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# **BROADSHEET**



**NEW ZEALAND  
ASSOCIATION OF  
RESOURCE  
MANAGEMENT**

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**March 2005**

**NEW ZEALAND ASSOCIATION OF RESOURCE MANAGEMENT**  
**Executive 2003-2004**

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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. Unless specifically indicated otherwise, opinions expressed in the Broadsheet are not to be regarded as the official view of the Association. Copy sent by E-mail is preferred, although typed copy is also acceptable. Items can be sent to:

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## Editorial

Dear All,

It just doesn't pay to be too optimistic!

In my last Editorial I indicated that it might have been my last as I sought a replacement for the role of Broadsheet Editor. Understandably I was swamped with offers – not, so here I am again.

However I think it is timely that someone else has a go as I think I am beginning to re-invent the same old topics that I talked about 10 years ago and that can't be good. So..... if anyone is interested in serving the Association by taking on this role please do get in touch with me (trust me it's not too onerous and it is one way of finding out what people are up to).

One of the recurring themes of my last few editorials has been around the emergence of knowledge management (KM) as a new way of doing things. I guess this has largely been in response to the increasing pace of life, the demands on people's time, the increasing access but potential overload of information brought about by the internet and so on. What we are also now seeing is a bit of a backlash towards many of these symptoms and indeed KM is no different. An interesting phenomenon to emerge in KM practice is the KM Café. Just like the slow food movement where people have rebelled against the increasing appearance of convenience foods or fast foods we are starting to see an increase in creating F2F (face-to-face) spaces in organizations so that opportunities are created for people to actually engage in conversation!

It seems as if we have become so disjointed in many of our work environments that organizations are now realizing that the conversations people actually have can, and do, make a difference to both the culture of the organisation and to the development of new ideas. KM cafes are really a fancy name for a physical space where small to medium-sized groups of people come together to share and discuss ideas around a topic or problem in face-to-face dialogue. Many of these KM cafes even serve drinks!

What's all this got to do with NZARM you might ask?

Well one of the things we continue to promote and do well at, is the getting together around regional workshops, our annual conference and so on. We have always been good at sharing our ideas and the NZARM network, while relatively small, allows us the informality to contact other members and talk about how we each do things in our regions. So I guess we have already have been running our own KM Café – we just didn't know it had a fancy name!

Cheers

**Chris Phillips**

*PS. If anyone wishes to jump on a soap box and have a rave, feel free to send a letter in to the Editor or if something is really getting to you how about a Guest Editorial?*

## **Letter to the Editor**

### **Land Management Soils Department Wanganui.**

The Wanganui Regional Council Office have expressed concern with regard 'Land Management Officer's through out New Zealand's approach and tacit support to the application of toxins [more especially super phosphates (P) and nitrogen(N)] to precious soils. The pervading attitude in talks and specifically the recent NZARM conference was that N was an acceptable soil stimulant. We (the soil conservators land managers etc) more took the attitude of mitigating the effects of this toxin rather than questioning whether we actually required to support its application.

The application of N is well recognised in terms for its short-term financial benefits to buffer against poor stock management decision making. Its detrimental effects along with its toxic partner P, to waterways and the increasing levels of algae blooms in our coastal areas is well recognized. Yet we as Land Management Officers offer tacit support to this growing proliferation of soil poisons.

Of course we bow to our major tertiary institutions as they have found through their funded research that this type of propaganda is the ranting of bearded or hairy arm-pitted sandal-wearing ranters.

It is well recognised that Ravensdown was a supporter of the conference and it perhaps would not be expedient to advocate against N and P being applied to land in this forum. Perhaps we need a pure conference that looks at the issues in an unimpeded view point.

I believe Tui are looking for sponsorship opportunities.

**Alan Kirk**

**Soil Conservator  
Wanganui.**

# Regional Roundup

## Bay of Plenty

**Norm Ngapo** is having problems balancing workload with fishing now that the tuna are running. Busy on consent work as well as a survey to determine the extent of wood waste deposits (contaminated sites) around Whakatane. Norm (Nuke 'em) Ngapo and John (Killer) Whale had a feast of it last weekend preparing for the Police Fishing Tournament with a quick fishing trip to stock up on Skipjack Tuna for bait. Unfortunately, they only caught a few of the target species, and ended up with a good range of other species instead, including two Yellowfin Tuna (caught by Norm), numerous Albacore and thousands of Pilchards. They are reassessing their approach, and John is trying to work out how to retrieve some very smelly pilchards out of the bilge of his boat 'Harpoon'.

**Wayne Smith** is busy with ongoing enhancement of management systems for Environmental Programmes and Care Groups. The 2005 schedule of regional soil health sampling has just started with emphasis this year on deer, sheep and beef and kiwifruit land uses. Has also managed to fit a bit of Tuna fishing in around other commitments, especially as this is the best game fishing season the Bay of Plenty has seen for about 7 years!

**Willie Shaw** has been out and about in the field, mainly evaluating and planning ecological restoration projects in a wide range of environments and on various scales, including some very large tracts of privately-owned indigenous forest where owners are considering options for some great projects. Willie is also still involved with the ongoing evaluation of contentious SNA sites in various parts of the North Island and some interesting AEE projects such as the proposed diversion of the Ohau Channel where it flows into Lake Rotoiti. No time for fishing but he has managed to get away into the hills for several (!) successful hunting trips and plenty of mountain biking.

**Glenn Sutton** has joined the contractor /consultant ranks of Mighty River Power (MRP) with **Bridget Robson** and where former FCF boss **Gavin Williamson** now resides. Bridget and Glenn have recently completed an assessment of MRP's environmental management system.

In addition to MRP, Glenn and **Andy Woolhouse** have been busy running environmental awareness training courses for Norske-Skog Tasman and Cater Holt Harvey Tasman.

Another main area of work involves helping **John Macintosh** (Environment Bay of Plenty) with the preparation of resource consent applications for the numerous lakes' water quality trials that John is establishing. Glenn is now very familiar with products such as "Phoslock" and "Zeolite" and consequently has progressed considerably from the simple forester that he once was ("once I couldn't spell engunair, now I are one!").

Back on the ranch, there have been plums to pick for the local supermarkets, fencing to complete and new additions to the Irish Dexter herd to look after. He also managed to spend a day looking for tuna with **Wayne Smith** and ended up with a marlin attached to the 15 kg outfit for all of 2 minutes - a very exhilarating 2 minutes mind you! (*Note - this fish story was considerably shortened out of sensitive consideration for **Simon Stokes** who apparently is starting to forget what fish look like*).

After contending with the revenge of the pilchards, **John Whale** continues to assist **Ruth Feist** with the ongoing appeal negotiations on the Regional Water and Land Plan. Progress has been steady and positive. The first Environment Court Mediation comes up soon.

Also on the Environmental Planning programme are submission hearings on the Environment Bay of Plenty On-Site Effluent Regional Plan; Environment Bay of Plenty are seeking to require some dwellings in the Rotorua Lakes Catchments to use advanced on-site systems to manage nutrients. They will need to achieve not more than 15g/M<sup>3</sup> of nitrogen in the effluent prior to discharge into the dispersal system. Sounds tough and controversial, but the management of nutrients in the Rotorua Lakes catchments is a business Environment Bay of Plenty continues to take real serious - unlike our tightwad Government!

New legislation has also prompted the start of changes to the Environment Bay of Plenty Regional Air Plan (NES-AQ and HSNO) and the Environment Bay of Plenty Regional Coastal Environment Plan (Aquaculture Reform and possibly Foreshore and Seabed). The changes will also cover Bay of Plenty Aquaculture Management Areas, Coastal Occupation Charges and see an overdue upgrade of the coastal plan maps. The review of the Rotorua Geothermal Regional Plan is making slow progress, the geothermal field model has finally been updated so we are running various mass and heat abstraction scenarios to see the relative effects on the surface outflow features (e.g. Pohutu in Whakarewarewa).

On the fishing front, bad weather has just claimed the first day of the three day Police (Charity) Fishing Tournament out of Whakatane. That's why John is sitting in his office writing this and why Norm (Nuke 'em) Ngapo and he are not out with lines in the brine. Tomorrow is looking good though – even if Harpoon still has a bad 'Odour de Pillie' issue. John had this idea of pouring a mix of cheap deodorant, toilet cleaner and salt into the bilge to mask the smell, now it just smells like.. like... worse!!

The NZARM Bay of Plenty Branch has increased to 27 members. The 'Branch Executive' Glenn, Norm and John are looking at a couple of possibilities for field days; **Willie Shaw** is investigating a trip out to Whale Island to visit the wildlife sanctuary and look into some of the management issues there, probably be an overnigher, and also we are looking at a field day to investigate and discuss the issue and management of damage to dunes by 4WD's, quad bikes and dirt bikes on BOP beaches.

New member **Suzy O'Neil** who is an Environment Bay of Plenty Coast Care Officer reports that Coastal Management in the Bay of Plenty is benefiting substantially by having the Coast Care BOP programme in place. The programme is unique in that it comprises a partnership approach

to managing coastal dunes; involving community volunteers, the Regional Council, all coastal BOP District Councils and the Department of Conservation.

With the input of these parties, at risk areas of coastal dunes are fenced, revegetated and stabilised with native coastal plants, primarily Spinifex sericeus and Pingao Desmoschoenus spiralis. Materials such as plants, fertilisers and timbers for fencing and sand ladders are paid for by the District Councils for use in their district. Environment Bay of Plenty resources the programme with two Coast Care staff to coordinate projects for enthusiastic community volunteers at their beaches. To ensure the smooth running of the programme two monthly meetings are held with the partners, once again facilitated by Coast Care staff.

