18th International
RIVER
SYMPOSIUM

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HEALTHY RIVERS - HEALTHY ECONOMIES

Indigenous Co-management of Freshwater Fisheries Resources in Aotearoa-New Zealand

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Ko Wai Ahau?

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Who Am I?

River Research Manager for Waikato-Tainui College for Research & Development

- Research and academic arm of Waikato-Tainui
- Contemporary whare waananga that draws on maatauranga Maaori & indigenous knowledge systems to develop models of excellence to assist iwi & indigenous development

Ko Wai Au?

Who Am I?

Programme Leader @ National Institute of Water & Atmospheric Research (NIWA)

- NIWA is a Crown Research Institute
- Te Kūwaha (Māori Environmental Research Group) established c. 2001
- Collaborative research of benefit to Māori, with Māori & (wherever possible) by Māori
- Effective long-term relationships with Māori

Presentation Outline

Part 1:

Waikato-Tainui Waikato River Settlement

Fisheries Co-Management Mechanisms

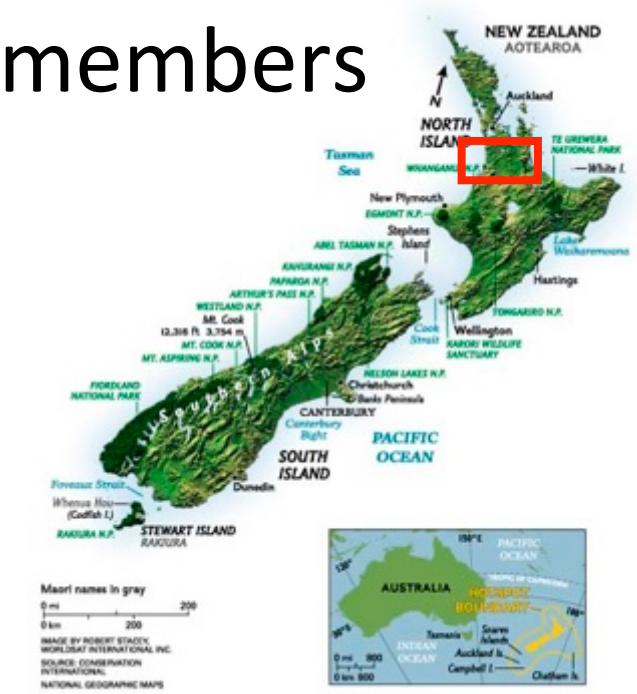
Part 2:

Pre-settlement hapuu and whaanau collaborative research projects (focus on tuna)

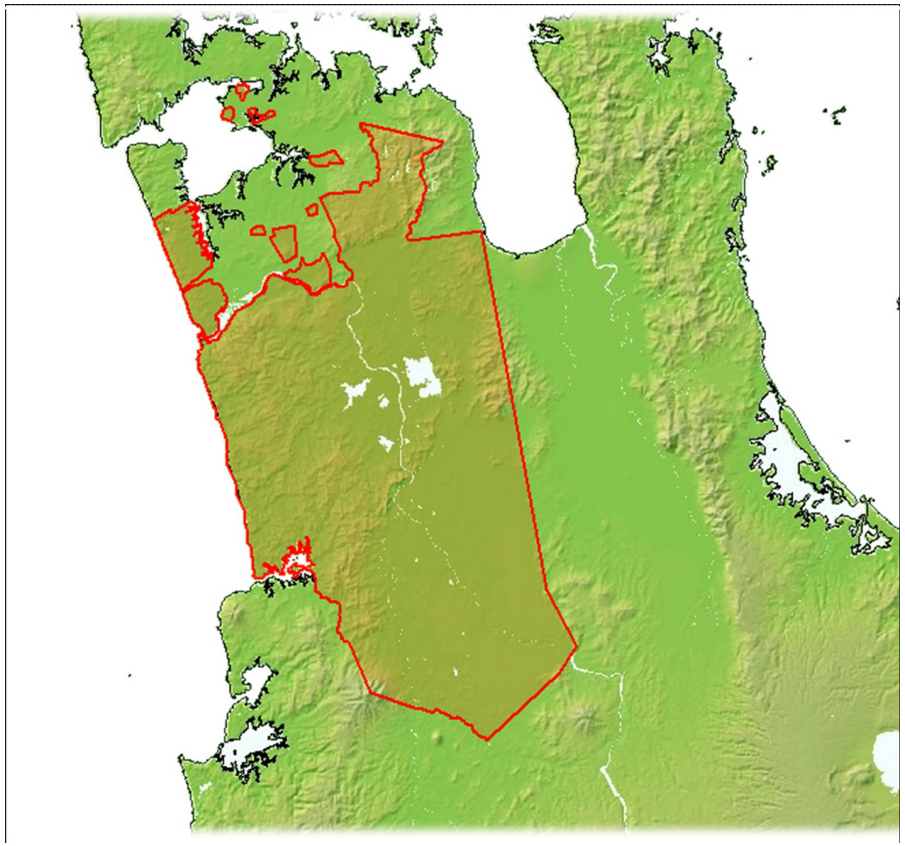
- Te Roopu Taiao o Utakura
- Ngā Kaitiaki o Ngā Wai Māori

