Integrated Freshwater Solutions

Changing Conversations – Changing Outcomes

EIANZ Conference – Sydney 24 – 25 October 2012

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Content

Part I

- The Integrated Freshwater Solutions (IFS) project – a case study of collaboration on the Manawatū River

Part II

- Changing conversations – changing outcomes?

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The Manawatū River Catchment

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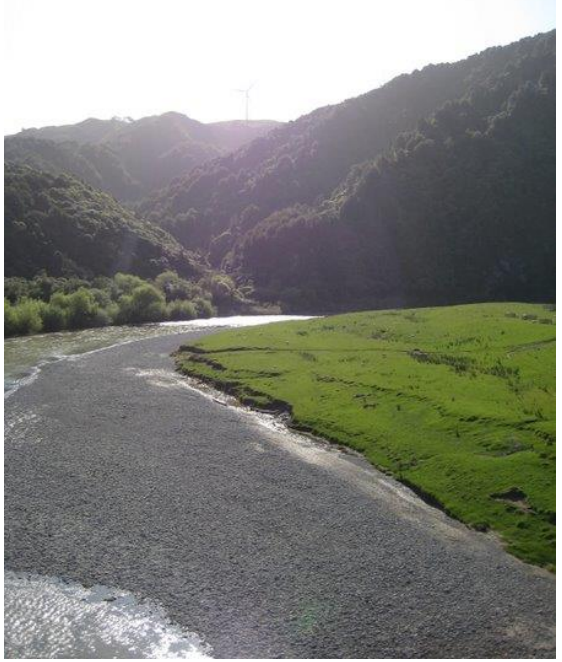
Manawatū River

- Total catchment area 594,400 ha
- Unique river as it cuts through a mountain range to get to the sea
- 9 sub-catchments: 4 highly erosion prone
- ~133,000 people, ~320,000 cows, many sheep



