



Issue 18                      Meeting 37                      22 February 2018

### Tutaekuri, Ahuriri Estuary, Ngaruroro, Karamū – the TANK project

There was a full room for the start of Meeting 37 with all eyes on urban water management. Presentations were given by both Hastings District Council and Napier City Council staff with a focus on urban stormwater and water supply networks, how these are currently managed and strategies for the future.

The TANK Group also gave direction to the project team on managing groundwater depletion and cost allocation related to augmentation schemes. The meeting ended with a reminder that the Group is moving to the next phase of decision-making. The comprehensive work done so far now starts to be shaped into Plan Change drafts. The Group will add their input to plan drafts as we progress.

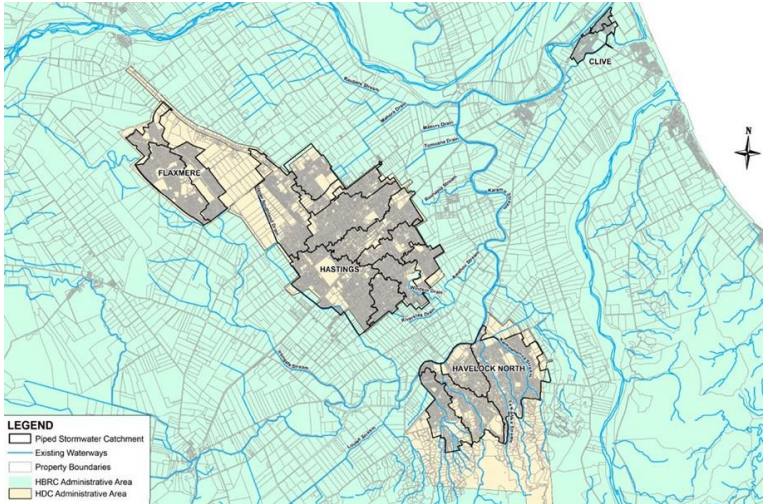
#### URBAN WATER MANAGEMENT

Hastings District Council and Napier City Council staff gave an overview of the stormwater and water supply networks.

#### Stormwater

In Hastings, the stormwater consent covers 15 urban catchments which ultimately discharge into Karamū Stream. The consent reflects a more integrated approach to managing stormwater and its effects on aquatic ecosystems than existed previously. It largely reflects a new approach now being advocated by the TANK Group. HDC has a stormwater management programme that recognises the following stages:

- A need for better understanding about the stormwater network and its effects on the receiving water (streams and rivers)
- Developing a detailed plan to address the issues raised in stage 1 including an upgrade programme for the existing infrastructure



*Hastings urban stormwater catchment boundaries - the lighter areas in this image.*

- Addressing contamination at its source (industrial sites, roads and impervious surfaces). Around 70% of the water contaminant issues are due to ‘poor housekeeping’ at a property level, such as unsecured drums on industrial sites, urban spills, etc.
- Review, update and further targeted monitoring.



The Lyndhurst development has detention ponds that double as park and play areas.

An improved approach to new infrastructure and development will see low impact design, such as roadside swales, detention ponds and planting, being required as part of new developments to reduce impact on the stormwater network and receiving waterways.

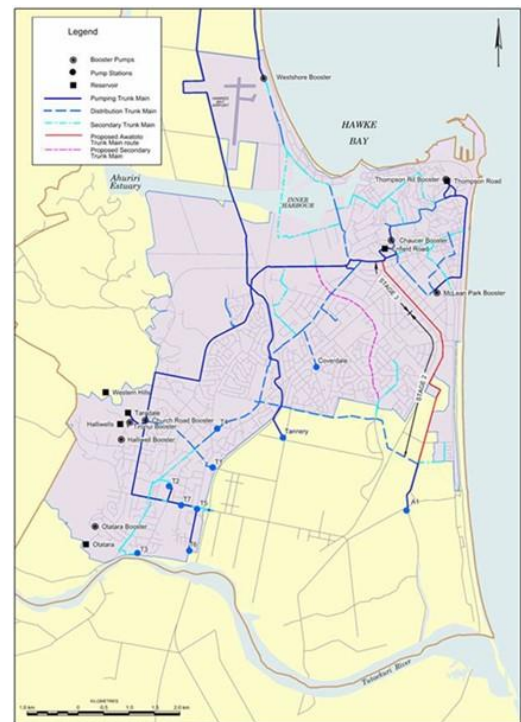
In Napier, the stormwater network serves a mainly flat and low-lying catchment and relies mainly on an open drain system. A range of issues means the network doesn’t meet desired standards in many areas – in response to contaminants, growth pressure and climate change. About 68% of stormwater discharges into the Ahuriri Estuary. Plans include a 2D hydraulic model, a master plan for the next 30 years to meet standards, including the Ahuriri master plan, Catchment Management Plans and low impact design – roadside swales, detention ponds and planting. The 30 year capital investment programme for stormwater totals \$86.8 million. Initiatives include working with high risk businesses in Thames-Tyne catchment to implement improvements and looking at a ‘polishing’ wetland in upper Ahuriri to filter contaminants. NCC continues to build a full picture of all the contaminants and issues influencing the catchment.



