so extra networking took place. Those attending the Brisbane event did get to see and feel the product and learnt a great deal about correct preparation and the amount of water to add to the mix.

For specific details on each presentation please feel free to contact each speaker directly, details as follows.

Michael Frankcombe: Frankcombe@landloch.com.au

Wally Butman: wbutman@profileproducts.com

Tim Bowyer: care of

mstidwill@pggwrightsonturf.com.au (Qld) or

gthomas@pggwrightsonturf.com.au (NSW)

Ian Chivers: ian@nativeseeds.com.au

Tony Rees: tony@groundworks.net.au

IECA Australasia would like to thank all the speakers and our sponsor PGG Wrightson for a great 2 days.

PGG Wrightson Turf


native seeds
www.nativeseeds.com.au

Native Seeds would like to send an invitation to all those who received a free copy of their book “Australian Native grasses- A manual for sowing, growing and using them”, to contact them directly as they would love to assist you with more information and have special offers for those who attended the seminars. Email: carol@nativeseeds.com.au, Ph:

1300473337



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Minutes of 2010 - 2011 Annual General Meeting of the Australasian Chapter of the International Erosion Control Association. - North Lakes Resort Golf Club, North Lakes, Qld. - 3rd February 2012.

Meeting opened: 4.30pm

Attendees:

Karen Hager, Col Schiller, David Thompson, John Wood, Graeme Ridley, Michael Frankcombe, Wayne Walshe, Doug Wimble, Tim Wood, Sue Edwards, Peter Marshall, Rick Morse, Helen Squires, Andrew Macleod, Scott Paten, Ben McKenzie, Ben Starr, Sandra Lanz

Apologies:

Campbell Stewart, Bill Leggatt, Bill Gardyne, Andrew Dickson, Greg Kerr, Janine Koppel, Andrew Herrington, Jack Droomer, Peter McNeill

Minutes of Previous meeting:

Moved by Andrew Macleod that the minutes from the previous AGM are a true and accurate record. Seconded by John Wood.

REPORTS:

Presidents Report:

Michael Frankcombe presented his President's report a summary follows:

- Membership has stayed static. The number of non renewing members matched the number of new members. The main reason for not renewing membership was that the person no longer worked in the area of e&sc or had moved companies.
- Events for 2010/11 included the Mining Conference which was a huge success. The attendees strongly supported a 2nd mining conference in 2013.
- White Book Roadshow was also a huge success, 10 events through SE Qld and NSW.
- Members voted to move to Regionalisation.

Secretary's report:

John Wood Presented his report a summary follows:

- In order to ensure corporate good governance the following insurances are obtained by IECA Aust: contents, public liability, Association indemnity, workers compensation.
- BAS is filed quarterly, we have a Bookkeeper who prepares the accounts.

- The Chapter reports to the office of Fair Trading in NSW.
- We also report to IECA in the US through the Partners for Excellence program

John stated that he would like to see IECA continue as a forum to advocate the erosion control industry and give returns to members and sponsors.

Doug Wimble moved to accept the report Graeme Ridley 2nd the motion.

Treasurer's report:

Ben Starr presented the 2010/11 Profit and Loss report and Balance Sheet as prepared by the Bookkeeper, to the meeting. He noted that when analysing the books by item he identified that the BPESC document was a big contributor to the IECA income as was the CPESC program. This indicates that the Chapter needs to explore other such items to provide the industry.

Wayne Walshe moved to accept the report, Graeme Ridley 2nd the motion.

GENERAL BUSINESS:

Announcement of the 2012 Chapter Board of Directors

Michael Frankcombe thanked the 2011 Board for all their work. He especially thanked the out going Directors, Ben Starr and Bill Leggatt. He thanked Ben as the immediate past treasurer especially for the rigor he brought to the Chapter accounting. Bill Leggatt also got a special mention for the many years he has been on the Chapter Board.

Michael then welcomed the 2 new members to the Board, David Thompson and Andrew Macleod.