Suzy has been in the position of Coast Care Officer almost three years, and was previously employed at the Tauranga City Council as a coastal reserves officer. The success of the programme is evident in the long stretches of stable dunes in the Bay of Plenty region swathed in luxuriant native sand trapping plants and also by the high level of community awareness and ownership in Coast Care programme. The excellent results achieved are primarily attributable to the partnership style of management which has been in place since the programme's initiation in 1994.

The ongoing management issues which Coast Care BOP faces are:

- continuing community education about the role of dunes and value of coastal ecosystems,
- reduction of encroachment into the coastal reserve as the coastal land squeeze continues,
- enhancing biodiversity,
- pest control and
- reducing the damage to dunes by recreational four wheel drive vehicles.

### **Glenn Sutton and John Whale**

## **Taranaki**

### **Riparian management programme.**

This financial year the Land Management staff have completed nearly 300 riparian plans covering over 1800 km of stream bank. TRC has six full time equivalents working on the riparian management programme. TRC has now approximately 1100 riparian plans. The GIS riparian application developed for the programme provides the council some excellent information as to distances of various types of protection and vegetation. The programme has the ability to be updated and is now done so as part of the annual riparian plan monitoring process. This gives a proper assessment how well the region is doing and how successful the programme is. The average length of proposed works per property is 3.7 km. this may include fencing and or planting. Tenders have been let for approximately 200,000 native plants for this winter to support the programme.



## Hill Country programme

Taranaki Regional Council has 3 full time equivalents working on the hill country programme. This year to date they have prepared approximately 35 farm plans covering over 20,000 ha. TRC has now approximately 200 comprehensive farm plans and these are currently all being monitored.

Following the event twelve months ago the Southern Taranaki region had been targeted for farm plans. In the Waitotara land management staff have undertaken plans on 85% of the properties. Plans are now being prepared with greater farmer involvement and the process is being used as an education tool about their land resources. A catchment plan was also prepared for the Waitotara and this document outlines some short-medium and long term goals and targets.

## Lachie Grant

### Waikato

**Michelle Gibbs** has been on a University course for the last two weeks "Flora of Aotearoa" learning about plant identification, taxonomy etc. She has also been organising a Willow Clearance and riparian replanting job on the Waitetuna Stream near Raglan and following up with farmers who are fencing and planting their waterways as part of our Clean Streams Project. Over the next few weeks Michelle will be busy ordering native plants for planting projects in May and June.

The Dairy industry is once again ramping up its involvement with dairy effluent as well as other issues such as nutrient budgets and feedpads reports **Ross Abercrombie**. A round of workshops is about to start in March looking at extending the principles of the recent Farm Dairy Effluent Manual produced by Fonterra and Dexcel as part of their Regional Action Team commitments.

Drystock industry has recently engaged two new Monitor Farms in the North Waikato and the programme is now making Environment a part of community group process. In a Farmer Initiated Tech Transfer project funded by Meat and Wool the farms have both been undertaking a full resource inventory (mix of LRI and SWOT). As part of this Alec Mackay has visited along with myself and other influential farmers and advisers to put together an overview which will hopefully become part of the farm enterprise. This links well with both NZ FarmSure and current moves towards farm planning in our region. If successful the Monitor Farm Programme is assessing this as a tool for all Monitor Farms.

Cropping and vegetable growing - following Franklin Sustainability Projects funding ending EW and ARC are now moving to a more regulatory role. While education is still a core component of this both councils are ensuring a level playing (or should that be cropping) field for all growers

with the message that soil should stay on site rather than entering roadside drains or streams. This will be an ongoing process....

Deer industry held a farm field day recently to present the Deer Farm Environmental Award for Pasture Management to Brian and Jackie Wellington of Owairaka Valley near Te Awamutu. The day involved around 20 local Deer farmers, EBoP and EW and included a farm tour of this magnificent farm. The farm has retired some of its waterways and is looking at options for some of the harder paddocks. The farmers were receptive to sustainability messages and are integrating these into existing farm management techniques, the recent Deer Farmers Landcare Manual also helps.

**Bruce Peplow** and **David Perry** have been focusing on two key projects, the development of a catchment Management plan for the Tauranga Taupo River and tendering and commencing flood protection works on the Tongariro River in Turangi.

The Tauranga Taupo catchment is located on the eastern side of Lake Taupo around the communities of Te Rangiita and Oruatua. The management plan seeks to incorporate an integrated approach to management within the catchment and involves liaison with other agencies (DoC, Transit NZ, NZ Forest Managers, landowners and the Taupo District Council).

EW is currently assessing tenders for the construction of final stages of the Tongariro River flood protection scheme and completing consultation with the key stakeholders particularly the local hapu Ngati Turangitukua. Once the tendering process has been completed it is hoped to commence works in Mid March.

**Emily O'Donnell** relocated to EW's Whitianga Office to be more accessible to landowners and communities on the Coromandel peninsula. She has had great response from people who are pleased to see a greater EW presence and to have key staff more accessible on the Coromandel. There has been a good up take of new soil conservation and stream restoration work. More landlocked EW staff have also been reliably informed that the snapper are biting again and visibility for diving is great – lucky for some!!

Emily and **Julie Beaufill** are now 7 months into the Peninsula Project, some river works have begun on the Thames coast to decrease flood risk. We are working closely with our partners at DoC and TCDC and are working towards a comprehensive pest control programme for the Thames Coast area.

**Rien van de Weteringh** has taken up a semi-permanent residence at EW's Paeroa office taking up a more focused land management and soil conservation role in the Waihou and Hauraki areas.

**Tane Desmond**, **Sue McConnochie** and **Karyn Hopkins** are busy assessing clean stream applications and soil conservation proposals in the middle Waikato and Waipa river catchments.

**Jon Palmer** is once again flat out trying to keep up with maintenance and new works proposals for the Lake Taupo and Upper Waikato soil conservation schemes

Over the last month or so **Alan Campbell** has been working with Federated Farmers and Dexcel on how we can work together more effectively to communicate messages about the environmental responsibilities of dairy farmers. Part of this involves establishing a permanent demonstration site at the Scott Monitor Farm to show a range of riparian treatments alongside Advanced Pond System effluent treatment and feedpad experiments. This month 700 dairy farmers will visit the site and in future there will be permanent interpretation boards that will simplify field trips by discussion groups or Landcare groups. I'm also looking at the potential to develop demonstration sites at other locations around the region where best practices can be investigated and shown off in genuine farming situations

Alan also took part in the Growing For Good Workshop run by the Parliamentary Commissioner for the Environment. It was an interesting day that suffered from a clash with the Dairy Industry conference on the same day. The expected fireworks never came due to some careful management by **Don Ross** and **Morgan Williams**, and it seems that there may still be some work to do in terms of getting farmers to confront their environmental demons.

**Grant Blackie** is still buried in the Whangapoua Forest (Coromandel) harvesting consent project. Last Broadsheet he anticipated surfacing around end of February 2005 – still no sign of him.

## David Perry

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### Nelson - Tasman

**Andrew Fenemor** reports that the Motueka ICM research programme plans to set up a Collaborative Learning Group focusing on sharing perspectives on sediment issues (fine sediment and/or river gravel) which will help to direct **Les Basher's** ICM research on sediment processes, mitigation and modelling. Landcare Research social scientists Will Allen and Margaret Kilvington will approach potential sector participants over the next few months to join this group.

**Jim Sinner** (Ecologic) and **Andrew Fenemor** (Landcare Research), along with other members of Ecologic's project team, are writing up case studies on the uptake of market-based instruments in New Zealand. They include decisions about transferability of water permits in Tasman District and Waikato Region, individual transferable quota for New Zealand's inshore fishery, and charging for coastal space. For the next phase of the project on Institutions for Sustainable Development, Ecologic is planning to look further at water allocation issues and to see what can be learned from a new process in Australia using auctions for aquaculture sites. Other possibilities include market-based instruments for air quality management, gravel extraction, nutrient pollution of waterways, waste management and more. Ecologic is seeking local authorities interested in exploring the potential application of such instruments to a specific issue.

The windthrow event that occurred on October 14th 2004 has reactivated many brain cells especially as it now appears that some 600 hectares of *P. radiata* forest is not recoverable. The

need to clear debris from inaccessible streams, weed control, insect levels and the appropriateness of current Land Disturbance controls are to be the topics for a joint Council Forestry meeting in the near future. All of this is keeping **Colin Michie** busy.

Some interesting debate between Council, cockle farmers and dairy industry reps occurred recently. Increasing faecal contamination in cockle beds and inexplicable spikes in faecal coli. numbers implicated the dairy industry, but cow numbers have apparently not preceded the faecal contamination and we'll be doing some investigation work on other potential sources (geese may have something to answer for).

NCC is busy gathering further submissions on its water plan and has taken on a big job looking at how to manage the anticipated continuation of high rates of urban growth. In case you didn't know, Nelson (and Tasman of course ) are the places to be.

The TDC is in the midst of great upheaval as new office accommodation is being built. We have been scattered around Richmond in various forms of temporary offices. The new building work may take up to 18 months - so if we are a bit distracted you will know why!

**Mary-Anne Baker**

## Canterbury

**Chris Phillips** has been working with **Les Basher** in the Integrated Catchment Management research programme on erosion processes and sediment characterisation in the Motueka riverbed. **Les, Chris** and **Mike Marden** are looking at a range of “sedimentary” things from sediment source identification, gravel extraction, substrate characterisation in river beds to link with river ecology work being carried out by **Roger Young** and colleagues at Cawthron Institute.

