

Mary-Anne Macleod
Chief Executive
Bay of Plenty Regional Council
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28 August 2015

Hi Mary-Anne

Thank you for your letter dated 28 July 2015 which describes Council's decision to decline my request to have the original and natural path of Kaituna River flow through Maketu Estuary modelled because Steve Everitt had been unable or unwilling to accurately grasp my proposal and had concluded that the risks involved were too great to warrant investigation; and because Jim Dahm continues to block my proposal in support of his close personal friendship with Ken Murray whose father had designed the original Ford's Twin Cuts failure and mistake. Jim has been doing this for three decades and I now question his credibility given that he has been proven to have been wrong since the Appeal Court hearing.

Council's previous Appeal Court win over me has since been proven to have been entirely wrong by the subsequent destabilisation of the toe of Maketu Estuary spit and by the infilling of the lower Maketu Estuary with sand, and by the lack of any beneficial effect from reintroduction through Ford's Twin Cuts as I had accurately predicted in the Appeal Court. For Council to propose using Fords Twin Cuts again is for Council to ridicule and show disregard for the Appeal Court process I believe. The Appeal Court had found in favour of Council and against me. But Council has since been proven to have been wrong which has therefore proven me to have been right in my predictions that were expressed in the Appeal Court and later recorded in a letter dated 19/8/93 to Allan Willoughby who had sat with me throughout the Appeal Court hearing. Council planners, engineers and lawyers have similarly been proven to have been wrong in the Appeal Court. My opinion must therefore now have more credence than theirs because my opinion had been heard by the Appeal Court and has since been proven to have been correct.

I cannot at present afford the professional time and energy away from my work, or the private expense of re-visiting the Appeal Court to again oppose Council's latest publicly funded decision and resource consent hearing win; that had not even considered written submissions but instead had invoiced Council for the outcome that Council wanted and which I continue to believe is a mistake because of what it fails to deliver. I do though wish to clarify some points for your information as follows:

1. The reason that the Maketu Community has long wanted the Kaituna River returned to Maketu is to return the mauri or life-force of the river to the estuary. This includes the spiritual significance of the river, the ecosystem

food chains, the flushing flood flows, the fish life, and the boating opportunity. Council's proposal fails to deliver on all counts. 20% of the river from an unnatural position which could further de-stabilise the spit without flushing sand from the lower estuary and which will keep most of the galaxius spawn and Kaituna River catchment ecosystem food chains away from Maketu Estuary could not deliver the outcomes that the Maketu community has been seeking.

2. Under my proposal re-diverted Kaituna River flows into Maketu Estuary would be restricted by water levels within Maketu Estuary being higher than at both Te Tumu and Maketu Estuary bars and so Maketu would be protected from flooding as long as Te Tumu exit was allowed to widen and scour to accommodate floods naturally.
3. Maketu Road is higher than both Maketu and Te Tumu bars and so could not be overtopped before anticipated sea level rise which is independent of Kaituna River floods.
4. At low tide Kaituna River floods could exit at Te Tumu through the existing exit as well as over an adjacent sand bar that would be able to scour down to become a 100 meter long RLO .5 m concrete weir under the crest of the existing sand dune, as well as through Papahikahawai Channel, around Maketu Estuary spit and out through Maketu Estuary mouth stabilising the spit and scouring sand from the lower estuary as it went.
5. On the incoming tide Kaituna River floods could fill Maketu Estuary with fresh water because the estuary would initially be lower than the ocean. Salt water would also enter the back of the estuary through Te Tumu and would sit under fresh water that could then be made to overtop the 1971 subsidised rock protection into Maketu Estuary as the tide rose. Salt water wave action would form a bar at Te Tumu on an incoming tide and so would reduce the salt water wedge there encouraging Kaituna River catchment galaxius to spawn between Te Tumu, Papahikahawai Channel, the 1971 subsidised rock protection and Fords Twin Cuts as they originally could have.
6. Te Tumu sand bar would be eroded on an outgoing tide with increased flow from the back of Maketu Estuary and between Te Tumu, Papahikahawai Channel, the 1971 subsidised rock protection and Fords Twin Cuts adding to Kaituna River flow.
7. Sediment that is contained in Kaituna River floods could raise the level of maritime marsh covered lowlands between Te Tumu, Papahikahawai Channel, the 1971 subsidised rock protection and Fords Twin Cuts and so could provide ideal galaxius spawning habitat at the top of the salt water wedge that was only covered on spring tides, except where the original Kaituna River course carried flood flows through Papahikahawai Channel on an outgoing tide.
8. During major flood events and at high tide the Kaituna River would still exit at Te Tumu down through the existing exit onto the ocean as well as over an adjacent sand bar that would be able to scour down to a 100 meter long RLO

.5 m concrete weir placed under the crest of the existing sand dune, as well as through Maketu Estuary mouth. Sand that has infilled the lower Maketu Estuary from the back of the spit could be flushed out to sea by occasional flood flows through Papahikahawai Channel on a falling tide and the spit could be stabilised.

