

Salmon Right of Passage under the RMA



Scott Pearson
Environmental Advisor
North Canterbury Fish and Game

Introduction

What makes NZ special ?

Threats & Opportunities for the Salmon Fishery

- Past & Present Situation
- Canterbury Water Management Strategy
- Science & Monitoring
- Land Use Solutions



Past to Present Situation

Locked in a “vicious cycle”

- State and bank sponsored intensification
- Drying & warming rivers and lower aquifers
- Too many nutrients
- Water quality effects
- High country creep



WATER DANGER TODAY

CANCELLED
↓



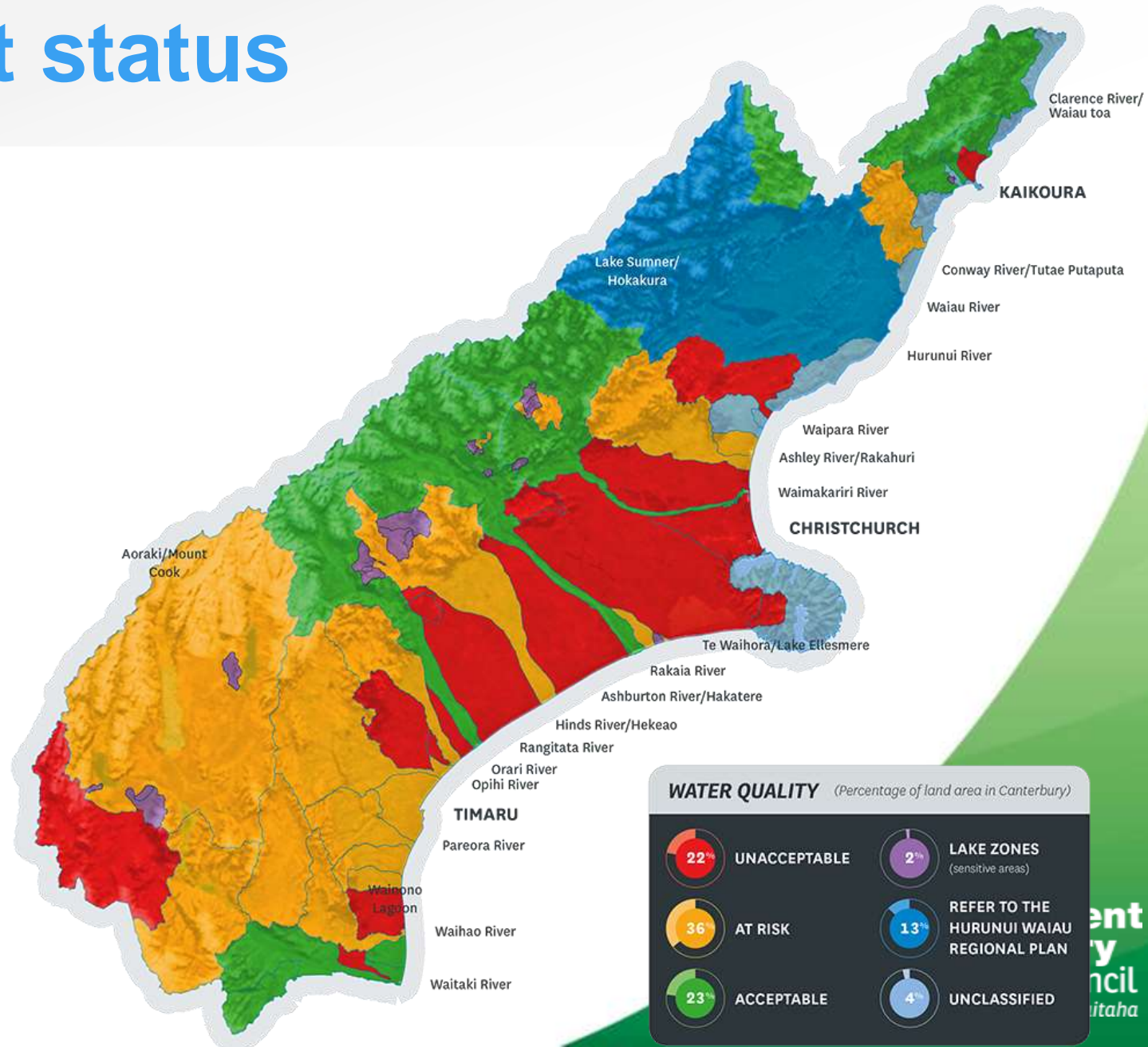
~~DRINKABLE~~

New irrigation is a
zero-sum nitrogen
game

Yeah right.



