

**Letter submitted to Bream Bay News – 17<sup>th</sup> February 2009**

Dear Marilyn,

I think that your headline last week

*“Climate change calculation predicts increased flooding for Waipu and Waipu Cove”*

was not helpful in describing the AWT report that Whangarei District Council commissioned to help understand storm water issues in the Waipu catchment. It is true that AWT responsibly followed Government guidelines in taking limited account of Climate Change in their modeling but they primarily considered modified land use and vegetation cover. My reading of the AWT report is that the potential for flooding in areas of Waipu, at least in the medium term, is mostly due to a form of human-induced modification of the physical environment that is much closer to home than global climate change.

I am concerned that your suggestion that flooding potential in Waipu is primarily attributable to “climate change” might derail the serious consultation about storm water issues in the context of the Waipu Structure Plan. People wanting to argue against council-imposed limitations to development will be tempted to seize on the propaganda promulgated by the climate skeptic Ian Wishart to argue against one underlying assumption of the storm water modeling work and conclude that all recommendations in the AWT study should be ignored. That would be very unhelpful in finding a way forward with a structure plan for Waipu.

Knowledge of the likely gradual trends resulting from climate change (i.e. increased frequency and severity of storms, reduced average rainfall and rising sea level) is an essential contribution to planning future storm water systems. The magnitude and timing of these trends cannot be predicted precisely but, through the use of sensitivity studies and regularly updated source information, a reliable storm water planning process can be established and further developed over time.

For example, the AWT report is based on an increase of mean sea level of 0.5 metres by 2100, as recommended by the Ministry for the Environment six years ago. The AWT report also includes a sensitivity study with a mean sea level rise to 1 metre by 2100. In fact, more recent data in the Copenhagen Diagnosis indicates the possibility of a mean sea level rise of 2 metres by 2100. Such changes need not be scary. They will not occur suddenly like a tsunami, but will occur imperceptibly over time. If planners and engineers know that mean sea-level will slowly rise over a long time then adaptation to a changing environment is quite practical. Even a mean sea-level rise of 2 metres, occurring gradually over three generations, could be accommodated in New Zealand with

forward looking design. There is no need to take an ostrich-like approach and to deny the existence of reality.

You also reported last week that the journalist and writer Ian Wishart, author and publisher of “Air Con” (Howling at the Moon Publishing 2009) has been invited by Gordon Ferrier to promote his book in Waipu. I bought a copy of Mr Wishart’s book to try to understand his climate skeptic position and his approach to informed debate. I have concluded that his journalistic blurring of the distinction between fact and fiction is not at all helpful to local people in understanding the nature of climate change.

Mr Wishart’s book is founded on a conspiracy theory. He claims that in the mid 1980’s a plot was hatched to deliberately mislead the world with a scare story. His alleged motivations for that deception are unclear and he does not identify the alleged prime instigators of the deception. He then concocts a web of half truths to support his allegation that a very large number of politicians and scientists have deliberately constructed a tissue of lies to defraud the people. Mr Wishart’s conspiracy theory conflicts with my personal experience.

In the 1980’s when he alleges that the global warming plot was hatched, I was already employed by the British coal industry researching arguments to defend the coal industry against the major threat posed by global warming (as we called climate change in those early days). For example, in the early 1980s I witnessed the UK Coal Industry paying a large sum of money to get an American academic to be the guest speaker at a very prestigious lecture on his theory that sunspots explained global warming. That sunspot theory has long since been discredited, but it is still recycled by Mr Wishart. There is an obvious motive of self-preservation of the fossil fuel industries to conspire to undermine the science of climate change and to create doubt about the consequences of large scale fossil fuel combustion.

I worked on the carbon capture and storage technical solution to the climate change problem after we realised that the truth of the global warming principle was undeniable. These days the more responsible energy and motor industries distance themselves from the extreme climate sceptic camp, but the old flawed arguments still recirculate around the internet.

If I were a conspiracy theorist, I would suggest that the so-called evidence that latter-day writers, such as Mr Wishart, can gather from the internet in vast quantities is, in part, the culmination of 3 decades of orchestrated campaigning by the fossil fuel and motor vehicle industries to confuse and misinform people and to create doubt about Climate Change in order to protect themselves. Surely that conspiracy theory has much more credibility than Mr Wishart’s conspiracy theory.