The 2012 Board is as follows:

Michael Frankcombe	President
Bill Gardyne	Vice President
John Wood	Secretary
David Thompson	Treasurer
Wayne Walshe	Director
Doug Wimble	Director
Graeme Ridley	Director
Campbell Stewart	Director
Andrew Macleod	Director

NEXT MEETING

October 2012

Meeting closed: 5.28pm



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AUSTRALASIA

Please click on the link:

<http://www.nzihit.co.nz/Conferences-and-Seminars/>

DAY 1 SUNDAY 22 JULY

5.00 – 6.00pm

Registrations

6.00 – 7.00pm

Welcome Function and
Opening of Trade Display



DAY 2 MONDAY 23 JULY

Welcome

Michael Frankcombe

President IECA

Willie Vance *CEO NZIHT*

International Keynote Speaker

John McCullah

Morning Tea

Technical Sessions

Lunch

Technical Sessions

Afternoon Tea

Technical Sessions

Product Sessions

IECA Excellence Awards Dinner

DAY 3 TUESDAY 24 JULY

Keynote Speaker

Greg Slaughter

Morning Tea

Technical Sessions

Lunch

Technical Sessions

Afternoon Tea

Table Topics

DAY 4 WEDNESDAY 25 JULY

Field Trip

Te Rapa Bypass finishing
with lunch



John McCullah CPESC
Owner of Salix Applied Earthcare

John McCullah, CPESC, is the owner of Salix Applied Earthcare and has been a practitioner in erosion and sediment control, watershed

restoration, stream restoration, biotechnical erosion control (bioengineering), and road and trail inventories, reconstruction and restoration for over 20 years. He has been training others in these fields for over 10 years. Mr. McCullah founded the Sacramento Watersheds Action Group (SWAG), a non-profit watershed restoration organization, and he is the Executive Director of SWAG. Mr. McCullah is currently producing erosion control training videos (Dirt Time video series), and instructs two courses at Shasta College in Redding, CA; the Watershed Restoration Practicum and the Caltrans Certified Stormwater Pollution Prevention Plan (SWPPP) online training.



Greg Slaughter
Safety, Quality & Environmental Manager,
Stronger Christchurch Infrastructure Rebuild Team

Greg is currently the Safety, Quality and Environmental Manager for the Stronger Christchurch Infrastructure Rebuild Team, rebuilding the City's earthquake damaged roads, bridges, sewer, stormwater and water supply network. He has extensive experience in the field of environmental management. Previously employed by Holcim New Zealand as Sustainability Manager, he led an environmental team responsible for environmental policy. Prior to this he enjoyed a number of years as the Group Environmental Manager for Fulton Hogan. Greg is a Chartered Professional Engineer. He has a Bachelors Degree with first class Honors in Geology and Master of Civil Engineering.

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TO REGISTER.

Banora Point Upgrade Alliance wins IECA Environmental Achievement Award 2012.

IECA Australasia is again very proud to have one of our own Chapter members be awarded the IECA Environmental Achievement Award. The Environmental Achievement Award is the IECA's premier award. It recognizes an outstanding erosion and/or sediment control project, program, or system that demonstrates excellence in natural resource conservation and environmental protection. Recipients will have shown a high level of environmental benefit by clearly identifying objectives, methods used, results obtained and detailing the benefits to the environment.



Jason Moran (BPUA Alliance Manager) and Jenny Butler (BPUA Environmental Manager) proudly accept the IECA award on behalf of the project.

Abigroup awarded IECA Contractor of the Year 2012.

The 2011 Contractor of the Year Award, which recognizes contractors who have demonstrated excellence in the execution and application of effective erosion and sediment control practices, was presented to Abigroup Contractors.

Abigroup is a leading construction company with strong ethical standards and a reputation for performance.

Established in 1961, they have since successfully completed hundreds of projects across a broad range of market sectors, and have accumulated a wealth of Building Construction experience throughout Australia.



Banora Point Upgrade Alliance

The Banora Point Upgrade Alliance (BPUA) has been awarded the International Erosion Control Association (IECA) Environmental Achievement Award for 2011 at the IECA's annual conference in Las Vegas on Monday 27 February 2012.

The award recognised the BPUA team's outstanding erosion and sediment control systems including the implementation of a 'triple-stack' design at the northbound on ramp.

This innovative solution comprises of a clean water pipe located underneath an underground sediment basin with an open vegetated bio-filtration channel on the surface, to treat immediately adjacent road surface runoff all in an area no bigger than one lane width. This design ensures that urban, operational and construction runoff can be managed within restricted future access conditions.

The project also demonstrated great initiative whilst completing the complex Kimberley culvert extension, reconstruction and improvement works. These works involved:

- retaining the existing five by 1800mm culverts;
- inserting a 1500mm inner sleeve and grouting the void to provide the required structural strength and durability;
- micro-tunnelling an additional two culverts (1 x 1500mm and 1 x 1800mm) under the existing highway, to compensate for capacity reduction in the existing culverts; and
- culvert extension works to the east, using two-stage sheet pile coffer dams.

