

IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

of resource consent applications to take and use
water for irrigation in the Upper Waitaki Catchment

TABLED AT HEARING

Date 29/04/2010

**MEMORANDUM OF COUNSEL ON BEHALF OF
MACKENZIE WATER RESEARCH LIMITED
IN RELATION TO ADAPTIVE MANAGEMENT**

29 APRIL 2010

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Adaptive management

1. As mentioned in both the opening and closing submissions, MWRL has endeavoured to build upon the caselaw surrounding the use of adaptive management.
2. I have highlighted to you cases which have dealt with adaptive management, including:
 - (a) *Winstone Aggregates Limited v Auckland Regional Council* (Three Kings Quarry consent order) - 10,000 potentially affected residents RMA 780/03 (Consent Order);
 - (b) *Alexandra District Flood Action Society Incorporated v Otago Regional Council* - Clutha flooding C102/05;
 - (c) *Ngawha Geothermal Resource Company Limited v Northland Regional Council* - risk significant effects on geothermal system (waahi tapu) A117/06 (Interim) and A146/06 (Final);
 - (d) *Contact Energy Limited v Waikato Regional Council* A4/00: Wairakei - risk of substantial differential settlement;
 - (e) *Solid Energy Limited v West Coast Regional Council*: Solid Energy Mine C74/05 and C111/05 - risk of effects on endangered fauna (Patrickensis Snail) and on habitat of rare spotted kiwi (red tussock wetlands);
 - (f) *Transwaste Canterbury Limited v Canterbury Regional Council and Hurunui District Council* C29/04- Transwaste Waste Disposal / Landfill risk of contamination;
 - (g) *Biomarine Limited v Auckland Regional Council* A14/07 and A68/07 - marine farming application;
 - (h) *Geotherm Group Ltd v Waikato Regional Council* A151/06- issues relating to proposed changes to the objectives, policies and methods for managing the geothermal resources of the Waikato Region proposed.
 - (i) *Carter Holt Harvey Limited v Waikato Regional Council* – in essence the approach to nutrient management in the Waikato region is an example of adaptive management, with clear thresholds identified and mechanisms established for responding according to the environmental conditions.
3. More specifically, I would like to highlight to you examples of the following, which are relevant to the MWRL case:
 - (a) Lockstep and staging;
 - (b) Uncertainties of science; and
 - (c) Pragmatic adaptive management.

Lockstep and staging

4. Refer to the final conditions of consent in *Clifford Bay Marine Farms Ltd v Marlborough District Council* C62/05 at **Tab 1**, in relation to the staged approach taken.

Uncertainties of science

5. Refer to the final conditions of consent in *Biomarine Limited v Auckland Regional Council* A68/07 at **Tab 2**, in relation to the identification of "scientifically significant adverse effects" through conditions 23 - 29.

Pragmatic adaptive management approach

6. I have already referred you to the North Bank Tunnel decision as an example of a pragmatic approach being taken.¹ I also refer you to:
 - (a) The final conditions of consent in *Ngawha Geothermal Resource Company Limited v Northland Regional Council* A146/06 at **Tab 3**. In that case a key issue was the maintenance of reservoir pressure. The Court adopted a Reservoir Management Plan (RMP) approach where the Council could seek advice from a peer review panel about the veracity of the RMP and what it should contain.
 - (b) Another example of a pragmatic approach is in *Solid Energy Limited v West Coast Regional Council* C111/05 at **Tab 4**. In particular the development of management plans that were used to minimise effects on wildlife. A broad brush objective of "minimising the effects" and "enhancing the survival rates" of the great spotted kiwi was sought through this management plan approach.

Conclusion

7. An analysis of how adaptive management has previously been utilised demonstrates the efficacy of the MWRL framework.

Christian Whata

**Counsel for Mackenzie Water
Research Limited**

¹ *Lower Waitaki River Management Society v Canterbury Regional Council* C80/2009 referred to at paragraph 7.3 - 7.4 of the MWRL closing submissions.