Waikato-Tainui

- Iwi (tribe)
- 64,000 tribal members
- 68 Marae



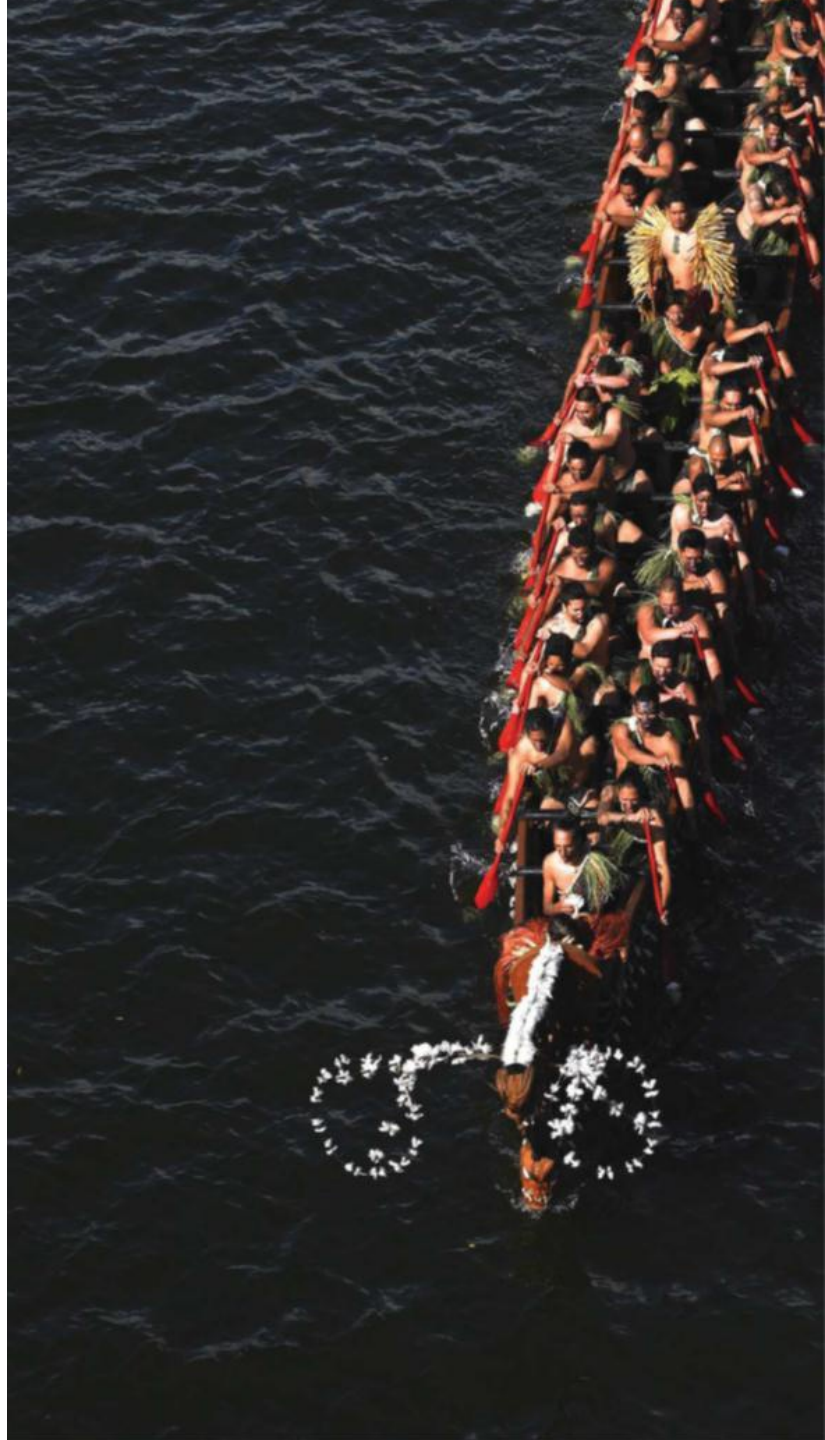
Raupatu (1863)