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Manawatū Gorge

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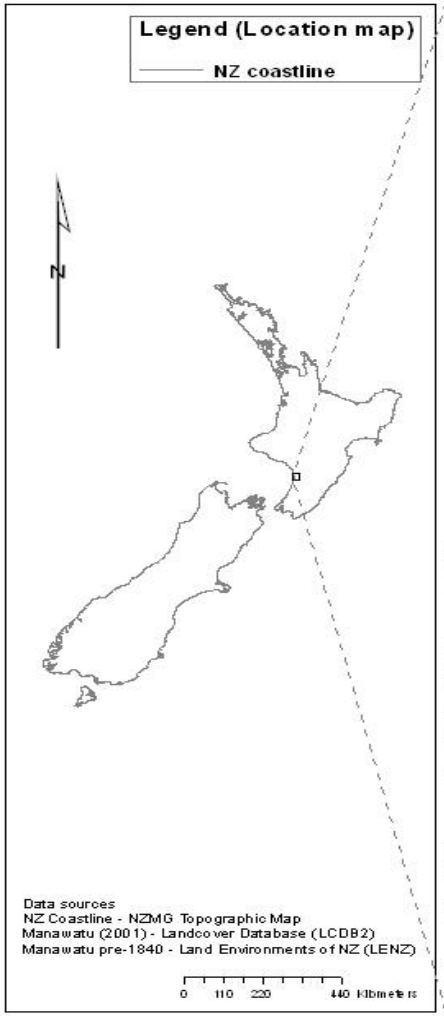
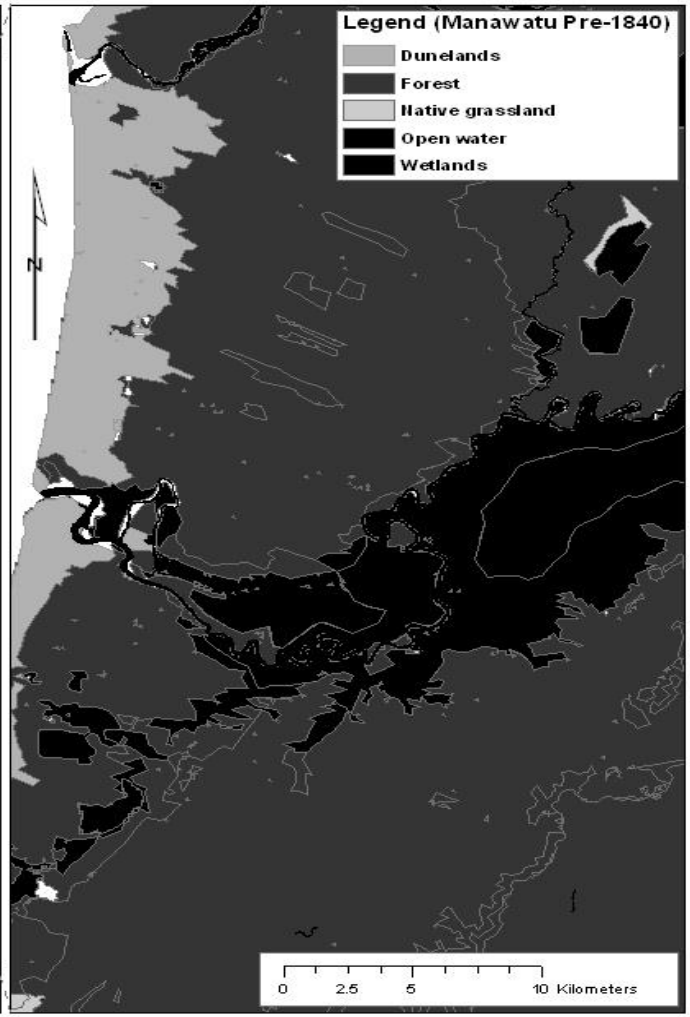
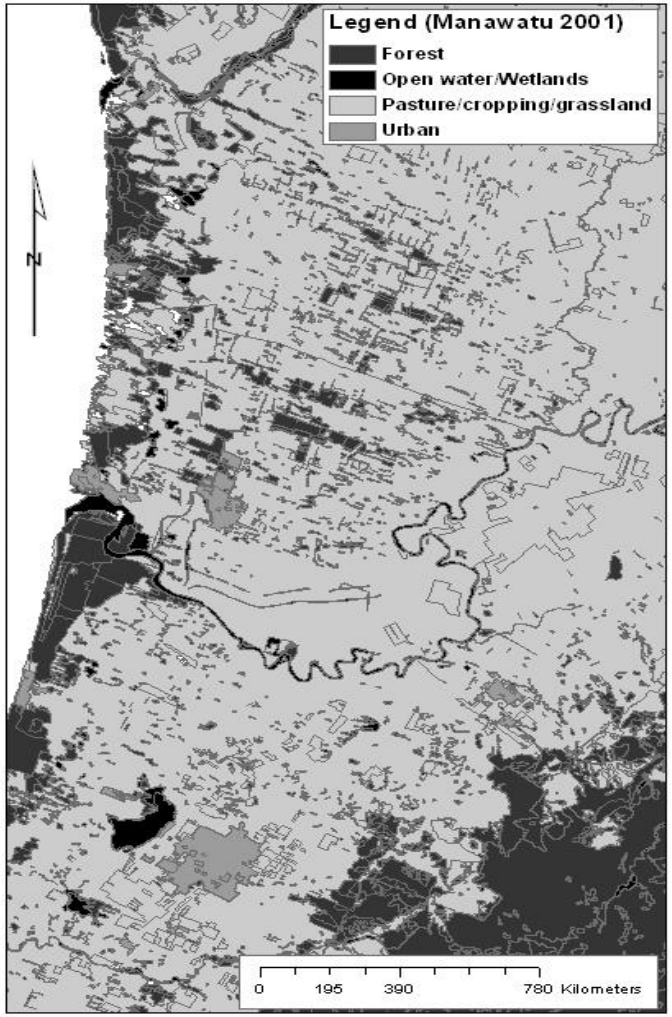
Manawatu land cover: Pre- and Post Settlement







Source: Landcare Research. Complements of Anthony Cole

2009 Headline: 'Manawatū New Zealand's River of Shame' – Case for Action and Collaboration

Integrated Freshwater Solutions

- MBIE funded applied research programme (2010 – 2013)
- End-user collaborative research involving: Iwi/hapū (Māori tribe/sub tribe), local government, farming, business and environmental stakeholders
- Integrating economic, environmental, social and cultural interests
- Adaptive management and capacity building
- Utilising a modelling toolkit to facilitate dialogue

Manawatū River Leaders' Forum

- Regional Council initiated programme
- End-user collaborative goal setting and action planning with: Iwi/hapū government, farming, business and environmental stakeholders
- Integrating economic, environmental, social and cultural interests
- Delivery of a Leaders' Accord (signed off in July 2010)
- Delivery of an Action Plan (6 months October 2010 – March 2011, signed off in July 2011)

