Please read these background letters showing 20 years of letter writing demonstrating our commitment and the potential commercial advantages of this wetland restoration.

Pim de Monchy
Senior Land Management Officer (Western) BOP Regional Council
Box 364 Whakatane

4 November 2013 Hi Pim

Thank you for your letter dated 9 September 2013. My reply to your letter could best be read further to the points that I made in previous correspondence with you dated 3 August 2013 as well as those before, and in my letter to Mary-Anne Macleod, Chief Executive, BOP Regional Council dated 1 October 2012.

Maximum flow partial re-diversion, re-diverting as much water as possible, particularly fresh water, while leaving Te Tumu Cut open is exactly what I have been describing for 3 decades and in the most cost effective way.

The re-diversion that I have proposed would allow a maximum flow of fresh water at low tide i.e. the whole Kaituna River flow through Maketu Estuary. At high tide when Maketu Estuary had filled with fresh water from the Kaituna River above a salt water wedge that would have entered through Maketu Estuary entrance on a rising tide as had originally occurred, then the Kaituna River flow would be exiting to sea at Te Tumu over a low weir so maintaining the stability of that entrance for flood relief without on-going cost. Kaituna River peak flows would provide considerably more fresh water to fill and maintain Maketu Estuary than would low river flows as had also originally occurred.

Outflow at Te Tumu is currently fresh water that is flowing on top of a salt water wedge throughout the tidal cycle until at low tide when the salt water wedge has retreated with the sea level below the bar, while also leaving some salt water under the fresh water above the bar because salt water and fresh water do not readily mix and because salt water is heavier than fresh water.

I believe that it is of considerable importance to stop a salt water wedge from entering the Kaituna River at Te Tumu so that Kaituna River catchment galaxius can again find extensive maritime marsh spawning habitat to be recreated at the top of the salt water wedge within Maketu Estuary boundaries, as opposed to where the wedge currently is in the Kaituna River with its comparatively limited area of spawning habitat, and so there is currently a significant restriction on any potential rebuild of local inshore coastal and fresh water tuna fishery commercial production food chains. Any works to be done on reintroducing Kaituna River water into Maketu Estuary could best be about correcting this from the outset I believe or else it is just another waste of public money that cannot ever achieve perfection. I believe that there is no point spending any more public money on re-diversion attempts that can never be a complete success.

New Zealand is now well placed to grow our on-going wealth. (See www.wetlandsnz.com Funding Application - 2012 with Background Letters). This makes more sense to me than does our Government selling or risking exploitation of our national assets with potential catastrophic pollution. Our largest farm is our territorial sea and we are not yet farming it for maximum production as we could be. We are also not yet protecting it from pollution as well as we could be. I believe that we most need to protect the coastal environment if it is to return towards its full annual on-going production potential.

Returning the mauri of the Kaituna River to Maketu Estuary as has been stated by BOPRC, means returning the life force and the spirit of the Kaituna River which includes recreating the original food chains. If you were to leave a salt water wedge at Te Tumu then you would be preventing this from happening and so you would be dishonouring your treaty partner.

Your “expert” witnesses to date have all been tarred with the same brush and so they continue to come up with the same unsuccessful public-money-wasting recommendations. There seems to me to be a conflict of interest. Ken Murray’s father had I believe proposed the unsuccessful and expensive error of judgement that had been Fords Twin Cuts. Ken Murray did his major paper in gaining his university qualification on his father’s work I believe. Jim Dahm had used to live with Ken Murray I believe, and so it goes on with engineers influencing other engineer’s opinions in support of the original engineering mistake that was Fords Twin Cuts construction. That did not achieve what it set out to achieve i.e. re-diverting significant Kaituna River flow through Maketu Estuary, and worse than that it destabilised Maketu Estuary spit and caused erosion of the back of the toe of Maketu Estuary spit and the infilling of Maketu Estuary. This is still happening and it has now been well documented chronologically by Google Earth.

Ford’s Twin Cuts diversion had been originally attempted in the 1950s and it had been a dismal failure. Re-diversion was reattempted after I lost an Appeal Court hearing attempt to stop it from wasting yet more public funds and further undermining Maketu Estuary ecology and it was a dismal failure yet again. When are these engineers going to be held responsible for making erroneous recommendations?

Please note that Maketu Estuary spit had been stable with approximately parallel sides near to the toe of the spit and with considerable height due to its age before Fords Twin Cuts had been constructed. Please also note that Maketu Estuary spit has been eroded from behind and Maketu Estuary has been in-filled with sand from the spit since Fords Twin Cuts was constructed in isolation from a Papahikahawai Channel flow, and more recently as I had predicted in the Appeal Court would happen, since Fords Twin Cuts re-diversion occurred without maritime marsh that used to be in the middle of Maketu Estuary that had been directing flow away from the spit as would have a Papahikahawai Channel flow.