- Invasion of Waikato
- 1.2 million acres confiscated
- Double blow to Waikato as both the land and the river were taken

Waikato River

- Culturally VERY Significant
- Te Awa Tupuna (Ancestor)
- Provided cultural, spiritual and physical sustenance
- NZ longest river @ 425km
- Very heavily utilised
- Degraded water quality



Treaty of Waitangi Settlements

1995 Land Settlement

2008/2009 Waikato River Settlement

http://www.watercentre.org/resources/publications/audiovisual/video-rawiri

Waikato River Settlement

Restore and protect the health and wellbeing of the Waikato River for future generations

- Mana o te Awa – Spiritual Authority, Protective Power and Prestige of the River

- Mana Whakahaere – Authority and Rights of Control

- Redress

Fisheries Mechanisms within the Waikato River Settlement

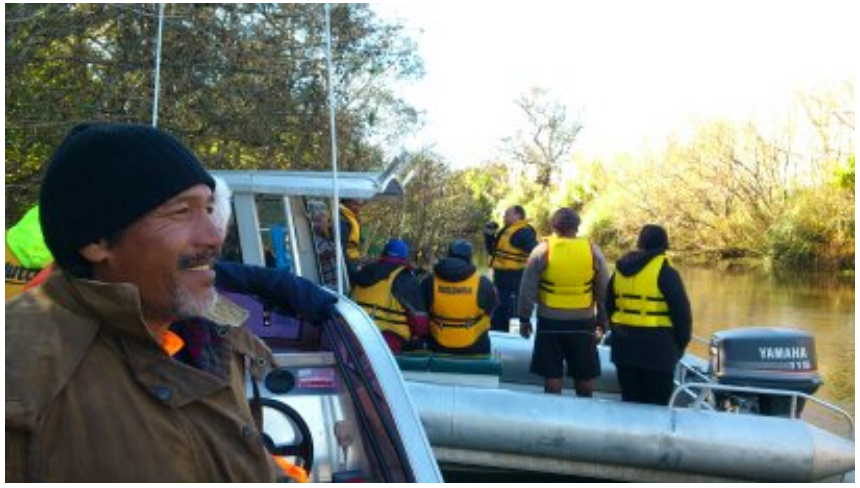
1. Fisheries Accord
2. Fisheries Plan
3. Fisheries Regulations
4. Fisheries Bylaws

