



Issue 22

Meeting 41

27 June 2018

Tūtaekurī, Ahuriri Estuary, Ngaruroro, Karamū – the TANK Plan

The second-to-last meeting of the TANK Group threw the spotlight on how the Ngaruroro and Tūtaekurī River flows are managed.

The Group was faced with managing flows and allocations, to protect fish and other instream values, mindful of consequences to primary production, the local economy, jobs, social and cultural wellbeing.

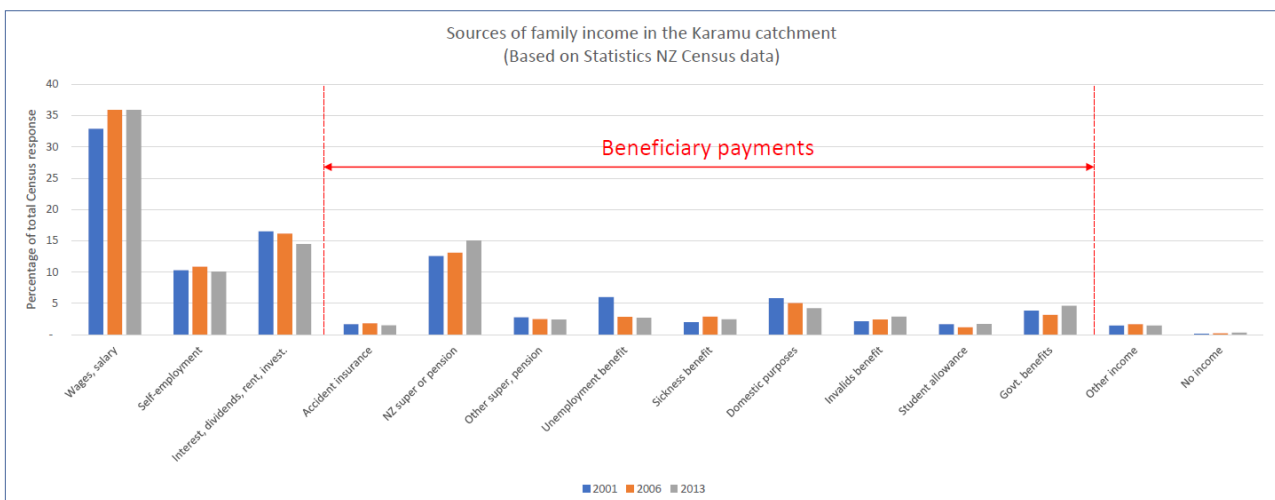
Social and Cultural Impacts

Dr Anthony Cole presented on the potential impacts of the TANK Plan on local communities, social and cultural wellbeing, and the survival of Māori culture. He identified risks for some TANK communities linked to the impact that different flow management scenarios might have.