Nutrient status

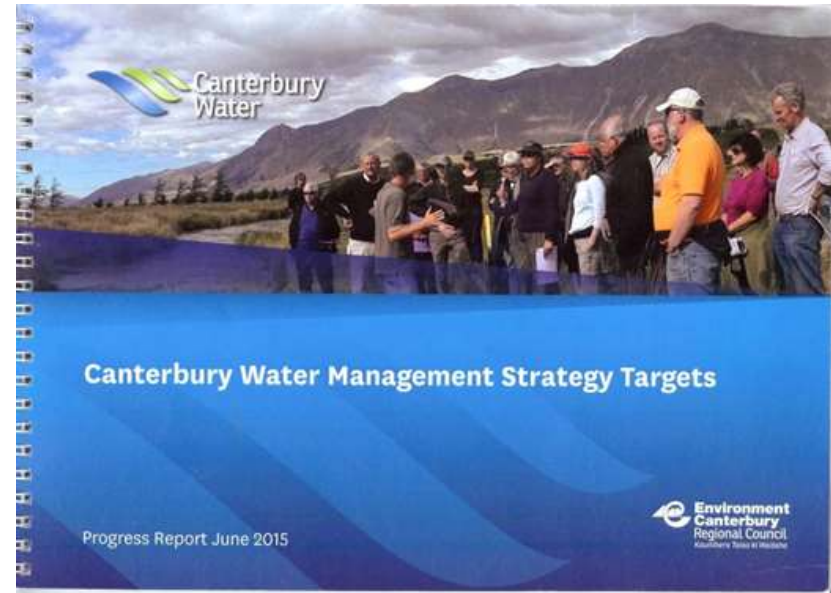


CWMS Engagement

- Informing/influencing Zone Committees
- Targets Reporting

Present Issues for Salmon

- Non-notified consents
- Compliance monitoring – water takes, fish screens etc
- Development near spawning streams
- Stock in water ways





N. Opuha. The Lake Opuha fishery is entirely dependent on the spawning productivity of the lake's tributaries.



An example of stock damage in a salmon spawning site
Glenariffe Stream — still unfenced.



Hydra Waters springhead – Mt. Algidus Station,
showing contrast after fencing put in.

Battles won & lost

for salmon, trout and all freshwater species

- Big Cases — plan changes & consents
 - some influence but tough going



Battles won & lost

for salmon, trout and all freshwater species

- Big Cases — plan changes & consents
 - some influence but tough going
- Rakaia Water Conservation Order
 - Not meeting expectations?



Battles won & lost

for salmon, trout and all freshwater species

- Big Cases — plan changes & consents
 - some influence but tough going
- Rakaia Water Conservation Order
 - Not meeting expectations?
- Hearts & minds — Won
 - Court of public opinion



Battles won & lost

for salmon, trout and all freshwater species

- Big Cases — plan changes & consents
 - some influence but tough going
- Rakaia Water Conservation Order
 - Not meeting expectations?
- Hearts & minds — Won
 - Court of public opinion
- Grass-roots acceptance
 - by more & more land users



Improvements Underway

- Good management practices
- Further nutrient reductions
- Farm environment plans
- Groundwater transfers
- Science stakeholder groups

Is it enough?



