9 Rainwater harvesting for Te Kao?

Safe drinking water is a basic necessity for the health and wellbeing of a community. The community of Te Kao relies on a private water supply that fails to meet NZ Drinking Water Standards. The community has been asking Council for years to improve the water supply which Council owned and operated until 2002 when it was divested to a private operator.

In 2015, we planned to reacquire the supply and included $2.2m in our Long Term Plan 2015-25 to upgrade it and build a treatment plant. We were hoping to get a subsidy to do the work, unfortunately we were not successful. Since then, a working group of Council, community representatives, Te Runanga Nui o te Aupouri and the Northland District Health Board has been investigating affordable, safe drinking water options. The group asked Te Kao residents for feedback on three options in a survey last year. The community's preferred option is to install rainwater harvesting systems with ultraviolet treatment at properties. Therefore, we are proposing to not reacquire and improve the private water supply as planned in 2015. We also want to know if the community thinks Council should help the Te Kao community make rainwater systems more affordable and are proposing options for communities to provide feedback on.

For more information on this issue refer to the FAQs on our website

Options

9a. Rainwater harvesting to two tanks

With this option households would no longer rely on the private water supply. Instead, each household could collect rainwater from roofs and store it in two 25,000 litre tanks. This is common practice for rural households, except that rainwater harvested at Te Kao would be sterilised using an ultraviolet light treatment. This is the preferred option of Te Kao residents and could be implemented quickly. We estimate the median cost for each household is $16,500 (including GST) to install a rainwater harvesting system, which they would own and be responsible for maintaining at a cost of about $350 a year. Costs could be as high as $32,000 for properties that needed extensive roof and gutter repairs.

Cost

Median cost of $16,500 for Te Kao households

Annual ratepayer impact

No rates increase, but private investment by ratepayer required

9b. Bore supply with one tank

Council could develop a bore and use the privately-owned pipe network to supply untreated water to households where it could be sterilised using ultraviolet light treatment. Each household could also have one 25,000 litre water tank, so the bore would act as a 'top-up' supply. We estimate it would cost each household, on average, $13,500 (including GST) to buy and install a rainwater harvesting system. Council would also need to spend $260,000 developing a bore and water storage and it would need to buy the privately-owned pipe network from the existing owner. Costs and timing would need to be negotiated.

Cost

$13,500 for each household for a rainwater harvesting system $260,000 for bore and water storage for 70 homes. Cost of reticulation purchase unknown

Annual ratepayer impact

An increase of $3.53 in addition to the private investment by the ratepayer

9c. Treatment plant

Council could develop a bore, new pipe network and a water treatment plant designed to treat water to NZ Drinking Water Standards. This could provide Te Kao with a reliable supply of safe drinking water. We originally estimated this would cost $2.2m (excluding GST) it could be more. About 70 households are connected to the private supply. If they agreed to connect to the new supply, they would face annual capital and operating costs of about $3,000 a year per household, well above the affordability target of $1,200 the working group has been aiming for. Potable water would not be supplied for a number of years.

Cost

$2.2m

Annual ratepayer impact

About $3,000 for the average household connected to the supply

Our proposed option

9a. Option 9a is the fastest and most affordable way of providing Te Kao with safe drinking water. While there would be no costs for Council or ratepayers, funding the purchase and installation of rainwater systems is beyond the reach of the Te Kao community where nearly a third of households earn less than $20,000 a year. We are therefore also proposing four funding options to make this option more affordable for the Te Kao community. Go to page 29 for details.

Impact on debt

Nil

Level of Service

No change. Council does not currently provide a level of service to Te Kao residents for water supply

Do you think our preferred option will create a great place and support our people? What do you think? Tell us your preferred option - please see question 9 on the submission form on page 3

10 How should we fund safe drinking water at Te Kao?

The Te Kao community and Council's want to improve the quality of drinking water at Te Kao by installing rainwater harvesting systems. This is the cheapest and quickest way of providing this community with a safe drinking water supply.

However, we estimate it will cost, median, $16,500 to install these systems and double this amount at properties that need extensive roof and gutter repairs. These costs are beyond the reach of this community, where one quarter of households earn less than $20,000 a year and the average residential rate is already more than $1,000 a year. Given that Council divested its Te Kao Water Supply to a private company, and there has been a significant effort to find an affordable solution, we want your feedback on four potential funding options to make these systems more affordable. Depending on the feedback we get on these proposals and how we decide to proceed we may be able to support other small rural communities to improve the quality of their drinking water in a similar way. Under all options, there may be opportunities for the community to secure funding from other sources, but success is not guaranteed.

For more information on this issue refer to the FAQs on our website

Options

	Cost	Annual ratepayer impact
10a. Targeted rate Council could raise a loan to pay for the cost of buying and installing rainwater harvesting systems at properties and set a voluntary targeted rate to recover costs from Te Kao households. We estimate this rate would be about $2,343 in the first year for a household with a $16,500 rainwater system if the loan was repayable over 10 years. This rate would fall to about $1,719 in year 10 of the loan (or we could smooth the rates over the loan term). Households would be responsible for meeting annual maintenance costs of about $350 themselves. This rate is well above the working group's $1,200 affordability target. Households would pay less if we raised a loan with a 20 year repayment period with costs of $1,578 reducing to $860.	Up to $1.15m depending on how many households took up the voluntary rate or $106,260 a year	$2,343 for the average Te Kao household reducing over 10 years. Nil for all other ratepayers
10b. Loan Council could provide the Te Kao community with a 10-year or 20-year loan, via a Trust or similar entity, to pay for the cost of buying and installing rainwater harvesting systems. The cost of this to Council would depend on whether the loan was for water tanks only ($371,000), complete rainwater harvesting systems or harvesting systems and all necessary home improvements, include roof and gutter repairs ($1,155,000). Cost of providing the loan would be approximately $100,000 and the Trust would repay the principle and interest. Council would absorb administration costs.	Up to $1.15m or $106,260 a year	Nil. However, the borrower would have to repay the principal and interest
10c. Grant for tanks only Council could provide the Te Kao community with a one-off grant, via a Trust or similar entity, to fund the cost of buying two water tanks for each household at Te Kao (Estimated cost $371,000 for 70 households). This would increase 2018/19 residential rates in the district by $5.04 for each $100,000 of land value. A farm with a land value of $2.5m would face a rate increase of $125.93, while a commercial property with a land value of $250,000 would pay an extra $34.62. This option recognises that homeowners are responsible for maintaining their own homes.	$371,000	Variable (see text left)
10d. Grant for all work Council could provide the Te Kao community with a one-off grant of $1m, via a Trust or similar entity, to fund the cost of buying rainwater harvest systems for each household at Te Kao. This would cover the cost of providing tanks, plumbing, pumps and water treatment for 70 households and most roof and gutter repairs. Providing a $1m grant to Te Kao would increase 2018/19 residential rates in the district by $13.58 for each $100,000 of land value. A farm with a land value of $2.5m would face a rate increase of $339.54, while a commercial property with a land value of $250,000 would pay an extra $93.37.	$1m	Variable (see text left)

Our proposed option

Council doesn't have a preferred option at this stage. We recognise that the proposed options would have implications for Te Kao residents and all ratepayers if adopted. We therefore want to consider feedback from the community before making any decision. If we established a good model for small rural communities, we might be able to use it elsewhere. Our financial forecasts do not include any grant or loan to the Te Kao community.

What option do you think will support Te Kao and small rural communities best? Let us know your preferred choice - please see question 10 on the submission form on page 3