

## Ruamāhanga Whaitua small streams water allocation fieldtrip and workshop

The Ruamāhanga Whaitua Committee visited the Papawai Stream and Parkvale Stream on 27 February 2017 followed by a workshop. The purpose of the fieldtrip and workshop was to understand how small streams are affected by low flows and the options available for improvement. Kaitiaki (Johni Rutene and Rueben Tipoki), experts from NIWA (Paul Franklin, Richard Story) and Cawthron (Joe Hay) and GWRC staff also attended.

The Papawai and Parkvale streams are representative of small streams that arise in the Ruamahanga Valley floor. They are strongly influenced by springs and shallow groundwater. Compared with hill fed streams (and rivers), valley floor streams have less flow variation because rainfall events have less direct influence on flows.

### Significant impacts on fish species, mahinga kai, and spawning areas in small streams include:

- Adverse effects from poor water quality known also to occur in hill fed and larger rivers (nutrients, sediment, E-coli, point source discharges).
- Water quality is also poor because the size of small streams leads to high water temperature and proliferation of weed growth.
- Land use as per hill fed and larger rivers (channel management, pest plants, intensity, groundwater depth, fertiliser use, legacy issues, and stock in streams).
- Water takes (permitted and consented).
- Climate change.

### To what extent does taking water contribute to the significance of impacts?

Taking water contributes to adverse effects but no more than the other impacts identified above as having adverse effects on water quality and stream beds. It should be noted however, some small streams with inadequate minimum flows are seriously impacted by the taking of water.

### Would halving the allocation of water make much difference?

Reducing the amount of water allocated would:

- improve the amount of habitat available (but not significantly)
- reduce contaminants leaching from the soil (e.g. less irrigation)

### The following issues are identified as matters the Committee needs to think about further:

- The magnitude of unconsented water takes (farm dairy and stock and domestic use can be accounted for but little information is available on the extent of other permitted water takes).
- Opportunities for water users to agree on when and where the amount of water is taken and used in catchments (user groups).
- If water quality issues were addressed (e.g. reduce the high temperature by shading and improving water quality) would there be enough water in the stream for ecosystem health to improve?
- What combination of management levers would give the Committee the best gains in small streams?