

Australasian Chapter

Newsletter

IECA (Australasia) Presidents Report.

Michael Frankcombe



2011 has certainly arrived with a splash – Mother Nature doing her very best to wash a fair chunk of Queensland away. While the human scale of the floods will weigh heavily on our minds for some time to come, we will be paying the costs of the erosion impacts for generations – lost agricultural lands, stream bank erosion, road and rail infrastructure, mine-site flooding, habitat degradation, and siltation of rivers, harbours and ports. The list is virtually endless. It seems only yesterday that we were dealing with long-term droughts and fires.

As we did with the Victorian bushfires, IECA will offer the services of its board and membership in reaching out to Queensland and Northern NSW to help solve many of the technical challenges they face in the forth-coming months.

I would like to take this opportunity to thank IECA's membership for re-electing me for another three year term on our Board of Directors. I was fortunate enough to be re-elected to the President's role for another term by the Board. I've been President for more than ten years and this will be my last term in this role. I've been grateful for the opportunity provided to me and have enjoyed every minute of it. It is time for someone else to be given the opportunity to take the helm of IECA with hopefully renewed enthusiasm and vigour that will take our Chapter to the next level.

I will still be involved with IECA (Australasia) but will focus on supporting Rick Morse with the new regionalisation direction for IECA and with some luck, secure a position on the new International Board. If the regionalisation proposal fails in its current form then I will seek election to the North American Board.

I know I say this every year but this year will be a big year for our Chapter. The biggest thing will be regionalisation. As detailed in this newsletter, if our proposal gets up our Chapter *(Continued on page 2)*

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will become Region 2, and will take in many other countries other than Australia and New Zealand. It will deliver a raft of benefits, but there will be many growing pains as well – fiscal, management and cultural. There will be much work to do.

Please get in touch with Rick Morse or myself if you have any questions about regionalisation or wish to get involved in the process.

We are running two conferences this year – a mining rehabilitation conference in the Hunter Valley, and a fifth joint erosion control conference in New Zealand with the New Zealand Institute of Highway Technology (NZHIT).

The focus of the mining rehabilitation conference is the missing science of coal mining rehabilitation. In the NSW coal mining industry we are still seeing mining rehabilitation practices that were acceptable practice back in the 1970's but are no longer best practice, or even acceptable practice. Environmental professionals are not being taught the science of mining rehabilitation and the majority of mining industry events fail to deliver anything new. We have assembled some of the best erosion and rehabilitation speakers – internationally and nationally – to make this conference the best of its kind.

Don't be put off by the title of the conference if you are not in the mining industry. The science of mining rehabilitation and revegetation is directly applicable to other industries involving land disturbance, and I urge you to mark this significant event in your calendar.

We have worked closely with the NZIHT to run four very successful erosion conferences in New Zealand, and this year's conference will build on that. We are still in the planning stages, and will keep you updated as it evolves.

Michael Frankcombe
President.
IECA (Australasia)

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The Association - Where are we going?

IECA Changes

Changes are afoot in the Association. With the membership's approval, and this is yet to be sought, we will be "regionalising" within two years. This message is a first step in bringing the possibility of this to your attention. We will consult with you in detail before any changes occur. Nothing will happen without your approval through a ballot.

As long ago as the IECA Annual Conference in Atlanta in 1995, past IECA President Doug Wimble and I brought forward the idea that the Association needed to do more to become truly international in nature. We lead considerable discussion in the following years. However, it was not until 2006 when the topic was taken up by the International Development Committee (IDC) under Director Julie Etra's Chairmanship that things really started moving.

In short, we wanted to see a truly international Association that was all-inclusive of members and without the North American membership losing any of their current benefits. After all, North Americans comprise the vast majority of the Association and we do not wish to alienate any of them.

Membership Survey

Consequently, in June 2007, we surveyed the membership to see what they felt about where we were at as an Association and where we were going in this regard. Ten questions were canvassed. One of these questions asked

whether you considered that:

The "IECA is a North American association with members outside North America whose unique needs are served through local Chapters or developing affiliate relationships with erosion and sediment control organizations in other countries".