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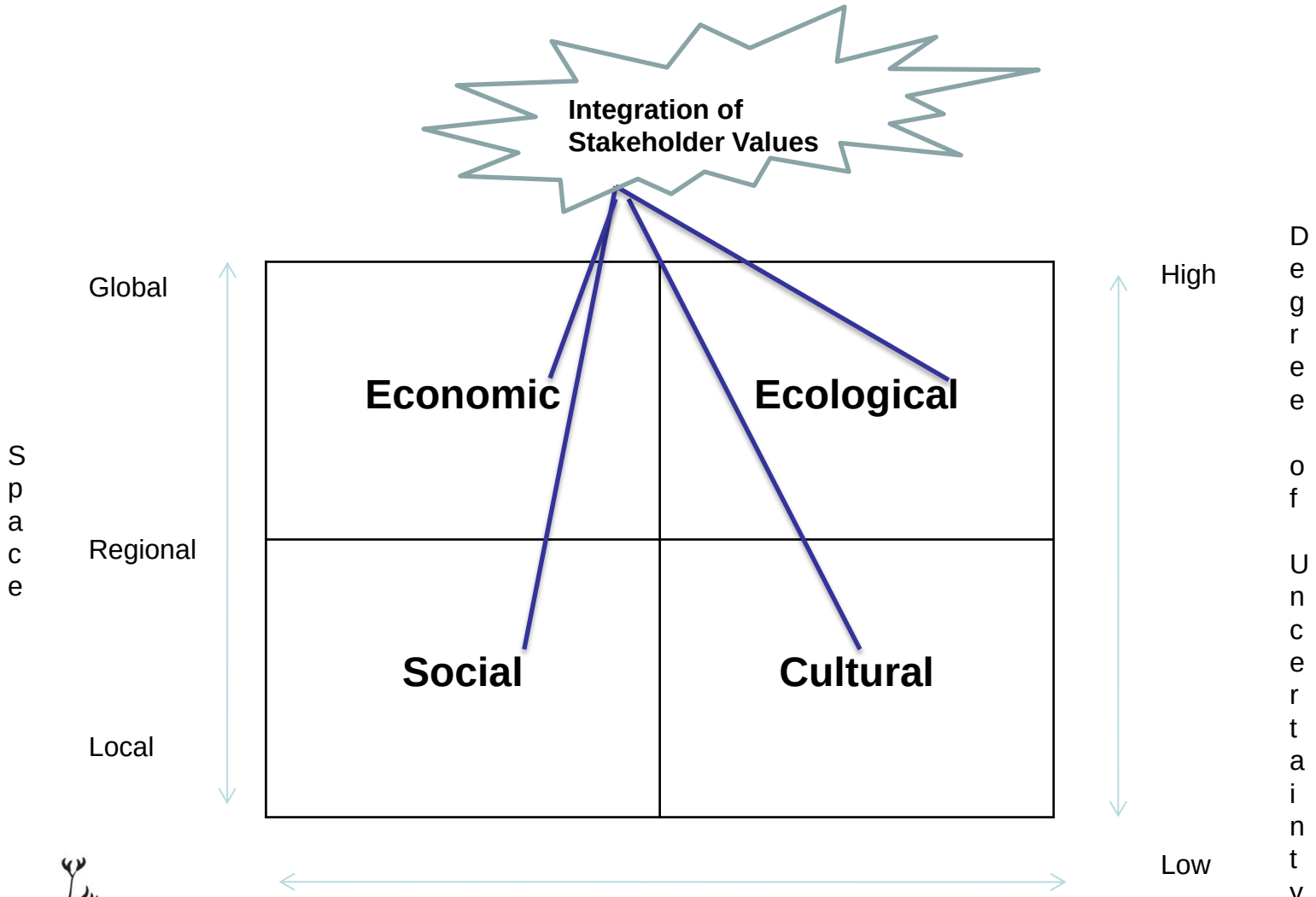
Freshwater Management – Dimensions of Complexity



Source: Based on van den Belt 2004

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Leaders' Accord - Goals

- The Manawatū River becomes a source of regional pride and mana (status)
- Waterways in the Manawatū Catchment are safe, accessible, swimmable, and provide good recreation and food resources
- The Manawatū Catchment and waterways are returned to a healthy condition
- Sustainable use of the land and water resources of the Manawatū Catchment continues to underpin the economic prosperity of the Region

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Chosen Approach: Mediated Modelling

- A series of workshops with up to 20 stakeholders – additional numbers can be managed through different tools
- Commitment per stakeholder of about 50 hours
- Considering facts, believes, and trade-offs
- Develops a scoping model that can be used for 'what-if' scenarios
- Communication tool to explain complex trade-offs
- Spread over variable period:

  - 6 months to support the development of an action plan

  - 1 to 2 years to develop adaptive capacity

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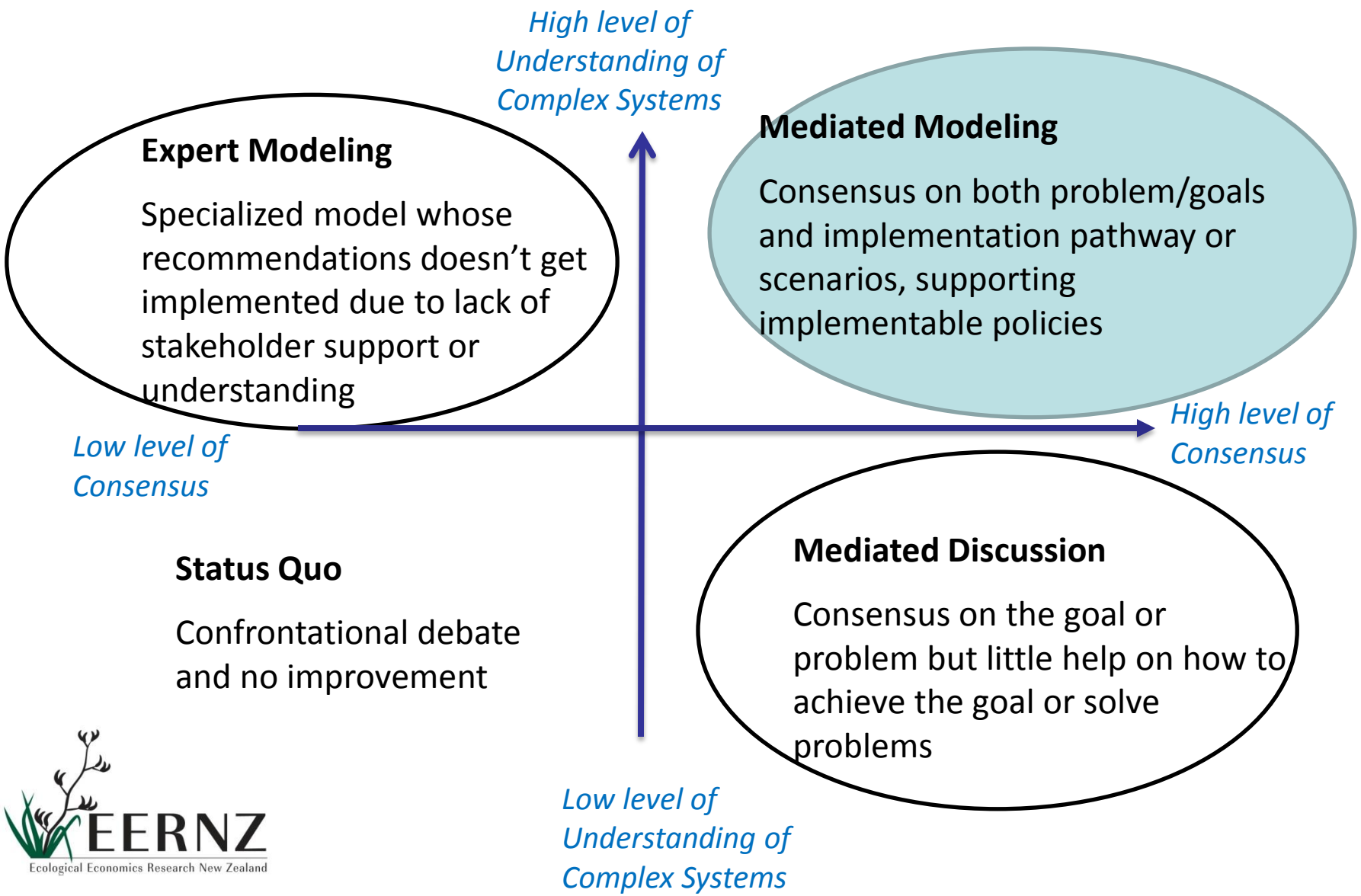
Chosen Approach Towards Understanding and Consensus Building