Chris along with Shaun Awatere has also been involved in a seeding project to assist Te Uri o Hau, a hapu of Ngati Whatua, located around the Kaipara Harbour to bring together stakeholder groups who have an interest in managing the catchments of the Kaipara. Chris was also involved in a resource consent hearing concerning forest harvesting on the Coromandel as part of Ernslaw One's expert witness panel.

The rest of the Canterbury members appear to be either too busy dealing with the NRRP or are all on holiday!

**Chris Phillips**

## Otago

**Katrina Robertson** (Land Management Officer) reports on some initiatives currently underway on focus farms in Otago.

### ***Risk Mapping***

*Risk mapping involves classifying your effluent application area into low risk, high risk and no application zones. Identification of these areas is best achieved through a combination of farmer knowledge and soils information. Risk mapping helps manage effluent application in a more selective manner that reduces contamination of waterways.*

### **Lower risk zones include:**

- ◆ well structured soils without subsoil pans and at least 10 metres to groundwater
- ◆ land which is sufficient distance from waterways and open drains to ensure there is no likelihood of problems with overland flow when soils are moist and/or
- ◆ land without tile drains

### **Higher risk zones include:**

- ◆ mole/tile drained land
- ◆ sloping land which has a subsurface pan
- ◆ excessively free draining land with underlying gravels

### **No application zones include:**

- ◆ land within 50 metres of waterways and open drains
- ◆ intensively tile drained areas within gully systems

Effluent management plans

Effluent plans follow on from the risk assessment step. They are simple to prepare and are a practical means of managing your effluent irrigation system.

### **Step 1:**

Mark on a farm map:

- ◆ waterways and drains
- ◆ area set aside for effluent irrigation (remember you should have at least 6-8 hectares per 100 cows)
- ◆ colour coded risk zones

## Step2:

At the start of the season decide on your irrigation management taking into account

- ◆ proportion and area of different risk zones
- ◆ the amount of storage that you have and

## Step 3

Pin the colour coded effluent irrigation map up in a handy position on the wall of the farm dairy with the irrigation recording sheet nearby.

Sample farm map and application record:

### *Example application plan recording sheet*

| Date    | Paddock Number | Run number | Signature | Comments                            |
|---------|----------------|------------|-----------|-------------------------------------|
| 15/8/04 | 1              | 7          | FRP       |                                     |
| 6/9/04  | 2              | 10         | FRP       | Ponding at the south end – too wet? |
| 7/9/04  | 3              | 10         | JMM       |                                     |

### **Effluent application using a low pressure system on mole/tile drained land**

K-line irrigation, a low pressure system, has been introduced on the property of Stephen and Judith Ray at Clydevale as a means of improving effluent management in the application of dairy effluent. The change was made due to concerns with tile discharges that were more likely to occur with the higher pressure travelling irrigator system. While tile discharges could be expected to occur during early spring (September and October) and again in the autumn, periodic discharges were also being noted during the period November to March on mole/tile drained land.

Based on information gained from the MAF SFF Dairy Green programme managed by John Scandrett within Southland and West Otago, it is expected that land application using K-lines could be carried out at higher soil moistures compared with the travelling irrigator. This is due to lower application depths and rates that can be achieved compared with the travelling irrigator. Irrigation applications are presently being carried with K-line at varying soil moistures and recorded daily. With the onset of autumn the soils will become progressively wetter and the K-line irrigation applications will reduce accordingly. The information gained will add to the information base being gathered on the other units within the Dairy Green programme.

There are two key differences between the travelling irrigator and the K-line systems. The rate of application for K-line is 3 to 4mls per hour versus 30 to 35mls per hour rate. In wetter soil conditions the ground is less able to absorb the higher rate. Also there is greater control on application depth with K-line compared to a travelling irrigator. The K-line application could be

as little as 1mm compared to a minimum application with the travelling irrigator of 12mm. The manner of application can be further manipulated through split applications or continual.

K-line is moved daily and takes a similar amount of time to a travelling irrigator. Alternatively with additional lines it can be laid out in advance for improved flexibility.

The minimum set-up of 2 lines of K-line costs \$1400, i.e. 2 lines at 90 metres, and 6 pods per set-up. Other costs are common to a traditional set-up. A recommended set-up of 6 lines costs \$4200. 6 lines overall allows lines to be laid out in advance. The cost of the extra lines is minimal when considering overall costs plus it adds to labour flexibility, particularly during the extremely busy spring period.

There are a number of advantages of using a K-line system. These include: minimised environmental risk through much reduced overland flow and tile drainage; and fewer terrain limitations as it can be used on more undulating and rolling land. There are also reduced surveillance requirements with no risks of the system tipping over, no drag hose considerations reducing pump efficiency, no ponding at the end of run due to the pump still operating and no problems with the system getting stuck in gullies over tiles. Benefits associated with nutrients include: more even distribution, greater assurance of covering a complete paddock prior to shifting and less taint with assured amount per application compared with a varied amount from the travelling irrigator.

## **Katrina Robertson**

### **Southland**

#### **Landcare Networking**

The Southland landcare groups and other community groups have discussed about what the sustainable land management meant for them at a field day at Riverton recently.

The Council organised a 'Networking Field day' of all landcare groups and other community groups in Southland at the Riverton wetlands in conjunction with the Riverton Estuary Care Society.

The objective of this field day was to enable representatives from each landcare group and other community groups to get together and discuss current issues affecting their areas, to promote networking and to develop strategies for information exchange. About 60 people were in attendance.

Cr Brian Mason was one of the opening speakers for the day and highlighted the Council's role in increasing community partnerships and public awareness of environmental management.

The morning session started at the Te Wai Korari wetlands followed by a visit to Riverton estuary, and discussions were held on a range of topics concerning estuary management in Southland.

Afternoon programme started at the Longwood Lodge with a group networking session. There were some interesting discussions on the various projects taken up by the community groups, including biodiversity. Leigh Stevens of Cawthron Institute presented a national perspective of estuary management.

Although the issues discussed during the field day were different and no easy answers to some of the questions, the community groups in Southland are finding that when people work together co-operatively, they can make real progress. This message has come out strongly during the networking day.

Environment Southland also had a static display on some of the issues relating to sustainable land management and information on above topics, in the form of handouts and brochures, was made available.

### **The Wetlands Project**

Environment Southland and the Southland District Council have joined forces to address wetland management in Southland. The two Councils have agreed to work with each other and establish a working party to work towards a response plan for the management of wetlands in Southland. The focus of this response plan is the development of a non-regulatory landowner tool kit including education initiatives, advice and incentives. Members of the Wetlands Working Party include: ES, SDC, Invercargill City Council, Gore District Council, the Department of Conservation, Federated Farmers, Fish and Game, Te Ao Marama, and Biodiversity Southland.

### **What has happened so far?**

There have been two meetings of the Wetlands Working Party - November 2004 and January 2005. Four main actions arose out of the first meeting: (1) Funding commitment for incentive measures such as financial assistance for property owners (2) Policy direction framework for wetland management (3) Inventory/schedule of wetlands, and (4) Education/advice, generating interest and raising awareness of wetlands. The second meeting resolved the first stage of the way forward - the development of a promotion media to invite landowners to come forward with information about their wetland areas. Work is progressing on this, with the aim of having information out in April/May 2005

### **Update on proposed Regional Freshwater Plan for Southland:**

Hearings have been held and decisions prepared in relation to the following sections of the Water Plan:

- General Matters and Introductory Chapters (Sections 1.1, 1.2, 1.3, 1.4 and 2.1)



- Structure and Bed Disturbance Rules (Sections 2.2.3 and 2.2.4) with the exception of Rule 30 “Whitebait stands”, Rule 27 “Fords” and Rule 38 “Stock Access”
- Financial Contributions (Sections 2.4.1, 2.4.2, 2.4.3 and 2.4.4)
- Structure and Bed Disturbance Outcomes, Issues, Objectives and Policies (Sections 3.3, 4.3, 5.1.3, 5.2.3) with the exception of Policy 33 “Stock access to waterbodies”
- How We Will Know the Plan is Working (Sections 6.1.1, 6.1.2, 6.1.3, 6.2, 6.3)

The Council has resolved to delay releasing these decisions until such time as submissions on the remaining sections of the Plan and Variations have been heard given the linkages between the various sections. Hearings in relation to the stock access and ford provisions (Policy 33 “Stock access to waterbodies”, Rule 27 “Fords” and Rule 38 “Stock Access”) and other remaining sections of the Plan will be held in the latter half of the year.

There are currently three Variations to the Plan in progress:

- Variation No. 2 (Groundwater) was publicly notified on 31 July 2004. The main reason for initiating a Variation was to incorporate a new framework for allocating groundwater into the Plan to address the increased demand for groundwater that has occurred in Southland in recent years. The Variation also addresses the link between surface water and groundwater. A hearing is to be held on 30 and 31 March and 1 April 2005 to consider the submissions and further submissions lodged.
- Draft Variation No. 3 (Water Quantity) was circulated for public comment at the end of last year. The draft Variation introduces a new minimum flow and allocation regime into the Plan based on the River Environment Classification system and technical advice received from NIWA and Cawthron. It is expected that the Variation will be publicly notified in April once the comments received on the draft Variation have been analysed and changes made to the Variation as necessary.
- Draft Variation No. 4 (Water Quality) was recently approved by the Council to be circulated for public comment. The draft Variation updates the water quality provisions of the Plan using the River Environment Classification system. It is expected that the Variation will be publicly notified in May once the comments received on the draft Variation have been analysed and changes made to the Variation as necessary.

