



Update on NZARM Resource Management Certification

The NZARM executive have of late been doing a reworking of the NZARM Resource Management Certification. Here, Norm Ngapo details how they intend the new system to operate.

This is an update for members of NZARM regarding the position of the current Practising Certificate, and the proposed introduction of a new Resource Management Certificate to replace the current system.

Over the past few years, NZARM has operated under an Australian based certification system known as CPRM (Certified Practising Resource Manager). This was set up in conjunction with the New Zealand Institute of Agricultural and Horticultural Science, and has worked reasonably well until about 4 years ago, when we appeared to receive little or no feedback from the Australian administrators. The situation over the last two years is that the Australian based CPRM appears to be dysfunctional. Alan Campbell looked closely at the CPRM system and recommended that it no longer be used by NZARM.

The Executive Committee has considered the matter and noted that there is an existing Resource Management Certification provision in Clause 10 of the NZARM Constitution. The Constitution requires that NZARM has in place its own Certification process, and this is currently being worked on.

The Executive has set up a sub-committee of Simon Stokes, Norm Ngapo and John Whale to look closely at recommending a policy for the re-introduction of a Resource Management Certificate for professional certification of NZARM members.

The proposed policy is currently being finalised, but the key elements include the following:

Key elements:

- The new Certificate will comprise two categories;
- The first category will be a general certificate and will recognise general competence in resource management;
- The second category will be a professional certificate, and will recognise professional and technical expertise in resource management;
- Holders of both Certificates must be members of NZARM;
- Existing CPRM holders will be automatically grandparented to the second category of professional certificate;
- All new applicants must progress through the first certificate in general competence to the second professional certificate;
- Awarding of the certificates will be handled through a Resource Management Certification Board as set out in Section 10 of the NZARM Constitution.



Potential Certified Practising Resource Managers soak up the knowledge at last years conference in Northland.

NZARM members will be kept informed of the developments through Broadsheet and the NZARM website <http://www.nzarm.org.nz/>. It is proposed that the new system will be formally presented to the membership at the 2010 AGM at Christchurch in September.

Norm Ngapo

Inside

Consider Soil Factors When Applying Effluent.....	03
The Next Compliance Toolkit Release.....	04
Northern Hospitality.....	05
NZARM Conference 2010-Update.....	06

The Power of Grass Roots Soil Knowledge.....	07
Kaimai Catchments Project – An Overview.....	09
Presidents Comment.....	10
Regional Roundup.....	10

NZARM

The New Zealand Association of Resource Management (NZARM) is an incorporated society that provides support and focus for people who share a professional interest in the sustainable management of New Zealand's natural resources.

NZARM's purpose is to champion the resource management cause, to promote professionalism, and to maintain a strong community spirit of meeting, sharing, and generally having a good time. Members receive benefit through an annual conference, regional workshops, a Broadsheet newsletter three times each year, and the opportunity to become a recognised professional and accredited practitioner of resource management.

Further information, including membership registration details, can be obtained from the NZARM website (www.nzarm.org.nz) or by contacting the secretary:

The Secretary
C/- NZARM
PO Box 4315 Hamilton East
HAMILTON 3247

BROADSHEET

BROADSHEET is the newsletter of the New Zealand Association of Resource Management. It is now published three times per year.

The Editor welcomes correspondence, reviews of recent publications, interim reports of current research or resource management issues, news items, other articles, and lighter items about members activities and career movements. An invitation to make submissions to Broadsheet is sent out 2 - 4 weeks prior to the publication date. However, SUBMISSIONS CAN BE MADE TO THE EDITOR AT ANY TIME. Generally submissions are sent to NZARM regional coordinators or directly to the Editor. Copy sent by E-mail is preferred, although typed copy is also acceptable. Items can be sent to:

Tony Faulkner
Land Management Officer
Greater Wellington Regional Council
34 Chapel Street
Masterton
DDI 06 370 5663
Mob 0272175169
Fax 06 378 2146
Email tony.faulkner@gw.govt.nz

Note that Broadsheet articles and photos are protected by copyright. Authors must be consulted before their articles are cited in publications. Unless specifically indicated otherwise, opinions expressed in the Broadsheet are not to be regarded as the official view of the Association.

ISSN 1172-9139 (Print)
ISSN 1178-3958 (Online)

Editor's note

G'day NZARMers.

I apologise for the slight lateness of this issue of Broadsheet, mostly caused by my recent trip to Adelaide, Australia, where I have been on a fact finding mission on mining on conservation land. All whilst monitoring my levels of admiration and envy at their obscene wealth. Although that may sound (and in fact is) facetious, it did to some degree colour my perception of "the lucky country" which I used to call home. A perception that was only sharpened when reading an article in The Listener on the flight over about NZs failed finance companies, and how it had revealed a shifting in the goalposts of our national consciousness towards a wealth = success model. This is only emphasised by our government's continual amorous gaze westward to our bigger cousins. To this end, this editorial will reflect on two matters our countries both share as touchstones at present; mining and water.

So, are the Australians better off? Who knows, and the Broadsheet probably isn't the place for navel gazing, however upon mixing with my peer group mostly of geology friends from university days some things were apparent. In brief, most were earning three times more money, drove better cars and generally had more gadgetry. All quite aspirational to the humble kiwi. One of my good friends was shamelessly running a uranium exploration programme in the Northern Territory. He indeed thought it laughable that NZ would a) be nuclear free and b) have an issue with mining within the conservation estate, something Australia has been doing for some time, most notably at the Ranger Uranium mine in Kakadu. This, he reported, was something most mainstream Australians had long ago learnt to stomach. Laughable though it may be, I am comforted by the fact that many of us have taken umbrage at the concept, even if its already quietly happening in parts of the country. It's our point of difference, at least for the time being. This is also not to mention the melange of other issues; environment, tourism, the proportion of government royalties that will be paid, and lastly the seemingly overlooked matter of actually discovering an economic ore body which most in the industry will tell you is no small undertaking.

Australia is also a very dry country. South Australia, in particular, is even drier. The driest state in the driest continent is the popular catch cry there. And I'm sorry

Northlanders, you would be doing well to win a who has the worst draught argument. Adelaide is the only city in Australia that I have been to where having bottled water is not pretentious but a necessity. Quite how they produce something apparently potable out of the brackish Murray River by the time its wound its way through the cotton farms, orange groves and rice paddies up river is a marvel of water treatment.

Australia's recent grappling with the way it manages water can only provide us with some learning's on how we do things here. Certainly federalisation of the Murray-Darling Basin in Australia was done as a response to a century of a lack of cooperation between the states, and to most was welcomed even though it was a bit too little too late. What we see developing in Canterbury however is perhaps something slightly more insidious. The apparent subversion of democracy by appointing commissioners in place of elected councillors is alarming. Lamentably, I very much doubt this has been done with an eye to how to best manage and understand an already over-stressed aquifer system. No doubt quite a few other regional councils will remain nervously poised as this unfolds

Finally, a big thank you to all contributors to the Broadsheet. Just reading through the packed Regional Roundup you can see how busy people are. So for your efforts I'm very much obliged.

Tony Faulkner



Water, water everywhere.....and not a drop to spare.

Consider Soil Factors When Applying Effluent

Bala TikkiSETTY explains how the hydrogeology of soil influences the effects of dairy effluent application.

As farmers know well, dairy effluent can be a great resource for nutrients. But if application is not managed properly it can also be a significant source of bacteria and nutrient leaching and run-off that can hurt the health of waterways.

Soil properties are one of the things to weigh up when managing effluent so that maximum benefit is achieved from the available nutrients and water is best protected. Texture and structure determine the amount of water that can enter and be retained within a particular soil, and the rate of transmission of excess water through that soil.

Water balances, drainage characteristics and consequent leaching losses of effluent constituents are strongly dependent on those properties. Effluent irrigation systems should be matched to soil properties to minimise runoff and leaching.

Leaching occurs in response to movement of excess water from the soil. Therefore, soils with lower water holding capacity are more susceptible to leaching. For example, soils with high water holding capacity (deep silt loams) are able to store significant quantities of effluent compared to those that are shallow, sandy, or stony.

The majority of soils have moderate available water holding capacities. Soils that have low available water holding capacities, are the shallow to moderately deep soils. In both cases, low available water holding capacities are the result of restricted rooting depths due to the shallow nature of the soils and high water tables. Effluent irrigation on these soils is likely to result in leaching.

Drainage and the level of biological activity of the soil at the application site are important. Permeable soils with a deep water table and no drainage limitations are preferable. However, on stony soils the risk of effluent draining directly to ground water would be an issue to consider. In such situations adjust application depths and rates accordingly.

The rate at which effluent can infiltrate soil must be adequate to avoid runoff of effluent and prevent contamination of surface waterways. The nature of the effluent and cattle treading on soils can affect the infiltration rate.