Waikato River Fisheries Regulations

- Manage fishing within the Waikato-Tainui Fisheries Area
- Applies to fisheries resources under the Fisheries Act 1996
- Includes an Authorisations process
- An ability to make bylaws and
- Provision for Paa Tuna and Paa Taka

Waikato River Fisheries Regulations

Regular Kaitiaki Hui – Port Waikato 9 May



Waikato River Fisheries Bylaws

- Six bylaws currently in place for freshwater eels in the Waikato-Tainui Fisheries Area
- They involve size, spatial and seasonal restrictions on harvest, e.g.,

Bylaw 2 – Temporary prohibition on fishing (Rahui) due to nga mate

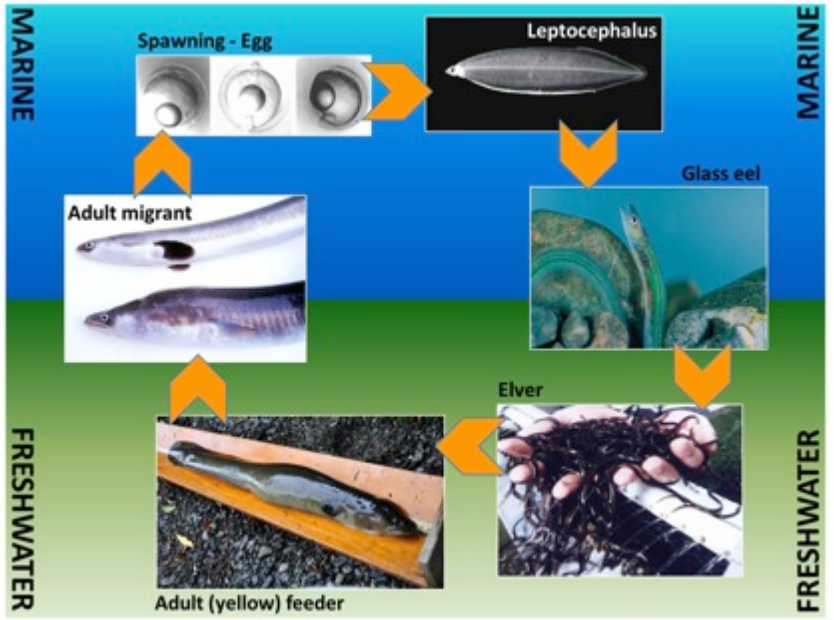
Bylaw 6 – Prohibit the commercial harvesting female longfin tuna in migratory phase

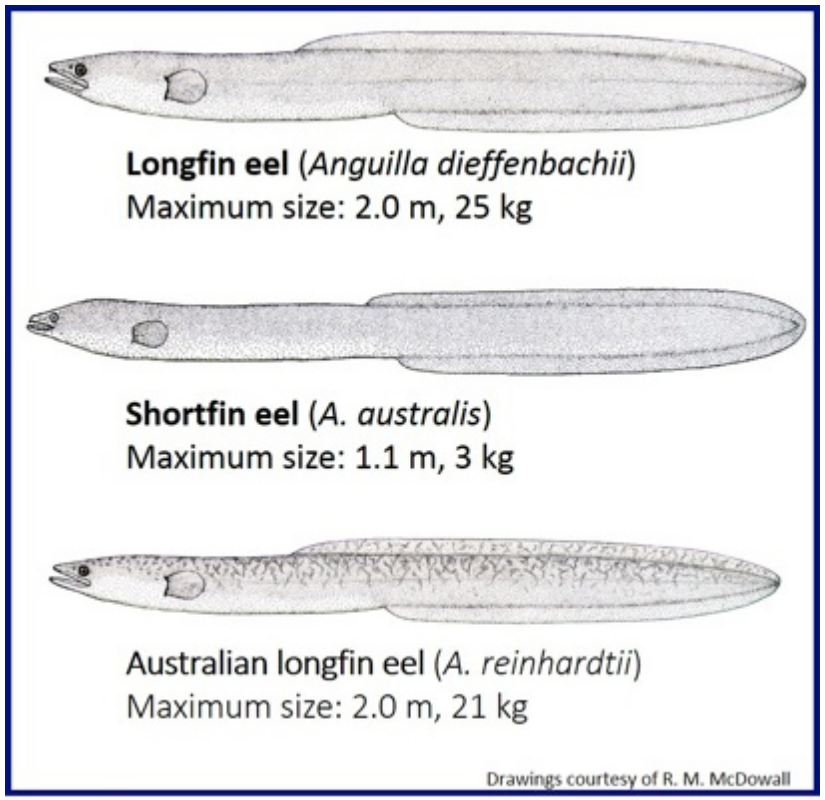
- Commercial fishers must release any female longfin tuna in migratory phase
- Ensures that female longfin eels that reach the spawning phase cannot be harvested
- Provides a level of protection and an opportunity to make it to the ocean