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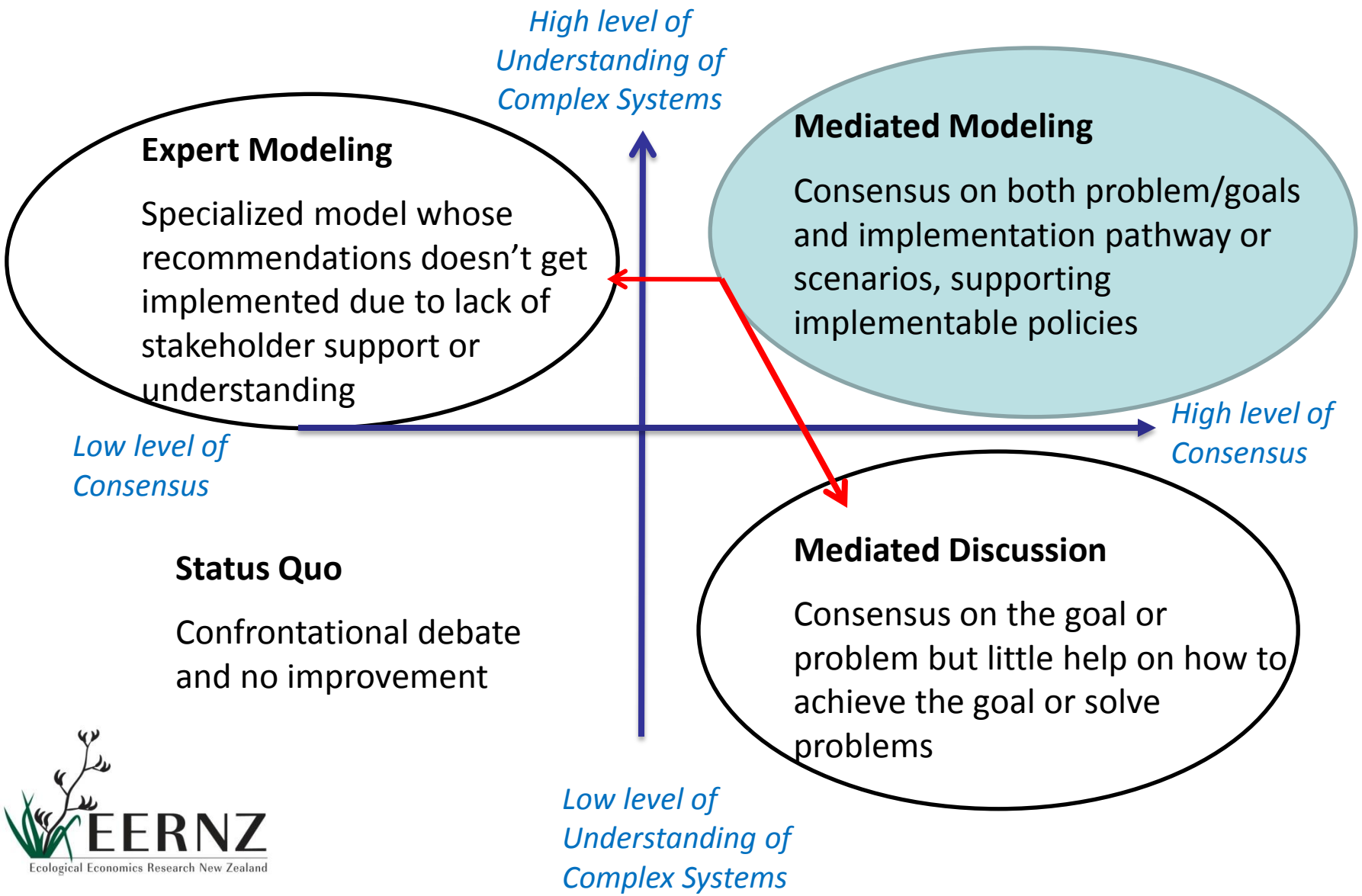
Adapted Approach as a Result of Political Uncertainty



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The Action Plan

- Delivered on time
- 6 Key Action Groups, addressing:
  - Sedimentation, non point and point discharges, habitat loss, water allocation, river engineering
- 130 Tasks
- Signed off by all stakeholders
- Successful application to government's 'Fresh Start for Fresh Water Fund' – bringing an additional $ 5.2m to the region
- A commitment to implementation
- Transparency

The Question: Will it deliver the desired outcomes?

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What the Model Indicates

- Upward trend of nitrogen runoff likely to continue, due to more dairy intensification
- Nitrogen management through mitigation is expensive
- Upward trend of sediment runoff could be reversed due to Sustainable Land Use Initiative, however additional effort is required
- Ecosystem services are included in the model and provide a space for additional conversations about ‘values propositions’ to strengthen the case for action

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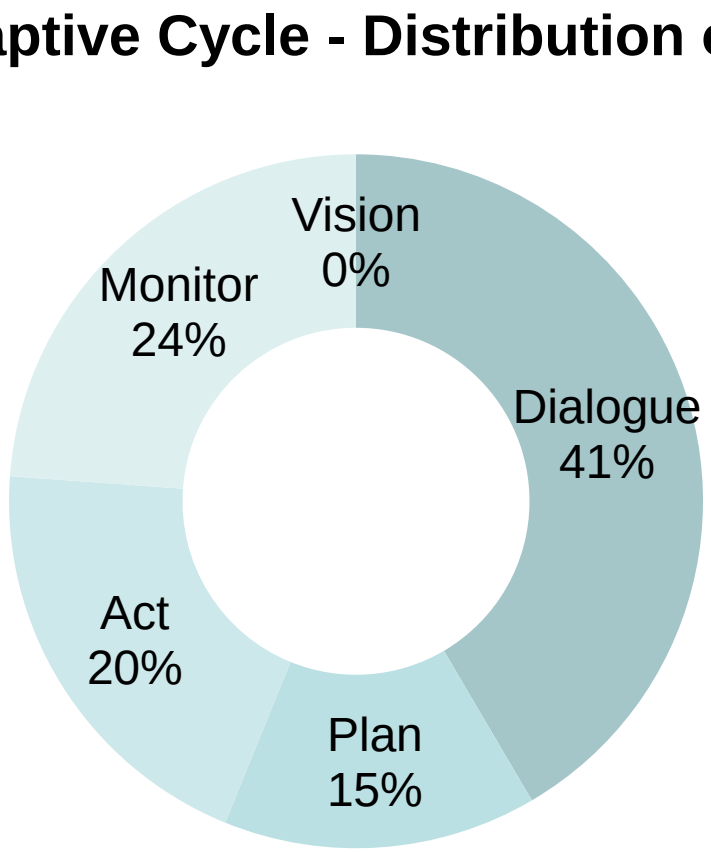
The Action Plan