Mr Wishart presents his arguments in a simplistic form of two opposing belief systems. I am often asked whether or not I believe in Climate Change. My response is that the phenomenon of Climate Change is not something that people have freedom to believe in or not. It is not a religious belief system in a supernatural power. It is a real physical phenomenon, based on a long-established scientific theory and proven now by extensive evidence. It does not matter at all how many people say that they are persuaded to believe or not believe in the reality of the phenomenon. Without supernatural intervention, belief alone cannot change the way the physical world works.

The basic problem is that removing carbonaceous fuel from underground, where it has been for millions of years, burning it and exhausting the resulting carbon dioxide into the atmosphere, makes significant changes to the natural balances of Planet Earth. That will result in conditions that differ from the conditions to which modern civilisation has become adapted. People are resistant to change.

Never in the history of our planet has there been a prolonged and extensive transfer of carbon from underground into the atmosphere like that happening due to human exploitation of fossil fuel. The world is embarked on a large unplanned experiment for which there is no precedent. Therefore the outcome of that experiment cannot be known with precision.

I have followed the climate change story in the course of my work for the last 30 years. I know through my own understanding of science that there is no doubt that increasing CO<sub>2</sub> concentrations in the atmosphere will, slowly but surely, cause long term changes. These include increasing ocean temperatures, reducing ice sheets, changing storm patterns and rising sea levels.

There is no direct challenge in Mr Wishart's book to the basic theoretical physics of the Greenhouse Effect, whereby the radiative balance of Planet Earth is influenced by the concentration of CO<sub>2</sub> and other trace permanent gases in the atmosphere. According to the physics, a substantial increase in CO<sub>2</sub> concentrations will result in a new natural thermal balance for Planet Earth slowly becoming established. Over the last three decades, during which the greenhouse effect has been closely studied, a discernible trend has gradually emerged above the noise of the complex variability of global climate.

Mr Wishart counters that evidence only by making citing examples where reality does not fit a simple cause and effect pattern. In a highly complex system the occurrence of such instances is not surprising.

In his book there is no attempt to explain how carbon, which was laid down underground over millions of years in the carboniferous period, can be transferred back into the atmosphere, by humans over a mere century or two, without moving global temperatures

back to towards the high temperature regime that existed 400 million years ago, before the carboniferous period.

Mr Wishart's book contains over 400 references, mostly referring to websites. Regrettably these rarely lead to primary peer reviewed scientific references, but are only second-hand or third-hand journalistic reports. This does not allow the questioning reader to eliminate the journalist's spin and dig through to the real scientific arguments and findings being quoted.

I am most concerned about attempts by Mr Wishart and other climate sceptics to prey on the deep-seated human desire to avoid threats to their status quo and their fear of change. By providing false hope that the planning challenges posed by climate change might all just fade away, the climate sceptics seek to gain political influence through voters at national and international level. Initially the policy makers accommodated uncertainty by adopting the precautionary principle, but they have now moved beyond that point to certainty that there is a problem and are now focussed on what to do about it. It is great pity that at Copenhagen the world leaders failed to get beyond national self interest.

Gordon Ferrier invited me to attend the meeting that he has arranged and extensively advertised saying that there was public interest in witnessing debate on the issues. Initially, I was interested in attending in the hope of entering into objective, well-informed, scientific discussion. However, having read some chapters of Mr Wishart's *Air Con* book and checked some of his references, I have concluded that there would be no possibility of an objective give and take discussion of issues with him. Instead I have written this open letter.

The combative argumentative style displayed in Mr Wishart's book and elsewhere shows that he does not deal directly and objectively with the entirety of the technical arguments being made, but instead picks on some minor matter to denigrate and insult the people expressing views contrary to his own. I have no desire to enter into debate on the basis that it would simply be a point-scoring spectator sport. So I will not attend the meeting.

I suggest that unless people have an appetite for conspiracy theories and science fiction as light entertainment that they might also pass on Gordon Ferrier's invitation to Mr Wishart's book promotion.

Steve Goldthorpe

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