



Coastal *news*

Number 20
July 2002

Newsletter of the New Zealand Coastal Society

a Technical Group of IPENZ

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NZCS Conference 2002, 17-18 October, Pauanui, Coromandel

Crossroads: making tough decisions for future generations



Photo: John Barren

The 2002 NZCS Conference is being hosted in the Wonderful Waikato! This is an opportunity to experience the awesome Coromandel Peninsula from a premier conference venue, the Mercury Grand Puka Park Resort, Pauanui Beach. Coastal management is a high profile issue on the Coromandel Peninsula, which is under enormous and conflicting pressure both for ongoing development and for conservation of what natural areas are left. A wide range of issues will be discussed, including coastal hazards, development pressures on coastal margins, resource economics, community values and any other coastal management issues society members are interested in. The field trip will visit the beautiful estuaries and sparkling white beaches of the eastern Coromandel coast, discussing many of the management challenges faced by the communities and regulatory authorities.

We have secured a fantastic keynote speaker in Dr Andy Short, Director of the Marine Studies Centre and Coastal Studies Unit at the University of Sydney (for a brief run down on Andy see Page 5)

The NZCS have organised some great value

accommodation at the fantastic Puka Park and with the Pauanui Pines Motor lodge, who both supply top quality facilities. Accommodation in Pauanui is limited and under demand from tourist groups so we need to confirm numbers as early as possible.

Transport will be provided from Auckland airport to Pauanui on the evening of the 16th of October and back again Friday afternoon for those that are flying. A minibus may also be run from Hamilton if demand warrants it.

The NZCS Conference Organising Team would be keen to hear from you if you are interested in attending the NZCS Conference in Pauanui. Early-bird prices will be available if you are able to confirm your attendance by 30th July.

Updates will be available on the NZCS website and you will be able to register on line once prices are confirmed.

For any queries please contact Matt or Bronwen who will be happy to help (Bronwen Gibberd, Email: Bronwen.Gibberd@ew.govt.nz Matthew Paterson, Email: Patersom@akcity.govt.nz).

We love the coast ... but how do we value it?

Enjoying the coast and the nation's many beaches is very much ingrained in New Zealand culture. It is clear that society loves and values the coast, but the question of how this relationship is integrated into decision-making is increasingly at the forefront of policy-making.

The use of environmental economics techniques to actually place a monetary value on natural resources is becoming increasingly popular in New Zealand. These techniques have been used extensively in the US and Europe particularly over the past 20 years.

Concepts of value

'Value' is a very individual concept. People value different possessions, objects, experiences and environments in different ways. Environmental economists have developed a "holistic valuation concept" referred to as 'total economic value', with the aim of ensuring that all aspects of the value held towards environmental goods and services are taken into account. The 'total economic value' (TEV) of an environmental asset is broken down into two elements, namely 'use' and 'non-use' values. Use values are those associated with the benefits gained from actual use (now or at some point in the future) of the environment and may include private sector uses, recreational uses, education, science, amenity, and so on. Non-use values can be separated into two key types:

- bequest values, which relate to the desire of an individual to preserve environmental (and other) assets so that future generations may have use of them; and
- existence values, which are defined as those values which result from an individual's altruistic desire to ensure that an environmental asset is preserved and continues to exist into the future.

These non-use values are not associated with actual or potential use of the environment, but



solely with the knowledge that the asset is being protected. Figure 1 sets out the breakdown of use and non-use values in diagrammatic form.

Valuation techniques

A range of economic valuation techniques has been developed to assist with imputing the monetary value attached to environmental goods and services in an effort to estimate TEV. These techniques usually attempt to derive an individual's willingness to pay (WTP) for an environmental improvement as revealed in the marketplace through individuals' actions, or as directly expressed through surveys. The general aim of these is to determine the trade-offs that individuals would make either directly or, as is often the case, indirectly in labour, housing and other markets. Four types of valuation techniques are:

Travel costs

The travel cost method (also referred to as TCM) places a value on an environmental good, generally related to recreational activities, by using the costs incurred in consuming the good as a proxy for the good's price. This valuation approach is based on the concept that people spend time and money travelling to a recreational site (such as a beach) and these costs are treated as revealing a demand for the site in question. In this case, although beach users assume that they are doing so 'for free', there is an implicit price paid in terms of the cost of fuel, time spent travelling and the environmental costs associated with some modes of transport.

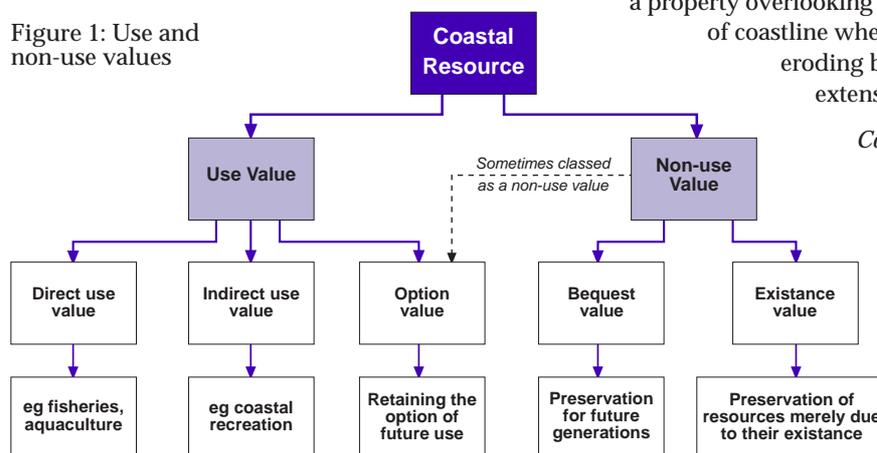
Hedonic pricing

The hedonic pricing method (HPM) is based on a concept that the price paid for a complementary good implicitly reflects the buyer's willingness to pay for a particular environmental attribute (such as a natural, unmodified beach). This method determines an implicit price for a good by examining the 'real' markets in which the goods are effectively traded. So, for example, people may be willing to pay a premium for a property overlooking an undeveloped piece of coastline when compared to say an eroding beach or one with extensive coastal defences.

Contingent valuation

One of the most well known environmental economic techniques is the contingent valuation method (CVM).

Figure 1: Use and non-use values



Using this technique, individuals are surveyed to determine their willingness to pay for a specified change in the quality or quantity of an environmental good or conversely how much compensation they would expect for some form of environmental degradation. In a coastal context, this type of approach may involve asking respondents how much they are willing to pay for different types of beaches and recreational experiences.

