

Fact sheet

The TANK Plan - Drinking Water

How we plan to protect source water for drinking water supplies

The proposed TANK Plan introduces new rules to reduce risks to community drinking water supplies.

Following the contamination of the Havelock North water supply in August 2016, Hawke's Bay Regional Council has worked closely with the Hawke's Bay District Health Board, Napier City and Hastings, Central Hawke's Bay and Wairoa District Councils to identify what is needed to ensure something like this never happens again.

More information

The Havelock North drinking water report conducted by the Government's Board of Enquiry is available at:

<https://www.dia.govt.nz/Government-Inquiry-into-Havelock-North-Drinking-Water-Report---Part-1---Overview>

One of the important elements addressed by the Hawke's Bay Joint Working Group is to protect source water from contamination. This means managing the risks to water

quality arising from land and water use activities.

The TANK Plan introduces new policies that describe how the Councils and District Health Board will work together to make sure that water for drinking water supply is managed in an integrated way.

Some aspects of the management of drinking water supplies are outside the scope of the TANK Plan. The approach described in Fig 1. below is currently the subject of national review.

More information

The national Three Waters Review conducted by the Government is available at:

<https://www.dia.govt.nz/Three-Waters-Review#Cab-pap>

While changes will occur, the TANK Plan proposes to address the fundamental requirement for good water supply management – the protection of source water.

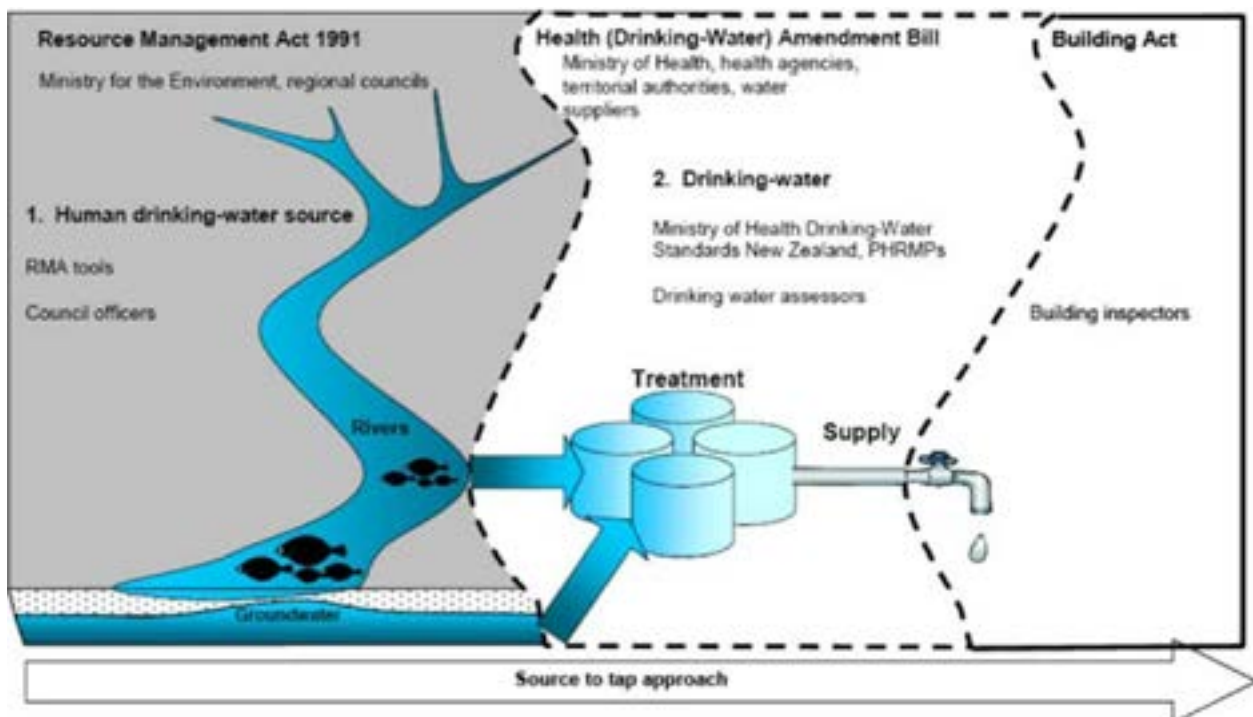
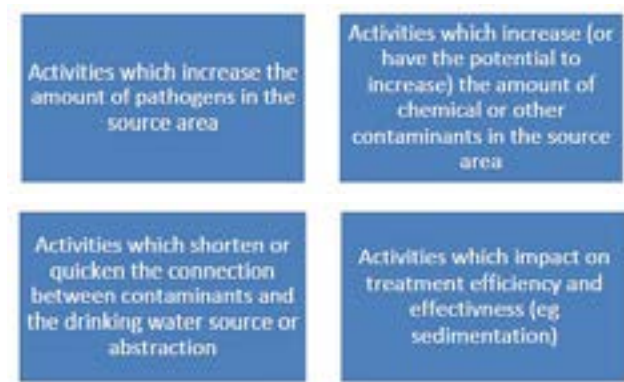


Figure 1: Source to tap approach to drinking water

What the TANK Plan does to manage risky activities

The TANK Plan reflects the need for more vigilant oversight of the use of land and water and understanding how these activities can impact groundwater quality.

Municipal water supplies for Napier and Hastings are sourced from groundwater under the Heretaunga Plains. Greater oversight of the following activities will significantly lower risks to groundwater quality.



New consent requirements are adding additional control over these activities where they occur in source areas for drinking water supplies. Some activities are subject to higher performance standards to reduce risks.