Most of those of you who responded said "yes" to this key question. From other questions, it also became clear that you wanted:

To "expand membership around the world to have a greater network of colleagues" and

To find "more ways for members to share expertise and network".

Most importantly, you said that:

The "IECA should be a global association with membership spread equally over many regions, with Board of Directors made up of representatives of those regions, with each representative being elected from his or her region. Further, face-to-face meetings should be rotated between regions. The organization should have a pre-eminent brand and role in education, quality and advocacy around the world."

The IDC has worked very hard developing ideas as to how this might come to fruition since the results of the survey were

released.

Where We Are At

This message, then, is to inform you where we are at right now. Based on our earlier discussions and the survey, Executive Director Russ Adsit suggested that we split the world into two "regions", one based on Denver in the USA and the other on Picton in Australia. Region 1 would comprise North and South America and Europe, while Region 2 would comprise the rest of the world. Each of these regions would have their own Board of Directors and operate under a separate IECA Board whose role would be to administer the Association at a global level. Of course, the Directors of the Australasian Chapter have been kept in the loop and have agreed to the suggested changes in principle as do the current IECA Board members.

It is not my intention to explain all the details here – just to inform you of a consultative process that is about to start. The Association's members can expect to be given details in the coming months explaining in much more detail how regionalisation might work. We have formed an IDC subcommittee to prepare the draft Plan, comprising Executive Director Russ Adsit, and Directors Julie Etra, Sandy Mathews and me.

Proposed Itinerary

Our proposed itinerary is as follows:

1. We will hold an open forum at the 2011 Annual Conference in Orlando – a plenary session when everyone can be in attendance. This will be the IDC subcommittee's opportunity to explain the proposal to you in more detail and your opportunity to ask questions. Those Australasians who cannot attend the Orlando Conference are invited to email Michael Frankcombe (mfrankcombe@kmh.com.au) or Rick Morse (rick@ieca.org) between now and 15 March 2011 with any questions.
2. Assuming nothing comes out of the plenary session that causes us to change course, we will request our membership

to vote on two things over the following 50 days.

- (i) Whether you approve of the regionalisation proposal. I suspect that it'll be a simple "yes" or "no" to whether you do or not. Of course, if most of the voting membership does not like the proposal, we will scrap the whole deal.
 - (ii) Whether you approve of revised Constitutions and By-laws should regionalisation go ahead. All members will vote on the IECA Constitution and Bylaws and for those applying to their own region.
3. If approved, we will finalise the Transition Plan. Alternately, we will make changes and resubmit it to our membership for your further consideration later.
 4. Assuming everything goes relatively smoothly and the necessary approvals are received, we will elect the IECA and two Regional Boards in November 2011. At this stage, we intend that these folk will take up their new positions at the 2012 Las Vegas Conference. All members of the existing IECA Board of Directors will stand down then.

Watch out for the information on this matter coming to our members towards the end of this year and exercise your democratic right to vote early in 2011. Please, we need to hear your voice. It is your Association – we wish to ensure your needs are met.

Rick Morse, CPESC
IECA Director



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CPESC Region 10 Report

Things went reasonably well for the Region in 2010, with a highlight being that the Queensland Government legislated that the holding of a CPESC was sufficient to show that someone was suitably qualified to prepare erosion and sediment control plans and, what's more, being "suitably qualified" was a requirement. This giant leap forward was largely the result of the efforts of several IECA (Australasia) members, not all of whom are CPESCs, but who support the CPESC concept.

Region 10 covers Australia and New Zealand in the way things are handled on the CPESC Council. More information is available on this at <http://www.envirocertintl.org/>, but please remember that this is a US site and does not completely reflect what happens here.

Despite this legislative change, the total number of CPESCs in Australasia has not changed much over 2010. Nevertheless, we should grow in 2011, at least in Queensland.