This work occurred in two main stages over eight months with 21 key tasks required to be completed. The team's collaboration resulted in reducing considerable impacts on water quality, flood risk, impacts to residents, traffic disruptions and reduced energy consumption and waste generation.

In addition the BPUA team developed another innovative system of sediment capture and subsoil rock drainage to capture and treat site runoff, prior to release into a SEPP 14 wet-

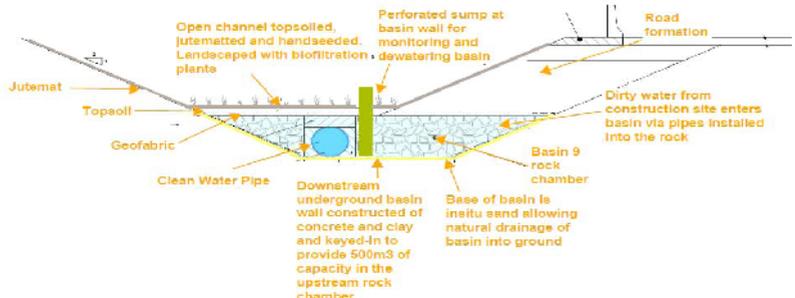


Figure 1. 'Triple-stack' design.

FOUNDATION MEMBERS:

MACCAFERRI



land. This system consisted of a series of sediment traps which feed into a large underground rock and geo-fabric filtration layer underneath the project haul road. The design of the haul road and the associated filtration system is unique, as the use of construction infrastructure (the haul road) as a functional component of sediment control is not generally considered in civil construction, with 'stand alone' structures or controls normally implemented.

The BPUA has been regularly recognised and commended by external agencies and stakeholders for innovative best practice environmental outcomes onsite and the positive and proactive environmental culture developed within



Figure 2. Construction of the 'triple-stack' design. Progressive clearing, segmentation, surface protection and clean water pipe construction.



Figure 3. Current view of the on ramp area – upstream of underground basin.

the construction team. BPUA's Superintendent, Nick Williams has worked proactively with the construction team to raise awareness of environmental issues and ensure the environment is regarded as one of the project's key performance areas. The team recognises that good erosion and sediment control not only protects the environment but also protects our construction work areas reducing the need for rework and resource use.

BPUA Alliance Manager, Jason Moran and BPUA Environmental Manager, Jenny Butler accepted the award at the conference and said they were proud of the innovative work being undertaken on the project in the areas of conservation and environmental protection.

"Since the beginning of the project, the BPUA has shown a high level of integrity towards environmental protection. Winning this award is an outstanding accomplishment and I am delighted to accept the award on behalf of the project and Alliance partners," Mr Moran said.

"Through hard work the alliance team has overcome many design and construction challenges remaining committed to fostering a positive and environmentally aware culture onsite".

The BPUA consists of an alliance between Abigroup Contractors, Seymour Whyte Constructions and Snowy Mountains Engineering Corporation (SMEC) for New South Wales Roads and Maritime Services (RMS). The \$359 million project on the far north coast of NSW features a six lane, 2.5 km dual carriageway and boasts a land bridge, 330 metre viaduct and extensive upgrades to local roads.

The upgrade is due for completion in 2012.



Figure 4. Location of Kimberley culvert works and all multiple clean water sources requiring management.



Figure 5. Kimberley culvert pipe extension works.



Figure 6. Clean water managed through work area to downstream during Kimberley culvert works.

IECA adopts regionalisation

IECA now has a new structure. This is to reflect the globalisation of the Association and to ensure the needs of all our members are met. As you will see in the diagram below there are three levels to the Association. Our Chapter Australasia sits in Region 2.

There will still be an international conference, however it will alternate between Region 1 and Region 2 each year. Each Region will also host a conference each year, in Region 2 this will be in collaboration with one of the Chapters.

Region 2 had their inaugural Board meeting in March. The initial Region 2 Board has been appointed. The Board is made up of 9 members, 2 from the Malaysian, Indian and Southern African Chapters and 3 from the Australasian Chapter. Future Region 2 Board members will be elected by Region 2 Members. Please see the table for a list of Region 2 Directors, their term of office and their position.