**Bala TikkiSETTY**

## **Manawatu - Wanganui**

EMOSs **Sharn Hainsworth**, **Alan Kirk** and **Grant McLaren** are all working hard in their respective priority catchments, Alans in particular is known for having poor water quality. **Clare Ridler** is splitting time between her normal job and secondment to policy. **Verity Blair** will be

doing some helping out from the Wanganui Office now that the soil quality survey she undertook with local landowners has been completed.

The science team are looking at nitrates in hill country and how these may be able to be controlled with non-regulatory methods. A study will be looking at how nitrogen is applied affects run-off. The science team are also close to finalising water allocation plans for different catchments. The idea has also been floated to have a 'total polutable' amount for catchments.

The Consents team is busy, with groundwater applications becoming more common. The One Plan is having input from staff and councillors, getting ready for a significant consultation phase with the public. The policy team have decided to alter their initial plan of releasing a loose 'consultative draft' into the community around May of this year and instead release a 'Plan Roadmap' summary document followed later in the year (after our informal consultation) by the release of a Draft One Plan.

Who would have thought the year after the flooding would have passed so quickly? And in the strange beast that is the weather, while not a drought, it's certainly been a lot drier and a spot of rain would be nice. There has been more than one consent application requesting 'emergency irrigation'.....

The impacts from the flooding are still apparent in so many places, an exhibit at the local science museum 'Te Manawa' contains many interesting photos, stories and data collected during the event.

### **AgResearch Grasslands**

**Andrew Manderson** finally finished his PhD & published several papers on the importance of reliable land resource information and environmental farm planning. He's recently been dabbling with 3D 'what if' modelling, and is currently predicting the where of phosphate critical source areas for a Rotorua farm.



*3D visual modelling of potential erosion vs. implemented farm plan*

**Alec Mackay** has been heavily involved in several activities over the last 3 months including; SLURI a sustainable Land Use Research Initiative, that brings together soil science and land use expertise from four CRI's, (AgResearch, HortResearch, Landcare Research and Crop and Food

Research). He has been responsible for converting the three plans (Land and environment, Animal management, and Social responsibility) developed as part of project green ([www.projectgreen.co.nz](http://www.projectgreen.co.nz)) into software package. Version 1 of the software will be available shortly. He has also been part of a working group formed after a Horizons Regional Council facilitated workshop of community leaders last year to discuss the issues facing the region's natural resources following the February storm. The working party has been tasked with developing a sustainable land use initiative to increase the resilience of the horizons region and its communities to extreme weather events through primary resource conservation (soils, land and watercourses) and sediment management. In December last year he spent a week in Australia attending the Super Soil Conference (Joint NZ Soil Science Society and Australian Soil Science Society).

## Tabitha Anthony

### Gisborne

My unintentional contribution to the last Broadsheet has had a totally unexpected spin-off: When I mentioned to Trevor that I was about to write another item he was very quick to point out that he already had!! The real irony is that my previous contribution was just a personal email to Chris, who must have been a tad short on copy..... no litigation yet....

I am certainly missing **Bill Dobbie's** energy and enthusiasm – whenever he disappeared during field work one would watch the skyline a kilometre or so away for his head to appear – he always wanted to know what was over the next ridge – a totally admirable policy which I am sure he will never abandon. All the best for the future Bill. We are in the process of appointing a replacement at present.

I have attached Trevor's notes below – corrected for spelling and other age-related mistakes that may have arisen....

**Don Miller** (aka Foss<sup>1</sup>)

#### **Trevor's Comments:**

**Bill Dobbie** resigned from Gisborne District Council late last year and that left a soil conservation section with an average age a bit over 50, at least until the vacancy is filled. Gulp! Still, the depth of experience and stability is very much appreciated. It is no longer necessary for every soil conservator to be out in the field most days, climbing eroding hills with armfuls of poplar poles. With the very broad range of duties and increasing emphasis on the statutes, office work is more the norm and of course the 4WD motorbike reigns supreme.

**Don Miller**, ever the lateral thinking inventor will surely design a variant of the mobility scooter to keep us all going for many more years yet. It will most likely be based on ex washing machine

motors; large component stocks have already been assembled under his desk and at his house! Meantime he is deeply into interpreting subtle geological variations that make bits of our hill country just stable enough to hold up buildings (or not, as the case may be). All collectively done by various staff in the section through PIM's, LIMs and subdivision consents, and guiding geotech "experts" through select use of peer reviews.

**Peter Fantham** ranges there and ranges here but is most interested in obtaining and nurturing new high-resolution GIS orthophoto coverage for the whole district. His pride and joy though is his little daughter. In spite of the tut tuttings of his colleagues, he has decided to re-enter the tribulations of fatherhood.

**Allan Hughes** is mostly out and about organising planting programmes and processing earthworks and vegetation removal consents. He is always on the lookout for a bit of hunting and continues to flog the body in various running, cycling and paddling pursuits.

**Dennis Crone** is using his MAF farm advisory skills to advantage. He is proving to be quite the diplomat as the meat in the sandwich between conservation and development perceptions of indigenous vegetation. Dennis is also the enthusiastic editor of "Conservation Quorum", our quarterly newsletter to the rural people.

Also in the soil conservation offices at present is **Terry Crippen**, busily doing contract work; immersed in the bowels of GIS technology some days and out in the field doing land use capability mapping when its fine. That is of course in between regular jaunts down south and overseas seeking out the high peaks.

**Kerry Hudson** is normally to be found in the thick of the city wastewater consent process, grappling with the unitary authority concept. There are also the usual spread of watery consent applications to consider, in the sea, the rivers and underground. With only three in the section (and one vacancy at present) it is quite a task.

**Louise Savage**, who some readers will remember as a key organiser behind the 1997 Gisborne NZARM conference, has recently been taken back on for some contract work. This time she is going to fit a State of the Environment report into the tight schedule of motherhood.

**Trevor Freeman** is tied up with a diverse range of issues, from chasing phantom koi carp, to negotiating with MfE on soil conservation reserve disposal to the Sustainable Hill Country Project. The latter is a project to implant rules in the District Plan to back up the MAF East Coast Forestry Project incentives – not the easiest technically, legally or politically.

**Malcolm Ross** died suddenly on 27 December. He was a few days short of 75. Malcolm was a soil conservation field officer with the Catchment Board and the District Council until his retirement in 1990. He was the old hand in the field who knew all the practical stuff, and his willingness to help made him the mentor for a succession of bright eyed and cocky graduate soil conservators. Post retirement he continued to have a keen interest in soil conservation, retaining NZARM membership right up to his death. Although Malcolm never married, he is survived by a

veritable patchwork of forest blocks, willows and poplars over the patch of hill country he knew so well.

**Mike Marden** of Landcare Research is soldiering on without his long-standing technician Donna Rowan. He does more research work these days centred on out of district sites but judging from his regular visits to the Council offices to borrow aerial photos, he is also continuing to build upon the previous findings on erosion and trees that we find so valuable. (Mike can be assured that he had a lasting influence on his technician – Donna was observed this morning in a winemaking class at the local Polytech!).

I will be doing the broadsheet contributions from now on...

### **Trevor Freeman**

<sup>1</sup>. *Fossil.*

*a. (noun) An organic trace buried by beaurocratic processes and subsequently preserved in an inanimate state with altered soft parts.*

*b. (adjective) The term “fossil” is widely used to indicate great age, extinction, or ‘having been dug up’ .....*

“Yeah - not bad...”

### **Don Miller/Trevor Freeman**

## **Wellington - Wairarapa**

### **From the Regions – Wellington**

The land management team presently consists of the following personnel: - **Dave Cameron** remains our Regional Land Management Officer, with **Roger Wood**, **Stan Braaksma** and **Rob Harrison** the LMO's dealing with former 'typical' soil conservation issues, including substantial consultancy work principally involving but not confined to woodlot establishment and silvicultural treatments.

In addition we have **Don Bell** and **Michelle Bird** who are LMO's dealing particularly with biodiversity issues and the implementation of the Regional Riparian Development Strategies.

**Peter Cameron** still manages the Akura Conservation Centre, and promises that it may be for only 2 more winters! In this age it is rather special to have long serving staff members, and Peter has now been employed by Council and its predecessor the Wairarapa Catchment Board for 42 years. Amazing stuff. And Peter is a man of many interests, with one in particular being in

Ferguson tractors and their implements, particularly in the 1947 to 1956 period. His latest count is 7 tractors, and 51 associated implements. Most of these are now undercover in sheds, which Peter adds to from time to time, quite regularly of late. And all the machinery works !

Notwithstanding his current collection, he is always on the lookout for implements from that era which may have been imported to NZ and escaped his attention. Keep an eye out for some of these treasures when you look behind or in old farm sheds, and let Peter know if you see something of interest!

Adding further support and rounding out the section we have our two field supervisors **Chris Ladd** and **Phil Cooper**. Chris came on board in September of last year, and Phil was offered permanent employment in November last year as assistant to Chris, after a couple of years of short term contracts with Council. Both are finding life here in Masterton is busy enough work wise.

Some of our land managers have recently been pursuing activities other than work. Presently we have **Don Bell** relaxing in Norfolk Island. And **Rob Harrison** spent 3 weeks in January on the sunny West Coast organising his retirement house plans for Cobden Beach.

**Stan Braaksma** is always busy, and has been combining his usual heavy farm plan review work schedule with such pursuits as the round Taupo ride. He is developing a following – our field supervisor **Chris Ladd** is also a keen cyclist and participated in the same event. However, he vows it will be a once only occurrence !!

**Michelle Bird** has been fighting off customers keen for involvement in the pilot projects aiming to revegetate streambanks within the chosen 12 target streams in her promotion of Greater Wellington's Riparian Strategy. A real enthusiast, Michelle is already seeking an extension to her programmed budget!