The CPESC database shows that we have 75 CPESCs at present, of whom 13 are CPESC (Associates):

The 2010 Statistics

In 2010, we received 31 applications at varying levels. Of these:

- Five candidates have sat for and passed the Fundamentals Exam, but we are still waiting for their completed applications. Of these, EnviroCert have been informed of four.
- Seven people have applied to be CPESC (Associate);
- 19 have applied to take the next step towards becoming full CPESCs. Of these: four still need to receive the Take-home Exercise, nine still need to complete the Take-home Exercise, six have completed everything for full CPESC and recommendations to this end have been sent to EnviroCert.

Australasian Independence

We would like to see Australasia running the whole CPESC program on our patch, including its day-to-day administration, and from January 2012. To this end, in early August 2010 we sent a draft Agreement to EnviroCert for review and/or discussion, but have had no feedback as yet. In this, we do understand that EnviroCert/CPESC Inc will have to approve all structure/function operations, but we hope that management of all day-to-day issues will be at a local level. It is important to ensure that CPESC in Australia and CPESC in the rest of the world sort of mean the same things. For more information on how CPESC is run in Australasia, please go to <http://www.austieca.com.au/CPESC/tabid/62/Default.aspx>.

Establishment of Committees

Under the auspices of IECA (Australasia), and in anticipation of the approval of EnviroCert for our greater independence, we have established the following committees:

CPESC Committee – the Region 10 Representative (Chairman), plus all members of the IECA (Australasia) Board of Directors;

CPESC Syllabus Subcommittee – Andrew Macleod (Chairman), the Region 10 Representative and others. A draft Syllabus for use in Australasia has been prepared by this subcommittee and forwarded to CPESC Inc for their review; and

CPESC Exam Subcommittee – Dr Peter Bacon (Chairman), the Region 10 Representative and others. This is the latest subcommittee that has been formed and took over its duties as of January 2011.

Eventually, we hope to establish syllabus and exam subcommittees for two other programs yet to be established:

CPSWQ (Certified Professional in Storm Water Quality) and

CESSWI (Certified Erosion, Sediment and Storm Water Inspector).

However, we feel we have enough on our collective plates for now.

CPESC for Southern Africa

I will be visiting South Africa in March 2011 to take a select group of three or four individuals through the whole CPESC program as it is run in Australasia, including a series of four 1-day workshops as run in New South Wales to train potential CPESCs. The intention is that, after the training program, these folk will sit the Australasian CPESC examination program with a view to becoming certified. Then they will be suitably qualified and informed to get a CPESC program operational in Southern Africa. That is not to say they will do things exactly the same as us, but they will at least have a suitable reference base from which to operate.

Liaison with other Associations

Last, we have been liaising with the Australian Society of Soil Science (ASSSI) with a view to working together for the mutual benefit of each certification program, Certified Professional Soil Scientist (CPSS) and CPESC. There is an element of overlap and mutual interest. For a start, we could link to each other on our websites.

Rick Morse
Region 10 Representative to the CPESC Council

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How and Why TCA has enhanced its performance in E&SC.

IECA Australasia recently had its inaugural informal networking meeting in NSW. This meeting was preceded by the AGM.

Ben Groth (A/Director/Environment) from the Transport Construction Authority (TCA) was our guest speaker for the evening. Ben was invited to talk about how and why TCA has enhanced its performance, and the performance of its contractors in the area of erosion and sediment control.

Ben detailed the history of the organisation, noting that TCA was recently established on 1 July 2010 as an operating entity of Transport NSW. Prior to this, TCA was the Transport Infrastructure Development Corporation (January 2004 – June 2010), and the Parramatta Rail Link Company (2000-2003).



Chatswood Transport Interchange

TCA is a project funded organisation, and has been involved in a number of major transport infrastructure projects including the Epping to Chatswood Rail Line, Parramatta Transport Interchange, Chatswood Transport Interchange, the Rail Clearways Program, Northern Sydney Freight Corridor Program and the Commuter Car Park and Interchange Program.