Treading damage occurs by compaction and plastic deformation when the soils are wet, significantly reducing infiltration rate. For some soils this can result in accumulation of effluent below slopes and in intersecting hollows. It can then enter surface waterways.

Transmission of water in liquid form through pores is described as hydraulic conductivity. When hydraulic conductivity of the soil is low, irrigation of effluent will

result in ponding and run-off once the total water capacity of the soil is exceeded.

Low rates of hydraulic conductivity are found in soils that are poorly drained, and ponding and runoff often occur with rainfall events. Many of these soils are artificially drained to reduce the incidence of ponding and waterlogging. The effect of treading on hydraulic conductivity within the top layers of soil is another issue. For pugged soils, application rates of effluent which are above 10 mm per hour are likely to result in ponding of effluent, if soil water content at the time of irrigation is high.

When the rate of application of water is higher than the infiltration rate, water can enter continuous macro-pores that are open at the soil surface, and then move very rapidly via so-called “bypass flow” through a relatively dry soil matrix. There is little opportunity for the water to be retained within the root zone. If irrigation of effluent occurs in such circumstances, deep penetration of solutes present on the soil surface or in the effluent can occur in a short time. Plants cannot, therefore, take up those solutes and high leaching losses of nitrate are likely to occur. Bypass flow of farm dairy effluent can occur in soils that undergo shrinkage and fissuring during drying, especially when these soils have been previously compacted by treading.

To summarise, soils can only hold a limited amount of water and that varies between soils. Also soils vary with the rate at which water can pass through the soil. For this reason, it is important to know your soil and ensure the rate that effluent is applied at does not exceed the ability of the soil to hold the water and transmit the water.

As effluent needs to be managed to avoid any adverse impact on natural and physical resources, the following rules operate in the Waikato region:

- Untreated effluent should not be discharged into any drain, stream or river.
- Effluent ponds, storage facilities, feed pads and stand-off pads must be sealed to prevent seepage.
- Feed pads and stand-off pads must be at least 20 metres away from surface water.
- The maximum loading rate of effluent on to any part of the irrigated land shall not exceed 25 millimetres depth per application and 150 kilograms of nitrogen per hectare per year.
- Effluent must not pond on the land surface and must not create any odour or cause nuisance outside of your property boundary.

Having adequate storage to allow for wet periods is essential to enable farmers to manage effluent for maximum benefit and within the rules.

Bala TikkiSETTY
Environment Waikato

Letters

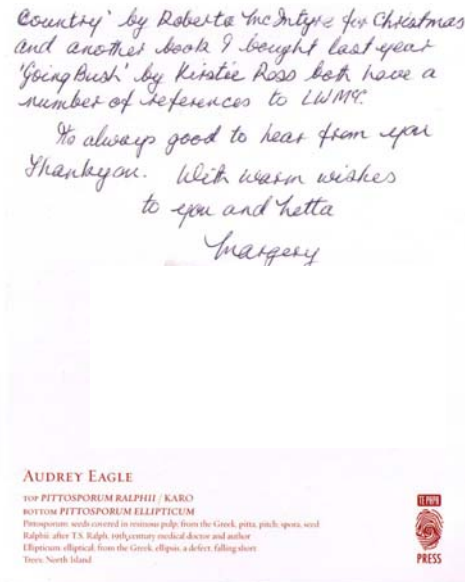
Graeme Anderson from Otago has kindly forwarded on this letter from Margery Blackman, the daughter of Lance McCaskill

Dear Graeme

Thank you for the Broadsheet. We were very pleased to hear that the award is still able to be given some years. I was also interested to read of the reference to Hugh Hammond Bennett. He apparently was helpful when Father was in America in 1939. Whether he actually met Bennett I don't know, it may be in his letters from U.S.A which I have put in the Macmillan Braun archives at Canterbury University. I'll put the Broadsheet with a box of material still to go there.

I suppose I could make a few comments re our family holidays in the late 30s and the 40s when we saw a lot of New Zealand and had many of the soil erosion problems pointed out to us. I particularly remember an extensive trip round the North Island when geographer brother (Murray) was with us some of the time. For me a High School girl (1946-47) it was a great learning experience.

My strongest memories though on holidays were in the bush, listening for and seeing birds, identifying trees and when up a bit higher, loving the alpine plants and when I felt a bit unsteady on steep parts, Father's sure foot work and a strong hand hold. I've got a thriving example of *Helio-hebe rounalia McCaskillii* at present and a few other alpins.



Margery Blackmans Card to Graeme Anderson

Regards

Margery Blackman

The Next Compliance Toolkit Release

First released in February 2009, the Compliance Toolkit continues to prove extremely popular with Dairy farmers across New Zealand. In line with the intention to provide a 'one stop' shop for information and advice on all areas of compliance, DairyNZ are pleased to announce the development of the next release of the Compliance Toolkit, with a focus on Environmental Compliance. The first stage of the new environmental tool will be available next season, with an additional release planned for later in the season.

The Environmental section of the Compliance Toolkit will provide two new tools for farmers.

1) A scoping tool for farmers looking at making changes to their effluent system. This will be particularly helpful for new conversions, farm amalgamations, or for farmers moving into a new region who want to get a better understanding of the rules. The first stage release will cover effluent management in all regions, with additional information about other farming activities such as bridges and culverts for Waikato, Bay of Plenty, Horizons, Canterbury and Southland regions.

2) Compliance Checklists. These will be available for the Waikato, Bay of Plenty, Horizons, Canterbury and

Southland regions; with compliance checklists for other regions planned for the second release. Compliance checklists have been developed locally with input and feedback from Regional Councils, Dairy Processors, Federated Farmers and local farmers.

A Compliance Checklist offers farmers the ability to do a Regional Council Compliance-style audit on their own farm at any time during the season, with the result being a "no-surprises" approach for Regional Council audits. Farmers will also be able to use the checklist as a training aid for farm staff about the effluent rules in their region.

This latest addition to the Compliance Toolkit, aims to meet the Dairy Industry's target to halve Regional Council effluent non compliance statistics, and offer farmers another way to be proactive about managing their farming business ensuring they remain compliant at all times. The compliance toolkit now covers; Employment, Health and Safety, Contractors, Animal Health and Welfare and Environmental compliance. For more information on the Compliance Toolkit, or to order your copy call 0800 4 DairyNZ or visit www.dairynz.co.nz.

Alex O'Connell
Dairy NZ

Northern Hospitality

A two-wheeled dissertation from the intrepid Lee Whiley in the far north.

Brought up on the West Coast I have always felt at home in the laid back friendly atmosphere of the north, including a half a dozen years in Soil Conservation up there. This was brought home to me when I finally had a crack at the Tour of Northland (Twin Coast Discovery) four day bike race in mid March. Teamed up with Oscar and our wing man Parky, Oscar and I did the riding while Parky was chief support man. I showed Oscar how to ride two years ago and now he kicks my butt (don't you hate that)! It was a great experience with Northern hospitality coming to the fore.

The night leading into the tour we were looked after by Oscar's mate Don who owns the Kamo Hotel in Whangarei so we were off to a great start. First day was 100km to Dargaville via the Paparoa Oakley Road and after a torrid day on the saddle was pleased to help a young rider Lauren battle the winds home. Oscar had arranged a home stay for that night on the outskirts of Dargaville. The hosts Simon and Pauline Gough looked familiar. Could they be farmers I visited with Bob Cathcart all those years ago? Could they be from the Kumara Triathlon I did all those times? We finally worked out that Pauline was a sister of Bryan Handyside and Paul Williams' mate Phil Grace (Phil the Fireman) I had met years earlier while working with these guys in Whangarei. Parky and Oscar were off to bed at 9 while I recounted stories of the past with our hosts. It was great to enjoy the hospitality of a genuine Kiwi country family.

Next day was up through the Waipaoa Kauri Forest a ride I had been looking forward to. The 5km Kaihu hill put paid that idea and it was a matter of survival to Opononi grinding up the last hill to finish in need of a beer. Oscar's mate Toss had arranged for us to stay with his mate Keith. He assured us we did not need to bring anything to his house and pointed out that he was all set up to watch The Blues Super 14 game that night out in "the shed" with sky TV its own beer and plenty of large bottles of Lion Red . On offering to bring some beers ourselves the conversation went something like this: " no worries mate I get my beer cheap". "How's that "? "Me and my mate get it a pallet at a time, there's 50 crates in a pallet and we get one between us each month, except for Xmas when we get a pallet each"! It was a very entertaining evening, Parky and Oscar went to bed and Keith and I chewed the fat.He insised that we had a bed each and found him sleeping on the sofa next morning! He was up before daylight to cook us a breakfast and send us on his way! Parky left \$50 koha under his pillow to cover expenses so I hope he changes the linen sometime soon!