Region 2 - Inaugural Board			
Position	Name	Chapter	Term
President & Director	Doug Wimble	Australasia	1 year
Administrative Vice President & Director	Rick Morse	Australasia	3 years
Technical Vice President & Director	Azman Abu Bakar	Malaysia	2 years
International Development Vice President & Director	Devaraj C.R.	India	3 years
Marketing Vice President & Director	Lehman Lindeque	Southern Africa	1 year
Secretary & Director	Michael Frankcombe	Australasia	1 year
Treasurer & Director	Danny Ng	Malaysia	2 years
Director	Heinz Beckedahl	Southern Africa	3 years
Director:	Dr Anil	India	2 years

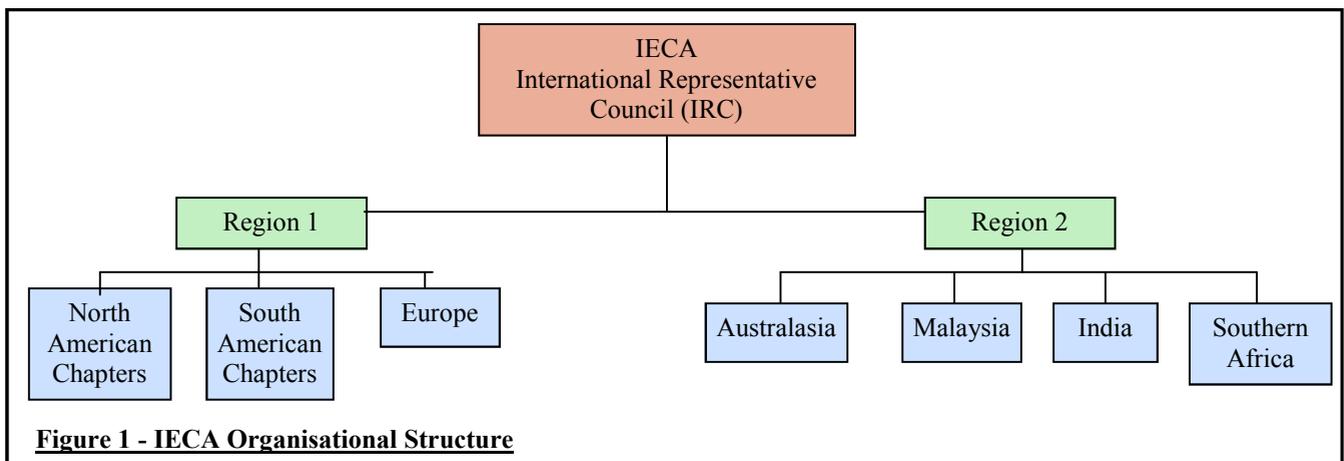


Figure 1 - IECA Organisational Structure

IECA (Australasia) Presidents Report. (continued) Michael Frankcombe

(Continued from page 1)

sediment control risk such as dispersive soils, then site controls are likely to be inadequate and the risk of erosion and sedimentation is increased.

Unfortunately as an ESCP reviewer the bulk of the ESCP's that I review are sub-standard. They often fail to identify the most basic erosion, sediment control constraints and revegetation constraints, are extremely generic and focus on temporary sediment control. In most instances these ESCP's provide limited guidance for site personnel and increase the erosion and sediment control risk.

Given that ESCP's are the primary mechanism for ensuring construction erosion and sediment impacts are correctly identified and managed I will always argue that preparation of an industry standard ESCP must be a fundamental component of the CPESC assessment process.

The greater challenge we face is how do we influence regulators to require a higher standard of ESCP review? Requiring ESCP's to be certified by a CPESC is certainly an excellent starting point and some Local Government and State Government Authorities are including this requirement in their approval conditions. Unfortunately more than often I see wording such as 'suitably qualified and experienced' used which opens the door to anyone that has a modicum of erosion and sediment control experience.

Michael Frankcombe
President. IECA (Australasia)

control is appropriately managed. If the ESCP preparer misses a key erosion and

Presidents Technical Tip - Geobinders

Michael Frankcombe CPESC.

The term 'geobinders' refers to the vast range of chemical soil stabilising products.

Geobinders can generally be grouped based on function:

- Those that glue soil particles together
- Those that seal the soil surface minimizing water ingress
- Those that cause aggregation of soil particles and allow increased water infiltration and retention in the soil.

When selecting a geobinder it is important to understand which of three primary functions listed above is needed for the particular site circumstance.

