## The Living Lakes Symposium 2013: Measure to Manage

## **Take Home Messages**



This conference has strongly delivered its "measure to manage" message, with the first day dedicated to the measurement of indicators of lake and catchment state, and the second to management and action initiatives.

Variously described by speakers as a "gateau", "whitebait fritter" and "plate of spaghetti" of management initiatives and stakeholder interests, there is little doubt that the iwi "food basket" of Te Waihora is a complex system. There are multiple pressures on this lake and its catchment, to which the responses are at best complicated and at worst, not yet explicable. Combine this with the range of desirable restoration outcomes identified for the lake environment, and the food analogies above only begin to describe the complicated nature of the issue.

However, the most important take home message from this conference is, I believe, that things are looking much more positive than they were four or even two years ago. Significant investments of time, funding and effort are being made right now; there is action on the ground, as well as action in the decision-making arena. Frameworks are being put in place to achieve consensus, and the way forward is becoming clearer.

Additional messages from this conference that resonated for me, included the following;

- Clive Howard-Williams, in his keynote presentation on the first day, noted that we need to extend our view of this catchment, to include Lake Coleridge and its catchment to the west, and the zone of coastal water affected by the outflow of Te Waihora/Lake Ellesmere.
- The excellent and timely publication of the "State of the Lake and Environs" report, provided a focus for the speakers on the first day, each targeting a different indicator or potential indicator, of lake health. Losses of value have occurred in many aspects of lake health, but the significant limitations of the data available to support indicators were noted. Even for water quality, where the monitoring data is arguably best, the complex relationship between pressure, state and response cannot currently be unravelled.
- On the second day, Andy Bruere from EBOP described the research and novel interventions that have been tried on the Central North Island lakes, emphasizing the benefits of high frequency monitoring of lake conditions, and the hysteresis that can be expected in lake environment restoration. A water environment cannot usually be restored by a simple reversal of the conditions that have caused the damage, least of all in the same time frame. Andy also noted that there are significant differences between Te Waihora/Lake Ellesmere and the deeper, generally lower nutrient lakes of the North Island. The interventions that have so far been successful in these lakes, may not all be applicable to a shallow, coastal hypertrophic lake.
- Subsequent speakers described community, primary sector, council and government initiatives targeting aspects of lake and catchment management; an impressive array of environmentally-positive actions being undertaken by those in a position to directly change the future of the lake. An account of the actions and research being undertaken within the Whakaora Te Waihora programme, and recent

research being undertaken by university staff and students, underscored the significant investment of time and funding currently being made.

And the final take home message? We cannot expect, or lead others to expect, that there will be a rapid improvement in lake health, even if every positive action taken is as effective as we hope. To stay the course, we will need to have confidence in our predictions of how the lake will respond to changes made in the catchment. We will need to be able to provide a convincing argument to counter those who grow impatient and seek to have the catchment managed differently. We will need reliable monitoring data, robust indicators and a (much) better understanding of that complex relationship between the lake and its catchment.

This is just the beginning of a critical time for this lake and its catchment, but the engagement at this symposium reflects a very serious commitment to a better lake environment. Thank you to all who organised, presented at, and participated in this memorable and significant Living Lake Symposium.

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