The attached 1919 diagram does not show significant flow through Papahikahawai Channel but it does show extensive maritime marsh in the centre of Maketu Estuary having the same effect of directing flow from the south of Papahikahawai Island away from the spit and bending around the maritime marsh and so eroding towards the south.

Reintroduction of Kaituna River water into Maketu Estuary through Fords Twin Cuts has now twice been shown to have been an expensive failure, as has all of the engineering advice and related capital works that preceded it. If you insist on trying to do it again then I will be forced to consider revisiting the Appeal Court to have the initial decision overturned and also to seek compensation through the court from BOPRC. I have learnt from my past Appeal Court experience that I should be accompanied by expert engineering witnesses and testimony and that I should have considerable financial backing to employ significant legal representation and not just expect to win because I am correct in my judgement. That is obviously not how the legal system works.

Jim Dahm is still supporting Ken Murray’s opinion. He believes that sand moves water whereas the rest of the world knows that water moves sand. The flood tide delta is in the lower Maketu Estuary because water movement with trajectory puts it there and keeps it there on every incoming and every outgoing tide. If the trajectory was to change so would the position and the dimension of the flood tide delta. We saw this occur after the Appeal Court hearing as soon as reintroduction occurred through Ford’s Twin Cuts before the official opening date. The back of Maketu Estuary spit was eroded and the lower Maketu Estuary was in-filled with that sand and the spit then narrowed was as a result breached by storm wave action. The lower Maketu Estuary was caused to fill with sand as part of an artificially enlarged toe of Maketu Estuary spit that continues to exist and build into Maketu Estuary as an unnatural feature.

We do not need to argue the points that I have made because there is now time sequence photographic evidence available from Google Earth that shows destruction of the toe of Maketu Estuary spit following the construction of Fords Twin Cuts, and then again following re-introduction of Kaituna River flow into Maketu Estuary through Ford’s Twin Cuts following my previous Appeal Court attempt to stop that expensive mistake from re-occurring. Part of

the expense has been the loss of many years of potential Kaituna River catchment ecosystem production.

The Appeal Court Judge had asked me during the hearing what evidence that I could present in support of my describing that reintroduction of Kaituna River flow through Fords Twin Cuts would cause erosion and subsequent destruction of the toe of Maketu Estuary spit. I could only offer my opinion based on what I had witnessed to have been happening daily throughout my decades of concentrated observation, consideration and calculation from an ideal vantage point. I can however now present chronological photographic evidence from Google Earth if I have to.

I had not purchased expert engineering testimony or legal representation and so my opinion was discredited. I can however now procure photographic time-sequence proof that my predictions were correct. You could also access chronological evidence from Google Earth of what Fords Twin Cuts diversion and then re-diversion have done to Maketu Estuary's ecology and former spit and lower Maketu Estuary channel stability.

BOPRC should not have won the Appeal Court hearing because they have now been proven to have made a wrong judgement at considerable public expense and at my personal expense, and with public humiliation caused to my family members by subsequent unflattering newspaper reporting of the Appeal Court decision based on false evidence submitted by BOPRC about who held the ownership of Papahikahawai Channel water rights. I had immediately contacted Alan Brain's solicitor during recess to ask if access could be granted through Papahikahawai Channel. He had withheld the information from me that Alan Brain did not own the water right and so the hearing judge had based his decision on false evidence supplied at the hearing by a BOPRC solicitor.

The best alternative I believe is for BOPRC to:

1. Leave Te Tumu entrance open for flood relief but with an overtopping weir to stop salt water from entering the lower Kaituna River at Te Tumu.
2. Reopen the original and natural Kaituna River low tide flow through Papahikahawai Channel.
3. a. Breach Maketu Estuary Spit at its narrowest point to the east of Papahikahawai Island to
   naturally remove the artificially enlarged toe of Maketu Estuary spit as Maketu Estuary mouth once again closes adjacent to the Maketu Surf Club and then migrates back towards the east from the new entrance, as it has done every time that it has breached. A sand fence could quickly rebuild spit height and prevent storm surge overtopping of the newly forming spit.
   b. An alternative would be to excavate a channel behind and parallel to the newly formed and steadily building spit. The remaining toe of the spit would be eroded by Papahikahawai Channel flow on an outgoing tide and flushed back out to sea. Maketu Estuary entrance would remain unchanged which could be more attractive to the small bird lovers who care for the spit. The complete success of either option a. or b. depends upon reintroduction of the original full Kaituna River low tide flow through Papahikahawai Channel and into Maketu Estuary.
4. Remove the 1971 subsidised rock protection that is currently blocking the original Kaituna River course to the south of Papahikahawai Island once the new Maketu Estuary entrance has migrated back to the original site adjacent to the Maketu Surf Club, and only when the lower Maketu Estuary has been deepened by peak Kaituna River low tide flow made to turn at a right angle and so gain energy to carry sand back out to sea to be deposited on the beach on either side of Maketu Estuary entrance as had originally occurred.