Ben detailed a number of the challenges they are faced with during construction, including:

- The diversity of projects undertaken (eg demolition, rail infrastructure, commuter car parks, the variability of project sizes (eg \$0.5M - multi \$Billion) and contract delivery models (Alliancing, Design and Construct, Managing Contractor, Construct Only)
- The constraints of working within the rail corridor (which can be as little as 12m in width).
- The need for consistency between environmental management systems of TCA and its contractors
- Working with small, medium and large construction contractors.
- The need to complete work within short time frames due to construction access constraints (ie during railway possessions/shutdowns).
- The very early lead time for construction planning of rail projects. Works within rail possessions are generally scheduled two years in advance, meaning work often has to take place regardless of inclement weather.
- Erosion and sediment management plans that need to adapt quickly due to the rapid site changes over the course of a project.

TCA has a strong commitment to protecting the environment, and takes its environmental obligations very seriously. As part of this commitment, TCA have developed their own Environmental Management System (EMS) for their operations. All TCA contractors are required to ensure that their project specific EMS documents are consistent with the TCA EMS. The EMS includes an Environmental Policy which commits to compliance with all applicable environmental laws, regulations and statutory obligations. Previous environmental performance of contractors (for both TCA and non-TCA projects) is considered as part of the tender evaluation process.

To ensure continual improvement of the EMS, TCA is developing in-house best practice guidelines. The first of these guidelines is the "Water Discharge and Reuse Guideline", which is expected to be completed in early 2011.



Michael Frankcombe & Ben Groth



The development of the Water Discharge and Reuse Guideline has also been prompted to address inconsistencies between management practices in place at TCA worksites. The guidelines have a number of key features, including a "no test – no pump" policy, mandatory written approval of the site environment manager before commencing any pumping or discharge, and guidance on the use of flocculants and pH correction.

On behalf of IECA Aust I would like to thank Ben for his time in the preparation and delivery of this very informative presentation. We are planning a similar event early next year, probably in Chatswood.

New requirements in erosion and sediment control in Queensland

The State Planning Policy (SPP) Healthy Waters will be introduced in Queensland on 28 February 2011 that will place a number of standard erosion and sediment control requirements on all new developments throughout the state.

For development over 2500m² the following standard conditions of note are expected to apply:

- If a sediment basin is required, this device is to be operated until 90% of houses have been constructed.
- Sediment basins are required to be constructed if uncontrolled soil loss rate from the whole site is greater than 150m³ per year.
- For high risk sites (>1ha) a conceptual ESC plan to be submitted at MCU stage and detailed ESC plan for Operational works stage.
- For coastal sites developers must demonstrate that stream flows mimic the natural range for the 2 year ARI event and that tractive forces in stream channels are not exceeded.
- As-constructed assessment will be required for all sediment basins
- Sign off on ESC plans by a hydraulic engineer will be required if basins with catchments over 1ha are included and sign off by a geotechnical engineer will be required if sediment basins included constructed walls of greater than 1m.

Some of the conditions in this SPP will require changes in how contractors manage erosion and sediment control on their sites.

The SPP will require that a sediment basin to be monitored, treated, and pumped out until 90 % of house construction in a development has been completed. This will extend the operational life of a basin from say 6-12 months to up to 5-10 years.

There will be a requirement to ensure safety fencing is correctly installed and to prevent health risks to children, and aesthetic considerations may also need to be considered in design.

The specific requirements listed above are taken from the draft "Best Practice Environment Management" guidelines released with the draft state planning policy by the Department of Environment and Resource Management (DERM) in 2009.

The final version of this document is to be titled 'Urban Stormwater Planning Guide' which is expected to be released prior to 28 February 2011.

"The contents of the Urban Stormwater Planning Guide are expected to be very similar to the draft version of the document titled "Best Practice Environment Management" said Michael Patchett, the Team Leader Health Waters Planning Water Quality and Accounting Department from the Department of Environment and Resource management (DERM).

The SPP will only apply to new development applications made under the *Sustainable Planning Act 2009* after 28 February 2011. The SPP sets a minimum standard across all Queensland councils for erosion and sediment control and other water quality, but does not restrict individual councils from placing stricter controls on developments.

The Sunshine Coast Regional Council, have made it clear that they intend on applying tougher standards to protect the high quality waters of the waters on the coast.

Although the SPP only directly applies to SPA Assessable development the intent of government is that these guidelines be applied to all development.

"We are seeking a consistent approach to outcomes to protect Water Quality Values and Water Quality Objectives", Mr Patchett said.

