

A SCIENTIFIC FRAMEWORK FOR SETTING FLOW AND ALLOCATION LIMITS - TAKAKA

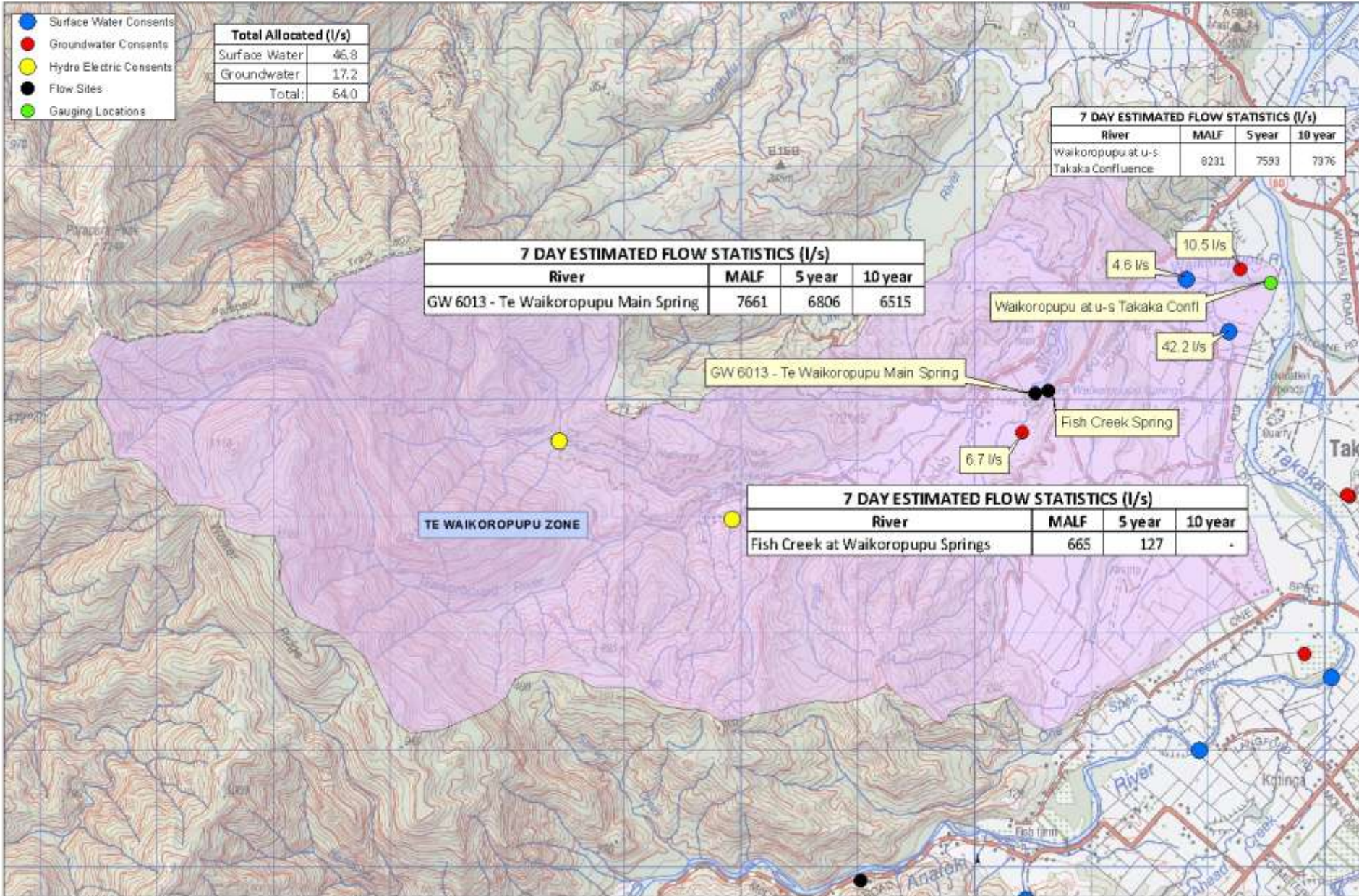
Dr Roger Young (Cawthron) and Joseph Thomas (TDC)