It was a fast ride to Paihia where we were hosted at Karen and Tim's superb holiday home. Looking out over the Bay of Islands that afternoon I caught up with our hosts while Oscar and Parky slept off the ride. We shouted our hosts out to an excellent meal that night at "Island Life" on the water.



Taking in the Coastal scenery on the old Russell road on the last day I was most impressed by "Elliot Bay" and made a mental note to take my son Elliot up there camping sometime soon. Cycling the last 20km from Whakapara to Whangarei I was overtaken then helped home by Lauren from day one keen to return the favour! It was a great four days highlighting northern hospitality at its very best!

Cheers,

Lee Wha Lee

Flying Chinaman.

CONFERENCE

NZARM holds an annual conference to promote new learning, information sharing, networking, and a sense of community in the field of resource management. Venues alternate between the North and South Islands, and one of NZ's 16 regional authorities will usually host the conference itself. October-November is most favoured as the time.

CALL FOR CONFERENCE PAPERS

This year's conference will be held on the 21st-23rd September in Canterbury. More details to come.

MEMBERSHIP

NZARM welcomes new members, particularly if you have an interest in sustainable resource management. Prospective members can apply anytime, by obtaining a registration form from the website (www.nzarm.org.nz) or from the NZARM secretary. Candidates are nominated by two existing members (contact the secretary if this would be a constraint).

Annual subscription is discounted to \$50 if paid before 31 March each year. Late payments after that date are charged at the full subscription cost of \$70. All subscription enquiries to:..

The Secretary
C/- NZARM
PO Box 4315 Hamilton East
HAMILTON 3247

As a member of a registered association, members must inform the secretary in writing when they cancel or let their membership lapse. Otherwise the member will continue to be billed for the annual subscription.

PROFESSIONAL ACCREDITATION

The system that NZARM uses for professional accreditation is currently being reviewed. Please see the article on the front page.

MEETINGS

Regional meetings are key elements of NZARM's mission and service to its members. These meetings are usually designed around a particular regional issue and tend to involve members and interested people from both within, and from adjacent regions.

NZARM supports such events by providing financial support via seed money. Applications can be made to the National Regional Coordinator at any time. Visit the NZARM website for more information (www.nzarm.org.nz), or contact the NZARM secretary.
www.nzarm.org.nz

EVENTS

Erosion Workshops. See article on Page 8

NEW MEMBERS

Welcome Aboard!

James Annabell

Scott Andrew

Jonathon Findon

Amos Kamo

FUTURE CONFERENCE LOCATIONS

The NZARM executive have released the list below of future conference locations.

2010 Kaikoura/Chch Sept 21-23

2011 Taranaki

2012 Central Otago

2013 Gisborne

2014 Wellington

2015 Waikato

2016 Hawkes Bay

The more things change...

Mike Vine sent through this editorial from New Zealand Farmer on 23rd July 1959. Regardless of the date, there is something disturbingly familiar about it...

e New Zealand Farmer

THE NEW ZEALAND FARMER

Vol. LXXX—No. 11
PUBLISHED FORTNIGHTLY
JULY 23, 1959

P.O. Box 1409,
AUCKLAND.
EDITOR: JOHN CORNWELL

TIME TO STOCKTAKE ON WATER

WE face a shortage of water in the future unless we act now to stop wasting it.

This warning has been repeated twice in recent weeks by people who should know what they're talking about. They've both emphasised that water is already becoming a scarce commodity in many parts of New Zealand and that the position will get worse in the next decades as consumption increases with the growth of population, farming and industry.

Speaking at the annual meeting of the New Zealand Catchment Boards' Association, the president, Mr T. R. Beatty, gave a blunt warning that water was now one of our major national concerns and that the future needs of humans and animals could only be safeguarded if we acted now to place the control and allocation of water under a single authority.

Mr Beatty's views have since been endorsed in the report of the irrigation committee of the

House of Representatives presented in Parliament recently.

No clear authority existed under present legislation to control, allot and regulate the use of water by public and private users, the report observed. It went on to recommend that a comprehensive water Act be introduced at an early date to remedy this situation and to provide for an authority to be set up to do the job.

Our indifference over water use, waste and pollution has brought us to the point where many parts of New Zealand are already plagued by either too much or too little water, while pollution of some streams with industrial and urban wastes restricts the use of these sources of supply.

Furthermore, the lack of co-ordination in developing and using our water resources in the past has resulted in isolated policies being carried out without regard to the interests of other sections of the community. An example of this is in hydro-

electric power development schemes.

A long look forward into the future shows that we are facing an economic era in which claims on the country's water resources will become greater than they are now.

This will call for a system of priorities for allocating water supplies equitably on a national rather than on a sectional basis. And the responsibility for this is clearly a task for a national authority, working in co-operation with farming and urban groups.

It comes down to this: we have a wealth of water resources, but they aren't inexhaustible. As our economy expands, we won't have enough water to satisfy all of our increasingly varied wants if we continue the present extravagant and wasteful use of our water resources. Are we therefore prepared to support a national policy designed to conserve and develop our water resources for the long-term needs of the country? That's the challenge facing all of us now.

NZARM Conference 2010— Update

The conference will run from the 21-23 September, in Canterbury, with the theme 'Resource Management in Canterbury – more than just water'. Day 1 will be based in Christchurch. This will feature a panel discussion around **the future or Water Management in Canterbury**; a look at **the way we work** and successful collaborative approaches; and then we will look at **more than just water** where we will hear about how the community deals with changes, and also about biodiversity initiatives in the region.

Day 2 and 3 will involve a fieldtrip to Kaikoura and back, staying in Kaikoura on the night of the 22nd September. Over the two days we will hear about **balancing river use on the Waimakariri River**, the development and developmental challenges of Pegasus Bay, **Living Streams in Culverden**, resource management initiatives in Kaikoura, soil conservation

and flood control in the northern part of the region, managing vegetation for water, biodiversity and biosecurity, and perhaps a stop at a vineyard to see how **water mixes with wine**.

Registrations will be out at the start of May. Places on the field trip will be limited.

Please contact Julia Crossman for further information: Julia.Crossman@ecan.govt.nz.



The Power of Grass Roots Soil Knowledge

A recent editorial by Simon Stokes for the Soil Society Journal, Autumn 2010

Thank you for providing the opportunity to write an editorial. In preparation I looked back at the mid 1990's newsletters and found that editorial comments and letters to the editor are very similar to today's, and so my editorial sticks to the tried and true. Forgive my layman's comments to a well educated group, but I will write about my world and why soils are so important in the world I work in.

What has happened to the soils underpinning business success (SUBS) and visual soil assessment (VSA) opportunities that farmers and layman soil 'yakkers' like myself used to be involved in? They were brilliant learning places. I was lucky enough to be invited to join the first SUBS group based in and around Dannevirke, by Tony Rhodes (AgNZ consultant at the time) and Alec McKay (AgResearch). It was in this programme that Alan Palmer expanded my knowledge of soils and their formation and Alec in particular, encapsulated that learning into something meaningful for the farmers and myself around on-farm soil management. I also remember Graham Shepherd and his first version VSA training behind Te Mata peak, near Havelock North, where we debated Wanstead clay loams and 'their' soil scores for the first time. This training ground, of in-the-field learning from very good tutors, helped set up my own layman soils knowledge and eventually my own training programmes for the Smedley cadets at Smedley Station, Eastern Institute of Technology students of agriculture and viticulture, and my favourite training of all which was working with the late Laurie Dowling (AgNZ) putting in place the soils and erosion module of the pasture unit standards in the Ag ITO programme to farmers and shepherds.

All of this learning and transferring of soil knowledge was fuelled by the late Elwyn Griffiths, who I used to drive around the Hawke's Bay countryside, augering and mapping soils for, with all his quirks and funny habits – he used to growl at me for driving too fast over pugged paddocks, and he always knew we would find those paddocks where we found Raumatī and Okawa soils on the Ruataniwha Plains. He would berate the farmer over his sore back and bones that were shaken considerably by his inappropriate grazing practices.

So what has all of this got to do with a soils editorial? Well what I want to convey to those who read my humble effort is that the experience and training I received has been incalculable in relation to having the ability to work with farmers, industry, and many other besides, over the last fifteen years. This knowledge has opened more doors than shut them. The last Hawke's Bay monitor farm programme had soils and their management as a topic with regards to intensive bull beef farming because they understood the subject, and they understood that what I knew, would or could, be of some benefit. My soils knowledge underpinned my farm planning work. I am never going to be a soil 'rocket' scientist but when you combine your own basic knowledge with a farmers own knowledge you have a powerful synergy that exists.