RMA's Achilles' Heel

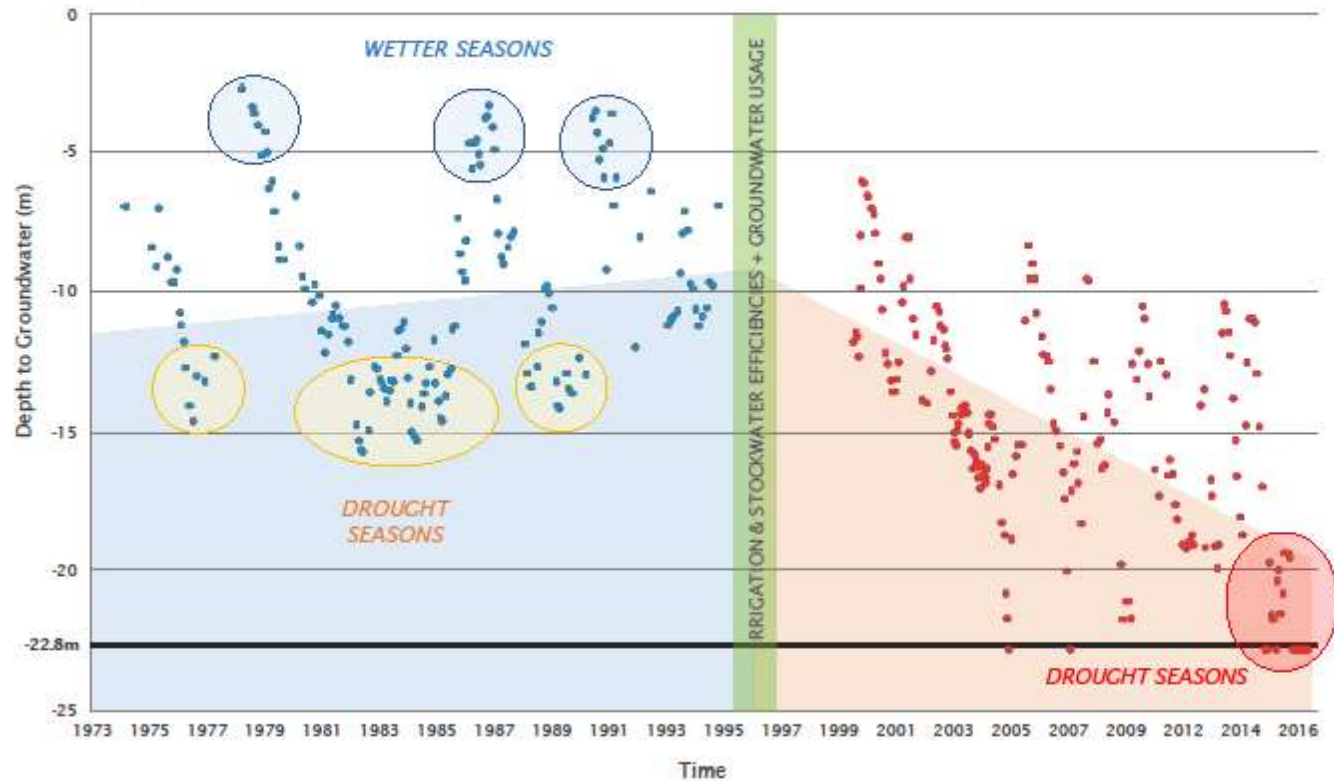
Consent reviews and plan changes are slow and difficult!

- Not adapting to long term environmental trends
 - “Locked in” water permits and nutrient allocations
 - the environment & the community pays
- Whole of catchment approach required
 - exploring means to address cumulative effects

Changing dynamic groundwater storage

DEPTH OF BORE LEVELS (K37/0300 - GWE-4)