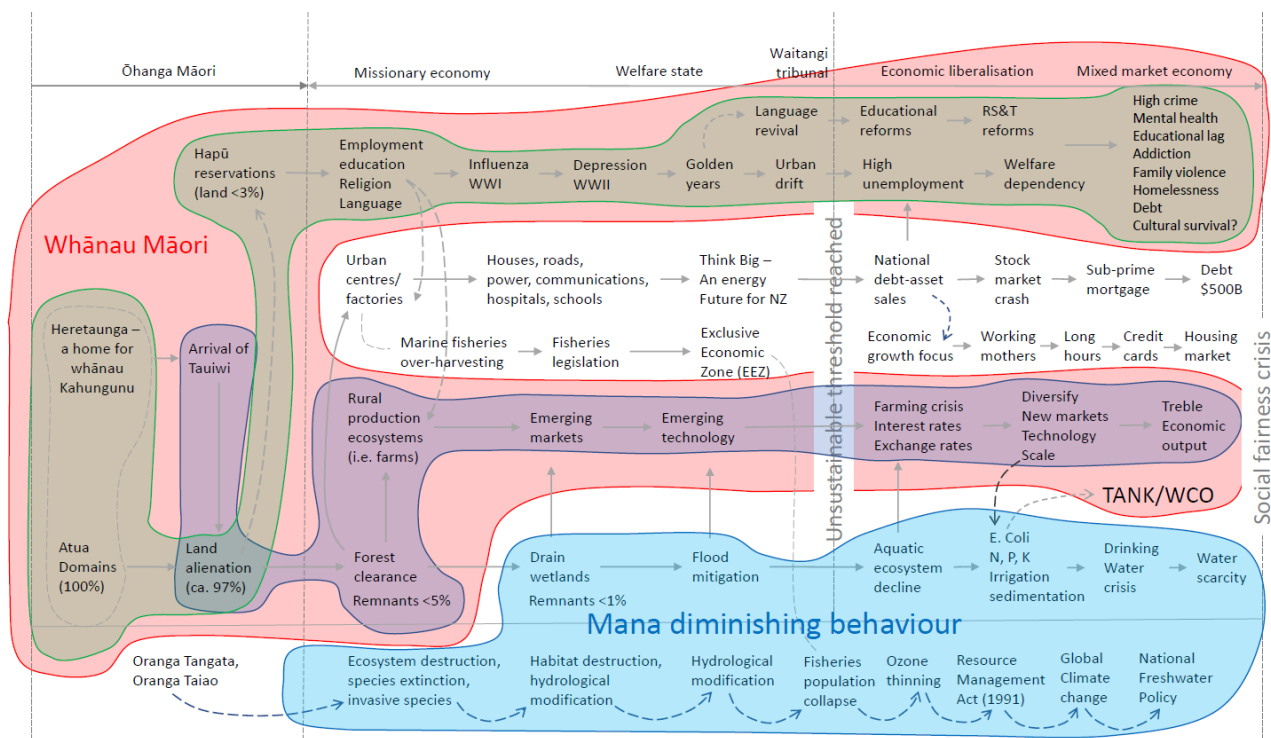
Drawing on StatsNZ data for the TANK catchments, he spoke of very high social-deprivation among Māori nationally and in Hawke’s Bay. Our Māori populations are vulnerable to any challenge to the primary production sector, relying heavily on agriculture and food manufacturing - mainstays of the Hawke’s Bay economy.

The implementation of a TANK Plan will deliver some benefits to the community, at a cost. So the picture he drew asked how much cost communities might be willing or capable to bear. In effect, what is the trade-off between environmental health and social and economic wellbeing?

- Huge income-wealth inequality between top and bottom 10% income earners nationally
- 30-40% of the TANK catchment population receive income of less than \$50,000 a year
- About 40% of the urban population are welfare dependent
- A surprising number depend on 2-6 sources of income, or more than one job to get by (refer chart)
- Rising income inequality in Hawke’s Bay, well above the national average
- Disproportionate number of Māori represented in statistics for crime.



Factors contributing to our social and economic picture include income inequality, longer work hours across one or more jobs, increased credit card use and debt, welfare dependency, ecosystem stress, an aging population and an increasingly mobile population. We are seeing increases in crime, violence, addiction, mental health issues, suicide, etc. with a too-high reflection of these statistics in Māori, as evidenced in this diagram.



As the TANK Group progresses to a final draft TANK Plan, Dr Cole recommended that the Group consider ways to balance the economic, social and cultural vulnerability of all TANK catchment communities.

Dr Cole concluded that changes to minimum flows and the reliability of water supply had the potential to result in financial harm to some communities - particularly already vulnerable communities - many of which include Māori. He suggested that any trigger flow changes should be carefully considered and rolled out in a way that avoids, remedies or mitigates any decline in regional GDP exceeding 3% over longer than a 3 year period, with a focus on low-wage earners, unemployment and social business growth.

Opportunities for improving social fairness could also be considered, although it was noted that many of the avenues for this were outside the scope of the TANK Plan.

Wider Economic Impacts

Dr Garry McDonald presented on the effect to the regional economy of applying different scenarios under the TANK Plan. The costs of mitigation measures to improve water quality and economic impacts arising through changes to the water allocation regime were assessed. The management scenarios being tested included assessing:

- the base case, which assumes no change
- a reduction in water allocation to groundwater users
- increases in trigger flows (that restrict surface water takes) in the Tūtaekurī and the Ngaruroro Rivers
- implementation of sediment and nutrient mitigation measures
- implementation of improved riparian management
- stock exclusion.

