

## **SUBMISSION BY MIKE WEIR TO KCDC SCIENCE PANEL 3 DECEMBER 2013**

1. My name is Mike Weir, full name Michael Patrick Weir. I live with my wife at 21 Olliver Grove, Waikanae on the beach front. Our property is directly affected by Dr Shand's science with his projected 100 future shoreline going through the centre of our house.
2. I have a Master of Business Administration acquired in 1990, a Bachelor of Arts in Geography (1966) and a post graduate degree in Town Planning (1969). I am a full member of the New Zealand Planning Institute.
3. I make no claim to be a scientific coastal expert, but do have knowledge of geographic processes on the Kapiti and Horowhenua coastlines because of my life experiences.
4. I have been a resident in Waikanae North Beach for over 30 years. I have ran or walked over many years along most parts of the Kapiti and Horowhenua coastline as a young, and not so young man.
5. I know where various markers are in relation to the accretion which has occurred and is continuing to occur along our coastline.
6. Also I worked as a professional planner for the Ministry of Works early on in my career for over 25 years.
7. As a geographer I have an ongoing interest in physical geography.
8. My early experience involved working closely with scientists and engineers, including on the theme of coastal hazards and advising local and regional government of planning strategies for coping with such hazards.
9. I also headed the regulatory arm of the Kapiti Coast District Council between 1990 and 1996 and held the equivalent position in the Horowhenua District Council between 1997 and 2003.
10. In the latter positions I had overall management responsibility for preparing those Council's resource management plans. Specifically as regulatory manager, among many other matters, it was my job to ensure that coastal scientific expertise was properly reflected in the two plans being prepared and that property owners interests were always fairly considered in all aspects of regulatory enforcement and control.
11. I will concentrate as much as possible in this brief submission to the panel on the science, albeit I cannot avoid commenting on the connectivity with regulatory matters.
12. The Kapiti Coast has been accreting for about 7000 years during the Holocene period including at a time when seas and temperatures were much higher than they are now.

13. A report in the Otago Daily Times dated 8<sup>th</sup> July 2011 quoting Professor John Hannah, the former head of the University School of Surveying, puts it this way –“...the tidal gauge data, which stretched back 100 years for Auckland, Wellington, Christchurch and Dunedin, was very robust and enabled them to say New Zealand could reasonably expect sea-level rises of between 0.5 and 0.8m by 2100...Temperatures will rise and sea levels will rise, we know that. It looks like New Zealand temperatures will revert back to where they were 3000-4000 years ago during the mid-Holocene period. The evidence was that sea levels at that time were about 0.5-0.8m higher than they were now.”
14. The foreshore reserve in front of our property has accreted by at least 10 meters over the last 20 years at an average rate of about 0.5 metres per year since my wife and I bought our property in a new subdivision and built our current house.
15. Dr Shand gives accretion a zero value which has turned an accreting coastline into an eroding one. As a geographer I know that there is no scientific basis for any assumption that the existing geographic process of accretion will suddenly cease and change to major erosion in the next 50, 100 or even several thousand years.
16. This flaw in Dr Shand’s assessment coupled with him not identifying the degree of risk or likelihood of erosion, in my view, indicates that his analysis is fatally flawed.
17. I intend no disrespect to Dr Shand and his colleagues who support his methodology.
18. No doubt they are all competent scientists but, in my view, they have misunderstood the New Zealand Coastal Policy Statement 2010 (NZCPS) and have acted foolishly in not properly allowing for accretion.
19. If they are incapable of allowing for accretion in the modelling they should have found an alternative method of addressing the issue.
20. Also a proper scientific assessment of coastal hazard risk should have complied with the requirement of Policy 24 of the NZCPS of *“giving priority to the identification of areas of high risk”*.
21. Dr Shand’s assessment clearly relies on the precautionary approach as justification for identifying worst case scenarios rather than identifying areas of high risk.
22. The precautionary approach does not justify worst case scenarios let alone treating accretion as though it does not exist.
23. The precautionary approach only comes into play after the scientific analysis is completed. It is an approach for the appropriate management of the identified risk, not for identifying risk.
24. In my opinion scientists lose credibility in trying to justify worst case scenarios on the basis of their interpretation of what the NZCPS and in particular on what the precautionary approach actually means.