This is how you achieve real change. This is also at the hub of what is missing in New Zealand currently.

Does this ability to learn from great tutors in the field still exist? Does the new breed of resource manager or consultant understand the importance of basic soil knowledge, particularly since nutrients and water issues have taken all limelight? I don't know, not to my knowledge do the opportunities I had exist. Andrew Manderson (AgResearch) updated and completed a very good guide to mapping soils. I wished I had had this when I started, instead of the much more weighty and technical soil survey book. But is it used? Has it ever been picked up and added to a student's or land management officers technical book list for learning? I suppose the print run wouldn't have run to much considering how many students study soils.

Since arriving in the Bay of Plenty to work for Environment Bay of Plenty I have put the land management officers through soils, land use capability, and VSA training. They are about to attend the national erosion workshops. We are lucky in that we have a soil scientist on staff (Dani Guinto) and Wim Rijkse in Tauranga. We can evolve our knowledge and learning, but not so every Council. Wim and Dani have completed the Bay of Plenty soils work in conjunction with Landcare Research and we now have the whole region mapped and available at 1:50,000 scale – maps and soil type information. They are also nearing completion of a soil guide for the region, which will be broken into 3 sub regions. The whole aim is to harness Wim's knowledge before he completely retires to the Pacific Islands and to get information to our clients in hard copy (I'm old fashioned and like books) – to the farmers and industry and others. It might sit on a farmers shelf for long periods but at least it's there, and handy. Elwyn inspired this work.

If we want our farmers, farm workers, and supporting agricultural professionals nationally to really make a difference with their daily decisions then they need soil knowledge and they need it as precise as we can give it to them. The level of precision required to manage nutrient and land use activities around the Rotorua Lakes means that soils will need to be mapped at higher scales and that the information is robust to audit. This is why my organisation has to make an effort on providing soil information and upskilling many. Otherwise we may end up having to produce the very information we will be scrutinising for nutrient benchmarking. But who else could currently do this and under what initiative? Where would a CRI get the funding support for such a project? And are there the resources to replicate this across New Zealand?

At this point in time when the Crown is about to settle with our upper Rangitaiki River iwi, Ngati Whare and Ngati Manawa, one of the very questions they ask is how can we help them understand what they have, and our reply is to start with the soil. We have to go back to basics and explain the soils.

.....continued overleaf

The Power of Grass Roots Soil Knowledge cont.

It is a little frustrating that the new initiatives that are receiving plenty of focus aren't also re-igniting the basic need for soil knowledge. Shouldn't the transfer of soil knowledge be something the Land and Water Forum should be addressing, or maybe the Primary Sector Water Partnership? Why have the word 'Land' in the title if (when googling the Forum) there is no context for land to exist, only water issues. The only national foothold I'm aware of to pursue building the capacity on soils is within the MAF Hill Country Erosion programme or by Regional Councils own contributions within their work programmes. And really folks this is not good enough for our country's future. We must build our capacity on soils and we must develop a professional agricultural based extension community outside of regional councils. There are very few in our public service and agricultural management roles that have the grounding of experience in the field of soils to ensure security of our productive land across New Zealand, or the planning and policies to support its national management, are appropriately addressed.

Where has our ability to put in place appropriate structures and tools to enable basic learning and understanding from good soil 'yakkers' gone. If there is one thing we must strive to produce, then that is field operatives who can talk about soils. It might surprise you but every farmer I have met has never forgotten the soil 'scientist' who dug holes or spoke about soils.

Finally, if I'm allowed to add some philosophical prose. I'm very proud of my spade; it has a Parker Hale blade, stamped in the corner with a number. It would have had

little use if it wasn't for those soil scientists I met and listened too. That spade is in hundreds of soil photos from the Hawke's Bay and I'll be using it tomorrow at the Ballance Farm Environment Awards digging a hole for a visual soil assessment. It is a family heirloom and I will hand it down to my kids. Maybe, just maybe, they might get to use it one day, to explore the world that is beneath their feet. Or maybe they might preserve it as a relic from a bygone era when people actually dug holes.

Simon Stokes



The author counting plants in a techno cell after a grazing event in 2007, Taniwha soil, Ruataniwha Plains.

Erosion Workshops

Workshops on Erosion Processes and Mitigation for Hill Country Farming in the North Island of New Zealand

MAF is sponsoring a series of eight one-day workshops around the North Island about the impact of erosion on the economic and environmental sustainability of hill country. Garth Eyles and Norm Ngapo have been contracted by MAF to prepare and deliver the workshops in conjunction with land management staff of Regional Councils.

These workshops are supported by Regional Councils and aim to upskill participants in erosion recognition, processes and treatment options.

The first four workshops will be held in autumn at Rotorua, Kerikeri, Whanganui and Hawkes Bay. The second series will be held in spring at Gisborne, Te Kuiti, Masterton and Stratford.

The dates for the autumn workshops are:

Rotorua Friday 23 April

Kerikeri Friday 7 May

Whanganui Friday 14 May

Havelock North Friday 21 May

Registration details are included on the Workshop flier.

Norm Ngapo

norm@waiorasoilcon.co.nz or Phone 07 312 6318

Garth Eyles

eyles_home@slingshot.co.nz or Phone 06 844 5905

Kaimai Catchments Project – An Overview

Workshops on Erosion Processes and Mitigation for Hill Country Farming in the North Island of New Zealand

Background:

The Department of Conservation, Environment Bay of Plenty and Environment Waikato have been working together to explore options for coordinating their respective work programmes to protect the Kaimai catchments and receiving harbour and estuaries, and to engage iwi and local communities in this protection effort.

This is a climate change project that encompasses 250,000 ha of the catchments which run off from the Kaimai Mamaku Ranges. The land is under multiple ownership and administration with approximately one quarter of the land administered by the Department of Conservation. The land spans 11 different iwi, two regional councils and five district councils.

The Kaimai catchments disperse water into two significant water bodies, the Tauranga Harbour and the Firth of Thames; both of which are affected by land use activities in their catchments. The forests of the ranges, remaining wetlands and other remnant natural areas within the catchments are locally important for biodiversity and they provide valuable ecosystem services to the two regions. The ranges, streams and harbours also hold significant cultural and recreational value to the people of the two regions.

These catchments and the natural resources within them also contribute substantially to the economic, social and cultural well being of the people in the regions. They support uses such as agriculture, horticulture, conservation, forestry, electricity generation, water supply and recreation. The management of soil, water, vegetation and fauna are important to sustain these uses into the future.

An inter-agency working group has developed a framework and project which proposes a catchment by catchment approach to ensuring their respective efforts have been coordinated and to encourage active community involvement in catchment protection work.

The working group has established a Technical Advisory Group (TAG) which will lead and facilitate the development of the project. The TAG currently comprises representatives of DOC and the two regional councils but membership may be extended to other mandated bodies as the project develops.

What has been achieved to date:

- The joint agencies have commissioned a State of the Environment assessment which was completed in late March 2010. This information will help to set priorities and form the basis for discussion with the community.
- The agencies and NZ Landcare Trust have secured \$350,000 of Ministry for the Environment funding to employ an independent co-ordinator to lead the community engagement role of the Kaimai Catchments Project.

- Both regional councils have included funding through their Ten Year Plans to contribute to the development and implementation of the project. Environment Bay of Plenty has allocated \$400,000 over the next four years for catchment related work.

- A Management Agreement has been signed between the Kaimai Catchments Working Group and the NZ Landcare Trust to work together to achieve the key community milestones for the project.

- A terms of reference for and commitment to the Technical Advisory Group was signed by the East Coast Bay of Plenty Conservator and chief executives from Environment Bay of Plenty and Environment Waikato on 2nd February 2010.

What's next:

Workshops and meetings will be scheduled early this year with iwi, district councils and community stakeholders to discuss the findings of the State of the Environment report. From these workshops and meetings, community forums to discuss and agree to catchment priorities could be established.

Further information:

Robyn Skelton

Manager Land Resources (Western)
Environment Bay of Plenty
robyn.skelton@envbop.govt.nz



View of the Waikato region from the top of Wairere Falls in Kaimai Mamaku Forest Park. (Photo courtesy of Eric Martinot)

BROADSHEET is available
electronically in full colour. Download
from
www.nzarm.org.nz

President's comment

Welcome to our autumn edition for 2010.

There are three topics I'd like to briefly mention; the annual conference, the demise of Environment Canterbury and the new concept of a NZARM Resource Management Certificate.

This Broadsheet contains details about the 2010 conference to be held in Christchurch and North Canterbury. It is being held slightly earlier than normal in September so bring your winter woollies. The conference committee being led by Julia Crossman are doing an excellent job and this will be a conference not to miss. It is a fine tribute to the calibre of NZARM members in the Canterbury area that given Environment Canterbury's circumstances they are determined to produce an excellent national conference. Please start your planning now and spread the word, details are in this Broadsheet and registration information should be available in early May. We do need good member participation for our conferences to continue to grow NZARM's fraternity and enthusiasm for our Executive and association.