Choice modelling

Choice modelling is a fairly new technique in valuing the environment. The approach itself has its roots in consumer market research and product choice. Choice modelling recognises that there are many trade-offs associated with making a decision, with often a range of differing characteristics and attributes to weigh up against each other. In a coastal context, this may involve a trade-off between a natural, undeveloped beach and a developed beach with good access and associated facilities.

Previous experience and ongoing research

Over the past 20 years, there have been numerous studies examining the coast and beaches using the whole range of environmental economics techniques. For example, a basic search for 'coast' on Environment Canada's Environmental Valuation Reference Inventory yields 85 studies (the majority being US-based).

Valuation of the coastline has covered many aspects, ranging from the recreational experience to impacts on fisheries and coastal wetlands. A number of studies in the UK, for example, have focused on the value of recreational enjoyment for a variety of beach types and locations. The types of values generated ranged from around £5 per visit to over £12 per visit (roughly between \$17 and \$40 per visit in 2001/02 prices). Surveys examining the loss of enjoyment associated with eroding beaches derived losses of up to £5 per visit (about \$17 loss at 2001 prices).

The experience of using such values in decision making has been mixed. These type of economic valuations can be controversial with many detractors, however, they do allow explicit consideration of natural resources that have previously been effectively excluded from policy making. Even if agreement cannot be reached in terms of the actual monetary values, such valuations can be extremely useful in terms of understanding the relative importance of issues.

To date, there have been relatively few economic valuation studies conducted in New Zealand in total, and even fewer relating specifically to coastal



areas. There is clearly an opportunity for this situation to be rectified via the undertaking of site specific valuation studies across the country.



There are many cultural barriers to be

faced by those attempting to value the coast, as the concept of placing a monetary value on a resource that has previously been perceived as 'free' is alien to many New Zealanders. Practitioners therefore face a challenge in not only encouraging research in this area, but also in terms of the acceptability and usability of monetary valuation in policy decisions.

Conclusions and the future

It is very early days with regards to monetary valuation of New Zealand's coast and beaches, however, there does appear to be general interest across the industry for the potential usefulness of such valuations. Over the coming years, a number of economic valuation studies will be undertaken and only time will tell how useful (and acceptable) the end results will be.

In the meantime, however, monetary valuation using environmental economics techniques offers a way forward to ensuring the coast is fully taken into account in decision making. This is particularly important at present with coastal erosion, development in the coastal zone, hazards and climate change firmly on the political agenda for the coming years. In order to protect the unique character of New Zealand's beaches, there needs to be a definite change in thinking towards beaches and their natural environment – they are a resource and they are there to be enjoyed by all, however, they are valued by society and the integration of these values into decision-making is crucial for their ongoing protection and existence.

*Matt Hickman, Environmental Economist,
Environment Waikato (matt.hickman@ew.govt.nz)*

(The views expressed in this article are the author's and do not necessarily reflect the views of Environment Waikato)

Instructions for authors

Your contributions to *Coastal News* keep Society members and the coastal community informed about coastal issues.

Contributions can be advertisements for conferences or workshops, short news items or longer articles. We prefer articles of a maximum of 400 words (about 1-page in the newsletter), preferably with pictures or diagrams. Submit articles to Lucy Brake, 07 578 0896 (e-mail: lbrake@beca.co.nz).



News from the Regions

Coastal News



Canterbury Coast

The annual Canterbury Coastal Group Seminar, April 2002, organised by Environment Canterbury was held in Christchurch in April. Hosted every year for the past 10 years, the seminar invites practitioners and students in the Canterbury coastal science and management community to participate in presentations and discussions on topical coastal research and management issues in the Canterbury region. This year's seminar was very successful, with over 40 participants entertained by 10 excellent presenters speaking on a range of topics including fluvial sediment supply to the coast, the impact of sea level rise on Canterbury's coastal margins, artificial surfing reefs and marine farming. There were also presentations from MSc and PhD students from the University of Canterbury on their current or recently completed coastal research.

*Justin Cope, Environment Canterbury
(justinc@crc.govt.nz)*

Northland Coast

Rick Stolwerk is the Northland Area Co-ordinator for NZCS. He tutors in the Faculty of Health and Science at Northland Polytechnic, and his subject areas are conservation and integrated coastal management. Rick has recently handed in his MSc thesis on Coastal Zone Management in Bream Bay. In June, Rick attended the inaugural Coastal Zone Asia Pacific Conference in Bangkok to present his recommendations on a Bream Bay

Coastal Park. Rick is also chairperson of the Bream Bay Coastal Care Trust and the focus of the Trust for this half year is a clean up of the bay. Clean Up New Zealand Week is taking place in September. Dr Simon Hooker, of NIWA, will speak to the group about the establishment of NIWA's new multi-million dollar aquaculture centre at Bream Bay. Last year 550 pupils, parents and residents took part in the Bream Bay Coastal Care Trust clean up of the bay. All interested parties are welcome to attend.

*Rick Stolwerk, Faculty of Health and Science,
Northland Polytechnic (stolwerk@xtra.co.nz)*

Tasman Coast

Eric Verstappen is the local Regional Coordinator for the "Top of the South". Coastal Society members have not formally met as a local group yet, but are active through association with the Nelson-Marlborough IPENZ branch. Activities have been low-key thus far. However, individual NZCS members have, in a private capacity, been spearheading submissions to the Nelson City annual plan with respect to proposed coastal hazard mitigation measures for Tahuna Beach. They have also been involved in the Coast Care exercise initiated at Tahuna Beach by the Nelson City Council. This will be an ongoing interest and involvement for these members.

*Eric Verstappen, Tasman District Council
(eric@tdc.govt.nz)*

Wellington Harbour case study – an update

A lot has been happening since my last article in Coastal News in November 2001.

Firstly we have had an official launch to give the case study publicity and begin the process of community participation. The launch was held at the Museum of the City and Sea, Wellington, on 28th June 2002. Hon. Marian Hobbs, Minister for the Environment, and Hon. Margaret Shields, Chair, Wellington Regional Council, officially opened the case study. Participants were able to visit the museum and meet with members of the various government departments and ministries that make up the working group.

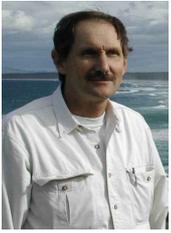
Managing information more effectively is an important objective of the case study. We are attempting to bridge the gaps between what is known about the marine environment of the study area, what people want to know – and what format is best suited to deliver this information. To do this we have started creating a metadata base of known information. This will form the foundation for all other information collected and stored. Some exciting additions to the database will be digital information in the form of GIS layers. We are going to try and create a marine GIS system,

which is similar to the land systems we are more familiar with. In time, we should be able to click on 'layers' such as bathymetry, currents, water temperature, marine ecology and so on, to draw an underwater picture of Wellington harbour and south coast. A part of this work will be an extensive 'user needs analysis' project to find out who uses information, what sort of information is most useful to users, and what's the best way this information should be portrayed.