Effects of a change to water allocation provisions have the most significant impact in these scenarios. The effects are most strongly felt by the horticulture sector, fruit growing and food processing and the manufacturing base. Refer to the diagram below.

Direct economic impact would be job losses to industry and the service sectors.

All sectors are affected by contamination mitigation measures, but to a much smaller degree. The modelling did not consider any land use change scenarios as they would be too difficult to predict. However, under some scenarios, land use change to lower value production systems and consequential further impact on employment would be also likely.

Table 3 Net Present Value of Value Added (Direct, Indirect and Induced) Impacts of Horticulture (Fast Start – Yr3), Pastoral (Start Yr 1, 10 Yr Spread) and Combined Scenarios, 2021-2051 (8% Discount Rate)

| | Horticulture Scenarios | | | | Pastoral Scenarios | | | | Horticulture + Pastoral Scenarios | | | |
|---|------------------------|-------------|-----------------------|---------------|-----------------------|-------------|-----------------------|-------------|-----------------------------------|---------------|------------------------------|---------------|
| | Future B | | Future C | | MS1 | | MS2 | | Scenario 2 Future B + MS1 | | Scenario 3 Future C + MS2 | |
| | Hawke's Bay Region | New Zealand | Hawke's Bay Region | New Zealand | Hawke's Bay Region | New Zealand | Hawke's Bay Region | New Zealand | Hawke's Bay Region | New Zealand | Hawke's Bay Region | New Zealand |
| | \$2016m | \$2016m | \$2016m | \$2016m | \$2016m | \$2016m | \$2016m | \$2016m | \$2016m | \$2016m | \$2016m | \$2016m |
| 1 Horticulture and fruit growing | -184 | -190 | -376 | -389 | 0 | 1 | 0 | 1 | -184 | -189 | -376 | -388 |
| 2 Sheep, beef, dairy and grain farming | -3 | -11 | -7 | -24 | -36 | -46 | -66 | -87 | -39 | -57 | -72 | -111 |
| 3 Other farming | 0 | -1 | 0 | -3 | 0 | -1 | -1 | -2 | 0 | -2 | -1 | -5 |
| 4 Forestry and logging | -1 | -2 | -2 | -4 | 7 | 7 | 7 | 7 | 6 | 6 | 5 | 4 |
| 5 Other primary | 0 | -3 | 0 | -7 | 0 | 0 | 0 | -1 | 0 | -4 | 0 | -8 |
| 6 Agri., forestry and fish servs | 9 | 5 | 2 | -5 | 11 | 10 | 11 | 9 | 19 | 15 | 13 | 4 |
| 7 Meat manufacturing | 0 | -1 | 0 | -1 | -6 | -12 | -15 | -28 | -6 | -12 | -15 | -29 |
| 8 Other food product manufacturing | -260 | -315 | -558 | -676 | 0 | -1 | 0 | -2 | -260 | -316 | -558 | -678 |
| 9 Wood and paper manufacturing | 0 | 0 | 0 | 0 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 |
| 10 Other manufacturing | -10 | -38 | -22 | -82 | -2 | -5 | -6 | -16 | -12 | -43 | -28 | -98 |
| 11 Utilities | -9 | -24 | -19 | -51 | 0 | -1 | -1 | -6 | -9 | -25 | -20 | -57 |
| 12 Construction | -5 | -11 | -12 | -24 | 1 | 1 | 1 | -1 | -4 | -11 | -11 | -25 |
| 13 Wholesale and retail trade | -28 | -67 | -62 | -145 | -2 | -6 | -5 | -19 | -30 | -73 | -67 | -164 |
| 14 Transport | -7 | -28 | -14 | -62 | -1 | -3 | -2 | -9 | -7 | -31 | -16 | -71 |
| 15 Business services | -21 | -65 | -47 | -142 | 0 | -4 | -2 | -13 | -22 | -69 | -49 | -155 |
| 16 Local and central government | -5 | -10 | -10 | -21 | -1 | -1 | -1 | -2 | -6 | -11 | -11 | -23 |
| 17 Other services | -97 | -221 | -209 | -479 | -6 | -20 | -14 | -52 | -103 | -241 | -223 | -531 |
| TOTAL | -622 | -982 | -1,336 | -2,116 | -32 | -77 | -90 | -215 | -653 | -1,060 | -1,426 | -2,331 |
| Change from NPV 2016 Value Added | | | | | | | | | | | | |
| Primary | -1.8% | -0.1% | -3.9% | -0.3% | -0.2% | 0.0% | -0.5% | 0.0% | -2.0% | -0.1% | -4.4% | -0.3% |
| Secondary | -2.7% | -0.1% | -5.8% | -0.3% | 0.0% | 0.0% | -0.2% | 0.0% | -2.7% | -0.1% | -5.9% | -0.3% |
| Tertiary | -0.4% | 0.0% | -0.8% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | -0.4% | 0.0% | -0.8% | 0.0% |
| Total | -0.9% | 0.0% | -1.9% | -0.1% | 0.0% | 0.0% | -0.1% | 0.0% | -0.9% | 0.0% | -2.1% | -0.1% |