Activity Type	Activity
Rural Land Use	Animal effluent application
	Pesticide and agrichemical storage/ use
	Wastewater disposal
	Intensive stocking/ feedlots
	Storage of stock feed
	Offal Pits
	Sheep dips
	Composting
	Solid waste disposal
	On-site disposal of wastewater

Activity Type	Activity
Industrial	Storage and use of hazardous substances or chemicals
Urban Land Use	Landfills
	Wastewater reticulation and discharges
	Stormwater reticulation and discharges
Other	Bores – management of existing and drilling new bores
	Abstraction of water where the rate and amount of abstraction impacts on existing groundwater flows and pressures

Most activities that may present risks to drinking water are already regulated in the Regional Council’s Resource Management Plan. The TANK plan includes changes to these existing rules.

Some land use activities are regulated through city and district plans. As these plans are reviewed, the risks to groundwater quality from these land use activities will also be re-assessed.

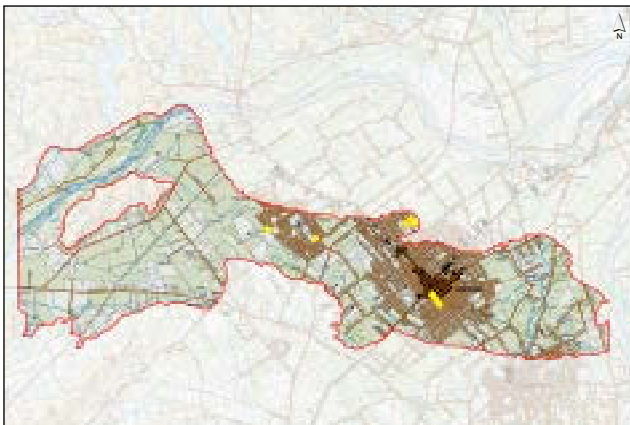
More information
 The report on *Drinking Water Source Water Protection* by Good Earth Matters is at hbrc.govt.nz, search: [#tankreports](https://twitter.com/tankreports)

Where do the new requirements and rules apply?
 The TANK Plan proposes new Source Protection Zones. These areas indicate the source area for the Napier and Hastings municipal water supplies. Where the activities listed above are carried out in a Source Protection Zone, additional rules will apply.

A Source Protection Zone reflects the higher level of risk where large amounts of people are potentially affected. However, protection is also provided for water supplies for smaller community takes. The TANK Plan specifies a default method to use to define a source protection area for smaller community supplies. If an activity requires a consent in these areas, they will be subject to additional assessment about the risk to water quality of source water.

More information

The maps showing Source Protection Zones are at hbrc.govt.nz, search: [#tankreports](https://twitter.com/tankreports)



Hastings Water Source Protection Zone



Napier Source Protection Zones

The Source Protection Areas were developed using groundwater models.

Hastings Water Source

The source areas for the Hastings water supplies have been generated by the Council's Heretaunga Plains Numerical Groundwater Model.

Napier Water Source

The source areas for the Napier City water supplies are based on analysis done for Napier using an analytical groundwater modelling approach. The Heretaunga Plains model could have been used, however the aquifer at the Napier abstraction points is relatively uniform so a similar result is expected from that model.

More information

A short report on modelling source protection zones is titled "*Stochastic source protection zone delineation in Heretaunga Aquifer using a numerical groundwater model*", at hbrc.govt.nz, search: [#tankreports](https://twitter.com/tankreports)

The report on "*Source Protection Zones for new public supply bore fields*" explain how the analysis for the Napier supplies was performed, available at hbrc.govt.nz, search: [#tankreports](https://twitter.com/tankreports)

The areas included in the Source Protection Zone include a conservative, low-risk approach that includes consideration of travel time and the porosity of the aquifer.

Farm Environment Plans in Source Protection Zones

Farm Environment Plans are a key solution to meeting many of the water quality problems to be managed by the TANK Plan.

More information

You can read more about Farm Environment Plans at hbrc.govt.nz, search: [#femp](https://twitter.com/femp) and our TANK Plan factsheet on Landowners, Land Use and Farm Plans

Any landowner in a Source Protection Zone must identify this in their farm plan. A special effort to identify risks to groundwater quality over that part of the property is required. This requirement is designed to make sure landowners are aware of how their activities might impact on risk to groundwater quality used to supply drinking water.

Managing information and integration between the councils

Information about activities being carried out in Source Protection Zones is also important for each water supply manager. In the TANK area, this means the Napier and Hastings councils' water asset managers.

Information gathered in resource consents and through Farm Environmental Plans will help water supply managers to understand the nature of risks to water quality used for drinking water supply. This information can be considered relative to infrastructure and treatment systems, and management processes. For example, a resource consent holder may be required to advise a water supplier directly if there is an accident or spill with the potential to leach into groundwater.

Allowing for new information to refine understanding about risks

The Regional Council's 3D aquifer mapping project uses SkyTEM technology to survey the Heretaunga Plains (and the Ruataniwha Plains) to better understand each aquifer.

More information

Find out about SkyTEM and the 3D aquifer mapping project at hbrc.govt.nz, search: [#3dwater](https://twitter.com/3dwater)

Our knowledge and understanding about our aquifers changes as we gather more data and information through initiatives such as SkyTEM, the Heretaunga Plains Groundwater Model and our on-going water monitoring programmes. All of these have the potential to change how we understand and manage risk, including the size and extent of the Source Protection Zones.

For that reason, the TANK Plan does not include the Source Protection Zones as planning maps – although it does describe the way to determine these areas. It also allows for the areas to be changed through a resource consent process. This ensures that anyone affected by a change to a Source Protection Zone will be notified and consulted about the application. Any application will need to assess the costs of changing an existing Zone.