**Dave Cameron**, our Section Leader, has again been involved recently in organising the Farm Environment Awards. He's also spent some time painting his house, and enjoying his golfing pursuits in Australia, having been a member of the winning team at the Holden Scramble Regional final. The prize was a trip to Australia for 6 days which included 4 days golf. Aside from these trivial, but none the less enjoyable pursuits, Dave has been involved in SLURI group meetings, and in emphasising the sustainability components of a Monitor Farm.

**Roger Wood** has been battling illness for some time, but is presently working part-time. Some weeks after returning from the West Coast, **Rob Harrison** announced that he was resigning to pursue a change in lifestyle from the Wairarapa to the currently vibrant West Coast region.

### **Rob reports:**

Curiously, this is the first permanent job I've resigned from since I started work with the Westland Catchment Board in 1976. Previously it's been a case of my skills no longer matching my employer's needs or the company I've worked for has become insolvent!

I currently have no fixed employment plans, but there is plenty to occupy me once I get to the West Coast, at least initially. There is a house which will need internal painting, and a whole seaside section needing development. It is currently little more than dredge tailings from at least four different operations, the last of which occurred approximately 100 years ago.

Life with Greater Wellington has been generally very good to me. I'd been a keen observer of Wairarapa techniques since I started work with the Westland Catchment Board in early 1976, so I took the opportunity offered me in 1990 to join the team in Masterton very willingly. It says something about job satisfaction that I'm the first Land Management Officer to resign here since that date.

In the fourteen and a half years I've been in the region, it's been mostly a pleasure to meet and develop good relationships with dozens of clients whom I now consider friends. This region has always been to the forefront of active soil conservation promotion, and even casual passers-by couldn't easily miss the hugely positive results where planting has helped landowners attain correct land use, particularly on the eastern hill country.

And I've been able to add to my skill base while I've been here, and hopefully contributed skills to a number of Council projects. Despite having planted some *P.radiata* seedlings in former dredge tailing in the winter of 1976, my experience with the forestry industry until I reached the Wairarapa was generally with constraints or conditions applying to native logging on the West Coast. Incidentally, as I pass that particular planting now, in the Ikamatua area I have a good benchmark on tree age – at 29 they are nearing harvest age!

One of the enjoyable things about working for a moderately large sized organisation is the accessibility to technology. When I came here we hardly knew what a digital planimeter was, and now we are immersed in GIS systems with huge capabilities. This has made life easier in terms of determining areas of particular blocks, or lengths of fenceline, but with increasing technology comes increasing expectations of clients. And everything is urgent, or should have been completed yesterday.

One recent investigation comes to mind that will no doubt prove useful to the farming sector long term. **Stan Braaksma, Dr Doug Hicks** and I (with Doug doing very much the major portion), have developed a matrix of dry matter production figures against land use capability units against rainfall. With the GIS technology we have now, we're able to assess likely per paddock dry matter production. Further, we can incorporate these figures into our Sustainability Farm Plans. These plans are a more sophisticated version of our standard soil and water conservation farm plans, to include production and financial modelling and containing a longer term vision. A likely additional use of this model is to promote most effective fertiliser use, and we note that there are similar style programmes surfacing in various parts of the country.

In leaving, I am reminded of the words of a former colleague at Grey River Gold, who commented that the thing one missed most about a workplace was the photocopier – I am about to test that theory!

To friends visiting the West Coast, there's an invitation for a cuppa or bed for the night. Just head down Bright Street to the beach at Cobden, which is on the northern side of the Grey River, and you can't miss the Torres Blue roof, and saffron coloured brick home.

## Rob Harrison

### Hawkes Bay

**Garth Eyles** has been flat out doing what he does. Particularly interesting though is the upcoming final report from the Pakauratahi study (multi season study of two identical catchments – one pasture, one forestry). A technical report is hopefully being completed into a book.

Scrub Clearance continues to be an issue in the northern parts of Hawkes Bay since the local district council has been enforcing its district plan rules and other parties have taken a deep interest as well. **Peter Manson** has been involved in this as well as pole nursery management.

**Jude Addenbrooke** has managed to get a chopper ride recently – all part of the Regional Landcare Scheme riparian management programme. She has also put together a field study for farmers named '*Dirt to Dollars*' which is adapted from the SUBS programme **Andrew Curtis** was also forced to endure a chopper ride while blitzing more willow regrowth in the PekaPeka swamp. He has been involved in the trialling of naturally durable posts on vineyards. Andrew and his wife have produced their first red wine from his home block – a Merlot and very good too.

Managing the Tangoio Soil Conservation Reserve has been **Joe Devonport's** main focus for a long time now. He does manage to fit in a few farm soil conservation jobs though.

**Simon Stokes** has been flat out with comprehensive farm planning work throughout Hawkes Bay and is also part of the group who are now well on top of the soon to be released publication '*A guide to farm forestry – a Hawkes Bay perspective*'.

And **Neil Faulknor** is away from his vocational and theatrical responsibilities for a week, while he plays hockey in the national masters tournament – sounds like thirsty work.

## Peter Manson

### Auckland

#### From Team Rural - Auckland

March already huh - highlight of the year so far - the couple weeks after new years when you can actually get on the motorway in car/bus and travel to work in a reasonable time, also the risk of being swiped is dramatically lowered when on your bike.



Hurray, it's taken a few years but the rural team is finally back to five again with the welcome addition of Paul Begley (a real farmer). Paul has background in dairy farming and originated from the Hawkes Bay - big city bright lights attracting him to Auckland. He studied Agricultural Commerce at Lincoln University. He is adding some truly rural flavor to the team. Gwyn is also looking much happy (too many females bossing him around before). Paul is getting to grips with the database systems and will be taking an active role in the Franklin Sustainability project and rural discharges.

Compliance (non dairying) Georgie has been whipping this into shape, with many days in the field planned. Many pollution complaints over the last few months has keep everyone busy in field/office and out of trouble.

Glenys has been tied up with on going ALW plan appeals and involved in a lengthy pollution incident resulting in enforcement. Growers and greenhouses still take up a large part of her time.

Gwyn is busy setting up two riparian trial sites in the north and south of the Auckland region on dairy farms; this is in addition to the one setup just out of Warkworth. The Warkworth site is looking good with the plants been released last week and a public open day to be held on April 13th. He is also organising riparian planting and nutrient management workshops in conjunction with Fonterra and Dexcel field staff between February and May 2005.

It has been a busy time with care group meetings and activities - South Kaipara have held their annual world wetlands day celebration with a site visit and talk by Keith Thompson. Awhitu Peninsula Landcare group continues to implement the Peninsula Pest Control programme with great success and we look forward to attending there up coming workshop on "profits from possums". The group have also secured funding to establish an Employment and Education Office on the Peninsula to establish employment opportunities for local people and continue the environmental education programme, targeting the entire community.

That's all folks!

**Amy Taylor**

**Northland**

Nothing from the far North.

## New Members

The Executive extends a hearty welcome to the following new members to NZARM.

**Approved at the Exective meeting on February 21, 2005.**

|  |  |
|--|--|
| <b>Ross Monaghan</b> a scientist working with Agresearch's Land and Environmental Management Group, based at Invermay. Much of his research seeks to identify how farming systems can maintain or improve business profitability whilst delivering improved environmental performance. Research has a balanced component of plot, paddock, farm and catchment scale analysis to maximise relevance. Has B Agr Sc (Hons 1), PhD Soil Science. |  |
| <b>K V Chandran</b>  | This member did not wish to have biographical details published. |

The Executive received the resignation of **C. Sinclair**

.....

### ....and from the Secretary

Can anyone help with new addresses/contacts for the following members? Recent correspondence has been returned as no longer at address.

- S Park
- W M Bettjeman
- G Burke
- B Zurr
- H Spence
- G Williamson

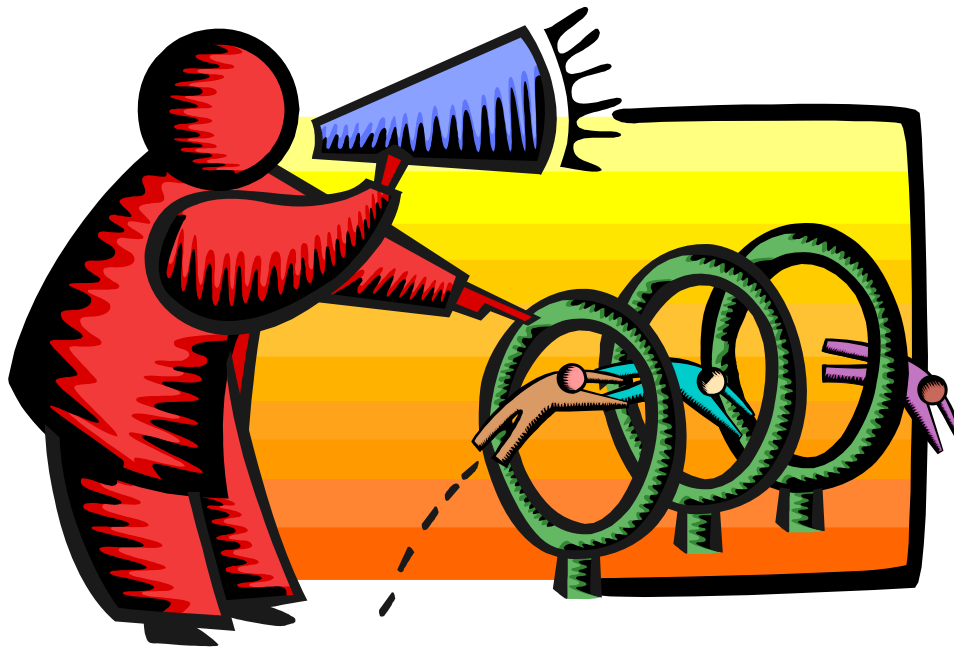
Any help you can give to track down a current address for these members would be appreciated. Please email [TabithaA@xtra.co.nz](mailto:TabithaA@xtra.co.nz)

Thank you

**Tabitha Anthony**  
**NZARM Secretary**

# Wanted

## Editor for Broadsheet



No - you don't need to be a circus trainer or learn to jump through hoops.