"Government working groups on infrastructure have agreed in principle to apply the requirements stipulated in the Urban Stormwater Planning Guide."

DERM estimate that application of the SPP may result in minor rise in the cost of a typical house and land package of about 0.5%.

The State Planning Policy for Healthy Waters (SPP Healthy Waters) have been approved in October 2010 and will become effective from 28 February 2011.

Ben Starr is a director of O2, an environment and engineering consultancy specialising in erosion and sediment control and a CPESC.



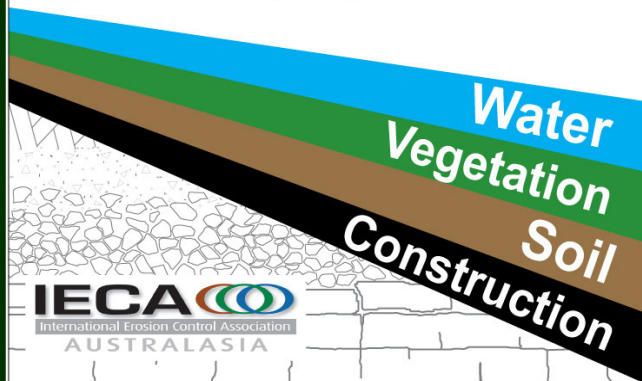
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November 2008



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Contributions to the Chapter Newsletter.

If you have or know of a case study you feel others in the industry would be interested in, and feel it would be an appropriate item for the Chapter Newsletter. Please forward it to admin@austieca.com.au.

Obituary of Michael Larcombe.

16 November 2010

The passing of Michael Larcombe on 16 November 2010 after a long illness, represents a huge loss to the environmental industry within New Zealand.

Michael was involved in consultancy for approximately 40 years. During that time he was involved with applied research of the natural resources of coastal marine areas throughout New Zealand, and the effects of a wide range of proposed and existing human activities on the coastal marine area.

For the past 10 years Michael undertook research and development of a rain activated chemical dosing system to improve the treatment of sediment laden runoff from land disturbing activities. Michael initiated the testing of a wide range of coagulants for their utility in promoting the rapid settlement of fine suspended solids from sediment laden runoff.

The research led to the development of an automatic rainfall driven system for the chemical treatment of sediment laden runoff. The success of this system in significantly improving the efficiency of sediment retention ponds has led to a system now being implemented on the majority of large earthwork projects throughout New Zealand. It has also been recognised internationally, particular in the eastern states of Australia.

Beyond the research, Michael was responsible for preparing many guidance documents on the effects of sedimentation and was instrumental in initiating specific adaptive monitoring programmes that are implemented today to ensure sediment discharges are monitored, understood and managed appropriately and effectively.

Michael's commitment and drive to reducing the potential effects of earthworks on the receiving environments, by developing automatic rainfall driven systems with associated research without claiming ownership of this highlights his integrity.

Michael's passing will leave a huge void in the development industry and he will be missed for his wealth of knowledge and willingness to share this to the greater community, contractors, consultants, developers and regulatory authorities.

Our sincere condolences to his family.

IECA New Zealand Members

FOUNDATION MEMBERS:

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IECA Australasia Board 2011



President: Michael Frankcombe,
CPESC
Email: mfrankcombe@kmh.com.au

Michael has been President of the Australasian Chapter since 2002.



Vice President: Bill Gardyne
Email: bill@oxbow.com.au

Bill joined the Board in 2003 and was elected Vice-President in 2004



Treasurer: Ben Starr, CPESC
Email: ben.starr@o-2.com.au

Ben was elected to the Board in 2008 and also took over as Treasurer.



Secretary: John Wood
Email:
johnwood@oceanengineering.com.au

John joined the Board in 2006 and was elected Secretary in 2007.



Board Member: Bill Leggatt
Email: bill@aquaseeding.com.au

Bill has been on the Australasian Board since its inception, with a short break btw 2006-08, and has also held the position of Secretary



Board Member: Graeme Ridley
Email: graeme@ridleydunphy.co.nz

Graeme has been a Board member for 9 years and is a past Vice-President



Board Member: Campbell Stewart
Email: campbell@southernskies.co.nz

Campbell was elected to the Board in 2010.