9. If an overtopping weir had been constructed originally to keep Te Tumu exit where it is, instead of a mole and a stop-bank, then Maketu could still have a productive estuarine ecosystem with all of its original benefits and the local commercial and recreational fisheries could be intact.
10. My proposal presents a significant cost saving to Council.
11. My proposal would cost very little to trial. The mole could be left where it is for now or could ideally be moved 100 meters to the east and buried in the dune. A RLO .5 m weir could maintain Te Tumu exit where it is and could be placed under the crest of the dune and for 100 meters to the east of where the mole currently is. A port mark could be driven adjacent to the existing Te Tumu exit to aid ongoing navigability. The Kaituna River stop bank could be removed back to and could be used to infill Ford's Twin Cuts to reform original maritime marsh galaxius spawning habitat there. The 1971 subsidised rock protection could be lowered to allow only the top of the tide to overtop its entire length and could be metalled to maintain low-tide vehicular access to Papahikahawai Island. Papahikahawai Channel could be unblocked. The energy and the mauri in the Kaituna River could then be left to do the rest without cost and without risk of flooding Maketu.
12. Maketu Estuary ecosystems could be restored without further cost. Maketu Spit could be isolated from predators. The mauri of the Kaituna River could be returned to Maketu Estuary.
13. What Council has proposed is expensive, further wasteful of public funds and does not offer a comparable solution to the Kaituna River & Maketu Estuary Management Strategy objectives. It does not I believe deliver the best possible outcome for the Maketu Community or for Maketu Estuary environmental enhancement.
14. Kaituna River catchment and Maketu Estuary restoration does I believe provide an opportunity to demonstrate an enormous potential to increase public funds nationally by reforming fresh water ecosystems in connection with estuarine maritime marsh galaxius spawning habitats. 6,000 hectares of potential wetlands in the Kaituna River catchment including the Rotorua Lakes and the wetlands that can now be created and that have not been isolated by hydro dams, does mean that Maketu Estuary maritime marsh galaxius spawning habitat at the top of the salt water wedge and in connection with the Kaituna River catchment does have a potential to explode commercial fisheries production in this part of the Bay of Plenty and in doing so set an example for other catchments to follow. If we put the food chains back we must put the fish back and that will strengthen the New Zealand economy with an annually renewable commercial fisheries resource.

15. What Council has currently proposed could block the full extent of potential gains by keeping Maketu Estuary isolated from Kaituna River catchment galaxius and so I ask you to instead model my proposal please so that you can see that Kaituna River floods could escape downhill onto the ocean at Te Tumu without flooding Maketu Road or Maketu Village.

I am very pleased and grateful for Council's proposal to create wetlands in the Kaituna River catchment as reported by Pim de Monchy and I congratulate you all for what has followed 3 decades of my writing letters to Council, MOF and DOC the same. I will be much more delighted if Council now has the wisdom and foresight to divert Kaituna River flow through Maketu Estuary in the best possible way as I have described and without leaving a major link broken in the potential Kaituna River catchment ecosystem food chains as is currently proposed.

Wetlands that can be created between and in conjunction with other land uses have the potential to purify runoff and strip nutrients while providing galaxius and tuna habitats that can exist in connection with Maketu Estuary maritime marsh galaxius spawning habitat. Those wetlands could put commercial and recreational fisheries production back at Maketu.

All farm drains in the catchment could best become raupo, flax and kahikatea planted v-drain purifying wetland galaxius and tuna habitats, as could AFFCO lowlands, as could Te Puke Borough Sewerage Treatment Plant the runoff from which could remain outside the Waiari Stream and Kaituna River stop-banks.

Lowlands that are graphed on my website www.wetlandsnz.com could ideally become the first stage of a raupo, flax and kahikatea forested recreation reserve planted on v-drain wetlands to provide maximum exposure of water to purifying plants that could be receiving and purifying Kaituna River floods while providing ideal galaxius and tuna habitats. Quote: The New Zealand Whitebait Book by R.M. McDowall: There is a higher density of adults in the lower river and they are found in predominance in brackish backwaters. From the high fecundity (number of eggs) and the large size of fish living in them, lowland bush swamps with brown water appear to be the ideal habitat for galaxius maculatus.

Further wetlands created regionally have a potential to strip nutrient from effluent treatment plant runoff instead of pumping it into the ocean to create toxic algae blooms.

Kindest regards

Don Paterson
CLM; Pres HbT SRF SNTR

Chairman, History Focus Group
Kaituna River & Maketu Estuary Management Strategy

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