



# Whakaora Te Waihora

## Living Lake Symposium

7-8 November, 2013

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# What is Whakaora Te Waihora ?

- A joint programme
- Based on long-term relationship agreement signed in 2011
- Te Rūnanga o Ngāi Tahu and Environment Canterbury
- Shared commitment to restoration, rejuvenation of Te Waihora mauri, ecosystem health

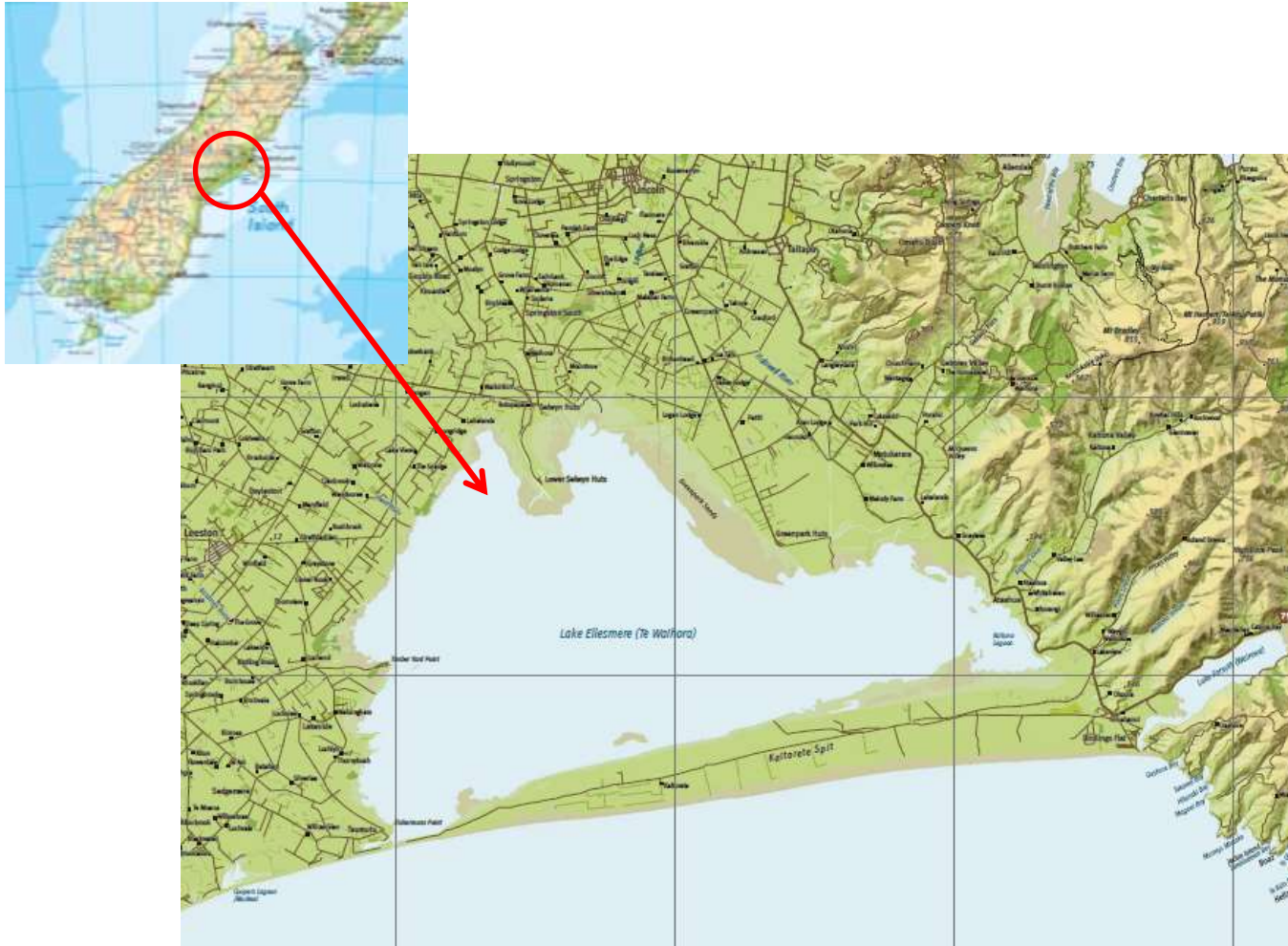
# Definition

**Whakaora** - to save, rescue, resuscitate, revive, restore to health, cure, heal





# Te Waihora



# Programme partners

- Ministry for the Environment, Ngāi Tahu, Environment Canterbury
- Fonterra - substantial on-farm support
- Other important contributors include:  
DOC, SDC, CCC, WET, universities, land owners and local community groups

# Aims

- Accelerate restoration of ecosystem health
- Restore and enhance cultural sites, mahinga kai
- Protect and restore wetland and riparian habitats, indigenous vegetation, wildlife
- Improve lake and catchment management practices
- Establish robust monitoring, investigations programme – lake response to management is understood

*Ki uta ki tai – Mountains to the sea*



**Whakaora Te Waihora Summary  
March 2013**

- Kaituna full time farmers
- Ngāi Tahu restoration sites
- Fontera Farms
- Proposed plantings
- Completed plantings
- Lake opening focus area
- Lake shore habitat focus area
- Waikewai focus area
- Halswell Hiritini focus area
- Lake habitat focus area
- Kaituna focus area