Board Member: Wayne Walshe
Email: wwalshe@kmh.com.au

Wayne has just been re-elected to the Board for his second term.



Board Member: Doug Wimble, CPESC
Email: dougwimble@spraygrass.com.au

Doug has been re-elected to the Board after a short break. He was the inaugural President of the Chapter.



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Presidents Technical Tip - Humus and Organic Carbon, *Michael Frankcombe CPESC.*



I grew up in an era when chemical fertilisers that provided macro and micro nutrients were seen as the ultimate solution to all soil and revegetation problems. What a misguided approach that was, and the so-called experts that promoted this approach have a massive amount of soil and land degradation to answer for. We have largely ignored the stuff that generations of farmers, years before us, knew about the importance of soil organics and soil organisms.

The beauty of IECA is that it allows you to network with an amazing bunch of erosion professionals that are more than happy to share their knowledge and experiences with you. This networking has allowed me to work with guys like Bill Gardyne, Tony Rees, Ross Coventry, Dennis Baker and John McCullah all of who dramatically increased my knowl-

edge on the importance of soil organic carbon and humus for soil health, soil erosion control, soil production, and revegetation.

The management of humus in the soil is really an old concept in organic agriculture. Many of the early books on organic farming talked about "humus farming." Essentially, humus management is a system of biological farming practices — crop rotations, cover cropping, green manuring, composting, grazing, and proper tillage — that provides food and habitat for soil organisms.

Humus is the end result of organic matter decomposition and recomposition by microbes. When fresh, undecomposed organic matter (green manures, animal manures, crop residues) is added to a healthy soil or placed in a compost pile, a rapid multiplication of soil micro-organisms takes place. Certain microbes (bacteria, fungi, and actinomycetes) break this raw organic matter down into smaller particles (gums, waxes, lignins) resistant to further decay and simple organic compounds (sugars, amino acids) that are water soluble. Following the breakdown phase, a second group of microbes bind these materials together, especially lignins and microbial biomass, into more stable humic substances (fulvic acid, humic acid, humins) in the build-up phase.

The physical, chemical, and biological transformation of raw organic matter into a complex humic substance is known as humification. Friable humus, which supplies slow-release nutrients over a period of weeks or months, is a short-chain humic compound. Stable humus, which has a half-life of years and may be viewed as the soil humus bank, is a long-chain humic compound.

When conditions are optimal, microbes attach these long-chain humic compounds to the clay fraction, resulting in clay-humus crumb. These clay-humus crumbs are full of voids that provide habitat for soil micro-organisms. The large surface area and negative charge associated with clay-humus provides exchange sites for cations, and building soil humus is one of the few ways land managers can actually increase the cation exchange capacity of soils. Clay-humus crumbs are highly desirable in building soil tilth and maintaining good soil structure and water holding capacity.

Poor land management practices including over grazing, excessive cultivation, mono-culture cropping and excessive use of chemical fertilisers has dramatically depleted organic carbon and humus levels in Australian soils. Many Australian soils have organic carbons levels of less than 1% where levels of between 4 and 10% are required for a healthy soil. On mine construction sites where topsoil has been managed poorly or lost, and mine spoil or subsoil is used as a growing media, organic carbon, humus and soil biota are likely to be non-existent or significantly lacking which means the soils is essentially biologically dead for revegetation or agricultural production purposes.

Soils that do not have healthy soil biota cannot convert raw forms of carbon into organic carbon and humus. In these situations adding raw carbon can cause anaerobic conditions and putrefaction of the soil. In a really good topsoil, the top 100mm of a one hectare paddock will support a live biomass equivalent to 100 sheep. This all revolves around organic carbon.

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Similarly, organic carbon material can increase the CEC and moisture capacity, both important in sandy soils.