25. Scientists need, to use a colloquialism, to 'stick to their knitting' and not stray into interpretation of regulation and, in effect being perceived as 'lording it over everyone' that they know the future in 50 years and in 100 years and their science justifies them imposing worst case scenarios on peoples' properties.
26. It is hard enough for even the best scientific minds with the most robust of scientific methods to predict the future of nature in 50 years let alone try and predict what might happen beyond that time frame. The longer the time frame the more widely speculative the predictions become, especially if in the first instance the 50 year predictions are wrong or at best only worst case scenarios.
27. One of the most amazing things to me is that the KCDC and its scientific advisers' position is that processes causing accretion are too poorly understood to be included in the modelling.
28. Property owners should not have to bear the brunt of science's inability to understand the processes causing accretion. Accretion is a reality. The NZCPS requires it to be taken into account.
29. If it is true that the modelling cannot allow for accretion what this proves is that the modelling is not a reliable scientific basis for predicting future erosion anywhere in New Zealand where accretion is occurring.
30. I leave it to this erudite body to make its own mind up on this very important issue.
31. The point I am trying to make to the panel is that science has immense value in objectively identifying the true level of coastal hazard risk for overall community benefit. However science fails when the modelling is flawed and has to resort to presuming worst case scenarios based on highly questionable indeed, as far as accretion is concerned, utterly ridiculous assumptions.
32. If the consensus among scientists is that it is legitimate to ignore accretion in the way in which Dr Shand and his group has, this, in my opinion, does science and the community a serious disservice because inevitably this sort of scientific methodology unreasonably skews results in favour of recording worst case scenarios.
33. It is also a fact and it is the law in the matter that accretion must be properly taken into account.
34. One of the consequences, in terms of damage to property owners interests, of ignoring accretion, will be to cause avoidable social and economic loss and harm to communities, the very opposite of one of the key outcomes which the precautionary approach is intended to achieve.
35. I believe that Dr Shand's and his fellow scientists who support his methodology do not understand the precautionary approach.

36. The precautionary approach relates to the effects of proposed activities, not the effect of coastal hazard on those activities let alone on existing activities.
37. I draw the panel's attention to the fact that under the NZCPS the precautionary approach applies to **proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse** so that among other matters **avoidable social and economic loss and harm to communities does not occur**.
38. My suggestion to the panel is that the most likely scenario in front of the Weir place, if accretion continues at the current rate (and there is no scientific reason to assume that it won't), is that in 100 years the shoreline, instead of going through the centre of our house, will be 50 metres further out to sea than it is now; in other words about 110 metres away from our sea facing boundary and 130 meters seaward from where Dr Shand depicts it to be in his coastal hazard assessment.
39. In 50 years, the 60m foreshore reserve in front of our place in all probability will have expanded seaward by a further 25 metres and obviously, if I am right, this will happen in other parts of the Kapiti Coast as well. The most prudent scientific and KCDC regulatory approach, in my opinion, is to remove the worst case predictions lines immediately from formal KCDC regulatory documents and use the Shand assessment as a starting point for measuring over the next few decades or so actual reality against the worst case scenarios.
40. In conclusion I would like to say to this erudite panel of scientists that, in my opinion, large numbers of Kapiti Coast properties have been unfairly blighted through seriously faulty scientific modelling coupled with unwise decisions by KCDC of a regulatory nature which I believe are unlawful. I contend that if the same flawed scientific methodology and regulatory approach is applied to other parts of NZ they will suffer the same fate, including accreting coastlines erroneously being turned into eroding ones, as well as the emergence of a large number of second generation resource management plans with fundamentally flawed coastal hazard provisions.
41. Thank you for listening to me.



Mike Weir

3<sup>rd</sup> December 2013

# Projected future shorelines

## NORTH WAIKANAE BEACH

### Legend

- 50 Year Unmanaged
- 50 Year Managed
- 100 Year Unmanaged
- 100 Year Managed Inlets

