

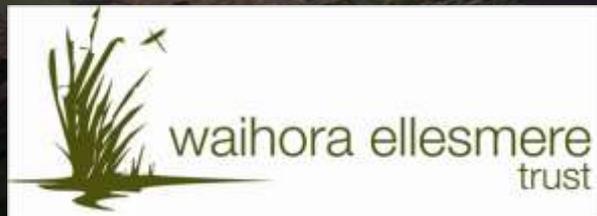
# Te Waihora Lake Ellesmere - “Realising the Vision”: State of the lake 2015 - context

## Living Lake Symposium 5:

18-19 November 2015, Lincoln University

Ken Hughey, WET and Lincoln University

Ken Taylor, Environment Canterbury



# Some of us can go back a day or two ...

- How many of you can remember a particularly ground breaking controversy about the lake in 2005, around 10 years ago?
- A Judge and the media and politicians had a lot to say about Te Waihora/Lake Ellesmere – there were multiple judgements ...



# Judge Smith - 2005

- Judge Smith (Lynton Dairy Ltd v. The Canterbury Regional Council, Environment Court C108/2005: at paragraph 101) stated:
  - “Te Waihora (Lake Ellesmere) was a significant shock to the Court. The lake is eutrophic, green in colour and seems to be devoid of any riparian management. For example, stock seem to have free access to the water, the margins appear to be subject to chemical spraying regimes and lake levels manipulated for farming rather than the natural values. The lake water is in a serious ecological condition and is in urgent need of attention. Riparian management is required as an absolute minimum.”



# The media and politicians 2005 ...

- Media refined the Judge's statement to "... the heavily degraded lake was declared technically dead this year after Environment Court Judge Jeff Smith found it was in a serious ecological condition and virtually unable to sustain animal life".
- Jeanette Fitzsimons, the Green Party Co-leader, used the phrase "Lake Ellesmere is biologically dead" in the Address in Reply Debate in Parliament, 15th November 2005 (Source: [http://www.waternz.co.nz/archives/2005\\_09\\_01\\_nzwaternews\\_archive.html](http://www.waternz.co.nz/archives/2005_09_01_nzwaternews_archive.html) Accessed 24 October 2007)



So we responded to these concerns Waihora Ellesmere Trust decided to assess 'how dead the lake was'

- 2007 'Living Lake' symposium (LLS1) focused on determining the state or health of the lake
- Asked (and contracted) experts to report on the state of the lake and its resources as at 2007, compared for earlier, typically against the regional council's 1995 report.
- And what did we find?
- Overall, the lake is 'alive', with lots of values rated highly but others in a poor and sometimes worsening state of health – the brown trout fishery was worst of all
- Soon after, I began referring to it as 'the lucky lake' and still do!



# In 2009 LLS2, modelled and discussed “Future sustainable management pathways for Te Waihora/Lake Ellesmere”

- We looked at a range of modelling scenarios and gained the following insights:
  - higher lake opening trigger levels come with a variety of costs but few obvious gains;
  - a higher average lake level can be achieved without raising the trigger level, but by incorporating other decision criteria;
  - targeted openings around September and/or October have potentially great benefits for fisheries management; and,
  - each of the former needs to be associated with a reconsideration of who pays the cost of management.
- These findings fed into the 2010 water conservation order process on actual timings of openings related to desired outcomes for the lake



# 2011 – Living Lake, Changing Catchment – LLS3

- Thus began the era of the Canterbury Water Management Strategy and the Selwyn-Waihora Zone Ctte, within the broader developing context of co-governance: more on that today
- We discussed ecosystem services, the water conservation order, co-governance, water quality and approaches to integrated management, from a catchment perspective.



# A “health” report card for Te Waihora 2013

## – LLS4

We decided we needed an ongoing report card to monitor the health of the lake

We asked our authors...

- What will success look like?
- What’s the current state?
- Can we see changes over time?
- What else do we need to measure?

... relating to the lake and the people using the lake

# In 2013 did we have the basic knowledge & Did we have the right sort of indicators?

## Basic knowledge questions?

- Food chain questions and relationships to lake opening (and closing – please consider this!)
- Terrestrial and aquatic inverts

## Indicators?

- Yes (tangata whenua, economy, vegetation, water quality and quantity, land use)
- No (native fish, aquatic inverts (including g/w))
- Somewhat (recreation)



# In 2013 Clive Howard-Williams, NIWA, said it was too early to say if we are being successful

Did we have any reason to be optimistic?