Finally, our project is looking into the legislation making up the marine environment for our study area. The first part of this work is to examine all the decision-making authorities and see what information is used for decision-making, what consultation requirements are necessary, and notification requirements – if any. This project will then move into a more detailed analysis of how 'vertically' and 'horizontally' integrated legislation is for the marine environment, and how practitioners of the legislation may be doing other work outside the legislative requirements.

If you want any more information please call Paul Denton, Wellington Regional Council, on 04 384 5708 or email: paul.denton@wrc.govt.nz.

Andy Short – Keynote Speaker at the upcoming 2002 NZCS Conference



Andy Short graduated from the University of Sydney in 1968. He then completed a Masters degree at the University of Hawaii, before going to Louisiana State University, where he completed his PhD on the beach systems along the north Alaskan coast.

This was followed by post-doc research in north Alaska and Brazil. He returned to Australia in 1975 and has been at the University of Sydney since 1977. His research interests focus on the morphodynamics of coastal systems, particularly the beach-surf zone. At present he is working on large-scale storm-driven megarips and their role in inner shelf sediment exchange.

Andy is interested in coastal behaviour at time scales ranging from surf zone hydrodynamics to decadal-scale beach behaviour to Quaternary coastal evolution. He has worked around the entire Australia coast, in New Zealand, Brazil and the Netherlands. He is also actively involved with Surf Life Saving Australia in applying his knowledge of the surf zone to beach hazard and risk assessment on all 10 000 Australian beach systems. He is presently director of the Marine Studies Centre and Coastal Studies Unit at the University of Sydney. He has written six books and has over 140 publications. His non-academic interests include surfing, rugby and brewing beer.

Andy will be Keynote speaker for the next NZCS Conference, held in Pauanui in October, see www.coastalsociety.org.nz for further information.

Coastcare in Australia

The emergence of the National Coastcare program in Australia in 1995 was a result of the acceptance of integrated management and recognition that stakeholder involvement is essential for effective coastal management.

Coastcare was first introduced through Australia's Commonwealth Coastal policy where it was promoted as a community-based coastal management program, encouraging local communities to actively participate in activities designed to protect and enhance their coastal environment. In keeping with the principles of Ecologically Sustainable Development, endorsed by the policy, there was a requirement for public involvement in the coastal planning and management process, and this policy outlined the need for the public to play an active role in maintaining the quality of the coastal environment. One of a suite of coastal programs introduced by the policy, Coastcare was the means by which the Commonwealth was able to direct its support for direct community involvement in coastal management.

Funding

The primary means of involving communities in the program is through a small grants scheme. After a formal application process, modest funds (of up to Au\$30,000) are distributed to community groups to undertake local coastal management projects. The projects are typically on publicly owned coastal terrestrial land. The majority of participants are local community groups (like Progress Associations, 'Friends of' groups or local environmental groups). Coastcare provides an important contrast to the Landcare program where participants are usually landowners and therefore have a direct financial stake in their own land management.

Projects that successfully attract funding have an imperative to achieve an 'on-ground' outcome

and therefore typically comprise 'on-ground' works such as revegetation or rehabilitation projects (which include dune stabilisation), protection of rare species, weed and pest eradication programs; and seedling propagation. The other kind of projects, which typify Coastcare, are beach access schemes, primarily trying to improve access to the coast through the construction of walkways, paths, and steps or fencing initiatives. Coastcare will not fund schemes that have no demonstrable on-ground outcome.

The Commonwealth department, Environment Australia, which has provided A\$27.3 million for projects for the period 1996-2001 and has guaranteed funding until June 2002, administers Coastcare. There is a requirement for matched financial contribution from each of the States towards the grants and either direct financial contribution or in-kind support for projects by local government.

Coastcare facilitators

In addition to the community grants, Commonwealth contributes towards the salaries of the Coastcare facilitators – a network of regionally based staff who assist in the implementation of the program at the local level. The facilitators are typically 'hosted' by either local government or State agency departments. The host provides a work space (desk, vehicle, computer and phone) for the facilitator but does not direct their duties. The facilitators' role is to liaise with community groups and with the local land managers (i.e. local councils, national parks rangers) ensuring that best practise management techniques are adopted.

The facilitators' role is critical to the success of Coastcare. They are perceived as 'neutral' figures. They provide a bridging role, introducing groups to appropriate officers in council or parks or can

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direct groups to information. They also are in a position to inform the local land managers about the achievements of the program and what it is capable of providing. Each State and the Northern Territory fund a co-ordinator position. The co-ordinators provide a statewide link for the facilitators and they also administer the program within the State. The Commonwealth team provide a national point of contact for the program and promote a national perspective for Coastcare.



Limitations

Since its inception Coastcare has certainly harnessed a great deal of interest among a large number of local groups who have between them undertaken some 1800 individual projects around the country.

- One of the most obvious challenges is the grant scheme itself. It is very time consuming and comes encumbered with bureaucratic reporting requirements by the Commonwealth for relatively small sums of money. This is a frustration to groups. A large time lag between the submission of an application and the receipt of funds is lengthy – typically between 8 months and year, because applications go through a rigorous screening process. Maintaining the enthusiasm and focus of groups while they wait on the outcome is draining and in some cases results in the demise of the group. Many projects are seasonally based (like seed collection and planting) and funding delays may result in an upset to start times. While the program has achieved a large amount of work at localised sites around the country, it has been undertaken in an ad hoc manner.
- A criticism of Coastcare is its lack of a strategic approach. Land managers are expected to

support community driven initiatives but do not necessarily have a role in developing the direction of the planning initiatives of groups.

- How Coastcare performs varies quite significantly between the individual States and Territories for several reasons. Many areas of remote coast are unsettled and in such regions, activities of Coastcare are patchy. The jurisdictional arrangements for coastal management are also quite unique within each State. The existence or not

of coastal policy, the philosophy and financial status of the State organisation administering the program have direct influences on the way the project is promoted and developed. The role of the local coastal land manager is critical, as applications must be co-signed with the manager of the land the group wish to work upon. That signatory assumes responsibility for the work undertaken by the groups. Some States are better co-ordinated than others and some have had a long history of local community involvement and are more sophisticated and effective in approach.