1973 - 2016



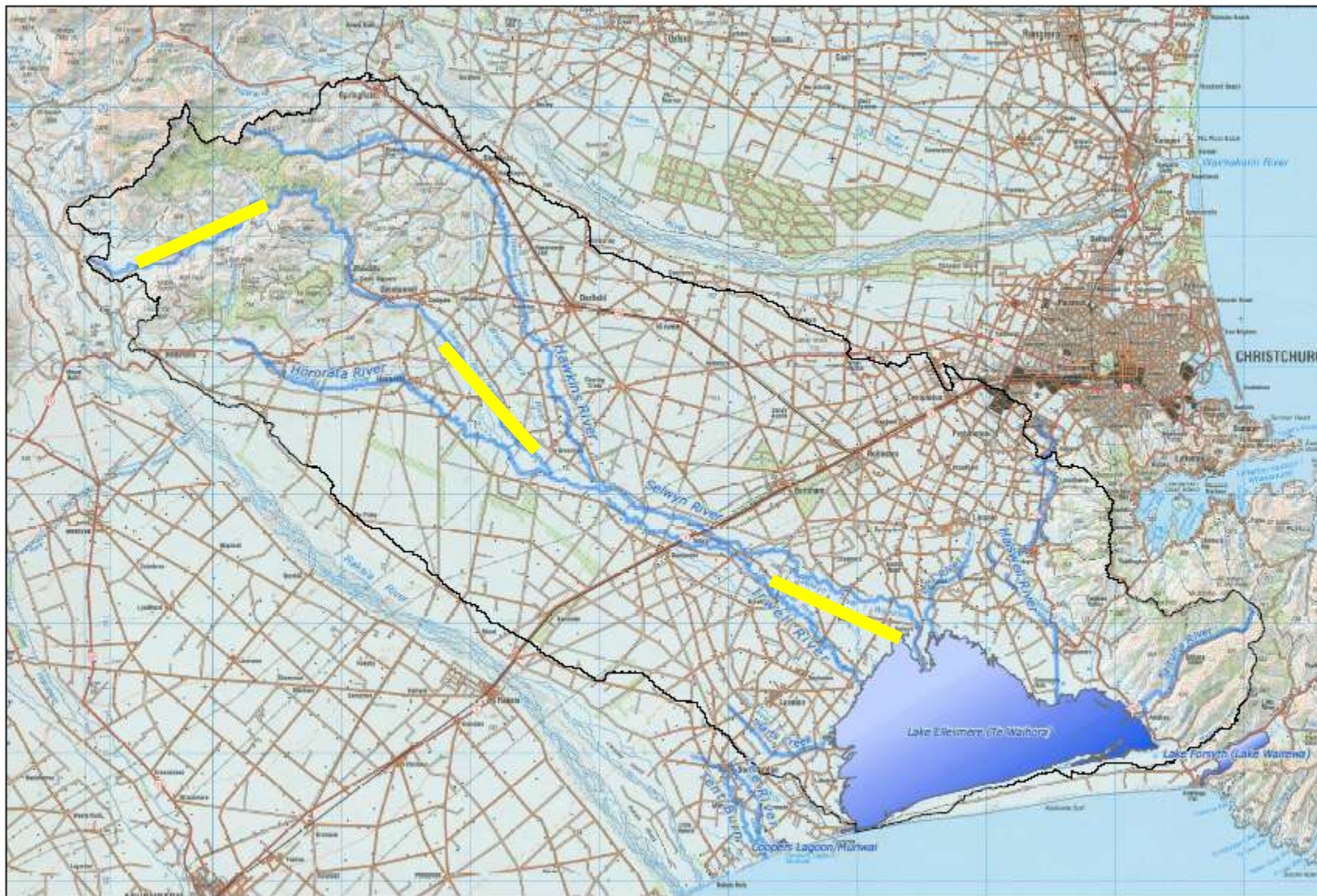
Science & Monitoring

- Science gaps still large
 - Water balance & nutrient modelling
 - Salmon lifecycle challenges
 - Avoiding cyanobacteria blooms
- Effects on sports fishery health
 - Ecological flows
 - Fish passage
 - Temperature, 'ph' and oxygen changes
 - Fish death & entrapment

Science & Monitoring

- Real time Nitrogen loggers
 - Hurunui at Mandaemus & SH1
- Observational Monitoring option
 - Need a more practical focus on fishery health and environmental damage
 - Both rural & urban