The conference is in Environment Canterbury's patch and what a year they are turning out to have. I think all of us will be feeling for our colleagues and NZARM members based in this council and the trepidation they must be having about their own futures and their organisations future. We are all watching because the government has made a very interesting decision with regards to New Zealand Inc's management structure for water and a regional council's role in local government, following on from what has occurred north of the Bombay hills. Is there a clear outline or vision? Our expectation of parallel events occurring elsewhere is mostly based on rumour or the political manoeuvrings of council election candidates this election year. Neither example is very good for us to base our futures on. My own take is that the efficiency and effectiveness gains this government want to drive home in local government as part of their focused agenda towards economic recovery is real and to some degree

necessary. Combine this with water being a major national issue (what has happened to land being our major asset??!) and regional councils coming to grips with really implementing and understanding the Local Government Act, you get a picture of change (potentially) in the wind. I would pay more attention to what Guy Salmon is saying too.

However, it needs clarification as to a long term agenda and no matter what happens there is definitely a resource management industry and local government requirement heading into the future. If I could offer advice to us all it would be to look at where you can start to position your organisations significant advantage as a business and be clear as to where the business value lies, and in some ways this maxim should apply to your own individual situation to.

Finally, Norm Ngapo has been leading an executive team (John Whale and myself) to redefine our certification needs, as one thing the executive still believes strongly in is a professional certification process for members. We have gone back to our 'knitting' which is clearly outlined in the NZARM constitution, and we aim to this year bring a certification process to the AGM. We want a certification process that all members will see as beneficial to themselves, puts NZARM's 'stamp' on being a lead organisation for resource management professionals in New Zealand, and is simple. Norm outlines our 'new' concept in this Broadsheet, please take the time to read it and provide feedback.

This year is an election year for executive officers for NZARM and I will be standing down as president. Being on the NZARM executive is not hard work and is a very good experience and useful for your career. Take time out this year to discuss NZARM or the election with your nearest exec member. It is important that they and you are fully informed about NZARM issues and business, and that they do have support. Think about your own nomination or others. We do need succession to help keep the executive fresh and vibrant.

Noho na
Simon Stokes

Regional Roundup

BAY OF PLENTY

Mel Whiting's focus seems to have been on wetlands lately - along with growing recognition of their value there has been an increased number of landowners contacting the council for advice on protecting and restoring their wetlands. Lucky she was given the opportunity to attend the recent wetland symposium, and attended a local field day looking at works on the ground! Mel is hoping to get through all the paperwork and get some projects underway, with willow removal being the main and most costly issue to be dealt with.

Norm Ngapo has been busy working with **Garth Eyles** preparing for a series of four one-day Erosion Work-

shops in autumn; at Rotorua (23 April), Kerikeri (7th May), Whanganui (14th May) and Hawkes Bay (21 May). Thanks to **John Douglas** at Environment Bay of Plenty, **Bob Cathcart** at Northland Regional Council, **Alan Kirk** at Horizons Regional Council and **Chris Perley** at Hawkes Bay Regional Council for adding their local expertise. Look out for the spring workshops in Gisborne, Te Kuiti, Stratford and Masterton.

Talk about farm conversions - Norm and **John Whale** entered the International Nukuhou Open Golf Tournament in late March - which involved a sheep and beef farm being converted to a golf course for the day. By the end of the day, both Norm and John agreed that more golf practice is in order. Norm also went for a tramp with

Regional Roundup (continued)

the family up to the Pinnacles in the Kuaeranga Valley in the Coromandel Range, near Thames - fantastic trip and well worth doing. Took some great photos of classic debris avalanche erosion and Class 8 country.

John Douglas gives credit for a job well done. PF Olsen, who were recently convicted for breaches of the RMA by Environment Bay of Plenty have certainly made great strides to address the problems which lead to them ending up in court. John has been working closely alongside them and has seen a radical change in views and practices. This change is across the board from the machine operators, forest supervisors, harvest planners through to upper management. The change itself has come at a huge financial cost to the company and the investment is starting to pay off particularly from an environmental perspective.

The practical steps which are being undertaken to effect these changes are not a huge departure from what was being done. The biggest change has been more thought put into planning and implementation of forward roading, crossings and landing formation. Emphasis has been placed on better communication between planning staff, forest supervisors and contractors who are responsible for construction. The biggest change seen has been less soil being moved and more thought about what the downstream effects will be of side-cast material. Slash from skid sites is now being placed in safe situations and harvest crews have better settings to work from. The clean up following harvesting is exceptional and the erosion control techniques are effective, easily maintained and simple to install.

The biggest change John has noted has been a renewed pride from the operators who now know the difference between good and poor practices and are willing to share their thoughts with you. They are also curious about different things such as soil types, their origin and the type of little fish that live in the streams. This was certainly not the case when we embarked on this two years ago.

Robyn Skelton has been supporting the Environment Bay of Plenty Land Resources Team in the western region as they have been busy working with landowners to develop Biodiversity and Ri-

parian Management Plans. In addition she is working alongside the Department of Conservation and Environment Waikato on the Kaimai Catchments Project. See Robyn's separate overview report on this initiative.

Reuben Hansen from MTEC Consultants Ltd Tauranga has been processing applications for Whakatane District Council for subdivision and development around Ohiwa Harbour, some of which have resulted in the protection of significant ecological features and the implementation of indigenous revegetation programmes. Overall, there are still two clear types of applicants/landowners. Those that are using Environment Bay of Plenty's (**John Douglas** and others) considerable expertise to great effect by creating improved land management outcomes whilst at the same time producing well thought out and sympathetic development. The second group are still trying to push through proposals which clearly do not recognize the important ecological, landscape, natural character and cultural values that the harbour environs exhibit. The District Plan is currently being reviewed and it is my view that this jewel in the crown (that is, the Ohiwa Harbour) requires some special attention through this process.

John Paterson has been leading a team investigating and reporting on nitrate leaching from areas of gorse growing within the Lake Rotorua catchment. Using the results of a previous study by Magesan, G. and Wang, H. (2008), John's team came up with an averaged and generic gorse leaching coefficient of 50 kg of N per hectare per year based on the range of results (36 to 64 kg N per hectare per year) from the Magesan and Wang research. The team then did a mapping exercise and found 864 ha of the vegetation in the Lake Rotorua catchment is tall gorse in medium to dense stands. Using the derived approximate leaching coefficient of 50 kg N ha⁻¹ figure, the total amount of nitrogen that gorse is contributing to groundwater in the Lake Rotorua catchment every year is estimated to be about 43 tonne, a significant contributor to the lakes continuing eutrophic status that has not been accounted for previously as a nutrient input. Gorse in the other lakes catchments is also adding to their nutrient loading. The report concludes that mature gorse in the Lake Rotorua catch-

ment is a significant source of nitrogen-loss to groundwater and consequently to Lake Rotorua, with gorse derived nitrogen accounting for around 7 to 8% of the total nitrogen inputs into the lake. Options for mitigating gorse source nitrate such as conversion into pine forest are also discussed.

Once the report has been formally reported to and adopted by Environment Bay of Plenty, it will go on the Environment Bay of Plenty website. It will be called 'Quantification of nitrogen leaching from gorse in the Lake Rotorua Catchment'; watch out for this one!!

Glenn Sutton has left Ross Overington Surveyors to take up a new executive position of Farm/House Manager (in that order!) on his and Janice's new property. One of his first major decisions was to purchase a new vacuum cleaner that would look good alongside his new Sako rifle (figure that one out!). The new property keeps him very busy with building projects (new barn and house renovations); fencing, drainage, pasture renovation, tree-planting and development of a heritage -poultry breeding operation. In addition, Glenn and Janice are now operating their Clydesdales and wagon professionally, having taken part in a number of events and a wedding. One of their recent events was the St Patricks Day parade in Auckland, which included a police escort through Queen St afterwards. The look on the Auckland motorists' faces as we trotted past them was priceless. One drawback of going professional is that there is a lot of harness cleaning and polishing. Unfortunately for Glenn, Janice has made it very clear that part of the operation is not her role!

Glenn is also finishing a project for a local civil engineering company, which is to prepare consents' applications to establish a new quarry. The applications are extensive and involve both the Regional and District Councils. Fortunately, Glenn has been able to enlist the assistance of a planner par excellence, Mr **John Whale** and is enjoying working with his old colleague on what is probably Glenn's last formal consultancy job. Regrettably, all this work has meant that the autumn sika monitoring programme in the southern Kaimanawa's will not proceed this year. However; there is still the spring survey!