Summary

To date no thorough evaluation has been undertaken of the program, particularly to gauge the most valuable indicators of success, which are the less visible but crucial elements of community cohesion and capacity building. At this stage there is very little interest from the Australian Commonwealth in collecting evidence of partnership building or the fostering of relationships with and between the land managers and local communities. The future of Coastcare, beyond 2002, is unclear due to a reshuffle and reorganisation of the trust funds that currently support the program.

*Beverley Clarke, PhD Candidate, Adelaide University
(bev.clarke@adelaide.edu.au)*

Coastcare in New Zealand

A brief NZ Comparison

Coastcare was initiated in NZ in 1992/93, with the first groups inspired by work in Australia (the New South Wales Dune-Care programme). The Aussies provided a lot of useful advice and help to those of us involved at the time.

The Coastcare movement has steadily grown, with existing programmes in the Auckland, Bay of Plenty, Hawkes Bay, Wellington and Canterbury regions and in New Plymouth District and Christchurch City. There is enthusiasm to form groups in other regions.

The work in NZ is varied, with no two programmes the same, but there are some broad similarities and differences with the Coastcare programme outlined in Bev Clarke's article above.

Similarities:

- Initial work was driven by similar ideals, a growing realisation of the need for more active community participation in coastal management and better partnerships between communities and management agencies.
- Projects have a similar strong emphasis to "on

the ground” outcomes and dune management activities are still dominant. However, other issues are now becoming important. For instance, Whiritoa, the first group formed in NZ, has now also moved to address water quality concerns in the local coastal lagoon.

- Facilitators play a central role in most NZ programmes, as is the case in Australia.

Differences:

- In New Zealand, Coastcare was initiated by regional and district councils and is still primarily resourced by these agencies, with little meaningful central government funding or involvement.
- Funding is generally adequate and ongoing with most of the necessary organisation

undertaken by facilitators, leaving the Coastcare groups to focus on developing and implementing action plans.

- Facilitators are generally either Council staff or contractors and typically have very good relationships with the groups. Most Councils in NZ would see the relationship with the groups as a partnership.

While there is a strong focus towards “on-the-ground” outcomes, most councils would emphasize community ownership, capacity building, awareness raising and/or the development of better partnerships with their communities as the central reasons for their adoption of a Coastcare approach.

*Jim Dahm, Coastline Consultants Ltd,
(jim@coastline.co.nz)*



Significant progress towards a Wairarapa coastal strategy

Over the past 12 months significant progress has been made towards preparing a Coastal Strategy for the Wairarapa.

The formation of the Wairarapa Coastal Strategy Group, a committee comprising Wellington Regional Council, Masterton, Carterton and South Wairarapa District Council representatives and local Iwi, occurred after concerns that



coastal development was proceeding along the Wairarapa coast in an ad hoc and fragmented way. It was agreed that through a large-scale community consultation process, a strategy could be developed to provide long-term vision and guidance for the future management of the coast.

The development of the Wairarapa Coastal Strategy will span three calendar years, with most of the work occurring in 2002 and 2003. The first consultation stage saw key stakeholders consulted on a draft vision and process. In general, this first stage of consultation identified that:

- there was a good level of support for preparing a coastal strategy;
- submitters were a little confused as to where the strategy fits in with other plans;
- there was some disagreement on the wording of the vision, but overall support for a vision to provide guidance and focus strategy development was strong; and
- the level of consultation and number of opportunities for community input was



appropriate.

Feedback on the submissions was sent out to key stakeholders in the form of a newsletter.

Late last month a Discussion Document, which took account of the first round of comments, was sent to key stakeholders for their consideration.

The Discussion Document identifies the following key issue areas:

- landscape — natural environment/ecology;
- heritage — built environment/infrastructure;
- access and recreation — hazards;
- landuse and development.

and seeks to provoke a response from key stakeholders with a section of questions entitled "what is important to you?". It is hoped the key stakeholders will contribute comments on these key issue areas, and identify possible solutions. Submissions closed on the Discussion Document on 1 July 2002.

Taking account of the submissions made on the Discussion Document, and information gathered in the preparation of eight supporting technical papers, an Issues and Options Paper will be prepared for full public consultation to commence in November this year.

For further details, please contact Karen Williams (Policy and Planning) at the Wellington Regional Council on (06) 378-2484 or Karen.Williams@wrc.govt.nz



A Word from the Chair

As we draw near to this year's Coastal Society Conference, both the Management Committee and myself have begun to turn our attention towards an assessment of what we have achieved since the Nelson seminar last year. As you will have noticed in Coastal News 19, the team has placed considerable emphasis on creating a clear vision and strategic plan for the society, so that we can better report against some definite long-term success criteria. In the final analysis, you are our customers, and the committee takes seriously the task of seeing the society grow, improve and transform according to your wishes.

The key areas on which the strategic plan focuses are membership growth and the creation of positive relationships with others in the coastal community, the maintenance and further development of *Coastal News*, improvement in the quality of our web page, the delivery of a high quality and successful annual conference, and increasing the capacity within regions for coastal society members to meet and share ideas. Each member of the committee has taken responsibility to develop one of those areas, and the result of this has been very encouraging. My upcoming annual report will detail some of these highlights.

The NZCS occupies a unique position in the wider coastal community in New Zealand. Following on from the direction you gave us in Nelson last year, we have focused on improving the products and services you receive from the society, and also making sure you have access to networks that can put you in touch with other "coastally minded" people, both in New Zealand and internationally. At the end of the day the society is about establishing, maintaining and nurturing relationships between people with a passion and interest in the coast, and providing a forum for the sharing of ideas, innovations and experiences.

I look forward to seeing as many of you as possible at Pauanui in October, and also hope that many of you will not only attend but also contribute by way of a paper, display or sponsorship. Our society is only as good as the support you give it, and the energy and enthusiasm, which you feel willing to commit to its vision and mission.

Best wishes.

*Harvey Brookes, NZCS Chairperson
(harvey.brookes@arc.govt.nz)*

NZCS Regional Co-ordinators

There are a number of Regional Co-ordinators around the country who may be able to help you if you have any queries about NZCS going on's in your local area — or if you are just interested in getting involved in the NZCS on a local level.

North Island

Northland	Rick Stolwerk	stolwerk@extra.co.nz
Auckland	Matt Paterson	patersom@akcity.govt.nz
Waikato/BOP	Bronwen Riddle	Bronwen.Riddle@ew.govt.nz
Hawkes Bay	VACANT	
Taranaki	Peter Atkinson	dwk.newplymouth@duffillwatts.com
Manawatu/Wanganui	Lachie Grant	lachie.grant@horizons.govt.nz
Wellington	VACANT	

South Island

Upper South Island	Eric Verstappen	eric@tdc.govt.nz
Canterbury	Justin Cope	justin.cope@ecan.govt.nz
	Brodie Young	brodie.young@ecan.govt.nz
Southland/Otago	Mike Hilton	mjh@geography.otago.ac.nz

For further information, please feel free to contact the NZCS Regional Co-ordinator Jo Fagan (jo.fagan@wrc.govt.nz)

Coastal erosion – can it really be ‘managed’?