Tuna

Freshwater eels

- Tuna are an important taonga.
- Our longfin eel is unique to NZ.
- Maaori harvest tuna as part of their regular diet as well as for important cultural occasions.
- Reduced availability and declining health of tuna is a concern for Maaori.
- Over an eels' lifetime they are exposed to a gauntlet of human-induced threats and challenges.
- Tuna bring people together (to fish, to eat, to talk, to collaborate and solve problems).





Lake Ōmāpere

- In pre-colonial times, Lake Ōmāpere, "the kai basket of Ngāpuhi", fed thousands of people.
- Long history of degradation due to deforestation, drainage and land use practises.
- 2004 blue-green algal blooms downstream 34x acceptable levels.
- Invited by Te Roopu Taiao o Utakura (downstream hapū) to help.

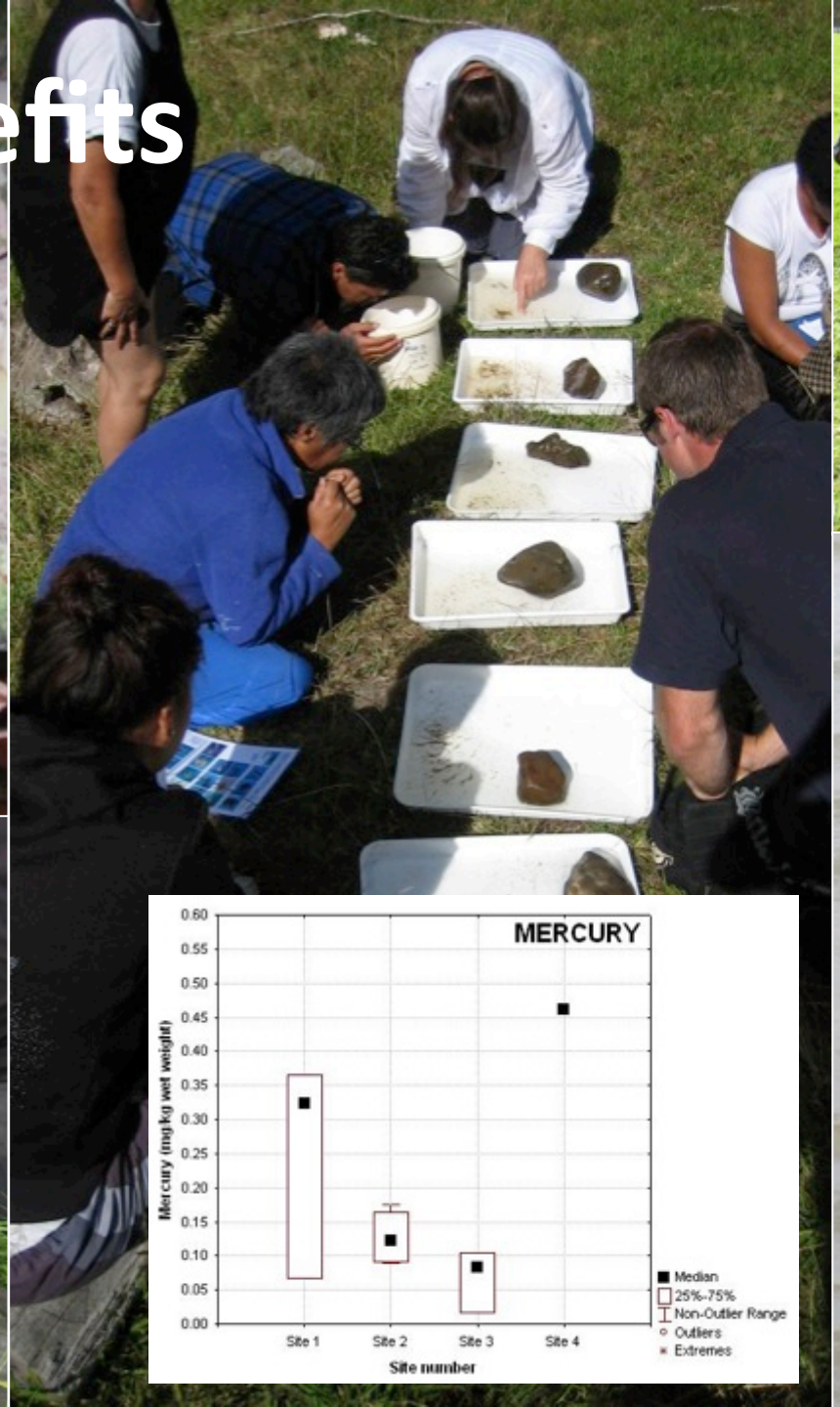
Getting Science "Off the Shelf"

