

NEW ZEALAND WATER QUALITY TRADING MARKETS; LESSONS FROM LAKE TAUPO

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A Community on Ecosystem Services





Outline

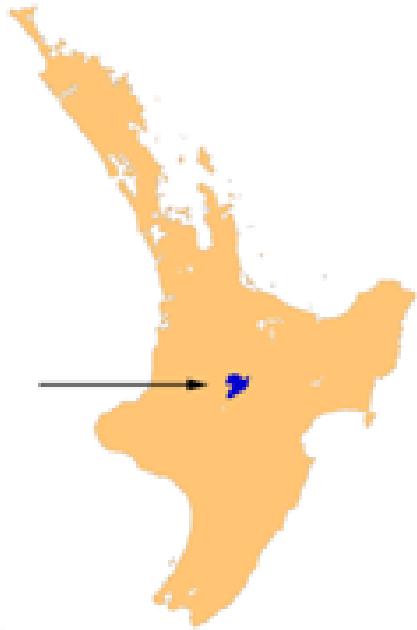
- * The New Zealand Context
- * The Lake Taupo Catchment
 - * Regulatory Framework
 - * Management tools
 - * Overseer
 - * Water Quality Trading
 - * Outcomes
- * Conclusions



National Context

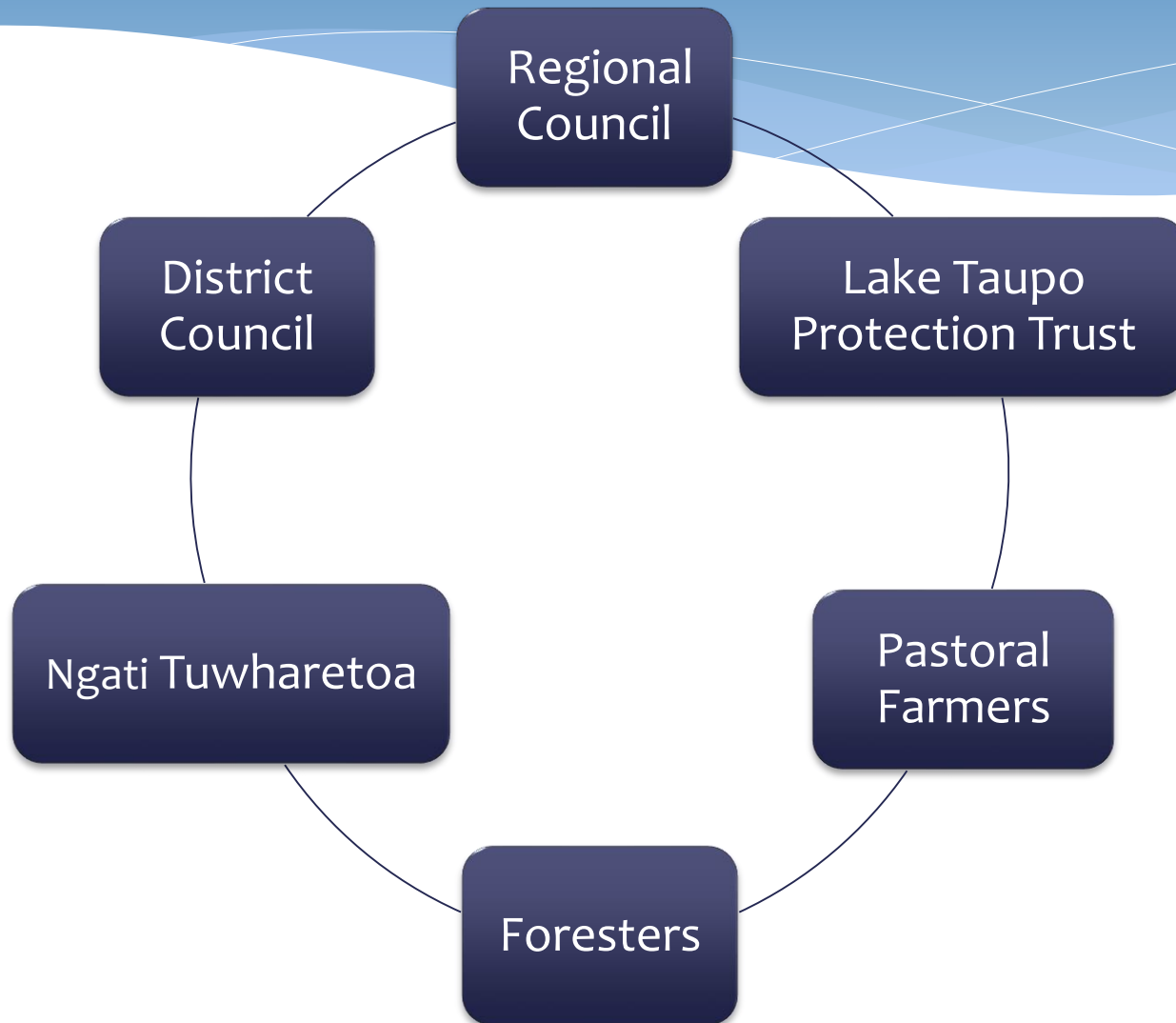


The Lake Taupo Catchment



Water quality decline discovered in late 1990s. Pastoral farming is only 20% of the catchment but represents 93% of the influx of “manageable” nitrogen

The Stakeholders



Regulatory Framework

- * The Waikato Regional Council's plan released in 2007 but finalized in 2011 creates:
 - * Cap on Nitrogen, and “allowances” given
 - * 20% reduction in “manageable” Nitrogen per annum to maintain water quality at 2001 levels by 2080
 - * Nitrogen trading system established

Nitrogen Allocation and Measurement

- * Grandfathering allocation of credits
 - * 2004 allocation rather than average of 2001-2005 levels
- * Farms are allocated Nitrogen Discharge Allowances (NDAs) based on benchmarking done using OVERSEER model.
 - * OVERSEER designed and owned by industry groups, an research organization, and national government.
 - * Designed to measure inputs not outputs

Lake Taupo Protection Trust

- * A \$81.5 million fund combining District, Regional, and National government resources
- * Tasked with
 - * 20% annual reduction of N
 - * Benchmarking process along with regional council
 - * Education and Advice to landowners
 - * Applied Research
 - * Internal monitoring/ auditing

Water Quality Trading Program

- * Landowners were capped at 2004 NDA levels and trades of NDAs occurred under these individual limits.