It is well known that the great NZ summer activity is going to the beach. The public values their beaches highly and in particular the natural character of them, as well as ease of access. These views were strongly endorsed in a recent region-wide survey undertaken by Environment Waikato. The results of the survey clearly reinforced the importance of our beaches, the economic value of the beaches and also identified the increasing pressures from development that are occurring.

It is therefore an interesting challenge to management agencies when property becomes “threatened” by the sea. The immediate reaction from the locally affected property owners is to insist on a “protection” structure – this can range from the dumping of rocks, concrete and other “rubbish” (as emergency works) to highly designed structures. Other options such as beach nourishment or re-location are extremely hard to advocate for in a stressful situation. However once the threat has diminished (with or without the wall) it is also extremely hard to make any progress with encouraging consideration or use of alternative approaches to structures. Issues of costs, who is responsible and willingness to act as a group (of property owners) are just some of the vexed issues that arise. From a management agency perspective – once that resource consent is lodged – there is a whole legal process set in train and running to timetables.

The wall, as a solution, can have a number of associated problems – no access on the landward side (depending on the landowners perspectives), no public access along the beach at high tide (as the beach will often continue to erode until a new equilibrium is reached), ugly/dangerous structures. But never mind – the house, grassy area and toilet block is saved!!

Public interests vs private interests is at the very interface of sea and land when there is an issue of coastal erosion. The daunting challenge for region and district councils is to ensure

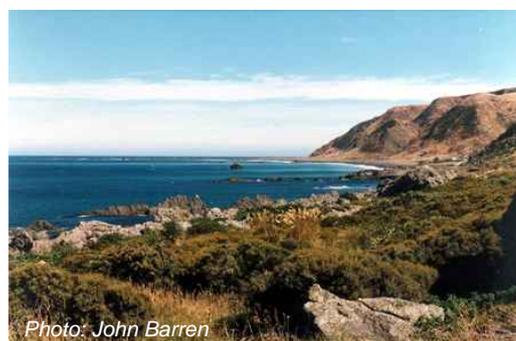


Photo: John Barren

that this interface is well managed and managed in an environmentally sustainable manner, (ie in accordance with the RMA).

EW has, at a policy level followed the directions of the RMA, by clearly outlining in its Regional Policy Statement, where the responsibility lies for managing coastal erosion between the regional and district councils in its region, in order to avoid conflicting roles. In brief it is that EW will emphasise research into trends, risks, options for managing sites, while districts will be responsible for implementing mitigation plans.

However, at a practical level, managing erosion sites has been fraught with difficulties. Different councils are responsible for managing above and below MHWS — this can lead to confusion when issuing consents. Emergency works are another challenge – there is a strong tendency for erosion to be ignored until it is an emergency and rapid action needs to be taken – ie, lets just have retrospective consents that don’t take too much notice of any wider community views/values. How do we proceed to detail how relocation/retreat options may work, if there is no political will from district and regional councils, let alone central government?

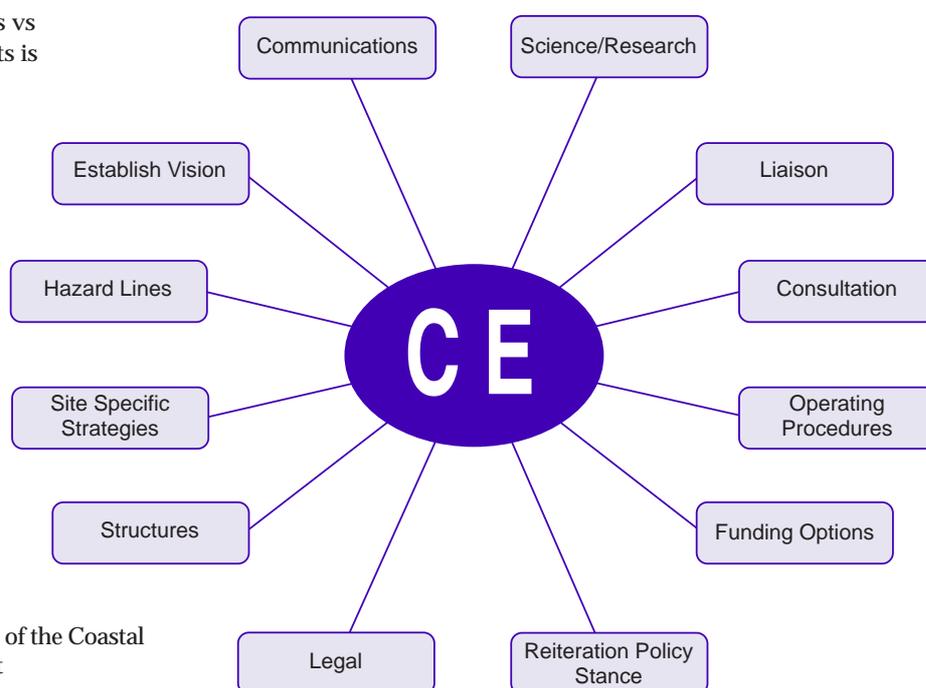


Figure 1: Scope of the Coastal Erosion Project





Photo: John Barren

The vexed nature of these issues has led EW to consider a wider strategy on coastal erosion. It aims at, not only seeking a better understanding of how to address/respond to these issues internally and how best to work in with the districts, but also at seeking national directions for managing these issues. Protection structures are one option — by far the quickest and easiest. But long-term we need to be deciding when and what sort of structures are acceptable and when/where other options such as managed retreat is to be considered. Just what is managed retreat

and how could it be implemented is also a part of this challenging project. Likewise, what is the role of the Insurance Councils, what are “removable houses”, should there be a national perspective on managing coastal erosion, etc. The scope of the project is shown in Figure 1. All these areas are inter-linked.

But underneath all this is the question of who pays for the “protection” and who pays for the loss of a beach and loss of access and natural character. It is my view that we cannot afford to ‘rip-rap’ all our coastal settlements – there are significant direct and indirect costs, if we continue on this path. The challenge of the EW project is to seek ways in which we can encourage communities to better understand the geological processes that are inevitably a part of a country as young as NZ, and to understand that there may be better alternatives to emergency structures.