- Cross-cultural understandings
- Mātauranga Māori and science knowledge systems used to develop tools to monitor state
- Develop capacity & capability

The Journey So Far

- Relationships with landowners – almost 100% fenced.
- Native plant nursery established, on-going riparian planting of lake margins – landowners, schools, community all involved.
- Commissioned lake nutrient budget and heavy metals in tuna risk assessment.
- Commissioned first fisheries survey of the lake and river.
- Designed and implemented Utakura Cultural Health Index & Monitoring Programme.
- Informed eel management decision-making.
- Improvements in water quality.

Cultural Benefits



Wairua River & Hikurangi Swamp

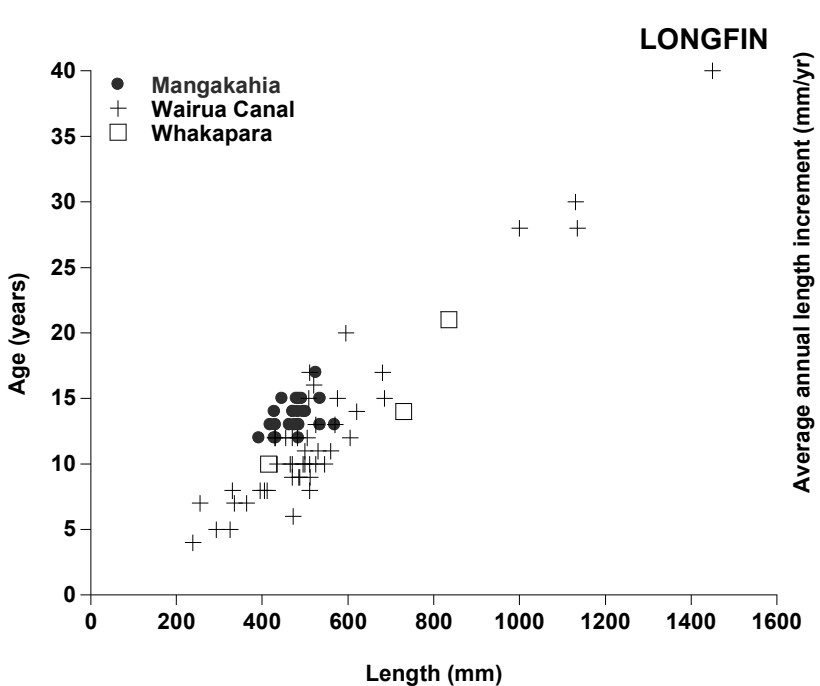
- Ngā Kaitiaki o Ngā Wai Māori – collective representing five hapū in the Wairua catchment.
- Water quality degradation.
- Difficult to catch enough tuna for whānau consumption let alone to provide at large events.
- In January 2012 launched a five year strategic plan for their waterways, including objectives around water quality, eels, engaging stakeholders, and succession planning

