

Healthy Rivers Wai Ora project and the application of science

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As part of achieving protection and restoration of the Waikato and Waipa River catchments, a diverse 24 member collaborative stakeholder group synthesised community and technical information from many sources. The resulting change to the Regional Plan sets 80 year and short term numerical water quality targets, and changes on the land to reduce diffuse discharges of nutrients, sediment and microbial pathogens.

At the outset, the group acknowledged the complexity of its task, given the scale of the changes needed on the land, the likely effects on people's wellbeing as a result of the changes, and the need to make decisions under uncertainty. They had to make judgements about what restoring water bodies means, and who should bear the social, economic and cultural costs.

Technical information to inform the collaborative group's discussions and choices came from a small group of independent experts who had the role of collating existing information and commissioning new work. This came from economists, groundwater and water quality scientists, and experts in Mātauranga Māori and implications of social change. They had to look both backwards to explain what had led to the current situation for people and water bodies, and look forwards to answer the 'what if' of alternative policy approaches.

To be successful, complex information had to be communicated in a way that allowed the collaborative group to assimilate concepts and explore further questions. The theme of many discussions was the difficulty of not having perfect information, and therefore how to incorporate probability and uncertainty. The approach taken to making decisions under uncertainty was to try to make the policy as adaptive as possible, so that new property-level rules do not cause irreversible losses for the environment or people and communities affected, acknowledging that full restoration involving social change has to be approached in stages.