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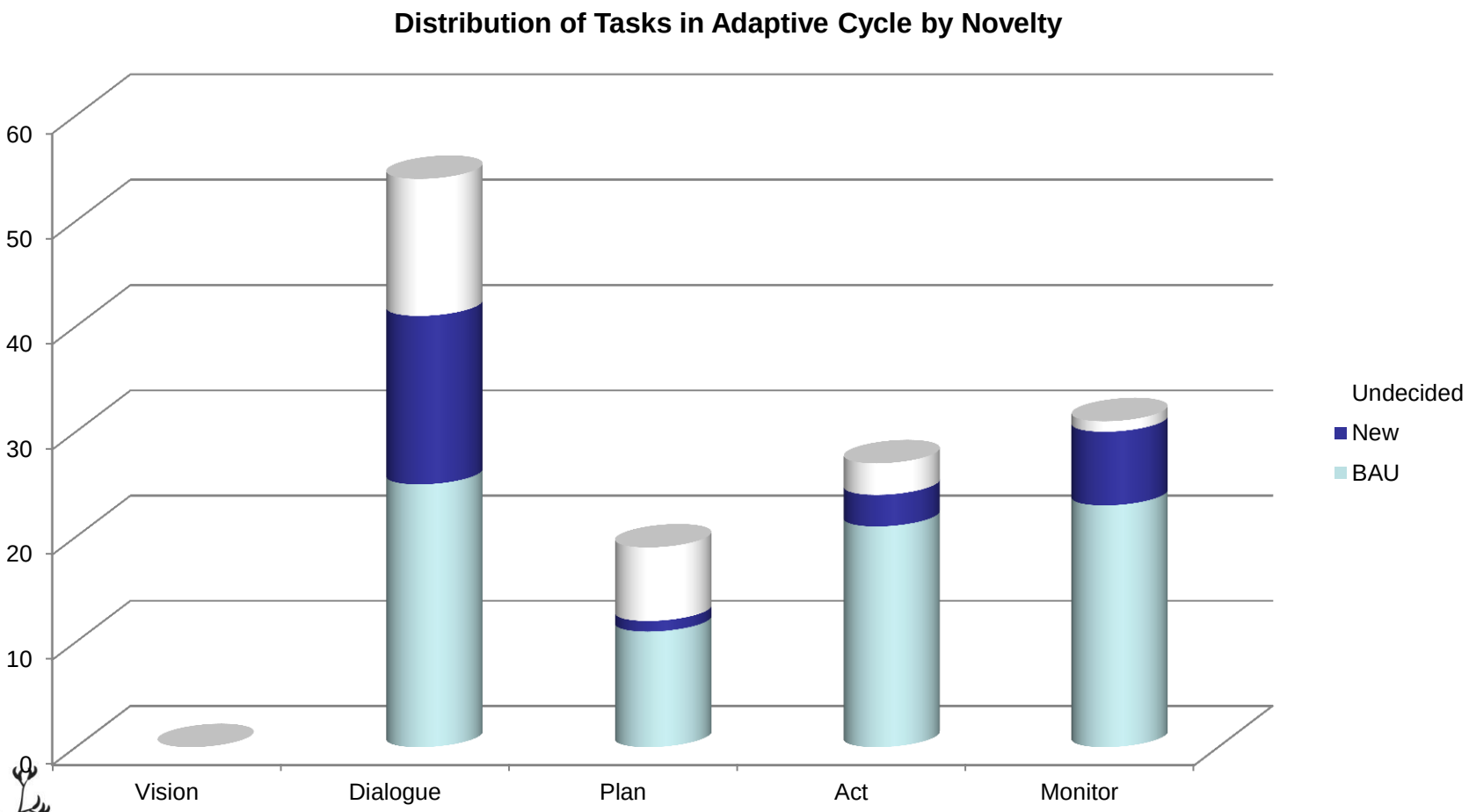
The Action Plan



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Part II

Changing Conversations –
Changing Outcomes?