Trigger Flows – Ngaruroro and Tūtaekurī Rivers

The trigger flow has become a very big focus for everyone. The economic, social and cultural modelling that has now been done is important analysis to inform decisions about allocation limits and trigger flows for restricting abstractions.

The Group considered the existing trigger flow along with the range of measures being adopted to improve ecosystem health. They also considered information about the size of environmental improvements as a result of changes to the trigger flows and what impacts reducing allocation limits might provide.

While some TANK members still expressed a strong desire to raise triggers (that would restrict water takes), the social and cultural impacts of reduced primary production and likely economic impacts led to a wide-ranging debate about alternative approaches to changes in trigger flows and improving aquatic ecosystem health.

Some of the measures extensively discussed included:

- delayed implementation of a higher trigger flow
- a reduced allocation limit
- exploring storage and release opportunities to improve minimum flows
- reserving high flow allocations for specified end uses, including in relation to meeting Māori cultural needs.

These options are being developed for further discussion by the TANK Group.

Draft TANK Implementation Plan

The TANK Plan Change includes a number of alternative and slightly unconventional approaches to meet freshwater objectives. They arise as a result of the collaborative community decision making adopted by the TANK Group and through them, the explicit acknowledgment that addressing some of these issues is a community wide responsibility.

Successful implementation of the TANK Plan Change therefore relies on the involvement of the various stakeholder groups represented by the TANK Group. This acknowledgement has resulted in an Implementation Plan being developed at the same time as the Plan Change. It demonstrates that Council will rely on and work alongside its partners and stakeholders to meet agreed objectives.

The [draft Implementation Plan](#) is available on the TANK website.

Timing

26 July – this is the last full TANK Group meeting, tabling a final iteration of the draft TANK Plan - highlighting areas where no agreement has been reached - and taking another look at the [draft Implementation Plan](#)

August – formal handover to the Regional Planning Committee, followed by a workshop, field trip, and feedback to the TANK Group

12 September – Regional Planning Committee meeting, discussing TANK Group responses to feedback, staff recommendations and consultation options.

RIGHT: the TANK Plan was a feature of HBRC's sponsorship and exhibitor stand at the National Horticulture Field Day, at Showgrounds Hawke's Bay Tomoana on Thursday 28 June 2018. The TANK Group's own Jerf van Beek graced the back of the event guide and supplement, also distributed with Hawke's Bay Today.

BELOW: this image was recently prepared to help tell the story of what land and water use looks like under the TANK Plan - shady waterways, collective action, detention ponds for stormwater, mahinga kai, swimming, stock exclusion, forestry, primary production. Contact Mary-Anne if you'd like access to this image.



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 Please share this newsletter-panui
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WE ARE TANK

85% of Hawke's Bay people live and work on the Heretaunga Plains. The Tūtaekuri, Ahuriri estuary, Ngaruroro and Karamū waterways are part of our story. The TANK Plan will make sure that the region's land and water resources are used sustainably.

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