



Fact or Fiction -

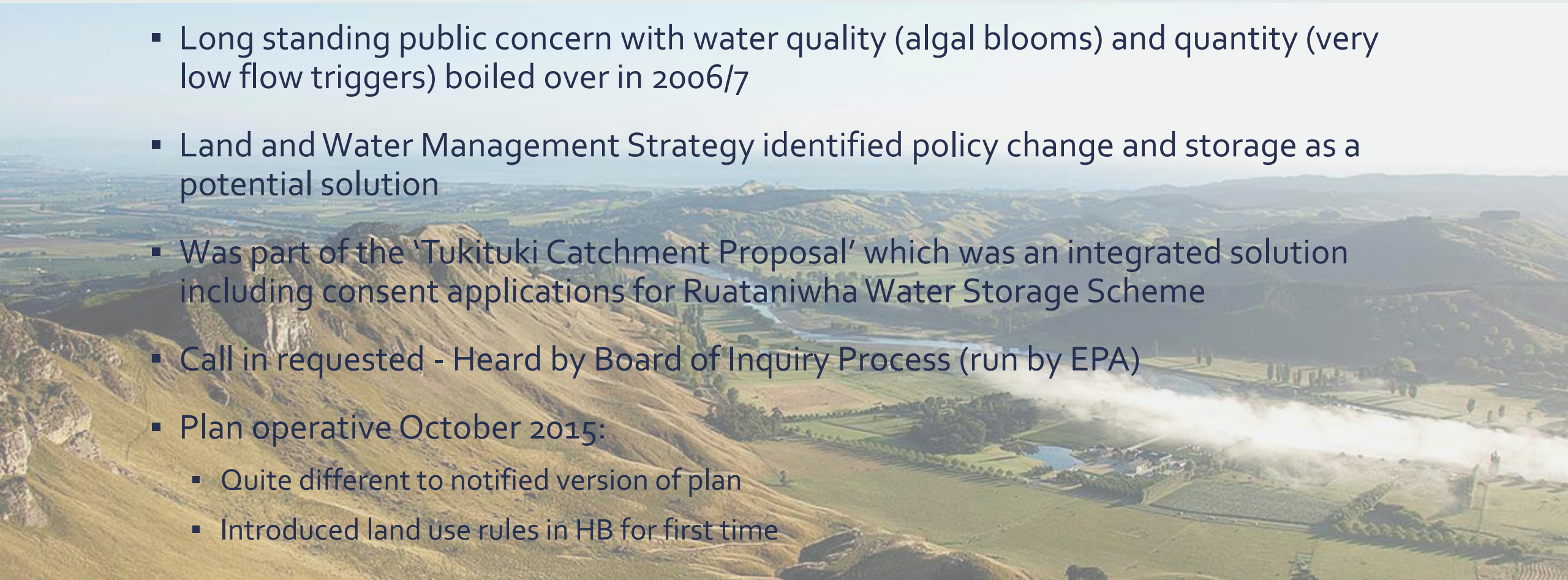
Regional rules will drive change in farmers' practices?

Fact or fiction – regional rules will drive changes in farmers' practices?

- Context – Tukituki Plan Change
- HBRC's approach
- Research Findings
- Integrated Catchment Management (ICM) approach
- Reflections