John Whale

Regional Roundup (continued)

TARANAKI

General

From mid January the weather changed from cold and dry to warm and moist which resulted in excess grass. Milk production was expected to be around the same as last year but the autumn has been quite dry lately – particularly around the coast – and this may revise forecasts.

River Studies

Two recent national studies have highlighted the complexity of factors that affect the quality of the water in our streams and rivers.

The studies, by NIWA and AgResearch, focus on stream algae and suggest that Taranaki waterways are at least holding their own in terms of water quality, especially compared with many other regions in New Zealand. The studies also indicate that both the incidence and probability of excessive periphyton growth are far lower than previously supposed, despite perceptions of increased nutrient run-off as farming has intensified (and worries about the consequences).

One of the studies looked at expected periphyton growth based on the results of water quality testing at nearly 800 sites in New Zealand, including 10 in Taranaki. The first point to emerge was that Taranaki waterways are in the mid to low range for nutrient levels, compared with rivers in other regions. Secondly, based on nutrient levels alone, most of the Taranaki sampling sites would be considered susceptible to excessive periphyton growth. However, when flow patterns are incorporated into the predictive model, none of the region's sites are considered susceptible. Moreover, Taranaki's rivers are flushed by high flows more regularly than elsewhere in New Zealand.

The second study, by NIWA, a nationwide study focused on the actual periphyton growth at 73 sites which included 4 Taranaki Rivers. It showed that more sites are showing reductions in undesirable algal growths than are showing increases, despite common belief that nutrient levels are increasing.

Both studies provide a new perspective for discussions on water quality issues.

Sustainable Land management programme

With 92% of dairy farms (1686 out of 1832) now having a Council prepared plan in place, the focus is now on implementation. Since 1 July, LMOs will visit at least 90% of their 300 clients. To date, 63% of riparian planholders have been visited resulting in 212,000 plants sold out of 300,000. This is ahead of previous years.

Darren Scown has been ensuring that all the plants are being grown to the correct specifications before he organizes plant delivery and dispatch end of May/beginning of June. Darren also got a brand new Ducati "streetfighter" 1100cc for xmas.

Sarah Ries and **Julie Hagenson** have been busy visiting planholders and taking plant orders. They are also attending DairyNZ farm discussion groups to talk on riparian management. So far officers have attended about 10 out of the 60 or so scheduled for the year. This forum is an opportunity to deliver key messages to farmers amongst their peers. Sarah took a holiday recently to the Coromandel and had lots of fun touring on the back of a motorbike. There is definitely a motorbike theme with Taranaki LMOs as Julie recently rode her Suzuki Boulevard on a 3 day ride from Hamilton to Napier.

Don Shearman organised a field day at Umutekai Bush and wetland to celebrate World Wetlands Day in February. About 100 people turned out to hear talks on biodiversity – the theme for this year – followed by a walk around the wetland and through the swamp forest. He has also created a new Memorandum of Encumbrance to protect soil conservation works funded through STRESS. Fortunately, weekend Golf is now a reality but competing with the kids to watch it on TV is a lost cause.

Council's prize draw has been completed again to encourage early plant orders. The overall objective is to get landowners to order their plants a year in advance. Fonterra has provided sponsorship for the 3rd consecutive year and Revital Fertilisers is providing sponsorship to the non – Fonterra suppliers for the second year running. Each year the close off date comes forward (1st March

2010) to encourage earlier plant orders. Land Management Officers are finding it challenging to get farmers to think a year ahead to order their riparian plants instead of in May.

In addition to delivering the Afforestation Grant Scheme, hill country LMOs are becoming key information providers for the Emission Trading Scheme (Forestry). There has also been a corresponding increase in interest from planholders with forestry to get areas measured so they can enter into the ETS. The ETS online system for registering an application (shape files required) is proving to be very challenging.

After 9 years as a hill country LMO, **Jason Loveridge** Jason has resigned from the Council and started a company called JTL Carbon Farming Consultancy. He will be assisting landholders with all aspects of carbon farming. If you would like to contact him email jtlcarbonfarming.co.nz

Action man, **James Annabell**, is back preparing farm plans and promoting the South Taranaki and Regional Erosion Support Scheme (STRESS) since completing a couple of law papers at Victoria University. James is also back playing senior club rugby so should be our fittest LMO. He is also building a new house to fill in the rest of his spare time when he's not diving and fishing.

Kevin Cash is also busy promoting the Afforestation Grant Scheme (AGS) and STRESS, while managing the poplar pole nursery. The nursery is expected to produce enough poles to meet the increasing demands of STRESS over the next four years. Kevin has been doing lots riding on his motorbike and diving over the Taranaki Summer while keeping an eye on the Women's ASP surfing tour.

Don Shearman

HAWKES BAY

'Dynamic' would be a good way to describe things in Hawkes Bay. The weather has been delivering everything possible and there's a lot of activity on the ground as well. Starting with **Garth Eyles** who seems to have re-emerged in the form of a contractor/consultant. What's more, we're pleased to see him!

Regional Roundup (continued)

Garth has run LUC courses, written farm plans and been involved with a climate change SFF project including farmer field days in the region. **Chris Perley** leads the councils Land Management team which has been focussing on the broader issues of land and farm business resilience. **Joe Devonport** has charge of the new farm forest property at Tutira as well as two other properties the council now owns, for use as effluent disposal in partnership with two district councils. Joe also manages the Tangoio soil conservation reserve. It's a very busy time with new forest plantings on all three new properties. **Brendan Powell** has been working with land owners and other stakeholders in a sensitive catchment with intensive dairying and severe downstream effects. Great results when stakeholders share views and get involved. **Neil Faulknor** is counting down the last few months as a full time employee of the HBRC. Retirement is looming! **Nic Caviale** has been flat out producing farm plans at two different levels, for farmers in northern catchments, under the MAF HCE scheme (Wairoa). Numerous trials and new ideas are under way on several properties. We all need a Frenchman in our office! **Peter Manson** manages the HCE programme and has been involved with several very good projects including wetlands on a larger scale. Its been noticeable that riparian and wetland projects have been increasing in size throughout the region, even though funding is limited.

Peter Manson

MANAWATU

Last year **Sharn Hainsworth** joined the Palmerston North branch of CPG New Zealand, an international, multi-disciplinary consultancy firm involved in a number of sectors that include agribusiness, environmental management, engineering and planning. Sharn is a senior member of and the CPG Agribusiness and Environmental management team that provides a wide range of services which include the following:

- Evaluating the inherent value of soils and the cost of losing high value soils to urban expansion;
- Designing sustainable land-based wastewater treatment and dispersal systems in challenging terrains;
- Designing and management of all types of irrigation systems;

- Investigating and remediation of contaminated sites;
- Conducting environmental impact assessments;
- Producing nutrient management plans and farm plans for Horizons, and;
- Resource consents applications and technical reports for a wide range of environmental activities such as discharge of contaminants, surface water and groundwater takes on dairy farms, breweries, piggeries.

WELLINGTON

Song birds like tui have finished breeding on the Kapiti Coast and have now moved back to their feeding areas. I have started rebaiting the bait stations for possums and rats as with the dry weather over summer there has been a high survival of young pests. Planting programmes are mostly holding off until we get some rain as it is becoming very dry. Pastures still have a bit of feed on them for cattle, but with a lot of seed-head and mature leaf, the feed quality has dropped off and so animal growth rates have really slowed.

I am preparing the consultation for the Greater Wellington Natural Resources Plan. This will be taking place over June-August 2010 and involve a mixture of workshops and a web-site questionnaire.

Terry Parminter

SOUTHLAND

It has been a busy start to 2010 for Land Sustainability staff. We were involved in the biennial Waimumu Southern Field days in February. This is the next biggest agricultural field days after Mystery Creek and attracted 26,000 people over three days. Environment Southland's site was busy fielding enquiries covering the range of land management topics and this has resulted in a large number of follow up visits. We were also involved with World Wetlands Day with staff presenting at two separate field days, one in the Waituna wetlands and another at a large scale wetland complex in Central Southland. Land Sustainability staff have also been busy judging BFEA farms. There were 11 good quality entries this year. Finalists have been selected and judged with the awards evening to be held in April. Staff are also continuing to work on a number of other projects.