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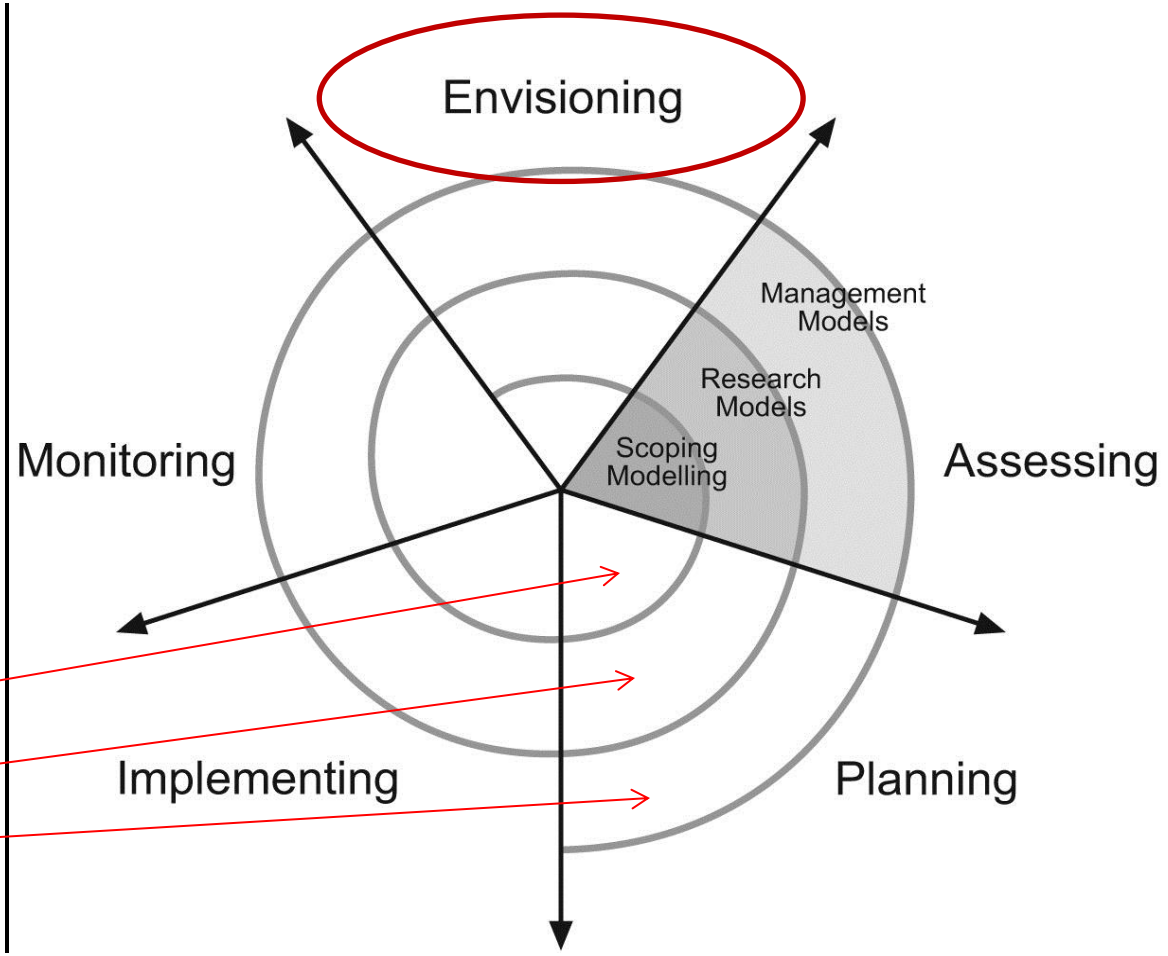
The Opportunity to Keep Advancing

Not a linear process

Ideally several iterations

Iteration I
Iteration II
Iteration III



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Freshwater – A Resource or a Treasure –Two Worldviews – Two Lenses

Exploitable Resource

- "What mining is for Australia and oil for Saudi Arabia, is freshwater for NZ – a great asset" Nick Smith at Foxton, Sign off ceremony for the Manawatū River Action Plan
- Water in the Western worldview is a resource that can be freely exploited
- National Policy Statement on Freshwater - one value of water = the dilution of waste
- Concept of water rights being linked to landownership
- Value of water is driven by economic = $ interests

Taonga – Treasure

- Treaty of Waitangi – freshwater is a Maori taonga = treasures
- Concept of 'Mauri' = the life force of water
  - Water is a life entity in its own right
  - Water flows through us
  - Healthy water provides for land and people
- Kaitiakitanga – guardianship rather than exploitation
- The value of water has a spiritual as well as social and economic dimensions

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Understanding the M*auri* of the River*:* The River as a "Provider" and Life Form in Itself (Shared Understanding developed during IFS workshops)

Kei te ora te wai, kei te ora te whenua, kei te ora te tangata
If the water is healthy, the land and the people are nourished