Robin Britton, Policy Group, Environment Waikato (Robin.Britton@ew.govt.nz)

(The views expressed in this article are the author's and do not necessarily reflect the views of Environment Waikato)



Management of vehicles on beaches

The increasing affordability and popularity of Off-Road Vehicles (ORV) means our beaches are coming under increasing pressure from ORVs as previously remote areas are becoming more accessible. This is seen as an advantage for some while, at the other end of the spectrum, people want to enjoy an isolated environment and it's natural species without the noise of vehicles and evidence of their tracks.

The management of vehicles on beaches and dunes was the topic of discussion at a meeting on 7th June 2002 with representatives from Auckland Regional Council, Franklin District Council, Department of Conservation, Forest and Bird, New Zealand and Auckland 4WD Associations, Auckland ATV Club, Kite Fishing, and the Auckland Land Yacht Club attending.

This meeting was useful in terms of sharing information and discussing a range of viewpoints. Management agencies and conservation groups are concerned about the impact of ORVs on our native plants and animals including nesting coastal birds, on dune blow-outs and erosion, and on the safety of other beach users. However a message that came through from the ORV users was that clubs do try to educate their members to use 4WD's safely and responsibly. It is the irresponsible few that create problems for the majority.

A working group has been established with the aim of understanding the effects of vehicles on beaches and dune systems and formulating options to address these issues. The agreed starting point is to collate research on the following issues which have been identified as gaps in existing

information:

- Values of beaches and dune systems that off road vehicles (ORV) can impact on.
- Needs and wants of ORV users on beaches.
- Management of ORVs and access in other areas — approaches that have worked within New Zealand or internationally.
- Location of shellfish and impacts of vehicles on them.

If you would like to be involved, would like further information, or know of management approaches that have worked elsewhere, please contact Karen Baverstock, email: karen.baverstock@arc.govt.nz.

Test your coastal knowledge...

Where is this river mouth and what are the coastal processes that shape this feature?



(answer on page 15)



Editorial: climate of change

There is a climate of change in the NZ Coastal Society and the forecast is fine. The society is in a strong financial position and membership is growing. We have a very active Management Committee organising upcoming conferences, amending the Society rules to make them more relevant, building membership and participation in the regions, repositioning the society in the coastal scene and improving communication via the website and *Coastal News*. Some of these actions we will ask you to ratify at the AGM in October. After continuous improvements, *Coastal News* is about where we want it in terms of its magazine style format, short newsy articles, and regular publication in Summer, Autumn and Winter. Have a good read of this issue as it promotes some important events.

The Society's annual conference at Pauanui over 17-18 October 2002 will have the theme "Crossroads - directions for coastal development on the Coromandel Peninsula". The theme is very topical given recent appeals to environment court and hearings concerning the placement of hazard lines at Waihi and Papamoa and the release of Environment Waikato's report on coastal hazards for Coromandel beaches. *Coastal News* will report the proceedings of the Pauanui conference in the next issue.

On the horizon the Coasts and Ports Conference in September 2003 is a major event for the NZCS and replaces our annual conference next year. If you have been to Coasts and Ports before you will know that it's the best coastal conference to be held in New Zealand. A hard working band of Society members are organising this event. You can get further information on these events from the NZCS website which has been completely redesigned, contains more information and is easier to navigate.

It's time for a change in the editorial team of *Coastal News*. I am standing down as Editor after this issue. *Coastal News* has a very able replacement in Lucy Brake who is taking over the role of Editor. As part of the Editorial Team, Lucy has played a major role in all the improvements we have made to *Coastal News* in the last couple of years - many thanks Lucy. I'd like to thank Mike Hilton who will be joining the Editorial Team to assist Lucy. I have enjoyed being associated with the production of *Coastal News* over the last five years. I will continue my involvement with NZCS though my role on the Management Committee and in helping Kevin Parnell to organise the programme and proceedings for Ports and Coasts 2003.

Terry Hume, *Coastal News* Editorial Team
(t.hume@niwa.cri.nz)

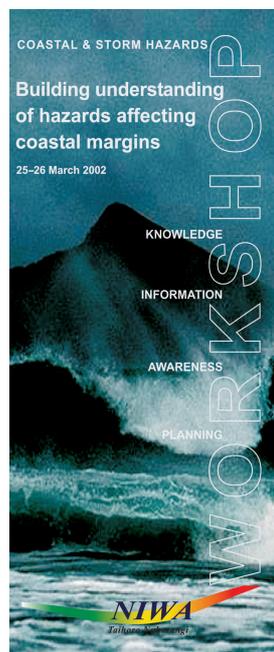
Coastal & Storm Hazards Workshop, 2002

What is "coastal squeeze"? What effect will global warming have on our coast? Are storms likely to increase? What information is needed by coastal resource managers to better manage a range of natural hazards?

These questions and more were addressed at NIWA's Coastal & Storm Hazards Workshop at the Quality Hotel (Hamilton) from 25 to 26 March 2002. The Workshop was attended by over 90 people from a diverse range of sectors. The workshop comprised brief research and sector perspectives on coastal and storm hazards, complemented by facilitated discussion groups.

The groups explored two questions each day for different types of hazards: a) What are the priorities for future scientific work if we are to improve the assessment of risk and vulnerability? b) What other

information is required if we are to increase hazard awareness and build resilient, sustainable communities?



Some of the valuable feedback outlined needs for: turning "hazard information" into "risk information"; urgent development of a coastal margins topographic database; more open access to data; move from data to process response models; closer links between science providers and local/regional authorities; better predictions on future storminess, and the huge planning issue of raising the public awareness of risks for seaside communities.

The Proceedings will be available as a pdf document in August from the Coastal hazards website (niwa.co.nz/rc/prog/chaz/).

Further information can be obtained from Rob Bell (r.bell@niwa.co.nz) or Terry Hume (t.hume@niwa.co.nz).

Opotiki aquaculture venture

New Zealand's mussel farming industry was pioneered in the early 1970's, developing over time through the adoption of successful overseas techniques combined with local experience and innovation. Until recently the industry has focused on the sheltered, inshore coastal waters of the Marlborough Sounds and Thames/Coromandel area, with approximately 3000-hectares of production mussel operations currently farmed in New Zealand. Concerns regarding the scale and intensity of mussel farming in these areas have resulted in the industry investigating low density, offshore mussel farming using subsurface structures in exposed locations.