The Hastings focus on water conservation and demand management began in 2008.

*Draft Policy and Rules for Stormwater Management are now being considered by the wider TANK Group. The policies recognise the need to manage the legacy as well as ensure new development is carried out in a way that minimises adverse effects from stormwater discharges. The draft proposal also recognises the joint responsibilities and need for consistency between the three councils.*

This draft will be further developed with input from TANK Group members, NCC and HDC.



Napier's water supply network.

## Urban Water Supply

Hastings District Council supplies 57,000 people via 23,000 urban water connections, including Bridge Pa and Pakipaki. The Council is currently making a considerable investment into upgrading and treating the water supply network.

HDC actively manages water use and demand through measures that include pressure management for leakage control (saving 670 m<sup>3</sup> per day), and pipe and asset repair and upgrades to minimise water losses. There is a strong commitment to ensuring better water use efficiency across the network.

Napier City Council supplies 61,000 people via 25,650 urban water connections, including Bay View. Like HDC, Napier has an active water management strategy including pressure management and leak detection, asset renewals, restrictions, benchmarking, conservation and education.

Napier aims to reduce consumption from the current 440 litres per capita per day (lcd) to 300 lcd. \$77.4 million is committed to water supply capital investment over the next 30 years.

Both Councils have indicated a commitment to working alongside TANK to adopt strategies that ensure water is used efficiently in their networks. Both councils also predict that gains through efficient use will meet the increasing water demand resulting from urban growth as planned for in the Heretaunga Plains Urban Development Strategy (HPUDS) and that they will work within these limits.

## MANAGING WATER USE THAT DEPLETES GROUNDWATER

The TANK Group had received a discussion paper describing the measures considered by the Water Augmentation working Group (WAG) to address the stream depletion effects of groundwater takes in the Heretaunga Plains. The options they considered were:

- A flow enhancement scheme for lowland streams based on groundwater pumping (similar to how the Twyford water users enhance the flows of the Raupare stream)
- Reductions in water use, i.e. a further reduction in the allocation limit for the Heretaunga Plains
- Improved riparian land management (to provide additional shade, reduced water temperature and improved oxygen levels)
- Wetland construction to improve water flows
- A water storage scheme in the Ngaruroro catchment that enhances low flows.

An update to the discussion paper and the WAG recommendations was given by HBRC Water Management Advisor Monique Benson.

WAG mostly supports continuing investigation of the stream enhancement mitigation measure. Concerns about possible adverse effects were raised and it was acknowledged that further detail about scheme design and location would be needed. WAG wanted to ensure that if progressed as a solution, there would be fair and equitable cost distribution, establishing an implementation committee to oversee its development, and a flexible approach to different stream types and needs.

WAG also wished to promote wetlands and better riparian planting as a mitigation measure (acknowledging that these measures are both key measures to improve the state of the Karamu tributaries in any case).

