

Stagnation or Innovation - panacea or false hope: The Future of Groundwater Management

In New Zealand, fresh water environments support our way of life and the health and wellbeing of the people. Freshwater is a taonga and is at the core of the cultural identity of the tangata whenua. The availability of high-quality fresh water is fundamental to the protection and restoration of our threatened aquatic ecosystems, as well as being essential for potable supply and primary production.

However, there are changing weather patterns, with more intense rain events occurring over shorter periods of time. Water quality is a hot topic at the moment particularly in regions like Canterbury and Waikato, and we know that any change to land uses will take time to be reflected in any improvement in the health of our waterways and lakes. In fact, we hear a lot about the problems but what about the solutions?

New Zealand is at a crossroad, both technically and politically, in developing innovative approaches to water management. Groundwater and surface water systems and resources are intimately linked, so the active management of groundwater, utilising the tools of managed aquifer recharge (MAR), can support a transformative shift in the way we design and implement new generation water supply and delivery systems.

My presentation will explore MAR, highlighting a number of schemes that operate in New Zealand and overseas: their purpose, pros and cons, the successes and the failures. It will also touch on the issue of consenting such schemes, and finally suggest what is the future in this space.