There are numerous different types of geobinders:

- Soil Polymers such as Poly Acrylamides and Lignosulfonate (a byproduct of the sulfite method of paper manufacturing from wood pulp).
- Glues such as Guars and Poly Vinyl Acetate.
- Bitumen/Hydrocarbon based.
- Vegetable oil based.
- Chloride binders (Calcium Chloride, Magnesium Chloride)



Soil polymer 'Gluon' being applied to exposed soil prior to rainfall

Geobinders are typically used for:

- Temporary protection of exposed soil from rainfall and flow generated erosion.
- Dust control on unsealed roads, hard stands and stockpiles.
- Improving the durability and trafficability of unsealed roads and hard stands
- Improving soil structure and increasing moisture infiltration and retention.

Mining and construction companies in Australia have realized significant cost savings using geobinders on haul roads and hard stand areas. The major benefits in using geobinders in these situations include:

- Reduction in dust and sediment emissions;
- Increased productivity and reduced equipment down time resulting from improved running surfaces;
- Reduced maintenance (grading, watering etc); and
- A reduction of raw materials (gravel/ rock) required to maintain the haul roads.

Construction companies have realized cost savings and reduced legislative risk by using geobinders to provide temporary protection of exposed soils.



Bitumen based geobinder 'PetroTac' being applied to a mining haul road

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International Erosion Control Association
(Australasia)

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Presidents Technical Tip - Geobinders

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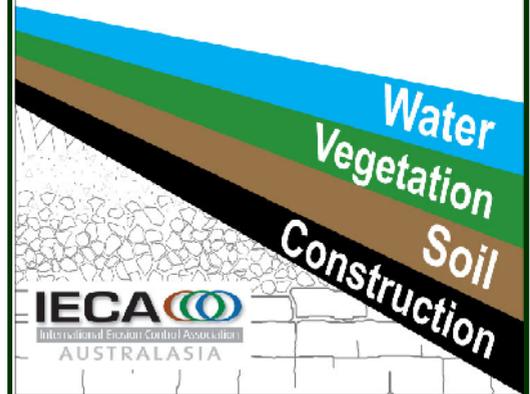
Benefits include:

- Reduced reliance on using geofabric to provide temporary soil cover;
- Reduced need for temporary sediment controls downstream of stockpiles and embankments due to improved erosion control;
- Improved site water quality run-off as a result of reduced erosion and improved sediment treatment efficiency resulting from aggregation of soil particles (larger soil particles)
- Reduction in the amount and velocity of run-off; and
- Improved revegetation performance.

Best Practice Erosion & Sediment Control

Book 1 – Chapters

November 2008



If you wish to order a copy of the *Best Practice Erosion and Sediment Control* document please go to www.austieca.com.au and download the order form or contact the office on:
admin@austieca.com.au

President's Technical Tips.

Over the last 9 years Michael Frankcombe has written a Technical Tip for each Newsletter.

These are a great reference source.

The accompanying table lists the topics covered and the Newsletter in which they were printed.

Past Newsletters can be found on the Chapter website.

www.austieca.com.au

Vol	Issue	Topic
8	#2 - Dec 2002	Bonded Fibre Matrix
9	#1 - April 2003	Update on Bonded Fibre Matrix
9	#2 - July 2003	Sediment Fences
9	#3 - December 2003	Erosion Control Blankets & Mats
10	#1 - April 2004	Sediment Basin
10	#2 - August 2004	Turf & Reinforced Turf
10	#3 - Dec 2004	Rock Filled Wire Baskets
11	#1 - April 2005	Hydro Mulch Tackifiers
11	#2 - Aug 2005	Composted Mulches
12	#1 - April 2006	Dispersive Soils.
12	#2 - Aug 2006	Compost filled filter tubes
12	#3 - Dec 2006	Erosion Mats
13	#1 - April 2007	Check Dams
13	#2 - August 2007	Concrete Lined Channels
14	#2 - July 2008	Construction Exits
14	#3 - December 2008	Clean Water Diversion Drains
15	#1 - May 2009	Amelioration of problem soils
15	#2 - August 2009	Gully Pit and Curb Inlet Traps
15	#3 - December 2009	Soil testing for re-vegetation
16	#1 - May 2010	Cellular Confinement Systems
17	#1 - February 2011	Humus and Organic Carbon
17	#2 - October 2011	When to use Sediment Basins.