There need not be any resource consent or Environment Court opposition to water right applications because:

1. Lower Kaituna River as well as Maketu Estuary boating access to the sea would be maintained and also enhanced with a safer original entrance being created and then eventually maintained indefinitely in the lee of Town Point and in conjunction with an original deep water harbour area.

2. The original and current wetland-destruction water rights under the guise of flood protection for pastoral farming would not be affected because the lower Kaituna River water levels need not alter, because the lower Kaituna River would continue to empty at low tide into Maketu Estuary. At high tide the lower Kaituna River would instead have two exits to the sea and so this would reduce the extent of high tide flooding.
3. Recreational fishing that currently exists at Te Tumu because the Kaituna River catchment's considerably diminished food chains do currently exit there un-naturally, could be replaced with significantly enhanced original recreational fishing opportunity at Maketu. Pedestrian access could though still be maintained at Te Tumu by a swing-bridge if desired but fishermen will likely follow the fish which will follow the food chains back to Maketu Estuary entrance.
4. Abundance of both recreational and local inshore coastal commercial, as well as freshwater tuna fisheries could be significantly enhanced by maritime marsh galaxius spawning habitat within Maketu Estuary, in connection with Kaituna River catchment wetland habitat that can now be recreated, in addition to what currently exists and including the Rotorua Lakes and their catchments. Kaituna River catchment wetland habitat not including the Rotorua lakes that has since been drained for pastoral farming had once covered 6,000 hectares and so there is enormous potential improvement possible for inshore coastal and freshwater tuna fishery food chains. Just the converting of farm drains from dry unproductive wastelands into permanent wetlands between paddocks that are no longer isolated by pumping stations could significantly increase wetland habitat in the Kaituna River catchment.
5. A maximum amount of Kaituna River fresh water could be introduced to Maketu Estuary by my design proposal.
6. Major flows through Papahikahawai Channel would bend away from the spit and so would erode southward toward Whakaue Marae as had previously and originally occurred and so would again maintain a deep water boating channel and the safe anchorage that had previously existed and so as was modelled.
7. Drainage Board activity speculated by Alan Brain in the 1920s is undocumented and so irrelevant and seems either unintelligent or manipulative to be mentioned at all, and so I believe that it should be removed from your correspondence unless it can be proven to have occurred. It seems far more likely to me that any drainage board activity in 1920 would have tried to deepen and maintain the lower Maketu Estuary and its connection to the Kaituna River after the lower Maketu Estuary had filled with sand after Kaituna River flow had been temporarily removed from Maketu Estuary by a breakout at Te Tumu.
8. Deliberate and intentionally permanent removal of the Kaituna River from Maketu Estuary in the 1950s had destroyed local inshore coastal fishery food chains when all they had needed to do for flood relief was to build an overtopping weir at Te Tumu to accommodate Kaituna River high tide and flood flows, while leaving low tide Kaituna River flows to maintain Maketu Estuary depth and stability. Local inshore coastal fishery and fresh water tuna fishery food chains in connection with Maketu Estuary maritime marsh galaxius spawning habitat would have remained intact.
9. I have always supported the reintroduction of Kaituna River fresh water into Maketu Estuary and so you have misquoted me. I had said that if there was concern about the current pollution level of the Kaituna River being introduced to Maketu Estuary then it could be diluted with Te Tumu salt water until the Kaituna River had been cleaned up by connected wetlands that can now be recreated.
10. If BOPRC was doing its job well enough then Kaituna River water would currently be free of pollutants like for example AFFCO effluent, Te Puke Borough effluent, dairy effluent and the agrochemicals that are sprayed on road swales by WBOPDC, or onto Maketu Estuary plants by some individuals who are ignorant of the consequences to public health, or onto their families, neighbours and themselves by orchardists and farmers. Those oestrogen mimicking agrochemicals reach the top of the food chain and so human consumption with well documented consequences of disease, lower IQ and numerous symptoms of ill health leading towards death. The American agrochemical farming model has given Americans the worst health statistics in the world and a lowering IQ I believe - (Ref Our Stolen Future, Are we threatening our Fertility, Intelligence and Survival, A Scientific Discovery Story by Theo Colborn, Dianne Dumanoski & John Peterson Myers, Published 1996 ISBN 0

349 10878 1) BOPRC and Central Government could be protecting an unsuspecting and ill-informed public from same as is their duty to do. I have given a man your phone number so that he can tell you how unwell he became as soon as roundup was recently sprayed on sand dunes adjacent to his Mount Maunganui home under your guidance and so duty of care.