On 23rd May 2002 the Bay of Plenty Regional Council (Environment B-O-P) issued a decision to grant resource consent applications, and a recommendation to the Minister of Conservation to grant restricted coastal activities, for the staged development of a 4750-hectare green mussel (*Perna canaliculus*) spat catching and on-growing marine farm, to Eastern Sea Farms Limited. The proposed mussel farm is to be located approximately 6-kilometres off the Opotiki coastline, in exposed open ocean conditions, in depths ranging between 30 and 50-metres. The decision followed a four day hearing held in Opotiki in February 2002 and lengthy deliberations by the hearings committee. Environment B-O-P received 8 appeals to the decision, to be progressed

to the Environment Court in due course.

Eastern Sea Farms Limited will be required to provide a detailed baseline survey of the site and ongoing monitoring programme to be undertaken by an independent monitoring party, prior to commencing initial deployment. Stage 1 of the proposal will involve the deployment of mussel farm structures, at initial densities, over an area of 1900-hectares. Progress to subsequent stages of development will be dependent upon the provision of monitoring results confirming no significant adverse environmental effects, with the Regional Council retaining the ability to review conditions of consent.

The proposed mussel farm is a joint venture between industry and the Whakatohea Maori Trust Board, who are a 40% stakeholder in the development. The proposal received considerable support from the Opotiki community in general and is seen as a significant social, cultural and economic opportunity for the Opotiki district. While the mussel farm itself will result in some employment, any significant gains to the Opotiki community will be dependent upon the local siting of onshore processing facilities. These facilities were not considered by the Regional Council's hearing process. Issues raised in opposition to the proposal included effects on fish stocks, inadequate consultation and the lack of robust scientific information.

If detailed information regarding the proposal or subsequent decision is required, contact Ray Thompson (Environmental Consents Officer, Environment BOP) on 0800 368 267 or email ray@envbop.govt.nz.

Coastal Dune Vegetation Network News

The CDVN's new research projects for this year are now well underway. The three areas of interest are:

1. Control of rabbits and hares on sand dunes;
2. Restoration of indigenous plant communities (backdunes); and
3. Propagation and establishment of *euphorbia glauca*.

Workplans for these have been written up and trial sites throughout the country are currently being established which in most cases will combine treatments for either two or three of the above project areas.

CDVN Annual Conference 2003

The CDVN 6th Annual Meeting and Field Trips is to be held in Dunedin from 12th-15th Feb, 2003. This will be a wonderful opportunity to see the unique nature of the Dunedin coastline. Not to be missed!

For further details on any of the above please contact CDVN Coordinator- Diana Gainsford at Forest Research (07) 343 5652, email: diana.gainsford@forestresearch.co.nz

A thought from the Management Committee

From "Dover Beach" by Mathew Arnold (1822-1888)

The sea is calm tonight
The tide is full, the moon lies fair
Upon the straits....

Listen! You hear the grating roar
Of pebbles which the waves draw back and fling

At their return, up the high strand
Begin, and cease, and the again begin,
With tremulous cadence slow and bring
The eternal note of sadness in....

The Sea of Faith
Was once, too, at the full and round earth's shore

Lay like the folds of a bright girdle furled.
But now I only hear
It's melancholy, long, withdrawing roar,
Retreating, to the breath
Of the night-wind, down the vast edges drear
And naked shingles of the world.

(Written in reaction to Darwin's Theory of Evolution)

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Conferences/Workshops

2002 ICES Annual Science Conference and ICES Centenary

1-5 October, 2002 Copenhagen, Denmark

International Council for the Exploration of the Sea (ICES) is a leading forum for the promotion, coordination, and dissemination of research on the physical, chemical, and biological systems in the North Atlantic and advice on human impact on its environment, in particular fisheries effects in the Northeast Atlantic. The opening lecture will be on Ocean Resources Management by Professor Gunnar Kullenberg. Theme Sessions include Ocean Observation, Ocean Processes and their influence on Living Marine Resources, Aquaculture, New Trends and Development, Interactions of Humans with Marine Ecosystems.

For more information: Fax: +45 33 93 42 15 or E-mail: info@ices.dk. Website: www.ices.dk/asc/2002/index.htm

Wetlands Recovery Project Symposium
October 17-18, 2002, Ventura, California, USA

Mark your calendars now for the 2002 Wetlands Recovery Project Symposium. This year's Symposium will be held in Ventura, October 17-18, with a pre-conference field trip on October 16. The Symposium is hosted by the Coastal Conservancy, which acts with others to preserve, protect and restore the resources of the California Coast. Their vision is of a beautiful, restored and accessible coastline. The Symposium will once again focus on technical issues and tools related to developing and implementing effective wetlands and stream restoration projects. This year, there will also be a special focus on wetlands education and outreach programs.

For more information have a look at their website: www.coastalconservancy.ca.gov/scwrp/

California and the World Ocean 2002
27 - 30 October 2002, Santa Barbara, California, USA

The Conference theme is 'Revisiting and Revising California's Ocean Agenda'. This is organised by the Secretary for Resources and Secretary for Environmental Protection for the State of California in cooperation with the Coastal Zone Foundation.

This conference will explore new and innovative directions for protecting and managing our valuable ocean and coastal resource. This information will include short courses and field

trips, conjunctive meetings and events, poster sessions (including photo and video media, electronic databases, books, maps and art works), social events, plenary sessions, commercial and not-for-profit exhibits, and paper presentations.

For more information check out their website on: <http://resources.ca.gov/ocean>

3rd International Surfing Reef Symposium and Tropical Ecology and Aquaculture Workshop
July 2003, Lombok, Thailand

If you fancy a break away at a hot surfing beach whilst improving your knowledge on Artificial Reefs then this is the conference for you. The Reefs Symposium will consist of presentations on surfing and coastal protection aspects of Artificial Reefs, construction, including cost/benefits and legal and planning requirements as well as government and client perspectives and marine habitat and aquaculture. Surfing Reef sessions will run over a 3-day period. The format will be informal and all forms of presentation will be encouraged, with or without visual aids. Everyone will be given a chance to speak and questions will be encouraged. Papers (or just abstracts) will be included in the proceedings, but these must be provided 6 weeks before the conference starts.

For more information: Email: enquiries@asrltd.co.nz or Website: www.asrltd.co.nz/3rdhomepage.htm

Asian and Pacific Coasts (APAC2003)
7-11 September 2003, Makuhari New City, Chiba, Japan

This is the second international conference on Asian and Pacific coasts. Topics to be covered include: coastal oceanography and meteorology (waves, currents, tides, tsunami, etc.), coastal sedimentary processes and their control measures, design and investigation of coastal and harbour structures, coastal environmental problems and marine ecology, coastal fishery problems and resource management, global environmental problems, coastal zone management and planning, and remote sensing/laboratory and field measurement techniques.