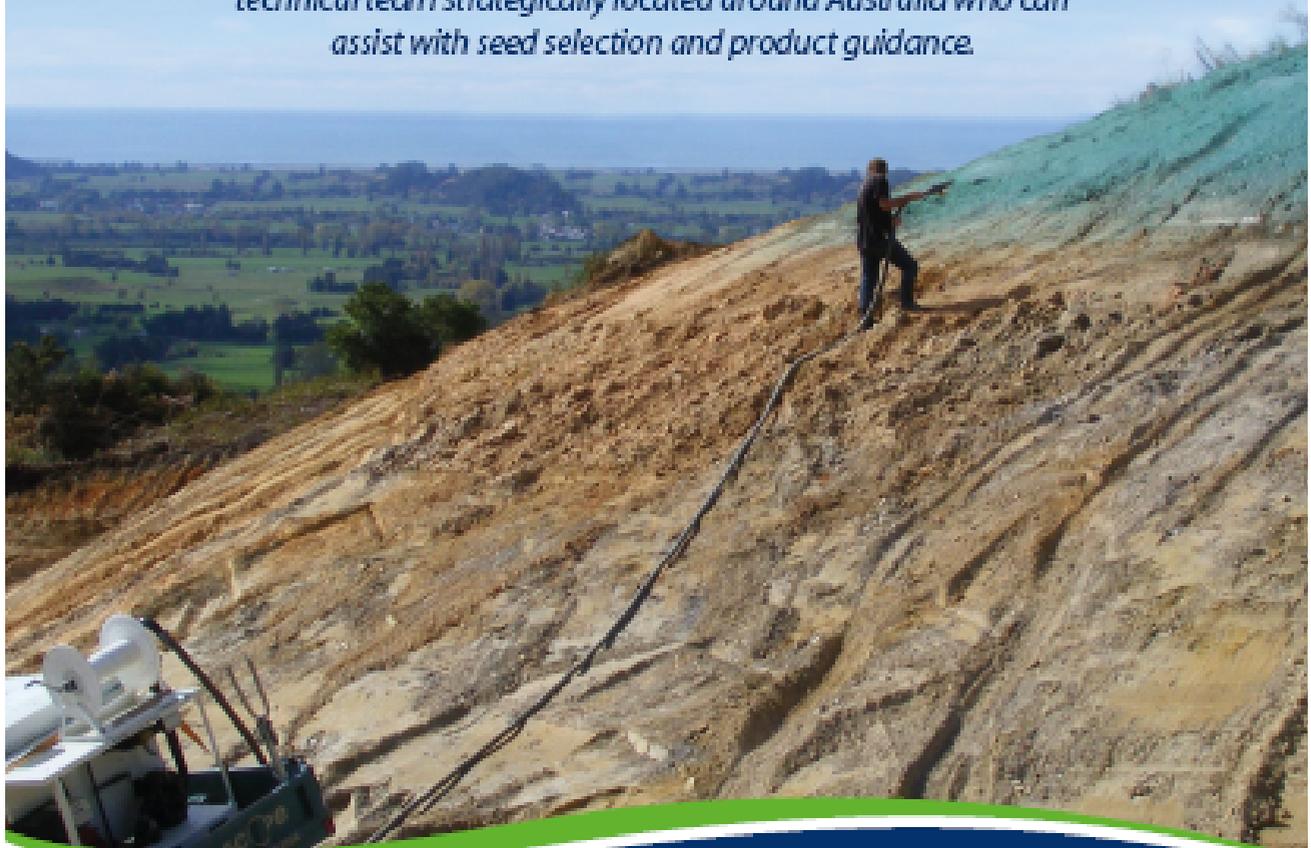
As IECA Australasia is an Association with the environment as its focus the Board have decided that the Newsletter will now be circulated to members in electronic format only. If you require a hard copy please contact the Chapter office.

PGG Wrightson Turf is a leading supplier to the revegetation industry in Australia

Our fully comprehensive seed range covers all temperate, warm and tropical species along with Australian natives. We also have seed blending facilities located throughout Australia and can custom blend to any requirement.

PGG Wrightson Turf is also Australia's exclusive distributor of Profile Product hydromulches and tackifiers. These products fully complement our seed range and ensure that the right result is achieved every time.

Our logistic capabilities stretch nationwide providing customers with minimal transportation costs and reduced freight times. We have a technical team strategically located around Australia who can assist with seed selection and product guidance.



For further information
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