EXECUTIVE

President: Simon Stokes, Environment Bay of Plenty, PO Box 364, Whakatane. Ph. 0800 368 267 (ex. 9378) or cell 029 756 0311. Email: Simon.Stokes@envbop.govt.nz

Past President: Chris Phillips, Landcare Research, PO Box 69, LINCOLN. Ph. (03) 325 6700 Fax. (03) 325 2418 Email: PhillipsC@landcareresearch.co.nz

Treasurer: Ross Abercrombie, Environment Waikato, 401 Grey St., PO Box 4010, Hamilton, Ph. 0800 800 401 Mobile 021 471 683. Email: Ross.Abercrombie@ew.govt.nz

Secretary: John Whale, John Whale & Associates Limited, 13 Walter Park, Whakatane. Mobile 021 838 601, Ph. 07 308 4517. Email: whale@inspire.net.nz

Members: Julia Crossman, Environment Canterbury P O Box 550, Timaru. Ph. 03 684 0510. Email: Julia.Crossman@ecan.govt.nz

Norm Ngapo, WSC Ltd, Ph. 07 312 6318, cell 027 2902 402, Email: norm@wairasoilcon.co.nz

Jim Risk, Environment Southland Price Street Invercargill, Ph. 03 2115 115, Email: jim.risk@es.govt.nz

Helen Moodie, NZ Landcare Trust PO Box 3026 Whangarei, Ph. 09 4300954, Email: Helen.moodie@landcare.co.nz

Secretariat: NZARM c/- Groundwork Associates, PO Box 4315, Hamilton East, Hamilton 3247. Ph. 07 855 7163. Email nzarm@groundworkassociates.co.nz NZARM Bank Account: KiwiBank 38-9009-0112026-00

REGIONAL REPS

NORTHLAND
Bob Cathcart (bobc@nrc.govt.nz)

AUCKLAND
Rob Hughes (Rob.Hughes@arc.govt.nz)

WAIKATO
Therese Balvert (therese.balvert@ew.govt.nz)

BAY OF PLENTY
Ben Banks (Ben.Banks@envbop.govt.nz)

GISBORNE
Derek Birks (derek@gdc.govt.nz)

TARANAKI
Don Shearman (Don.Shearman@trc.govt.nz)

MANAWATU-WANGANUI
Malcolm Todd (malcolm.todd@horizons.govt.nz)

HAWKES BAY
Peter Manson (manson@hbrc.govt.nz)

WELLINGTON
Dave Cameron (Dave.Cameron@gw.govt.nz)

NELSON, TASMAN, MARLBOROUGH & WESTCOAST
Barbara Stuart (barbara.stuart@landcare.org.nz)

OTAGO
Murray Harris (landfors@ihug.co.nz)

SOUTHLAND
Jim Risk (jim.risk@es.govt.nz)

CANTERBURY
Judith Earl-Goulet (Judith.Earl-goulet@ecan.govt.nz)

Regional Roundup (continued)

SOUTHLAND CONT.

Water Quality

Land Sustainability staff continue to be involved in the goal to minimise non-point source pollution. One recent initiative has been the living streams programme, which is designed to involve communities through intensive water quality monitoring and the provision of financial assistance for riparian fencing, planting, stream crossings, and alternative stock water supplies, is gaining momentum. To date some 40km of riparian fencing has been established as well as assistance with culverts and water supply schemes. In one of the first catchments to engage in the Living Stream Programme farmers are reporting seeing native fish for the first time.

Discharge Plan Review

The review of the discharge plan is continuing to progress. Throughout the process consultation has involved industry representatives such as Fonterra, Dairy NZ, Federated Farmers and farmers in a wider working group, reviewing current consent conditions and developing potential changes that will work for both the farmer while achieving council's goals, in terms of the environment. A major part of the review has been the suggestion of a move away from the default position on FDE storage to one that is matched to the risk of the soil type and land form. This criteria has been developed by AgResearch in a recent report prepared by Dr's Dave Houlbrooke and Ross Monaghan, funded by Envirolink. The next step is to take the proposed changes to the wider dairy farming community. It is hoped to get constructive feed back on the proposed changes, while making the dairy community aware of not only the potential changes but reasons behind the changes. It will also be important to highlight the partnership between the council and wider working group in reviewing and developing the proposed changes.

AGS

The Afforestation Grant Scheme is gaining momentum in Southland. Currently there have been 12 approved tenders with several on the 2010 reserves bench. Areas range from 10 ha to several hundred. All tenders in Southland to date have been through the Public Pool. ES Land Sustainability staff have been involved in mapping afforestation areas for

landowners and providing MAF with a report on the environmental benefits associated with each tender. Council are currently looking at the opportunity to join the Regional Council Pool.

Riparian Trials

Nathan Cruickshank has been working on a series of seeding and planting trials involving indigenous riparian species. The objective is to identify the most appropriate and low cost establishment of native species in riparian areas in Southland. These trials followed on from an Envirolink project looking at the establishment of indigenous species in riparian zones. The trial design was set up by Nick Ledgard, from Scion Research. Four sites were selected where various riparian species were planted in both bare and un-prepared ground, followed by a range of release spraying intervals from none to two. Direct seeding is being trialled at four different sites also. Establishment success is currently being monitored with assessments of the most successful establishment method known by the end of the current growing season.

Jim Risk

CANTERBURY

Well it has been a time of change for those of us who are working at Environment Canterbury and for those people in Canterbury who are involved in the management of natural resource, especially in relation to water. For this edition of Broadsheet I asked Canterbury members to provide me with some information regarding what has been keeping them all busy over the past few months.

Julia Crossman (Senior Resource Care Co-ordinator) has an exciting new project on the go, working with Irrigation NZ, Opuha Water Ltd (the Opuha Dam Company) and various other sections within Environment Canterbury, to look at Audited Self Management, whereby the dam company would undertake compliance monitoring of their shareholders subject to an agreement with the Council (as the regulator), and periodic auditing.

The concept of Audited Self Management involves entities developing their own policies, procedure and plans to

achieve agreed environmental outcomes, agreement of those outcomes, and involves third party in the certification of their environmental systems and auditing of their performance.

Environment Canterbury has in recent years put more emphasis on community management of the regions physical resources. The Canterbury Water Management Strategy views ASM as a mechanism to improve monitoring performance, and promotes the use of ASM to encourage farmers and others to monitor and improve their own performance, to demonstrate their cumulative environmental effects are within acceptable environmental limits.

Though the project focuses on Opuha system, the objective is to develop a generic model for the establishment of ASM systems in the areas of Canterbury where communities wish to contribute to sustainable water use and management objectives in partnership with Environment Canterbury.

Volume 2 Issue 1 of the *Lincoln Planning Review* (LPR), formerly the *Lincoln University Planning Review*, was the major focus of work for **Hamish Rennie** and the keen students in Lincoln University's Department of Environmental Management. There are several articles on water management, including a peer-reviewed article on water rights law by Robert Makgil, Barrister and Solicitor and a Director with North South Environmental Law, and comments on the Canterbury Water Management Strategy, riparian restoration and lots of salty sidebits (e.g., sex and the suburbs, the Mount John Space Park, choosing a venue for test cricket in Christchurch, and NZ Defence force environmental management issues. At 50 pages it is considerably bigger than the previous issues and available free at:

<http://www.lincoln.ac.nz/research-centres/leap/environmental-management-planning/publications/>

Peter Weir of Ernslaw One along with Sally Strang of Hancock Forests Tokoroa and Trish Fordyce legal counsel for Kaingaroa Timberlands Rotorua have continued working with MfE staff on development of text for a proposed RMA National Environmental Standard for plantation forestry, following a multi-stakeholder development process

Regional Roundup (continued)

last year and earlier meetings in Rotorua and Christchurch back in 2005. Text proposed by forestry takes a risk driven approach, with more stringent terms and conditions being triggered where mapping indicates terrain with moderate or high susceptibility to erosion (Landcare's LRI mapping may be a suitable reference, although forestry would hope that 1:20,000 or even 1:10,000 scale mapping could be developed by Landcare's soil & slope process scientists (some of whom might just have NZARM connections) and or Scion and AgResearch, maybe employing LIDAR terrain surveys, A forestry friendly Regional council have indicated a willingness to sponsor a funding application to MAF's hill country erosion programme to develop the terrain mapping working, with all agreeing that the issue of sustainable use of erodible hill country land is much wider than just forestry.

MfE's Standards Development Team have undertaken a parallel consultation process with a group of regional and district council representatives, which has involved other NZARM members. If approved by Ministers, MfE will then be sending their preferred text out for public consultation later this year. Like a fine wine, good things take time.

As chair of NZ Forest Owners Environment Committee, Peter Weir has been spending a lot of time in Wellington in meetings of the core group of the Land and Water Forum (refer www.landandwater.org.nz), a NGO process first proposed by Ecologic and EDS and now supported by MfE, MAF NIWA and ex-treasury economists. That group has the Environment and Agriculture Ministers approval to investigate a collaborative governance model for land and water (including large scale irrigation development), and is rethinking methods for water allocation, water quality maintenance and enhancement and water governance. It's a fascinating process with all the usual tensions plus an overlay of iwi-crown relationships. No surprise that there is no escaping the relationship between land use and water issues, and in both the Waikato and Waitaki rivers the relationship between hydroelectric generation and water use (including out of catchment groundwater abstraction, as pumping

from depth can be very energy intensive). The Report-back by the Board of Inquiry into a NPS on Freshwater has recently added a new dynamic in the Forum.