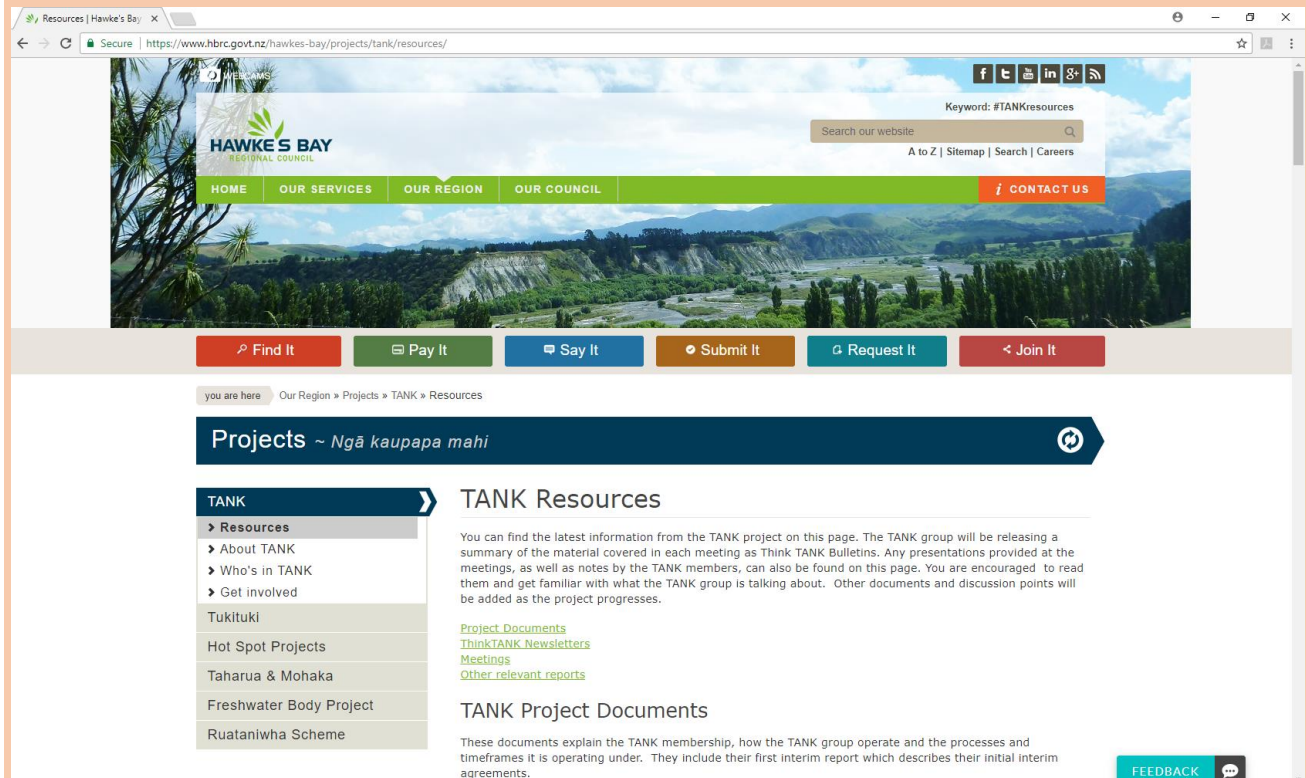
Relating to Ngaruroro River, WAG confirmed the need for further investigation of a flow enhancement scheme based on high flow storage. This would need to consider the range of possible adverse effects from such a scheme as well as the benefits that a storage scheme might provide for additional water supply.

## CALCULATING & ALLOCATING COSTS RELATING TO FLOW ENHANCEMENT SCHEMES

Grant Pechey explained what the possible cost of stream enhancement would be and a potential cost allocation method. It was assumed costs would be imposed fairly and equitably according to the actual stream depletion effect caused by the groundwater use. There was a lengthy discussion about whether and to what degree exemption might apply to municipal supplies or water for essential human use.

## TANK ONLINE

Previous ThinkTANK newsletters, meeting notes, slides and a range of related reports are online. If you need anything, jump to [hbrc.govt.nz](https://www.hbrc.govt.nz), search: [#TANKresources](https://www.hbrc.govt.nz/hawkes-bay/projects/tank/resources/).



The screenshot shows a web browser window displaying the 'Resources' page for the TANK project on the HBRC website. The URL is <https://www.hbrc.govt.nz/hawkes-bay/projects/tank/resources/>. The page features a navigation menu with 'HOME', 'OUR SERVICES', 'OUR REGION', 'OUR COUNCIL', and 'CONTACT US'. A search bar is visible with the keyword '#TANKresources'. Below the navigation, there are buttons for 'Find It', 'Pay It', 'Say It', 'Submit It', 'Request It', and 'Join It'. The main content area is titled 'Projects ~ Ngā kaupapa mahi' and includes a sidebar with 'TANK Resources' and a main section with text and links for 'Project Documents', 'ThinkTANK Newsletters', 'Meetings', and 'Other relevant reports'. A 'FEEDBACK' button is located at the bottom right.

[hbrc.govt.nz](https://www.hbrc.govt.nz) search: [#tankresources](https://www.hbrc.govt.nz/hawkes-bay/projects/tank/resources/)

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[Mary-Anne.Baker@hbrc.govt.nz](mailto:Mary-Anne.Baker@hbrc.govt.nz)