No – you don't need any special skills (other than perseverance, persistence, and a bit of word-processing)

No – it doesn't take a lot of time or effort

Yes – it is rewarding

Yes – it has a huge salary and numerous fringe benefits (nah, just kidding)

**If you think you would like to have a go at keeping NZARM members connected via this important and satisfying task then please get in touch with Chris Phillips or your regional coordinator (details inside cover of this newsletter).**

# **NZARM CONFERENCE 2005**

**10-12 OCTOBER 2005**

## **Hawke's Bay**

### **Location: War Memorial Conference Centre, Napier**

This year the conference is in Hawke's Bay and you shouldn't miss it.

The conference location in Napier has excellent facilities, Te Pania hotel across the road and adjoining salt water baths to relax in. Get in early!

The three-day conference is looking at three issues that will be the centre of discussion for each day. The basis for each day is about defining a resource, the risks associated with it, and managing those risks.

**Day 1:** Management of the Heretaunga Plains water resource - water use, allocation and irrigation efficiency, + a field trip

**Day 2:** Intensification of land use in hill country - managing the issues, + a field trip and workshop

**Day 3:** Catchment management of the Ruataniwha Plains - soil health and surface management + a field trip

See you there.

**Simon Stokes**

(Conference organising committee)

## **Didimosphenia geminate – a new algae**

A new algae, *Didimosphenia geminate*, ('didymo' for short) was found in the lower Waiau and Mararoa rivers of Southland in October 2004. The natural distribution of this algae is northern Europe and northern North America. Its presence in New Zealand may be the first in the southern hemisphere.

*D. geminate* is a freshwater diatom (a type of algae). It can form massive blooms on the bottom of streams, rivers and lakes. The algae attaches itself to the streambed by stalks and can form a thick brown layer that smothers rocks, submerged plants and other materials. It forms flowing 'rat tails' that can turn white at their ends and look similar to tissue paper. Although the algae appears slimy, it feels like wet cotton wool.

Biosecurity New Zealand held three public information meetings during February 2005 in Southland. The aim was to provide an update on progress made with understanding and managing the algae and to seek feedback on possible future strategies.

Since the last public meeting in Te Anau in mid December last year Biosecurity New Zealand has established from surveys conducted that the *Didymo* algae cannot be detected in any other rivers in Southland and Otago using both macroscopic and microscopic techniques. Research work by NIWA has shown that the algae is difficult to keep alive out of its favoured environment (ie., cool, clean, running water) and can be killed effectively with common and relatively safe chemicals. It was established that *Didymo* can be completely killed by immersion in 2% chorine solution for 30 seconds. This can also be achieved using 5% solutions of salt, washing liquid, nappy wash, disinfectant, etc). *Didymo* will be completely killed by being kept dry for 48 hours. NIWA research has also indicated that *Didymo* algae is able to establish in at least 30% of rivers in New Zealand, particularly the those with wild and scenic values. On this basis *Didymo* spread would result in major environmental and economic impacts. The voluntary restrictions on the Mararoa and lower Waiau Rivers were considered successful in that 80-90% of users avoided the river. Most people spoken to over the summer period were very cooperative and supportive of the restrictions.



Biosecurity New Zealand has indicated that it will consider increasing restrictions on river access, which may involve declaring the affected rivers a 'controlled area' under the Biosecurity Act. This would effectively close the rivers to all but those who have a permit. Permit holders would be bound to comply with conditions that would aim to eliminate risk of spread of algae to unaffected rivers. This system would enable relatively simple to enforce. A decision on this is expected soon. Biosecurity New Zealand is also keen to pursue strategies to eradicate *Didymo* algae based on the results of initial NIWA research. It is in the process of exploring the options and is preparing papers to Government to make a case for the necessary funding. It may wish to carry out field trials in the near future in consultation with local agencies.

There was also strong support for a programme to eradicate or at least prevent the spread of *Didymo* algae to other rivers in New Zealand. These positive local views have provided Biosecurity New Zealand with a clear mandate to pursue a proactive management strategy for *Didymo*. Further information can be obtained from Richard Bowman, Biosecurity Manager, Environment Southland, Invercargill.



*Windthrow damage in Nelson forests – October 2004.*

## **Collapse: How Societies Choose to Fail or Survive**

**By Jared Diamond  
Allen Lane**

About once every decade a good read on environment trashing gets published. In the early 80s there was “Man and the Mediterranean Forest” by J.V. Thirgood, a Canadian forester with wide experience in the Med. He had wisdom to impart on the links between forest ownership and arson, particularly on Cypress, and on the long-term effects of goat grazing on the Levant (The lands to the east of the Mediterranean). Incidentally – I used to have two copies of that book – if someone has the other copy please let me know where it is, read it again and lend it to someone else please!

Daniel Hillel, in the early 90s authored “Out of the Earth - civilization and the life of the soil”. This was a further scholarly look at long-term abuse of the land - deforestation and salinisation.

I found both of these books both inspirational and depressing as while change can occur it takes political will to implement it. My own experiences while dodging various malaria/microfalaria/elephantitis carrying greeblies has confirmed the long-term nature of resource management – the worrying thought is that to many a politician the “long-term” is 3 years..... How come we have no problem looking back 2000 years every Christmas but looking 500 years into the future is quite inconceivable...!

Jared Diamond’s latest book examines further examples of poor resource management through decisions made at a political level, as well as good decisions that have allowed certain societies to survive in unfriendly environments. Some assumptions have necessarily been made regarding the more ancient examples but he appears to have carried out meticulous research.

The book is a good read and covers some less well known corners of the world – Greenland, Easter Island, Rwanda, Tikopia as well as the larger environmental hot spots such as Australia and China. I would like to be able say that I have digested all 560 pages, but deadlines for copy had to be met and I have only had the book a little over a week.....

The chapter on Montana does have immediate relevancy for Gisborne as here too we have an invasion of wealthy Californian lifestyle seekers who want our scenery – and the value of coastal land is rising above that warranted by returns from agriculture. Maybe the peasantisation of non-land owning locals is slowly occurring here, as it is now in Montana and as it had always seemed to be when I lived in SE Asia 30 years ago. And maybe too, this raises issues that can be awkward to acknowledge - didn’t a brief public debate (Finn, Finn and Crombie, 1981) discuss aspects of this phenomenon?.

This book is available in paperback and is good value for money.

**Don Miller**

## Potato Wart Risk Management

### Keith Crothers, Senior Biosecurity Officer (Pest Plants), Environment Southland

The humble spud - who would have thought that this wonderful vegetable could harbour a serious soil-borne disease, which, if present in your garden, will spoil your homegrown potatoes?

So it was that around the beginning of 2004, Environment Southland was approached by representatives of the New Zealand Vegetable Growers Federation (VegFed) and the Ministry of Agriculture and Forestry (MAF) about the risks posed by the crop disease potato wart. These groups wanted to establish eradication and risk management programmes in Southland. ES agreed to investigate the benefits of becoming involved in a collaborative programme with VegFed and MAF. First found in Invercargill in the 1970's, MAF had eradicated all detections over the last 30 years.

A disease outbreak and simulation workshop was staged in Christchurch in May 2004. I was fortunate enough to attend this exercise and thus begin the relationship with MAF and AgriQuality NZ Ltd. It was at this exercise that I found potato wart is a disease that disfigures potatoes and is caused by a persistent soil-borne fungus (*Synchytrium endobioticum*). The disease is a Notifiable Organism under the Biosecurity Act, meaning that it must be reported to MAF if presence is suspected. The presence of this disease, even at very low levels, poses risks to the potato export industry, currently worth around \$70 million per annum. Whilst found as far north as Oamaru, the infection in New Zealand appears to be focussed on the Invercargill area and is spread by the movement of potatoes, soil and contaminated material. After an active control programme run by MAF, it is now only found periodically every few years in private gardens where it is treated by fumigation techniques. MAF and VegFed would like to eliminate the disease completely.

Later in the year an official approach was made to Environment Southland to assist MAF and VegFed with a management programme that would involve raising awareness of the risks associated with potato wart, acting as a clearing house for potato wart specimens, and possibly taking part in eradication activities.

The newly established Biosecurity New Zealand and ES biosecurity staff formulated a marketing plan with the strategic objective to protect the commercial potato growers industry from a potato wart outbreak. The marketing plan had 2 objectives:

- To make Invercargill gardeners aware of potato wart and;
- To ensure Invercargill gardeners and commercial potato growers know how to report and stop the spread of potato wart

The expected results were:

- To receive calls to potato wart hotline reporting any infected potatoes with non-potato wart enquiries minimised;
- To receive hits on the potato wart web-page of Biosecurity New Zealand and;



- To get 100% of Invercargill gardeners purchasing seed potato strains that are potato wart resistant

Launched in October 2004, the awareness campaign focused on the general populace of Invercargill and home gardeners in particular. A glossy poster and glossy fact sheet were produced for the campaign and these were strategically located in supermarkets, garden centres (outlets for seed potatoes) and public libraries. All possible media outlets were targeted with a press release. Environment Southland fronted the campaign and while the telephones did not run hot with suspected reports, the awareness level of the campaign appeared to be quite high. The campaign for 2004/2005 has not yet been completed but one new find of the disease was made as a direct result of the campaign. This home garden was fumigated in late February.