Mark Bloomberg is currently a Research Fellow at the School of Forestry, University of Canterbury. He spends a bout half of his time working on a site assessment system for plantation forests, funded by MAF/FRST as part of the Sustainable Land Management and Climate Change Initiative (SLMACC). The rest is spent teaching silviculture and introductory soil science papers, and writing funding applications for unfashionable but interesting research topics. After years of trying to ignore the Kyoto Protocol and carbon forestry, Mark has recently become a not-quite-instant expert on this subject. He will be part of a MAF-funded School of Forestry team delivering seminars on this subject round NZ over the next six months. NZARM members are welcome to attend provided they refrain from heckling.

Ray Maw has been busy contributing to a regional council working group grappling with finding a workable balance between wilding tree removal and carbon emission legislation. He has also been evaluating the thoughts and requests from interested parties regarding potential changes to the Canterbury Regional Pest Management Strategy; and progressing monetary grants for significant biodiversity protection programmes within the region.

A long standing Canterbury NZARM member, **Alastair Wright**, passed away over the Easter Weekend, aged 69 years. Alastair was the manager of Environment Canterbury's Kaikoura office and a respected member of the Kaikoura community. Alastair graduated from Lincoln College, as it was then, with a BAg Sci and joined the Marlborough Catchment Board in 1965 as an Assistant Soil Conservator in Blenheim. He moved to Kaikoura in 1966 as Area Soil Conservator. In 1984 the Catchment Board became the Marlborough Catchment Board and Regional Water Board and Alastair became Officer in Charge, Kaikoura. Then in 1989 the Nelson-Marlborough Regional Council was formed and Alastair was Manager, Kaikoura. He has been the Environment Canterbury Kaikoura manager

since the Nelson-Marlborough Regional Council was disbanded and Kaikoura became part of the Canterbury Regional Council in 1992.

The Waihora Ellesmere Trust (WET) is a charitable trust, formed to educate people about the values of Lake Ellesmere/Te Waihora, and to promote better management practices to improve the health and biodiversity of the lake and its catchments. Lake Ellesmere is New Zealand's 5th biggest lake and is internationally recognised for its biodiversity. The Trust is a member of NZARM and the current administrator is Jo Frew. Some recent changes have seen a new Chairman (Brett Painter - painterb@lvl.co.nz) and Treasurer (Grant Bonniface - Bonniface4@xtra.co.nz). For more information about the Waihora Ellesmere Trust please contact Jo (admin@wet.org.nz) or visit their website www.wet.org.nz

Well as you can see the work by Canterbury NZARM members is diverse. Of course with the upcoming conference in this region later in the year you will have the opportunity to get some first hand experience of many of the aspects relating to the work in the region. We look forward to seeing you in September.

Judith Earl-Goulet

NORTHLAND

Contrary to TV weather forecasts and even reports of rain, much of Northland is still very much in the grip of the worst drought for over 50 years. 2 mm on Tuesday night was hardly a drought-breaker for the Whangarei area.

It's not a good time to talk to farmers about new initiatives, or to talk to them about anything but getting safely through the drought and the winter, and gearing up for the new production season. Being election year, the politicians will not want anything too scary to surface so it is a good time to consolidate what we are already doing, and complete planned projects.

Land Management Programme Manager **Dean Evans**, ex resident of Hawkes Bay and Bay of Plenty, is settling into his position. Now that he has got his head around the Environment Fund, Dean is looking at ways to better target \$500,000 of grant funds and how to free up field

Regional Roundup (continued)

NORTHLAND CONT.

staff to do field work rather than administration of the Fund. With a forestry background, Dean is the ideal person to get the Council involved in the Afforestation Grant Scheme and our first applications have been lodged.

Bruce Howes, our Land/Rivers Senior Programme Manager is personally driving the Priority Rivers Programme. This project involves developing flood risk reduction plans for the 30-odd highest risk river catchments. Consultants, working with LiDAR and field survey data of the floodplains, rainfall data from Council, NIWA and MetService records, and flow data from NIWA and Council records, are modelling flood flows. Consultation with stakeholders and residents has been an essential component of this project and people have come forward with valuable old records and photographs of flooding.

Existing flood models do not cope well with small steep catchments, activities on active alluvial fans, or with Northland's relatively frequent high intensity, short duration rainstorms [Mesoscale Convective Complexes (MCCs), and there is no medication for it]. We have some difficulty convincing the experts that we do experience such events. The response has been that "It can't possibly rain that hard. It doesn't fit known rainfall intensity models so your measured flood levels can't be accurate". It would be good to have one of these events within the next few months, just so we can say "I told you so!"

Having taken advice from **Mauri Mac-Saveney** on debris avalanche, debris flow and alluvial fan processes, **Bob Cathcart** is doing urban land use capability surveys of some of the small settlements at risk from MCCs. The surveys will be to not only identify land at risk but also help find alternative sites for houses and marae. Bob is also helping to organise an **Eyles and Ngapo Ltd**,

MAF-sponsored, erosion control workshop in Kerikeri in May.

Wayne Teal is preparing soil conservation reports to accompany the Priority Rivers flood risk reduction plans, particularly as channel sediment and the buildup of sediment on the floodplain are important causes of flood risk in some catchments. The aim has been to identify sources of sediment and to develop strategies to, where practicable, reduce the volume of sediment being detached, transported and deposited. This has involved matching current land use with land use capability classes to get an idea of where to look. Field checking has helped to identify areas and land use activities that are generating sediment. The next step is to recommend remedial measures.

Lisa Forester, our Biodiversity Officer, is totally wrapped up in two major projects, the development of a wetlands database and ranking the different types of wetlands according to regional significance, and the development of a comprehensive interagency biodiversity database system. This much in-office work is proving very frustrating for undoubtedly the top field botanist in the region.

Debbie Johnson has been concentrating on the Clean Streams Accord, particularly within the Waitangi River catchment in the Bay of Islands, and is our main contact with pastoral sector groups. We are also in discussions with Landcorp Farming, Northland's biggest farmer, about environmental management plans for their blocks. Pity we are not able to devote more resources to this very worthwhile project.

Kathy Mortimer is juggling her work as project leader for the Environment Fund with her artwork, both projects being very successful. **Kerry Webster's** Environment Fund projects have been clustered around the Otamatea area, within the Kaipara Harbour catchment, where riparian, estuary and

coastal fencing is really on a roll. A rule in the Regional Coastal Plan banning grazing within the Coastal Marine Area, which became effective as from June 2009, has added some impetus to land-owner enthusiasm.

Curtis Harris is back handling Environment Fund work, taking a break from his OE while he awaits a new work permit for the UK. Timing of his departure appears to be linked in some way to the start of the shooting season.

Laura Shaft, our Coast Care Co-ordinator, has had a very busy and successful summer. As well as working on dune stabilisation projects with coast-care groups at various locations around Northland's very long coastline, Laura has been heavily involved in the Vehicles on Beaches programme. With several of our beaches recognised as public roads and all sorts of gaps or uncertainties as to responsibilities, this project (politically) spun its wheels for a while. One death and a number of serious accidents and near misses encouraged the parties – Regional and District Councils, Police and Department of Conservation – to work together on an education programme, and it has been well received by beach goers.

Geoff Heaps is still up to his ears in processing resource consents with no downturn due to the recession. Our Consents Team scored extremely well in the MfE rankings and is rightly proud of their performance. Former Consents Senior Programme Manager **Dave Roke** retired from that position last June, but following a holiday he has been back dealing, in particular, with "cold cases", consents that have been on hold awaiting more information from the applicant. Dave is also a qualified commissioner and has been participating in hearings in other parts of New Zealand. The new Consents Senior Programme Manager is **Rob Lieffering**, who after doing his OE in Tasman District has returned to Northland.

Bob Cathcart

Sponsorship

NZARM welcomes possible expressions of interest regarding sponsorship of this publication. Successful sponsors could receive preferred advertising and promotion through Broadsheet and NZARM's annual conference. For further information please contact the Editor.

Next issue...

Broadsheet is now published three times each year (April, August, December).

Letters to the editor policy

We encourage reader participation and welcome diverse or varied opinion, but reserve the right to decline inappropriate material. Because of space limitations, all letters should be no more than 300-500 words in length. Letters become the property of NZARM on publication. We will not knowingly publish information that is factually incorrect. You can send us letters via email or regular mail to the editor:

T. Faulkner
Greater Wellington
PO Box 41

tony.faulkner@gw.govt.nz