



### Involving People in Integrated Catchment Management (ICM) research: the Kiwi experience

#### Andrew Fenemor Landcare Research, Nelson, New Zealand



Manaaki Whenua Landcare Research



**Common Ground Associates Ltd** 

Motueka Iwi Resource Management Komiti (MIRMAK)

CAWTHRON

TDC Tasman District Council



NIL

SCIENCE MAKING A DIFFERENCE FOR A TRULY CLEAN, GREEN SUSTAINABLE NEW ZEALAND



# ICM as a process



# Story #1

# Stakeholder input in setting ICM research priorities





# **ICM for the Motueka**













# **'Big Picture' Issues for Motueka ICM** Research

- Water allocation (incl. in and out-of-stream uses)
- Sedimentation risks (incl. river gravel)
- Aquaculture space allocation (incl. river impacts)
- Growth pressures (what's sustainable?)

#### Detailed research issues and questions



# Motueka Stakeholder Questionnaire: Their Top 5 Issues

- **1. River Water and Groundwater Availability**
- 2. Groundwater Pumping Effects on Stream and River Flows
- 3. Methods to Resolve Competing Demands on Resources, e.g. Water, Coastal Space
- 4. River Gravel Supply and Extraction Effects
- 5. Environmental Effects of Increased Water Takes





# Negotiation of the Motueka Water Conservation Order





# to linking science and management

A pathway for collaboration and adaptive management





Integrated Catchment Management - Human Dimensions http://icm.landcareresearch.co.nz/science\_themes/human-dimensions/people\_social.htm Collaborative Learning for Environmental Management http://social.landcareresearch.co.nz

Will Allen Margaret Kilvington



# Water order praised

NEWS

#### Fourteen years of negotiation over By Bernadette Cooney

A decision to place a water conservation rder on parts of the Motueka River has oeen applauded by Nelson Marlborough Fish and Game.

The order, gazetted by Environment Minister Marian Hobbs, places restrictions on damming and altering river flows and sets water extraction limits for irrigators.

The original application for the order was made in 1990 by the Nelson Acclimatisation Society, now known as Nelson Marlborough Fish and Game.

The former manager of the society, Mace

pleased to hear the order had finally been gazetted after 14 years of negotiation.

"There's quite a level of personal satisfaction in seeing this come to pass," he said.

"I congratulate Fish and Game and Nelson anglers for their dedication and ability to work through the issues, which certainly created a lot of misunderstanding early on. People thought we wanted to lock the river up and throw away the key."

Current Nelson Mariborough Fish and Game manager Neil Deans also welcomed the order, which he said would provide sustainable long-term water management.

However, he expressed disappointment that the order could be subject to review, as had happened with the water conservation order on the Gowan River.

Nelson Federated Farmers policy manag-

Ward, said from Auckland today he was er Lewis Metcalfe said primary producers now had some assurance over access to a reasonable level of water flow for irrigation.

"Water is vital for the primary sector and the socio-economic well-being of the community. However, a balance had to be found between primary sector demands and the environment, and this is what has occurred," Mr Metcalfe said.

Ms Hobbs said the order would allow parts of the river to be kept in its natural state.

"The Motueka River has many outstanding characteristics, including the scientifically important karst geological formations, blue duck habitats and brown trout fisheries." she said

"It is important that these characteristics and the river's other natural features are protected by the conservation order."



# Story #3

# Science persuading farmers to improve water quality





### **Bridges replace cow crossings**



Bridge over troubled waters

By Halen Murdoots

Interpreter or spectra of a Social integration in Recey Brees makes if a constant proper between furt we Tampan Disense Constitution or provide health. when to the publication areasy from the ingrand in indexess, part of the Merente magnation indexess, part of the Merente magna

The titler was the edged of the field forms content wherehold in show the effect of event content wherehold in show the field form content was been the edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field for the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field for the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field form of the content was an edge of the field for the field form of the content was an edge of the field form of the field form of the content was an edge of the field form of the field form of the content was an edge of the field form of the field form of the content was an edge of the field form of the field form of the content was an edge of the field form of the field form of the content was an edge of the field form of the field form of the content was an edge of the field form of the field form of the content was an edge of the field form of the field form of the content was an edge of the field form of the field form of the field form of the content was an edge of the field form of the field for the field form of the field form of the field fo

#### news extra

#### Farmers and scientists join up to sweeten the Sherry River

While farmers are frequently criticised for the effects of dairying on the environment, positive developments are often ignored. **Simon Towle** reports on work along the Sherry River in Tasman District, where farmers have joined forces with scientists and the district council.

Design of the second se



rew information in Descender 2001, "the Berry formers understock to take action. In a short period of time, the conting on Paul and Lias White's property where the expelement was careful out for more been held in addition, another former, Rod G77 is using a before immed, of taking through the twes."

ting stages and substantial ng to keep stock out Teamen District fal emistance f







### Story #4

### **Travelling River**

#### ... a collaboration of artists, scientists and the people of the Motueka River catchment





### **Travelling River Art-Science Collaboration**

Rivelling Rive

# Travelling River

#### Tasman District Council TDC



#### Cultural Heritage Award

Winner

#### Travelling River Exhibition

The Travelling River Exhibition has been named the winner of the Tasman District Council's Cultural Heritage Environmental Award, in recognition of the enormous contribution the exhibition has made to promote the cultural heritage and environmental significance of the Motueka River Catchment.

The collection incorporated the work, vision and stories of artists, scientists and the people of the Motueka River Catchment in an innovative and accessible way. Bringing the exhibition together drew all areas of the community into a discussion of what the river meant to them

The beauty of the Travelling River art-science exhibition is that it crosses cultural and social boundaries; giving equal consideration to the thoughts and views of the many sectors of the Motueka community.

We applaud the vision of Landcare Research and the exhibition curators Andrew Fenemor, Maggle Askinson and Suzie Peacock in bringing aive life and science in the Motueka River catchment

Therefore the Tasman District Council and Judges of this category would like to congratulate all of the exhibition coordinators, the many contributors to the project. including artists, scientists, iwi and the greater community for sharing what the Motueka River Catchment has meant to them and how this compares with modern use and management



Lanucare researce



# 8 Critical Success Factors for effective ICM dialogue (1)

- 1. A legal and institutional setting which facilitates resolution of the issues
- 2. Strategic planning to anticipate the issues, collect relevant information and initiate dialogue before the issue becomes a crisis
- 3. Vision, leadership and structure for the process
- 4. Involving all relevant stakeholder groups and engaging with stakeholder representatives who actually have decision-making power





Manaaki Whenua Landcare Research

# 8 Critical Success Factors for effective ICM dialogue (2)

- 5. Adequate definition of the issue, including issue boundaries and spatial and time scales
- 6. Adequate information upon which to base the dialogue, and strong, accepted science
- 7. Accept local knowledge, including validated anecdotal knowledge, not just science
- 8. Workable solutions expressed clearly and succinctly

Bowden, Fenemor, Deans 2004: Water Resources Development 20(3): 311–323





The Motueka and Riwaka Catchments



They were nothing more than people by themselves... But all together, they had become the heart and muscles and mind of something perilous and new, something strange and growing and great. Together, all together, they were instruments of change.

Keri Hulme