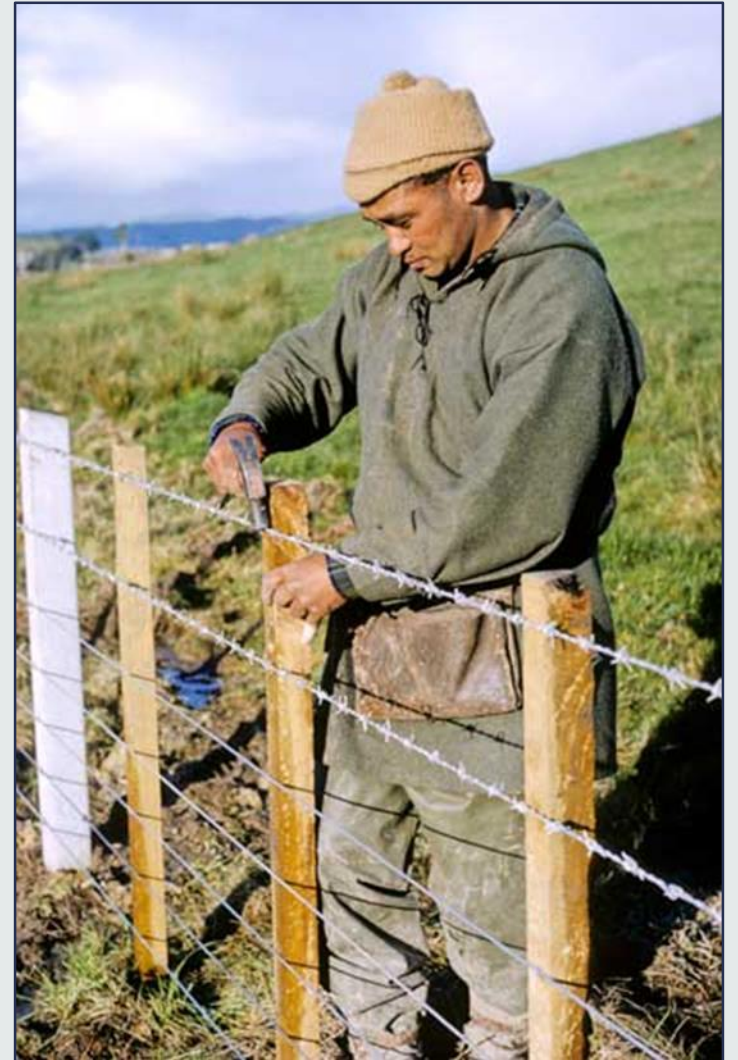
Tukituki Plan Change (PC6)

- Long standing public concern with water quality (algal blooms) and quantity (very low flow triggers) boiled over in 2006/7
- Land and Water Management Strategy identified policy change and storage as a potential solution
- Was part of the 'Tukituki Catchment Proposal' which was an integrated solution including consent applications for Ruataniwha Water Storage Scheme
- Call in requested - Heard by Board of Inquiry Process (run by EPA)
- Plan operative October 2015:
 - Quite different to notified version of plan
 - Introduced land use rules in HB for first time



HBRC's approach

- Regional council's historical approach relied primarily on regulation
- Recognition that regulation alone will not succeed
- Critical to understand communities & landowners
- Two pronged approach:
 - Funding social science research – this presentation and Professorial Chair
 - Integrated Catchment Management



Research Findings

Social Science Research

- PhD through School of Agriculture @ Massey University
- Research question:

How have farmers changed/adapted their on-farm management practices to reduce the impact of agriculture on water quality, and what is the role (if any) of Hawke's Bay Regional Council in those processes?

- Qualitative case study:
 - Semi-structured interviews with farmers/landowners & HBRC representatives
 - 24 interviews: 16 farmers & 8 HBRC representatives
- Snowball sampling approach
- Questions were focused on change and the drivers of change

Farmers

- Value practical experience – their own and others
- Rely on networks
- Had all made changes to their on-farm operations – not in any case driven solely by desire to improve water quality
- Had not observed a decline in water quality in Tukituki Catchment



Farmers : The value of practical experience

- Own/personal and that of 'trusted others' (ie. farmers and rural professionals)
- Perceived lack of practical experience within HBRC

"It's not just education, it's actual experience isn't it really. You have to actually experience the thing to feel you're part of it" (Farmer 15)

"I can understand if I was sitting in an office making the rules, I would say that yes it needs to be fenced...but practically I just can't see how you would do it [...] all I can do is show them and say to me this is impractical" (Farmer 9)

"The first drought that hit me was about two years after I started farming and you just went into shock. I guess that's the other good thing about having been through a few, you know the last couple of droughts I've been through, we used to have a plan like on the 1 December we got rid of all the lambs, and the 1 January got rid of ½ the hogget's, instead of just sitting there and hoping its going to rain again [...] well the last couple of droughts I went through I still got hammered but [...] basically we ended up with you know, just the capital stock and finally it rained" (Farmer 6)