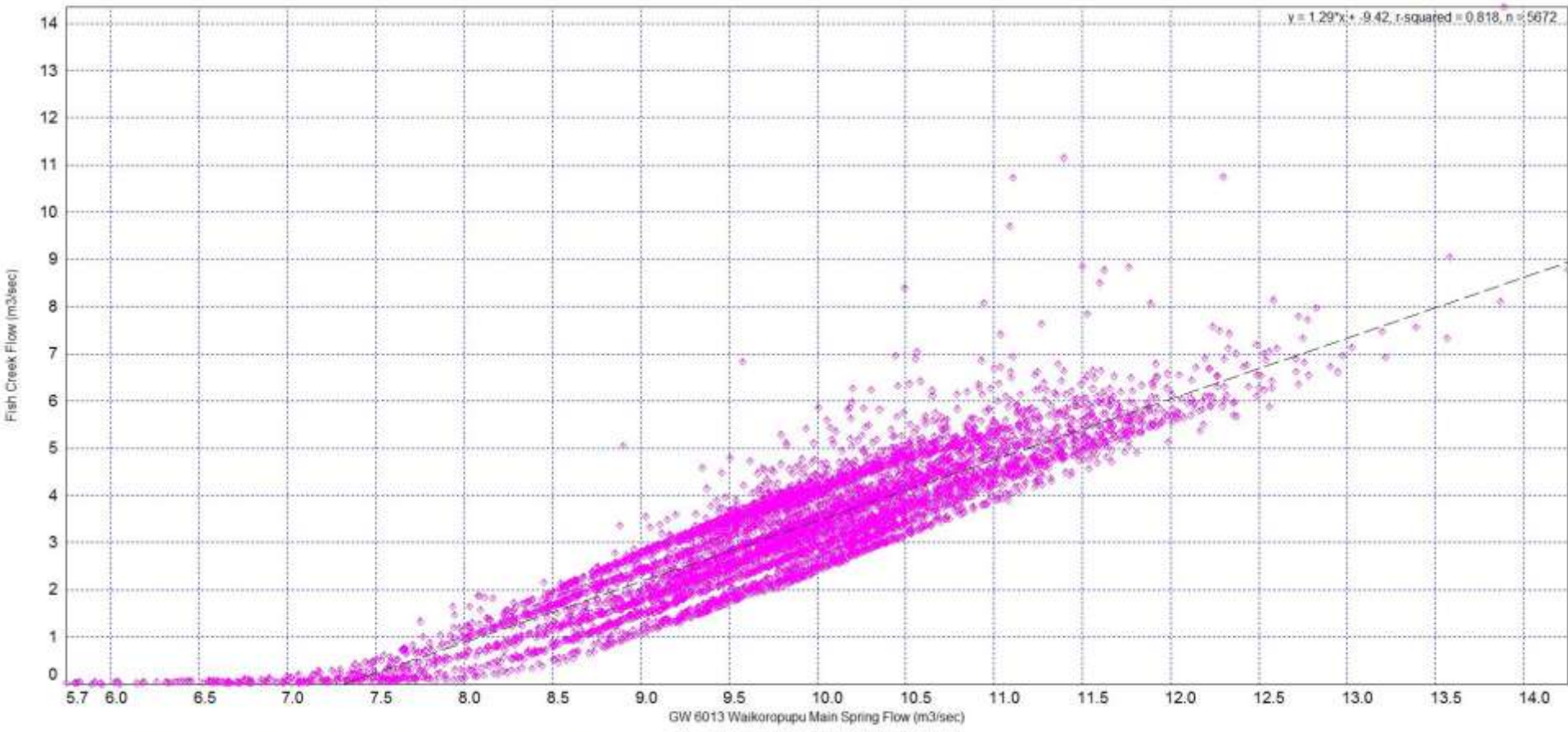
30 OCT 2015



TE WAIKOROPUPU

Te Waikoropupu Zone Consents & Flow Statistics





— Flow at HY Fish Creek at Pupu Springs versus Flow at GW 6013 - Pupu Main Spring from 19-Aug-1999 14:00:00 to 30-Jun-2015 15:20:00

TE WAIKOROPUPU

- Te Waikoropupu class
 - Moderate-High ecological values
 - Very high cultural values
 - Fed by Marble Aquifer
 - 64 l/s of current consumptive takes
-
- Minimum flow = 90-100% of 7 Day MALF
 - Allocation limit = 10-20% of 7 Day MALF
 - Minimum flow = cease take
-
- Takes from surface catchment based on Bell Creek flows



TE WAIKOROPUPU - OPTIONS

Whole Springs area including recharge zone

- Minimum flow = 6895 l/s (90% of 7Day MALF at Main Spring)
- Allocation limit = 766 l/s (10% of 7Day MALF at Main Spring)
- Rationing step (50%) = 7661 l/s
- Cease take at 6895 l/s

- Expect cease take for XX days per year

- Total allocation is 64 l/s in surface catchment, but 500 l/s in AMA
- AMA allocation currently 500 l/s
- Future AMA allocation needs to consider new limits for all parts of AMA

Surface area focussed on Bell Creek

- Minimum flow 90% MALF
- Allocation limit 10% Bell Creek