As we allow the river's mauri to flourish, the river's ability to provide will increase

Cultural and spiritual health and wellbeing
of the river and its communities
Rongoā Māori healing plants and resources
in and by the river
Introduced food species in the river
Drinking water for people and stock
Swimming /other recreation/tourism
Food outside the river, agriculture
Flood Protection
Gravel/sand extraction
Electricity generation

As the river's mauri shrinks, it's ability to provide will shrink too

Developed for MRLF Action Plan February 2011

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The Opportunity to Change Conversations

Solutions Developed from an Issues - Problem Paradigm

- Identification of problems
- Analysis of cause and effect
- Risk of creating a sense of burden and negative energy
- Basic assumption: water is a problem to be treated

Solutions Developed from a Possibility Paradigm

- Appreciative Inquiry (AI)
- Appreciating the best of what is
- Likelihood of creating a sense of positive energy and empowerment
- Basic assumption: Water is a treasure to be enjoyed and safe guarded

Based on: Cooperrider, Appreciative Inquiry

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5 Principles to Consider

- Constructionist principle – the way we know has a direct effect on what we do
- Simultaneity principle – inquiry is intervention – with the first question we ask we start the process of change
- Poetic principle – through our stories we reshape our reality and focus our listeners attention
- Positive principle – the power of language in creating a positive field that will draw people in
- Anticipatory principle – collective imagination and discourse about a desired future create common ground

Based on: Finegold, Holland, Lingham, 2002

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A Matter of Reciprocity

What can water do for us – what can we do for water?

Water provides for us – how do we care for water?

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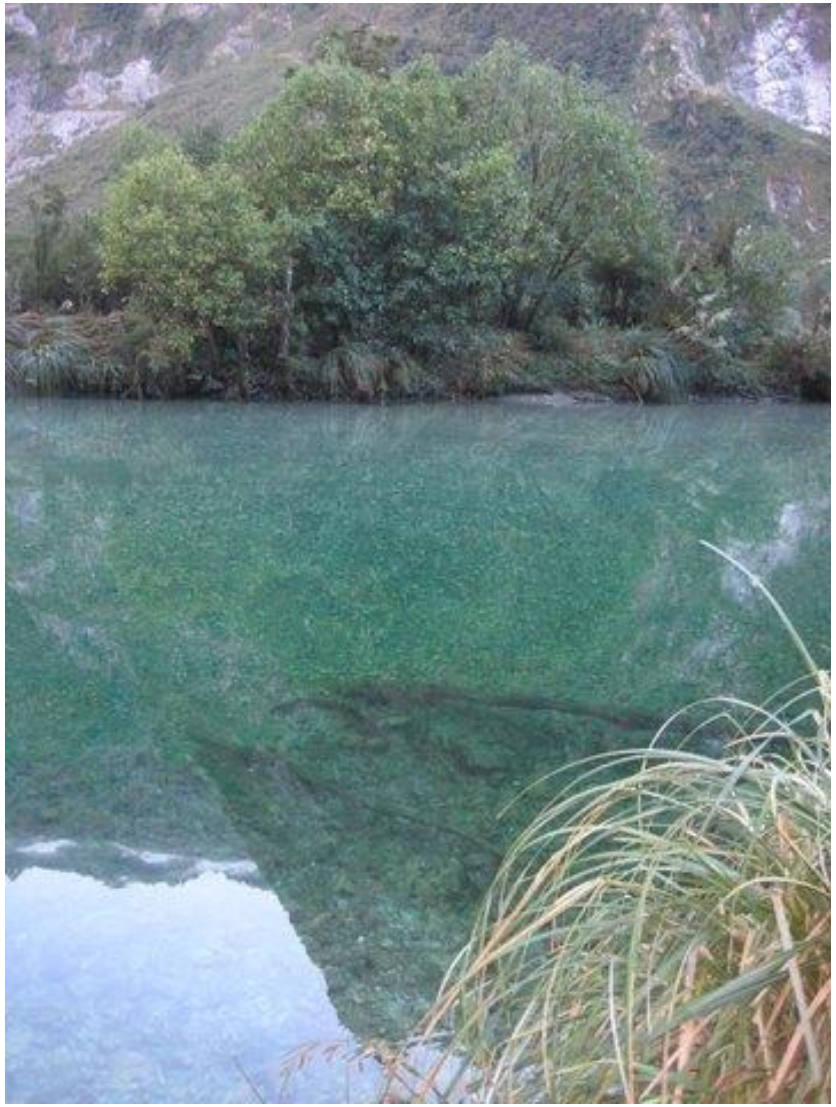
Vision

Leaders' Accord Vision

Kei the ora te wai,
Kei te ora te whenua,
Kei te ora te tangata.

If the water is healthy,
The land and the people
Are nourished



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