There were lots of programmes and other initiatives since 2007

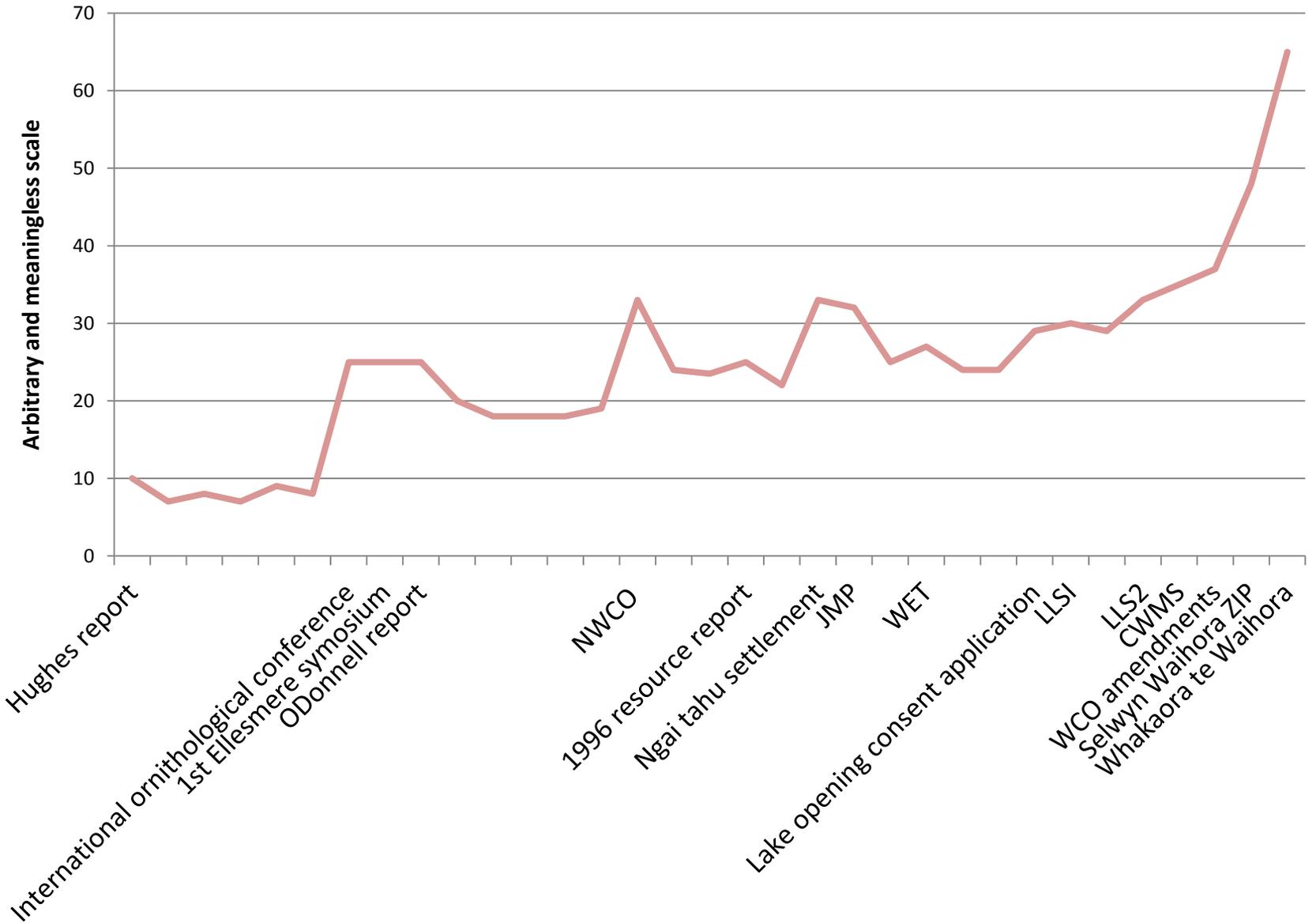
- Amendments to WCO
- Whakaora te Waihora
- The CWMS
  - “immediate steps”
  - ZIP & Selwyn-Waihora sub-regional plan
- Other interventions (Ngāi Tahu, DoC, WET, Te ara Kakariki, SDC...)
- This ongoing series of biennial symposia