Canterbury Waterbody Values - Schedule XX

Te Waihora Catchment Area

High value waterways

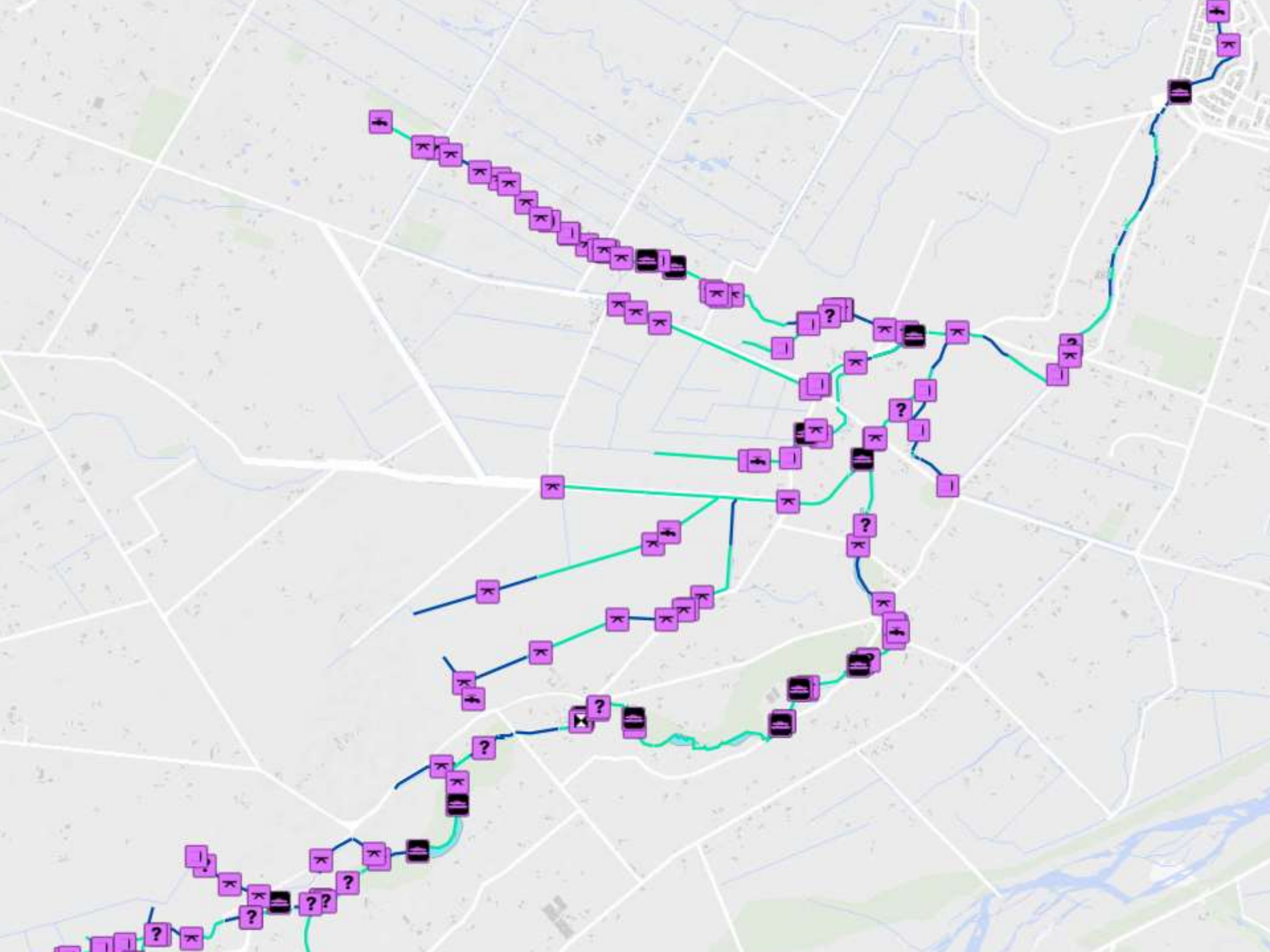
Catchment boundary

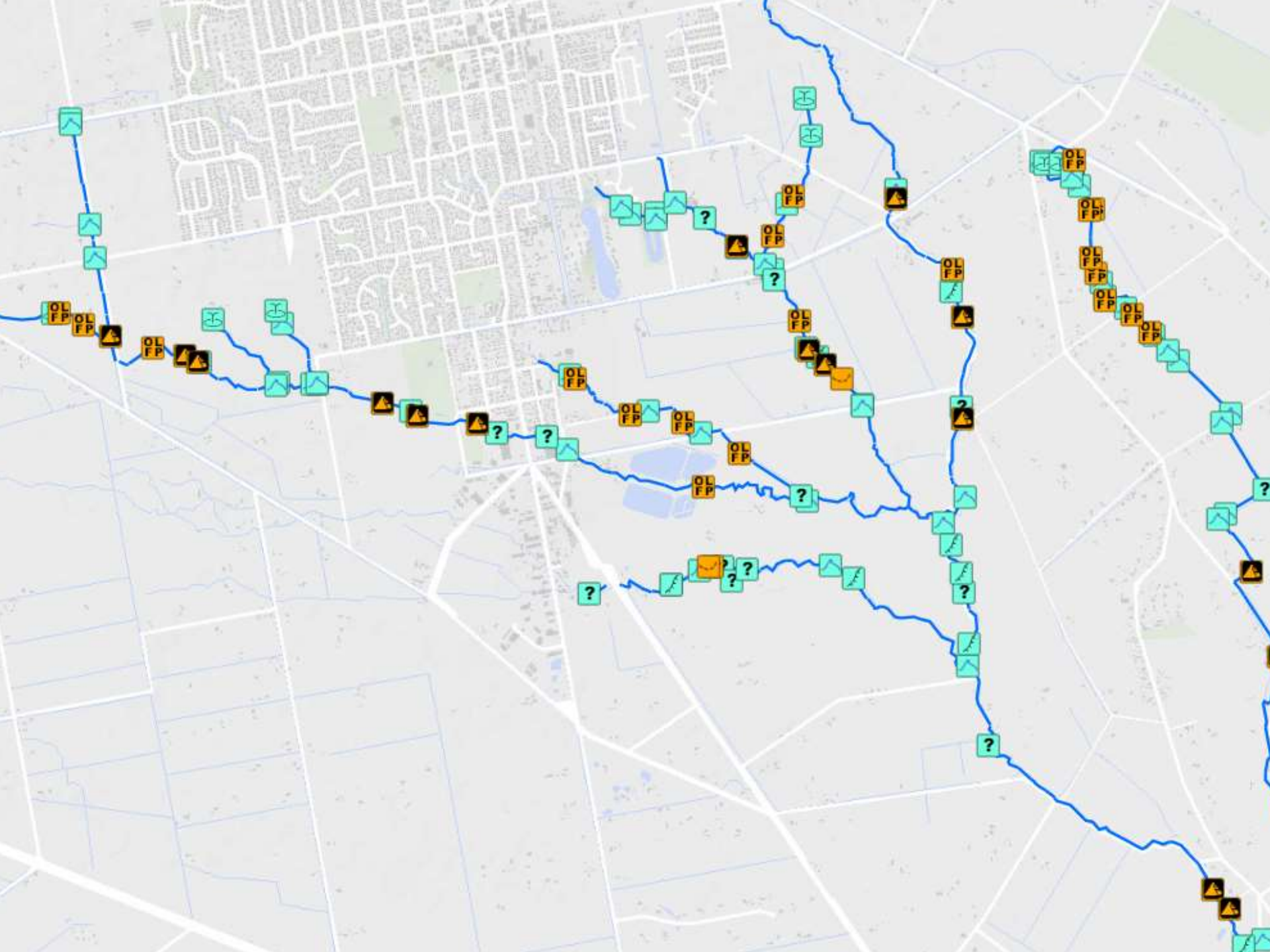
High value waterbodies

0 45 90









Science & Monitoring



Land Use Solutions

Transition to lower intensity/ higher yielding farm systems.

- Focus on profit over production
- Utilise community and consumer driven incentives
- Applicable to both intensive and extensive farming
- Sponsor real farm trials “in catchment” of new methods

More grass and fewer cows equals more milk for Cloverdale Dairies

A pasture based system is paying off for Cloverdale Dairies owners Andrew and Nicky Watt, writes Heather Chalmers.



Fish and Game Watch Dog Role

Summary

- Effects of a vicious cycle
- Environment not the first priority
- More Science & Monitoring
- Encourage land use solutions



NZ is special, tread carefully.