

1. Introduction

This report represents the coming together of two different research agendas; ESR's (Institute of Environmental Scientific Research) research programme Sustainable Development – The Human Dimension funded by the Foundation for Science, Research and Technology (FRST), and the Waimea Water Augmentation Committee's (WWAC) Feasibility Study into Water Augmentation partially funded by the Sustainable Farming Fund (SFF). Linking the research programmes is a common interest in freshwater issues and community involvement in these issues, discovered through preliminary talks between the ESR social science researchers, and members of the WWAC committee, and Joseph Thomas (water resource engineer) and Councillor Richard Kempthorne from the Tasman District Council (TDC).

Richmond and the Waimea region are experiencing growth in migration and ongoing demand for residential and lifestyle development (coastal, rural and semi-rural). The climate and attractiveness of the Nelson-Tasman environment also encourages both national and international tourism. This growth generates need for services and water and wastewater infrastructure. Other factors impacting on water availability and use are demands associated with changes in land use along with intensification of land use (Boffa Miskell, MWH: 2003). Issues around water quality and quantity comprise a substantial area of study, much of which precedes the Feasibility Study, such as the Tasman Regional Water Study (Lincoln Environmental, MWH, Agfirst, 2003). The Parliamentary Commission for the Environment (PCE) (2004:108) states that:

Water is becoming an increasingly critical component of New Zealand's rural economy. The move to more intensive farming systems is usually accompanied by a demand for increased quantity and certainty in water supply. Projections indicate that the dairy, horticulture and viticulture sectors will all expand in the future and it follows there will be growing demands for water via irrigation.

The Feasibility Study

The Feasibility Study is a study, that aims to explore not only the feasibility of water storage options in the Upper Lee/Wairoa catchments, but also how these options can enhance water availability - quality and quantity - for consumptive, environmental, aesthetic and community values downstream. The contract for carrying out this work was awarded to Tonkin and Taylor, whose team includes subcontractors from other agencies and organisations with the necessary expertise.

What prompted the Feasibility Study?

Recent studies on water availability on the Waimea Plains indicates that the area is acutely water short, with water resources over-allocated for a 1:10 year drought security. Consequent water restrictions impact on irrigation and production ability for growers on the plains. Water restrictions also impact directly on consumers – households and businesses. The economic impacts are also passed on to the region more generally, affecting employment, and opportunities for economic growth in the region. Drought events also

impact on the river environment ecology, as well as reducing opportunities for recreational activities in and around the rivers. Low flows affect the coastal springs, highly valued by iwi and the community, and importantly, aquifer recharge is reduced with the increased risk of saltwater intrusion into the aquifer system. This would be critical for water supplies.

How would ESR contribute?

It was decided – after ongoing conversations – that ESR could contribute to the Feasibility Study through exploring and documenting community activities and values of the Waimea rivers and aquifers, as well as water management options more generally. This work could potentially contribute to future planning by the Tasman District Council. For ESR, involvement would enable meeting their broader research objectives of (i) improving participation of multiple agencies, communities and Māori in decision-making on water allocation; and (ii) evaluating existing and different methods of participation. Other benefits of the partnership include:

- ESR's work would not require any financial contribution from either WWAC or TDC, but 'in-kind' contributions such as time, venues for meeting, and sharing relevant information.
- There would be an emphasis on mutual learning through the action research approach of working with people (in real situations) rather than doing research on people.
- A more comprehensive picture of the ways in which people think about water resources and use could emerge because of the wider remit of the FRST-funded research programme. The dam storage option then would be just one option explored.