Farmers: Perceptions of water quality

- Observations of water quality = no change
- Problem not visible

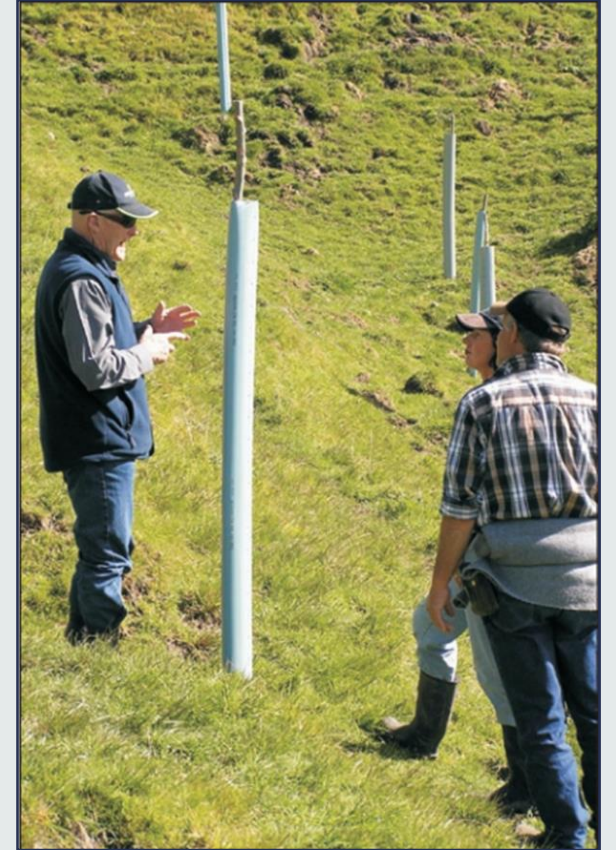
"Well I'm a little bit of a keen fisherman now and...well, I dabble in it a little so I've noticed the algal influence and the greening up of the river but I don't think it's getting any worse"
(Farmer 3)

"I don't disagree that nutrients don't play a part but whether they're any worse than they've always been? I don't know about that one [...] the nitrate thing is very subjective, hugely" (Farmer 4)

"I took my kids down the Tuki for a swim over summer and that was the first time I've been down there for I couldn't remember when actually [...] It was beautiful. It was warm and clean and really nice" (Farmer and Rural Professional 23)

HBRC

- Place high value on 'science'
- Driven by legislation and measured need to improve water quality
- Focus heavily on formal plan change processes
- Acknowledge a need for change, but provided few examples
- Change in relationship/engagement with farmers not explicitly recognised



Summary of findings

- Farmers and HBRC appear to utilize different knowledge systems:
 - Farmers – experiential, personal
 - HBRC – scientific, reductionist
- Farmers and HBRC are not often directly connected
- Farmers and HBRC do not share a common view that freshwater quality in Tukituki Catchment has deteriorated
- Potentially farmers and HBRC are talking 'over' each other
- Duncan (2016) has observed similar phenomenon in Hurunui area, Canterbury

Integrated Catchment Management Approach

Integrated Catchment Management (ICM)

- Acknowledgement that key to achieving improvement in land and water management is understanding the social ecology: our communities, their motivators, influencers, structures, approaches
- Trans-disciplinary, working across domains
- Systems thinking rather than responding to symptoms
- Two key facets to this approach:
 - Joint investment in professorial chair in integrated catchments with The University of Waikato – anybody looking for a cool job?
 - Reorganisation within HBRC to enable ICM

What ICM means to HBRC

- Successful policy implementation needs integration
- A focus on the outcomes, multiple parts of council will contribute
- Landowner-centric approach, nested within a catchment/sub-catchment
- A comprehensive proposition for landowners = 'one stop shop'
- Focus on the people not just the biophysical – the landowner is central to the process
- Alignment and coordination of internal actions to outcomes and working with external parties to achieve the same

What are the benefits?

- Alignment to achieve greater output and efficiencies
- Eco-system not functional activity
- Stronger connection with Maori
- Deeper tangata whenua/stakeholder/partner engagement and greater understanding of our work
- Place based and outcome based reporting
- Greater connection of staff to the impact of their work
- Landowner/community engagement and buy-in
- Utopia when the regulator simply props up the work! - “its just what we do”

Reflections



- Wicked problem of freshwater is challenging traditional regulatory approach of regional councils
- Key to achieving change is people not plans
- Language and relationships = critical to development of shared understanding and vision



Questions?