### Living lake, changing catchment 2011

#### Te Waihora/Lake Ellesmere integrated catchment symposium

A recapitulation of day one

#### "Public interest" in Te Waihora



# Key themes from day 1

- Similarities and differences
  - Reinforcing the messages from 2007 & 2009 (Clive)
- Connectedness
  - "Ki uta ki tai" (Howard, Clive, Steve W) must appreciate the links between all components of the system
  - Coleridge to Waihora a larger catchment!
- Complexity
  - Biophysical drivers, value sets, integration of 4 well-beings
  - Post-graduate projects
  - Catchment studies lysimeters, Selwyn studies. ELFMOD (NIWA)
  - Land use change, industry ambitions, urban growth (Andrew & Todd)
- Refinement
  - Using our current understanding to improve management (environmental flows – Greg B – timing of lake openings –Graeme H)

## Key themes from day 1

- Don't ignore the "small" picture
  - Importance of individual components of the system
    - short-term water quality changes (Adrian)
    - lake level manipulation (Graeme)
- Doing things on the ground now
  - History of the riparian planting programme, drivers & choices, WET (Stephen B et al), W te W
  - But less than 1%!
- Resilience
  - Reprise from 2009
  - Native plantings

## Key themes from day 1

#### Measurement

- Are we monitoring everything we should ?
- What does success look like?
- Can we put a value on nature's services? Is Waihora worth US\$400M /yr? (Steve W)
- "A starting point"
  - Talking and doing (Stephen B)
  - First steps (Jason and Donna W)

## And now for day 2...

#### • Clive's objectives for LLIII:



- Good decision-making informed by good science
- the mechanisms of collaborative decision making (including within and between organisations)

Day 2

### The power of four...

- Bullies = 40% of fish biomass
- Actual water use = 40% of allocation
- US\$400M per year
- \$400K of restoration planting
- 4 lysimeter sites
- 4.4 million cows
- 4000 tonnes of milk solids from Selwyn....