**Halswell / Huritini**

**Kaituna**

**Lake margin**

**Waikewai**

**In-lake**

**Lake opening**

- Knights Creek 1348 plants
- Mugford 900 plants
- Habgoods Extension 1070 plants
- Habgoods 422 plants
- Townsend 1300 plants
- Blacklers 1830 plants
- Tai Tapu Bush 3700 plants
- Burkes Creek 3400 plants
- Araia / Yarrs Flat
- Te Koraha / Greepark Sands West
- Waikirikiri / Selwyn Delta 1977 plants
- Te Koraha / Greepark Sands East
- Te Waiomakua
- Quaife #2 1180 plants
- Burrows drain 700 plants
- Hayes Rd 1474 plants
- Stackwoods 550 plants
- Upper Burkes Creek 1800 plants
- Lower Burkes Creek 2156 plants
- Bains 2 2030 plants
- Murrays Drain 990 plants
- Gebbies Valley, Waihels Road 1220 plants
- Gebbies Valley drain 1750 plants
- Thomsons 1368 plants
- Kaituna Quarry 1300 plants
- Lower Kaituna mainstem 2871 plants



**WHAKAORA TE WAIHORA**

(G6)  
Programme / Project  
management

**EXTENSION**

**SCIENCE**

**BIODIVERSITY**

**ENGINEERING**

**CULTURAL**

**INVESTIGATIONS**

- (D1) Macrophyte beds
- (D2) In-water structures / islands
- (D4) In-lake nutrient processing
- (D5) Fish restocking
- (E1) Moving Lake opening site
- (E2) Ecological assessment - lake opening

(G1) Monitoring programme  
W/ater quality, cultural health, lake opening, hydrology (All areas)

(G5) Research activities coordinated

**IMMEDIATE STEPS PROGRAM**

(A1, B1, C1, F1)  
Weed control, surveillance

(F3) Restoration across 11 lake shore sites (Parallel funding through TWFS)

(A2, B3, C2) Planting / maintenance – Mainstem

(A3, B4, C3) Waipuna / Culturally important waterways

(A8, B12, C10, D6)  
Mahinga kai bio-health investigations

(B2) Lowland stream riffles

(B5, C4) Improved drainage management

(G2) Establish catchment nutrient and flow allocation limits

(A6/7, B9/10, C8/9)  
Farm plans  
Benchmarking – nutrient and water use efficiency

(A5, B8, C7)  
Extension program

(G3) Support for restoration outside focus catchments

(A4, B6/7, C5/6, D3, G4)  
Comms  
Stakeholders forum  
Stakeholders engagement

(B11)  
Catchment management

(F2) Lake margin management



# Biodiversity

Spring 2013 - More than 100,000 native plants in the ground  
2014 – Minimum 120,000 plants

## Benefits:

- ✓ In-stream habitat – fish, tuna
- ✓ Bank stabilisation
- ✓ Water quality
- ✓ Decreased maintenance – costs / time
- ✓ Enhancement mahinga kai resources
- ✓ Biodiversity – flora, fauna
- ✓ Aesthetic value
- ✓ Community involvement



- Weed and willow – surveys, control
- Waipuna / springs – fencing, planting
- 11 lake margin sites – DOC and Ngāi Tahu
  - Fencing, stock exclusion, planting, maintenance and monitoring
- 15 km waterway plantings completed
  - sites include Gebbies Valley, Kaituna mainstem, Ahuriri Lagoon

# Ongoing management

- Weed control / maintenance - 2 years post planting
- Monitoring – successful re-establishment of native diversity, water quality
- Protection agreements – discussion and support for landowners
- Predator control – as needed



# Engineering

- Re-grading banks – 15km completed year 1,  
~ 10 km for year 2
- Sediment traps / Riffle sequences
- Improved management – demonstration sites,  
education, maintenance



# Extension

Benchmarking – Nutrient and water use efficiency

- 25 farms

Farm plans – 35 plans (Kaituna, Halswell)

- Fonterra - 90 on-farm visits

Working with landowners / managers – improve management practices

Technical support – waterways management

# Other work underway

Science investigations

Kaituna – Landowners desired a catchment strategy

Waikekewai – Catchment strategy

Lower Halswell/Huritini – larger catchment, different land uses.

Community strategy for lower catchment  
(including Ahuriri Lagoon and Rail Trail)



Lake margin – Development of strategy

- Identification of priority sites  
(DOC, individual landowners)

Investigate – Te Waihora Research/Visitor Centre

Support – all stakeholders

Communication – key

WTW website

- One of New Zealand's largest ecological clean-ups
- Successful first year – year 2 underway
- Spring 2013 – milestone - 100,000 plants in the ground
- Long term programme of work
- Strong relationships being built
  - stakeholders supportive, enthusiastic, willing

Mā whero, mā pako;  
ka oti ai te mahi  
*The task shall be achieved  
through unity*



# Questions?

[www.tewaihora.org](http://www.tewaihora.org)