It is intended that the campaign continue through to the summer of 2005/2006 when other activities will be implemented to heighten the awareness of the disease.

The inter-agency approach to this matter has signalled the beginning of a new direction with biosecurity matters in New Zealand. The sharing of resources would appear to be the way of the future for similar events. There is already a willingness being shown by the new Biosecurity New Zealand (and regional councils for that matter) that this is the way business will be done in the future.

You can check out further detail on the following web pages:

<http://www.es.govt.nz/Departments/Biosecurity/PestPlants/potatowart.aspx>  
<http://www.biosecurity.govt.nz/pests-diseases/plants/potato-wart/index.htm>



*Stream bank collapse – how prevalent is it?*

## **Hawkes Bay Today – Editorial Over the Fence From Ewan McGregor**

### **Water quality here and in Aussie**

Cynthia and I spent last week observing landcare practice in Victoria. Not as exciting as the tennis maybe, but extremely interesting nevertheless. Today's Hawkes Bay Earthquake day, but seems yesterday was world wetland day it may be appropriate to focus on some water observations, both here and in Victoria, although while there we were looking mainly at reforestation projects, of which there are plenty.

Manifestly Australia is, as it has always been, a continent under enormous water stress. Victoria, not intruding into the arid interior, is the least arid of the mainland states, but it is pretty dry nevertheless; most of the land we saw and farms we visited receive less than 500 mm per annum. Given the hot climate water is usually at a premium.

Currently there is a keen debate taking place in that state, but especially in that great city of Melbourne, on the state of the Yarra River. Melbourne, although alongside the sea, is focused on the Yarra. It is the natural and iconic feature of the city.

This is what *The Age*, which recently celebrated its 150<sup>th</sup> birthday by the way, said in an editorial; "It was with a sense of nausea that Victorians learnt that one of their most iconic waterways, the Yarra River, is at times highly contaminated, riddled with human and animal sewage that has caused bacterial levels to spiral. This has caused the death of about 100 eels and the illness of kayakers."

The poor state of the river then until recently was a mystery to even the State's daily newspaper. Little wonder that the public were taken by surprise. Not only are more pollutants entering the river, but there is less river with heavy draw-offs for agricultural and domestic demand.

We also visited a pleasant South Victorian town called Colac, about the size of Fielding. It fronts onto a lake I would estimate half the size of Rotorua. Swimming is banned, the reason being that it still empties its sewage, believe it or not, into the lake! (Well okay, Hastings does pretty much the same thing, except it's a bigger lake.) The lake certainly lacks the clarity to which we are accustomed, which admittedly is largely a matter of luck.

I spoke to a guy that was catching small fish from a pier. Edible? I asked. "Beaudivill!" Any trout in the lake I enquired, which was a pretty dumb question really. There weren't. This takes me back to the Yarra, which is clear enough to hold trout, at least at upper reaches. It seems though that these trout feast on tadpoles of the tree frog, which is now scarce, if not endangered. Some authority came up with a solution; place poison in the river at its head so that as it drifted down the trout would go belly-up. This bizarre proposal, unsurprisingly, was greeted with such an outcry that it was hastily dropped. Even in Australia it is no contest when the angling lobby and an endangered indigenous species go head-to-head. Well okay, I did say it was a bizarre idea.

Still, smugness is a luxury few can afford, and we can't in respect to our own water, or much else for that matter. With high rainfall over a relatively small landmass and just 4 million habitants we are a water-rich country. One can look down off the Princess Bridge in Melbourne and ponder that 'there for the grace of God goes the Wanganui, the Waikato, the Clutha, or for that matter, the Mohaka'. Nevertheless, our rivers are, like rivers all around the world, required to carry ever increasing loads of dunage with declining horsepower.

Let's acknowledge though that our standards today are much advanced on what they have been hitherto. Until the early 1970s the accepted way of discharging a town's sewage was simply to pipe it to the nearest water-way. And it wasn't just to source water that freezing works were built alongside a river; it was a convenient conduit to get rid of the effluent.

But the pressures grow, most alarmingly in the central North Island lakes with increasing population, and especially, more intensive farming systems causing nutrification of the surface and underground water. Here the scary thing is that, like Australia's dry-land salinity problem (where high levels of ground water caused by deforestation bring salt in the subsoil to the surface), the lag-time of the effects – and the solution - is decades. This means that we should have faced up to the problem yesterday. Failing that, what better time than now!



*What every good field person wears. Oh, if only you could see the colours!*

## **REPORT TO REGIONAL COUNCILORS ON BRIEF TRIP TO VICTORIA TO OBSERVE LANDCARE PRACTICE AND POLICY**

**Ewan McGregor  
30th January 2005**

Last week Cynthia and I undertook a brief study trip of Victoria to observe landcare practice and policy. We were the guest of a good friend Rob Youl, a senior official of Landcare Victoria, and who when in H B a couple of years ago spoke to the Omakere Landcare group and Hastings Landmarks. He returned our hospitality 10-fold, taking us over 2000 kilometres around north and southwest Victoria. These are my brief observations that may be of interest to councillors.

### **“Landcare” in Australia**

Landcare is more than just a description of environmental practice in Australia; it is a brand name for a movement that marries public and private commitment and resources. There are about 7000 landcare groups in Australia, covering both urban collectives working to enhance public land, and agriculture land. Some cover vast areas – when over there in 1997 one was described to me in northern South Australia encompassing an area the size of N Z and with just 37 farmer members. “Landcare” then means both land over which I have title and the land in which I live.

These groups receive considerable public funding, supported by corporate and other resources, and have paid professional facilitators. We visited one such facilitator who worked for three contiguous groups with a total of 400 members (about half lifestylers) and these groups received \$300,000 annually from the Federal Government. Of course landowners need to make their own contributions to their private landcare, usually on a 50/50 basis. (Public contribution can be as high as 90%, but it carries the condition of covenanting.)

The reasons for the high level of government support are:

1. Many of the landcare problems are beyond the landowners to solve, and the wider public accept that there is a national responsibility here.
2. Australia is a well-resourced country with a large urban population financially able to contribute to private landcare.

By way of contrast the New Zealand farmer:

1. Is better able to deal individually and from his/her own resources to on-farm landcare. For that reason the collective approach has limited application in private landcare, but it certainly has relevance for the enhancement of public land.
2. In general terms, the New Zealand farmer has an available tool for environmental protection that the Australian farmer is unlikely to have – a commercial tree (mainly *p radiata*, but also poplar if we are smart) which he can exploit to stabilise soil.

### **Reforestation Practice**

Much of Australia has of course a dry, if not arid, climate, although where the rainfall is better, or where irrigation is available it is very productive. Much of the land we saw has a rainfall of less than 500 mm. It has now been well recognised that the use of indigenous trees – that is species

naturally from that area – is essential for successful reforestation. These are mostly eucalypts, but also acacia and sheokes.

The Aussies have learnt much here and their success rate is very impressive. Establishment is by either planting small specimens in root trainers, often mechanically using a machine similar to what we use to plant tomatoes commercially, or direct seeding. Good weed and pest control is essential. Everywhere we saw juvenile trees, less than about a decade old, establishing. Growth and survival rates even in very dry conditions are remarkable.

### **Salinity**

This is a huge and growing environmental problem in Australia which fortunately we do not have to deal with. There the subsoil contains varying levels of salt. When the land was naturally forested (with the ever-present eucalypt) soil water levels were unable to build up due to the process of transpiration. Notwithstanding low levels of rainfall, the removal of most of the trees for farming has allowed soil water to increase, bring salinity to the surface at the lower levels. This is ‘dry land’ salinity. ‘Wetland’ salinity is where the process is hastened through irrigation. Solving this problem is one of the drivers of the comprehensive reforestation programme undertaken by Landcare Australia.

### **Water**

Australia is a country under enormous water stress, as it always has been. But as population raises and the demands for irrigation grow this is only becoming more challenging. Add to this the increasing value of wetland biodiversity. We can’t be smug, but I feel in many ways we are ahead in the way we use water. (More about water in this weeks *Over the Fence*.)

### **Landscape**

Australia has a majestic and characteristic landscape, and on a grand scale, although it lacks the wonderful regional contrasts of ours. They treasure it, justifiably. Genus wise, it is that remarkable eucalypt of which there are over 1000 species, that underpins their landscape. Except in the higher rainfall levels and where moisture can be applied artificially in urban or garden situations, the northern temperate tree sits uncomfortably upon their landscape. Their landscape modification then is very much a return towards the natural, whereas, while we are increasingly planting natives, it is the exotic species that is imposing itself upon, and in most cases adorning, our productive landscape.

### **Lifestyle Subdivisions**

As is the case here, lifestyle subdivision is becoming a big issue in Australia. This is the case along their coast, but with a far higher population and about the same length of coast, it is inland areas that are being subdivided. Much of this is marginal farming land and I suspect that the gobbling up of productive land by this process may not warrant the same alarm as here. Generally lifestyleers appear to be active participants in the landcare movement, and certainly we saw some very inspired examples.

### **Idea**

Rob took us to a little nook not far from Melbourne where a rather substantial bird-watches hide had been built, and which I think would most definitely have a place here. I can think of the

Ahuriri Lagoon and the rehabilitation Pekapeka swamp. This would be a great way to involve the public, especially children, in these enhanced wetlands where there is a proliferation of birdlife. They would need to be discreetly positioned – not just discreet from the birds' point of view, but members of the public that may be more interested in destruction than bird watching.