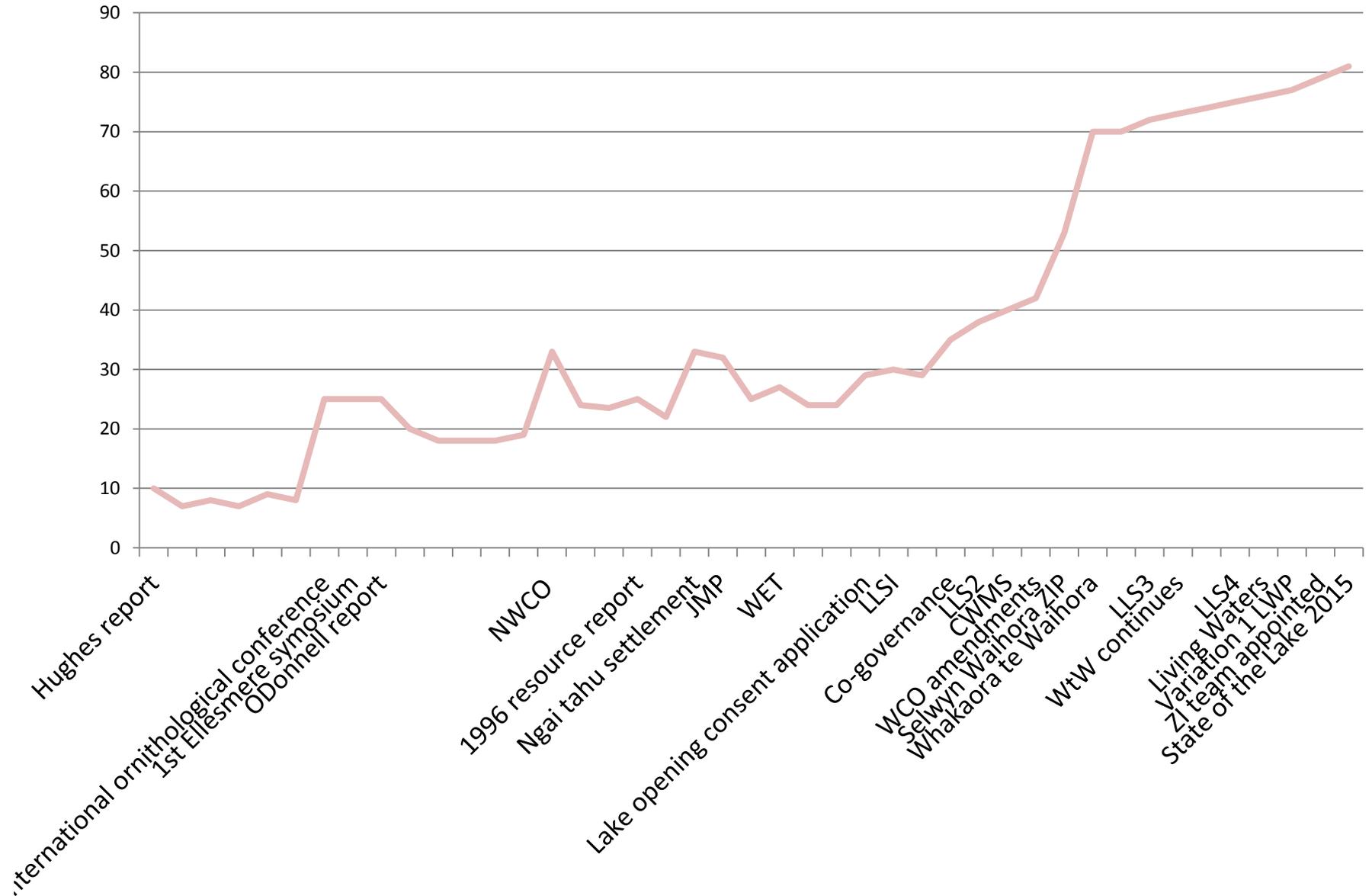
# 8 years of symposia...

- 2007 LLS1 – (the health of the lake)
- 2009 LLS2 – (the lake as a system)
- 2011 LLS3 – *“living lake, changing catchment”*
- 2013 LLS4 – *“measure to manage”*
- 2015 LLS5 – *“realising the vision – mountains to the sea ki uta ki tai”*

# "Public interest" in Te Waihora 1974-2011



# "Public interest" in Te Waihora 1974-2015



# So, to 2015, and LLS5: Realising the Vision, ki uta ki tai – from mountains to the sea

- We again look back to look forward
- You have our report card – 2015
- You will hear from authors and others, and we have panel discussions, and opportunities to interact
- But we have a special emphasis – there is a ‘new’ lake management regime and all authors have been asked to consider how this regime has influenced ‘their’ value
- So, don’t just sit back and enjoy – but rather, listen, reflect, ask and discuss as we continue to move forward with management of Te Waihora Lake Ellesmere