11. Your treaty partners are eating agrochemicals via Maketu Estuary kaimoana and your employer and Central Government are directly responsible under Duty of Care legislation for that occurring. If you put the Kaituna River back through Maketu Estuary as it originally had been then there will be a lot more kaimoana for them to eat it with until you clean up the Kaituna River water.
12. A time consuming and expensive Appeal Court hearing could I expect stop you from wasting any more public money on already proven to be unsuccessful Ford's Twin Cuts re-diversion attempts and on what has twice so far proven to have been bad engineering advice, that has now been well documented with time-sequence photograph evidence by Google Earth. I would though prefer instead to work with you and your colleagues to achieve the best possible outcome for Maketu Estuary and Kaituna River catchment ecosystems, the rebuilding of which I believe could lead this country to creating incredible annual on-going overseas exchange earnings and recreational fishing opportunity.
13. I invite you to model my proposal as you had previously stated that you would. It has of course already been modelled by its original form before the Kaituna River was removed from Maketu Estuary. All that I want you to do is to put the Kaituna River back through Maketu Estuary how it originally was because we know that had worked well except during breakouts at Te Tumu which can now be eliminated by an overtopping weir.
14. The Kaituna River and Maketu Estuary Management Strategy was a democratic process that had followed my meeting Bill Bayfield CEO BOPRC at my home and walking him through how I saw it. I then attended every Focus Group and every Working Party meeting and I believe that the consensus of opinion at those meetings had favoured reintroduction of Kaituna River water into Maketu Estuary via its original course. This was also published in Te Puke Times following an onsite meeting between BOPRC and WBOPDC representatives. In following the democratic process I believe that you must therefore now fully investigate this option with a view to making it happen.
15. Recreating former local inshore coastal and freshwater tuna fishery production could attract worldwide attention to this region and so I believe that this must be your main consideration.
16. Leaving a salt water wedge at Te Tumu would stop this from happening.
17. The original highly productive introduction of Kaituna River water into Maketu Estuary has
    already been modelled and so it is easily recreated with certainty at minimal construction expense.
18. There is no point spending any more public money on any variation of Fords Twin Cuts re- diversion because it has been tried twice and it has failed twice at enormous expense to the local inshore coastal and freshwater tuna fishery commercial production potential and recreational experience, to Maketu Estuary ecology and to the local economy from the loss of previous fisheries production.
19. Putting things back towards how they had originally been modelled is guaranteed to be successful because it has already been modelled for us and it is by far the cheapest option.
20. I suggest that: Stage 1 could be to blade sand from the beach and stockpile it adjacent to the mole on the western side of the Te Tumu entrance of the Kaituna River, while also opening the original course into the stagnant lagoon to the east so that stagnant mud can flush out to sea at Te Tumu, and while also checking the depth of the Papahikahawai Channel with a digger, and while also possibly excavating behind the dune as mentioned as an option in 3a. Stage 2 could be to blade stockpiled sand into the Te Tumu exit in February during low Kaituna River flows after having removed the illegal stop-bank from Papahikahawai Channel. Sand could be compacted adjacent to the mole in the current river course and a concrete overtopping weir could be poured. The re-diversion would then be complete at

minimal expense. Maritime marsh would re-grow in an original fresh water environment in the upper Maketu Estuary and food chains in connection with the Rotorua lakes would be re- established. Wetlands could be created to purify Kaituna River water before it entered Maketu Estuary as per my previous correspondence. This is I believe the easiest option to implement at the least cost with the greatest potential for habitat restoration to drive local inshore coastal and freshwater tuna fishery production increase.

I invite you to support www.wetlandsnz.com so that I can create productive freshwater wetlands that will eventually become part of a freshwater wetland reserve that will depend upon original Maketu Estuary maritime marsh galaxius spawning habitat to maximise local inshore coastal and freshwater tuna fisheries production, while most efficiently stimulating the local economy and the Kaituna River catchments ecology.

Kindest regards

Don Paterson
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