For more information contact APAC 2003 Secretariat, Professor Kazuo Nadaoka. Fax: +81-3-5734-2650, or E-mail: apac2003sec@wv.mei.titech.ac.jp

The International Navigation Association (PIANC) 30th International Association Congress 2002

22-26 September 2002, Sydney, Australia

The International Navigation Association (PIANC) is a worldwide non-profit organisation of individuals, corporations and national governments. PIANC is concerned with the planning, design, construction, improvement, maintenance and operation of inland and maritime waterways, ports and coastal areas including facilities for fisheries, sport and

recreational navigation. PIANC has over 3000 government, corporate and individual members involving representatives from over 71 countries.

The 30th PIANC - AIPCN Congress is to be held over the period 22-26 September 2002 at the Convention and Exhibition Centre, Darling Harbour, Sydney. The Organising Committee is working on a program where there will be three

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plenary sessions followed by four parallel sessions; three streams of oral presentations and one stream of panel presentations designed to maximise individual participation. All presentations, whether oral or panel, will be published in the official Congress proceedings.

This is an important conference that will be of interest to all those either working for, or providing

services to, port companies. Because of reciprocal arrangements with IEAust, IPENZ and NZCS members may claim the member discount off the registration fax. Copies of the registration brochure may be obtained from John Lumsden (j.lumsden@cae.canterbury.ac.nz).

Further information is available at the conference website: www.pianc-aipcn.org/pi200.html

Coasts and Ports 2003 – an update

The Australasian Coasts and Ports 2003 Conference is to be held in Auckland, New Zealand from the 9-12 September 2003. The theme is "Coastal Development - A Quest for Excellence".

Starting over 30 years ago, this well established conference is now held bi-annually and enjoys regular attendance from coastal and port practitioners and researchers from Australia, New Zealand and the Pacific. The conference will also be the venue for the 16th Australasian Coastal & Ocean Engineering Conference and the 9th Australasian Port & Harbour Conference.

The NZ Coastal Society plays a major role in running this conference that will replace our



Annual Seminar in 2003.

The Conference organising committee has been hard at work setting up the website, designing logos and brochures and invitation letters, securing sponsorship, assembling databases of potential delegates, contacting delegates and exhibitors, designing the programme, making necessary bookings of facilities in the Hyatt Hotel and securing keynote speakers.

Information is available at the conference website:

www.coastsandports.co.nz or you can email the conference managers at: coastsandports@tcc.co.nz

There will be a second announcement and call for abstracts via the conference website in September 2002. A registration brochure will be available in May 2003.

Practical provincial plans in Canada

The Ministry for Sustainable Resource Management (MSRM) is responsible for the development of integrated coastal zone planning initiatives by the provincial government. The focus is practical plans as a tool to improve co-ordination of coastal resources. To facilitate this role the MSRM are developing strategic and local scale coastal plans as a tool for sustainable decision making.

The plans are developed either to address a specific resource use issue e.g. aquaculture or to address multiple resource user conflicts e.g. managing coastal space when there is competing resource demands (logging, aquaculture, tourism, commercial development and recreation). The latter plans may have specific management focus e.g. conservation areas.

The plans are based on identifying the physical, biological, social and economic aspects of the coastal environment. The end product also

includes visual tools such as video footage and aerial photos of the coastal unit.

The Provincial government seeks an inclusive but not consensus process. This process provides for stakeholder input, advisory and technical input, two open house meetings and a formal public input process. The final decision making resides with the government.

The end result provides a clearer understanding of local coastal resources. This information can then guide developers into areas that are more suitable for their needs. The decision makers use the plans as tools to encourage focused applications saving both parties time and money.

For more information about MSRM work check out their web site www.luco.gov.bc.ca/coastal/planning/index.htm

*Stacey Devine (ex-NZCS Committee Member).
Email: stacey_devine@hotmail.com*

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Test your coastal knowledge: The TukiTuki and Ngaruroro Rivers emerge on the coast just south of Napier. River discharge fights a continuing battle against wave-driven longshore transport that builds sand and gravel barriers across the mouths of the rivers and, at times of extreme low flow, can temporarily close the entrance.



NZCS Management Committee

Chairperson	Harvey Brookes – Auckland Regional Council (harvey.brookes@arc.govt.nz)
Secretary	Paul Baunton – Tauranga District Council (paulb@tauranga.govt.nz)
Treasurer	Eric Verstappen – Tasman District Council (eric@tdc.govt.nz)

Committee

Terry Hume	NIWA (t.hume@niwa.co.nz) (Editorial Team, <i>Coastal News</i>)
Lucy Brake	Beca Carter (lbrake@beca.co.nz) (Editorial Team, <i>Coastal News</i>)
John Lumsden	Coastal and Resource Management Consultant, Christchurch (j.lumsden@cae.canterbury.ac.nz)
Ken Murray	Department of Conservation (kmurray@doc.govt.nz)
Mike Hilton	Department of Geography, University of Otago (mjh@geography.otago.ac.nz)
Matthew Paterson	Auckland City Council (PatersoM@akcity.govt.nz)
Jo Fagan	Wellington Regional Council (jo.fagan@wrc.govt.nz)

Correspondence to Paul Baunton (paulb@tauranga.govt.nz)

Website queries to Charles Hendtlass (c.hendtlass@cae.canterbury.ac.nz)

NZCS Mission Statement

“The New Zealand Coastal Society was inaugurated in 1992 to promote and advance sustainable management of the coastal environment. The Society provides a forum for those with a genuine interest in the coastal zone to communicate amongst themselves and with the public. The Society currently incorporates about 300 members. Members represent the wide range of coastal science, engineering and planning disciplines, and are employed in the engineering industry, local, regional and central government, research centres and universities.”

Applications for membership should be sent to the Secretary (see above)



Coastal and Marine research & consultancy

We offer:

- numerical modelling of water and sediment dynamics
wave, currents
- tide data collection and analysis
- bathymetry, side-scan sonar, sub-bottom seismic surveys
- sediment sampling and analysis
- beach profile monitoring, Cam-Era technology
- water quality measurements, ecotoxicology
- benthic ecology surveys

Examples:

NIWA's state-of-the-art equipment, numerical models, and analysis skills have been applied to:

- sand resource surveys
- coastal erosion and hazard assessment
- pipeline and cable surveys
- waste discharge outfall design and monitoring
- port deepening and ship motion studies
- tidal predictions and forecasting
- Ocean wave climate predictions
- Assessment of environmental effects
- design and implementation of monitoring programmes
- studies of climate change effects

For more information, contact:
Terry Hume, phone 0-7-856 1729, fax 0-7-856 0151
Email t.hume@niwa.co.nz

Visit our web site at:
www.niwa.co.nz