- * “face-to-face” discussion among landowners
- * To date, 8 trades by the Trust and 5 by farmers resulting in a reduction of 153 tonnes of N

Timeline of Action

Year	Action
1999	Water quality decline discovered
2000-2001	Public opinion sought and action to reduce N sought
2001-2005	35 Consultation meetings with Maori, Farming Lobby Group, and farm systems/economic experts
2005	Regional Plan notified for public review
2007	Lake Taupo Protection Trust established and Regional Plan Implemented
2008	Environment Court hearings and interim decisions (goal 153 tonnes of N by 2018)
2011	Finalization of Region Plan in Environment Court (goal changed to 170 tonnes of N by 2018)
2012	All farmers have consents to farm under RMA
2018	Reassessment of 20% N reduction target, Trust's Role, and N Sources

Outcomes

- * Achieved 153 tonnes/annum by 2018 goal early. Review in Environment Court raised to 170 tonnes reduction however.
- * Considerations
 - * Large Role of Trust and Market Competition
 - * Influence of Carbon Market
 - * 50% of reductions from Maori Lands
- * Market Innovation
 - * Taupo Beef

Next Steps

- * Farmers looking for leases not sales of N
- * Further reductions needed to meet current goal of 170 tonnes by 2018
- * Review of goals and implementation in 2018
- * Nitrogen Discharge Allowances lapse in 2034
- * Lake Rotorua trading program implementation



Conclusions

- * 12 years of policy design resulted in a cap and trade program, 153 tonnes of N reduction per annum, and a goal to achieve 2001 water quality levels by 2080.
- * Non-point source water quality trading program can be done
- * Paradigm Shift for farming in New Zealand

Thank you



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