### **“e Tree”**

Computershare is the world's largest - and only global – share registry and a provider of financial market services and technology to global securities industry. This company manages over 70 million shareholder accounts for 13,000 companies worldwide.

Computershare recently entered into a scheme, called e Tree, to promote the environment with Landcare Australia whereby companies encourage their shareholders to receive their annual reports by email, thus saving costs, and much paper. For every shareholder who takes up the scheme \$2.00 would be paid to e Tree.

This money goes towards a specific environmental project in every Australian state and New Zealand. In the middle of last year Rob ran this opportunity past the N Z Landcare Trust, but it wasn't interested, and I was his next port of call. Did I have any project in mind? Indeed I did. I responded with my cabbage tree rehabilitation idea, Project Ti Kouka, and it was immediately picked up. (See addendum.) To date I haven't done a heck of a lot, but already there is over \$500 in the kitty waiting to be spent, but this may only be the start of what could be quite substantial funding. In the meantime this money will be channelled through the Maraetotara Tree Trust, under whose auspices we intend to initiate this programme with demonstration planting of protected cabbage trees over pastureland. I'm certainly committed to this one now!

### **Architecture**

This is a subject somewhat outside Regional Council brief, but I include it as we were awed by the Victorian (as in era) architecture. Victoria has a history of prosperity due to gold (metallic) and gold (the fleece) and it certainly shows in their architecture, especially public buildings. They are substantial and very beautiful, built predominantly out of indigenous stone and brick. I wonder if their promotion of this heritage is as good as is the case with Napier's art deco. It should be, for it surely warrants it.

## **A CAMPAIGN TO REINVIGORATE THE ICONIC CABBAGE TREE, TI KOUKA TO NEW ZEALAND'S RURAL LANDSCAPE**

**Proposal by Ewan McGregor  
Environmentalist**

There are five species of Cabbage Tree native to New Zealand. (Note: The cabbage tree is technically not a tree in that it is not a woody plant, but it has the dimensions of a medium-sized tree and therefore is visually a tree and regarded as such.) The most common species by far, and the largest, is *Cordyline Australis* and it is common in every region of New Zealand. It thrives on an extremely wide range of soils from heavy moist valley bottoms to hard steep hillsides. It is this species that would dominate the project that is outlined below.

### **Object**

To reinvigorate the cabbage tree as a feature of the open New Zealand landscape.

### **Why?**

The cabbage tree is an iconic symbol of the New Zealand landscape. The reason is that it, being resistant to fire, survived the bush burns that were employed by the pioneer graziers to clear the land for livestock production.

But the subsequent grazing regime applied to the land has prevented new trees from becoming established. The result is that nearly all the cabbage trees over farmland are at least a hundred years old, and are showing the effects of old age, disease and stock pressure.

We need a process to revive this symbolic landscape feature to our rural vistas. This can be done through planting new trees or protecting from stock the coppices of existing trees that are failing through old age or poor health.

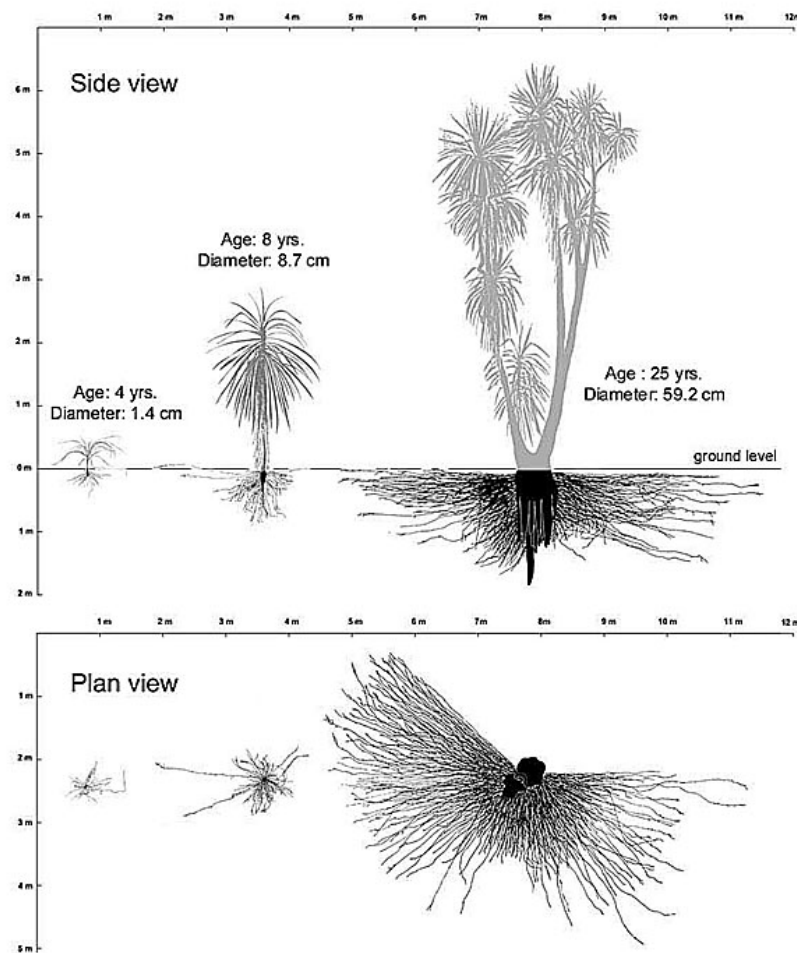
### **How?**

There is no doubt that New Zealand has an emotional affinity to the cabbage tree as it provides our landscape with a special character. This can be harnessed to drive a programme to advance its cultivation. This I see as a partnership between the landowner (mostly but not entirely farmers), the community through individuals, groups and the appropriate Government Department (Department of Conservation) and a corporate sponsor/s.

To give this envisaged project a strategic and long-term basis I believe it needs to be driven by a dedicated trust. Preferably it should start by initially focusing on a particular region (e.g. Hawkes Bay) but have the vision to spread out to other regions as they gain confidence and inspiration from regional success. An inspiring example is Project Crimson, a programme that has been running to promote the cultivation and protection of pohutukawa and rata, two closely related species of New Zealand native trees that have crimson blossom in summer. Project crimson brings together the community, a corporate sponsor (the forestry company Carter Holt Harvey) and the Department of Conservation.

The envisaged trust should;

- Publicise its cause and seek to excite the imagination of the public and therefore gain its support.
- Motivate landowners individually and through its organisations (e.g. Federated Farmers).
- Win the endorsement of Government agencies, both national and local.
- Have a corporate backer for financial support. (Computershare?)
- Have a suitable supplier/s of cabbage tree stock that is healthy, appropriate size and of suitable genetic quality. (A trust-operated native tree nursery has just been established in Hawkes Bay that would serve this purpose.)
- Educate landowners on the cultivation and protection of establishing cabbage trees. The former is simple, but the latter is more challenging.
- Promote the material advantages of cabbage trees to landowners. These include stock shade and shelter, possibly erosion control and increased land values.
- Have a suitable patron.
- Adopt a catchy name and logo.



*Cabbage tree growth details -from thesis by Alexander Czernin 2002.*



## COMING EVENTS - CALENDAR

(from Royal Society NZ Alert)

|                             |  |
|-----------------------------|--|
| <b>29 Mar - 01 Apr 2005</b> | <p>EIANZ Conference (Environment Institute of Australia and New Zealand) “Working on the Frontier: Environmental Sustainability in Practice” will be the first NZ conference, being hosted by the NZ Chapter of the Institute. Over 300 participants are expected with the majority from Australia.</p> <p>Hotel Grand Chancellor, Cashel Street, Christchurch</p> <p>Sally Dickson, PO Box 8910, Riccarton, Christchurch</p> <p>ph 64-3-343 5900, fax 64-3-343 5063</p> <p>sally@conferenceteam.co.nz</p> <p><a href="http://www.conferenceteam.co.nz">http://www.conferenceteam.co.nz</a></p> <p><a href="http://www.conferenceteam.co.nz/eianz">http://www.conferenceteam.co.nz/eianz</a></p> |
| <b>08 Apr - 09 Apr 2005</b> | <p><i>BioBlitz - finding nature in the city. A 24-hour search for as many species as possible in an urban park. Teams of biologists work out of a 'base camp' that is open to the public.</i></p> <p><a href="http://www.landcareresearch.co.nz/research/biodiversity/bioblitz/">www.landcareresearch.co.nz/research/biodiversity/bioblitz/</a></p> <p><i>Base camp will be near the Botanic Gardens Information Centre, Christchurch, New Zealand</i></p> <p><i>Judy Grindell, grindellj@landcareresearch.co.nz</i></p> <p><b><a href="http://www.landcareresearch.co.nz/research/biodiversity/bioblitz">http://www.landcareresearch.co.nz/research/biodiversity/bioblitz</a></b></p>           |
| <b>May 31-June 4 2005</b>   | <p><i>Vancouver Landslide Conference</i></p> <p>International Conference on Landslide Risk Management (ICLRM) and 18<sup>th</sup> Annual Vancouver Geotechnical Society Symposium, University of British Columbia, Vancouver. Four-day (Tue through Fri) conference followed by optional Sat, June 4 field trip. For further information including registration go to <a href="http://cgs.ca/2005ICLRM/">http://cgs.ca/2005ICLRM/</a></p>  |
| <b>October 2005</b>         | <p>NZARM Annual Conference<br/>Hawke’s Bay (watch this space or the web site <a href="http://www.nzarm.org.nz">www.nzarm.org.nz</a> )</p>  |