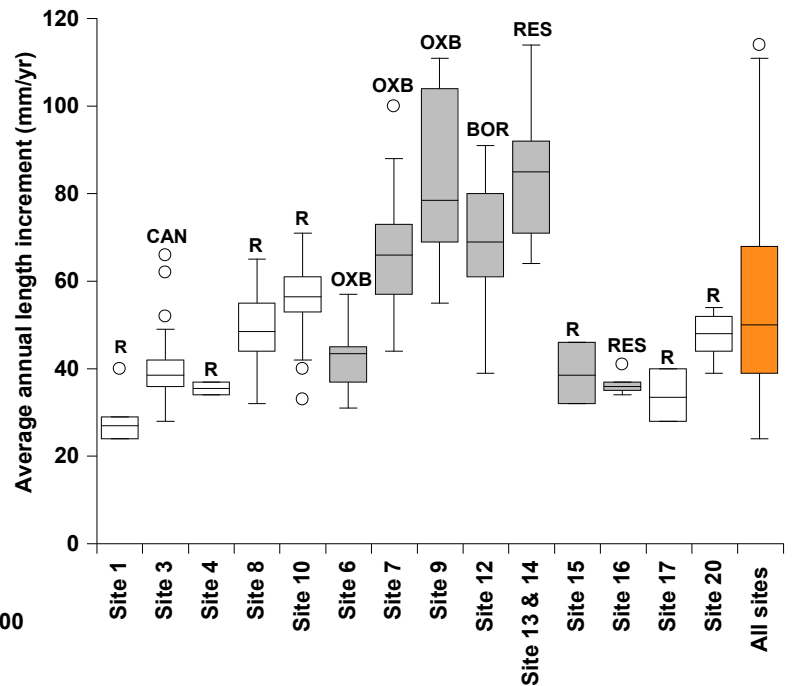
Ngā Kaitiaki o Ngā Wai Māori Strategic Tuna Goals

- Three annual tuna transfer operations achieved
- Tuna friendly options in place at flood control scheme
- Fish ladders & passes in place at power station & pumps
- Monitoring in place for tuna

Tagging studies at flood pumps

Community workshops


LONGFIN
Mangakahia
Wairua Canal
Whakapara
Age (years)
Length (mm)
0
5
10
15
20
25
30
35
40
0
200
400
600
800
1000
1200
1400
1600


Average annual length increment (mm/yr)
0
20
40
60
80
100
120
R
CAN
R
R
R
OXB
OXB
OXB
BOR
RES
R
RES
R
R
Site 1
Site 3
Site 4
Site 8
Site 10
Site 6
Site 7
Site 9
Site 12
Site 13 & 14
Site 15
Site 16
Site 17
Site 20
All sites

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Ngaa Paatai?

Questions?

Fisheries Accord

- Accords were entered into between the Iwi and the Crown agencies
- To reflect the commitment by the Crown and Waikato-Tainui to enter into a new era of Co-management over the Waikato River
- Set the framework and mechanisms to achieve Co-management of the Fisheries Resources

Fisheries Plan

- Outlines the Waikato-Tainui goals and objectives for the Fishery in the Waikato-Tainui area.
- Ministry of Primary Industries recognise and provide for the plan