One of the best ways of 'kick starting' the biological soil process is through the incorporation of high quality compost into the soil. Some of the more progressive mining companies in the Hunter Valley have been able to establish productive cattle pastures and woodlands on mine spoil by the incorporation of as little as 60 to 100m³ of high quality compost per hectare. In the road, rail, and urban subdivision industries, the application of high quality compost blankets over subsoil has proved successful at thicknesses ranging from 20 to 50mm.

I recommend incorporating the compost into the plant root zone where possible – at least 150 to 300mm.

The quality of the compost is absolutely fundamental to this process. The compost must be prepared in well-drained conditions with adequate moisture, and in stockpiles sufficiently small to maintain aerobic conditions. Typically, materials for composting should :

- Be placed in triangular stockpiles with a base width less than 2m
- Have moisture maintained at 60% throughout the stockpile
- Turned regularly when temperature reaches 55°C for at least 6 weeks

The compost should not be hot to touch once the process has been completed. The cured temperature should be no more than 5°C above ambient.

Given that large scale composting is a relatively new industry in our region, the quality of compost and compost manufactures varies massively. Because of this I recommend having compost tested or at least requesting test certificates from compost suppliers to AS 4454 (2003) – Composts, soil conditioners and mulches. In NSW Sydney Environmental and Soil Testing Laboratories provide compost-testing facilities, and in Qld I recommend Environmental Soil Solutions Australia.

President's Technical Tips.

Over the last 8 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

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.

TIME AND COST EFFECTIVE REGENERATION

Valley Hydramulch and Revegetation have been Revegetation Contractors since 1981 and over that time have developed machinery and processes to provide cost effective solutions to site specific problems. We developed our hydramulch units to handle heavier mixes than currently available American machines, because results obtained are enhanced by soil amelioration. Each unit can achieve production of up to 50,000sqm per day for single applications with up to 12,000kg/ha of powdered ameliorants.

All our operators have full OH & S inductions, ARTC track awareness certification and are quality conscious to ensure best results are achieved. All works are supervised by full time supervisors with many years of experience in revegetation works.

We carry out site soil testing and applications are designed to be site specific, with a detailed recommendation being submitted for consideration prior to commencement of works.

We carried out tractor seeding, hydroseeding and hydromulching with wood fibre and sugar cane mulch on the Coolac Bypass Project on a total to date of 1,300,000 sqm and achieved results which satisfied the strict erosion and sediment control requirements, even in an extended period of extreme drought.

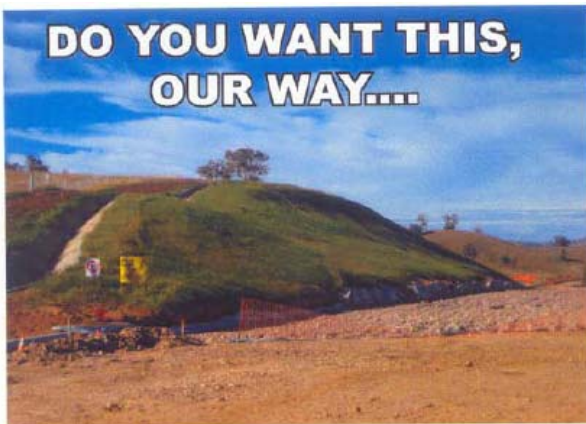
To enable timely completion of traffic switches are frequently completed up to 100,000 sqm per day to comply with the Abigroup Construction Programme.

Full quality assurance documentation is provided to track applications and locations.

We are currently working for the Northern Hume Alliance where we have completed approx 3,300,000 sqm of light compost blanket over the last two years, and are also working on the Ballina Bypass Alliance.

Contact our office for obligation free quotations for your works, and professional advice, especially in regard to our hydraulically applied compost blankets, which are a viable alternative to erosion control fabric at a fraction of the cost.

In our thirty years we have trialed most applications and methods. If you have a special requirement, give us a call and we can advise you on what works and what doesn't.



Let us show you how to do it properly.
No complications, just common sense.

Full OH&S and Quality Assurance

**Large Capacity Machines
Experienced Operators with Experienced,
Full Time Supervision
Site Specific Mixes and Applications**

**Compost Blanket Applications - More
Economical than Erosion Control Matting**



Make sure you get what you pay for



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