

The right dam

A proposal from Councillors Barker, Beaven, Belford and Graham

We have consistently endorsed water storage as a prudent strategy for enabling Hawke's Bay to better manage its water to meet the equally important challenges of mitigating impacts of climate change, improving farming productivity, and protecting the environmental integrity of our rivers and aquifers.

We do not believe the dam scheme presently proposed by HBRIC is a defensible response to that challenge, for reasons we have consistently raised, including its pricing of water at 26 cents per cubic metre.

Therefore, today we offer an alternative water storage proposal for the Tukituki catchment.

Our proposal, still in development based upon expert advice as to detail, has these main features.

1. Initiating a programme to actively support, including financially, farmers in the Tukituki catchment who wish to improve their own on-farm water storage capacity and water use efficiency. This would include support for on-farm dams, improved irrigation technology and use, and improved soil management approaches.
2. Building a dam on the Makaroro, much as presently proposed, utilising the engineering work completed to date as the basis of planning. This would include the electricity-generating capacity now contemplated, and potentially enhanced.
3. Using the stem of the river as the irrigation channel *instead of building the extensive and costly distribution infrastructure currently proposed* by HBRIC. Farmers more distant from the river on the Ruataniwha Plains could still draw water from the aquifer. Whether from the aquifer or from surface water, such extractions would be compensated by dam water released back into the river. This approach could serve the bottom part of the Tukituki as well as the Ruatanwha plains area. In contrast, the distribution infrastructure HBRIC proposes effectively doubles the cost of the project but provides no extra water.
4. Farmers using irrigation water would pay for that water, but at a far reduced rate – we anticipate half the rate or less – from that projected by HBRIC's current proposal.

The advantages of our alternative proposal are:

1. Costs are reduced by approximately half. The dam alone is estimated by HBRIC to cost \$140 million (distribution infrastructure is estimated at about an extra \$135 million – this amount would be saved).
2. Reduced maintenance and operating costs, because no distribution pipework involved.
3. No outside investment with high commercial returns required – project could be funded by HBRC and the Crown. Better cash-flow for HBRC – no costly returns for commercial investors.
4. Cheaper water – less than half the current proposed HBRIC price. At full uptake of 93 million cubic metres water at \$0.10 per cube would generate \$9.3 million. Sufficient to generate a return on Council's investment of \$80 million plus repay the Crown, when added to electricity revenue, next point.
5. Greater power generation because no water diverted into a distribution system or used to pressurise the water. Revenue from power generation is estimated at \$3 million.
6. Greater environmental benefits from significantly increased water flow in the Tukituki. HBRIC in fact has indicated that a smaller dam holding 10 million cubic metres of water and costing \$30 million would be sufficient to ensure environmentally needed minimum flows and

offset the economic constraints of Plan Change 6. We propose building storage capacity up to the amount originally proposed.

7. Better opportunity for farmers and growers in the lower Tukituki catchment. Our scheme would result in more water being available throughout the catchment, including downstream.
8. This approach is prudently future-proofed in three critical respects:
 - First, operating in this fashion would allow time for Plan Change 6 to gain traction and, importantly, to indicate whether the environmental requirements of that Plan were: a) being met; and b) sufficient to protect the Tukituki ecosystem, *before* potentially unconstrained intensification of farming in the catchment was encouraged to proceed.
 - Second, similarly, operating in this fashion would allow verification of the *actual* water collection and storage capacity of the dam over time. Dispute exists over the actual quantity and reliability of water flows in the Makaroro and whether these are adequate to deliver the volume of water HBRIC current projects selling. Our alternative allows the system and its recharge capacity to be tested. If it proves lower than HBRIC estimates, it would still generate a fair return on investment for HBRC.
 - Third, assuming these two conditions were met and the scheme is successful in getting sufficient farmer support to commence, a distribution system could be considered as a future additional investment. If sufficient demonstrated farmer demand for irrigation water developed and could be managed, at a future point the building of distribution infrastructure could be re-assessed, on the basis of water-user (not ratepayer) willingness to invest and own.

We are requesting staff and consultants support to flesh out the feasibility details of this alternative proposal, including re-pricing of water and alternative financing options.

At issue is a \$600 million public/private investment that is projected to have a 100 year life benefitting Hawke's Bay. Given the magnitude of this investment and its huge environmental and economic stakes and risks, we think it only prudent that Council consider a no frills alternative that provides water at a more viable rate. We do not need to hurry this decision, nor make it in a vacuum with the only one option presented so far.