Oral Submission March 2025 Hearings

Desna Bruce Walker

I will start by declaring that I am appalled that this whole TTPP Coastal Hazard Mapping Plan has got as far as it has. It is an extraordinary waste of money - our taxpayer and ratepayer money. The original budget of $5 million has now morphed into $8.4 million. When the Chair of the TTPP, Rex Williams, was questioned on this at the 25 February meeting this year, he glibly replied that the figure of $5 million was "plucked out of the air"
With this frivolous statement, he exposes his arrogance and total disregard for the hard working coasters - from Karamea down to the Haast. And especially for the home owners that are affected by this coastal hazard zoning that they are ploughing ahead with, knowing full well the negative impact that they are having on all coastal properties.

Cr Paul Madgwick then noted at that meeting that legal and mediation costs would see the bill soar even further.
" At the end of the day, he said, the ratepayers carry the can and it's a heavy load to carry. It might have been cheaper for each district to do its own plan".

Cr Madgwick is not far wrong there. Each area of the 600 km long rugged coastline from Karamea to Haast is unique, with its own set of parameters. And some reports have already been commissioned and completed. Where I live, at Carters Beach, NIWA's Michael Allis prepared a report for the WCRC in 2017 on "managing and adapting to coastal erosion at Carters Beach."
In his summary of the report, he recommended ongoing monitoring of the coastline with an annual interpretation by a qualified coastal engineer/geomorphologist. He also suggested building a small vegetated sand dune/bund at the beach edge of the domain, as a trigger point.
How sensible is that? No projections or modelling, no worst case scenarios, no exaggerated threats - and at a fraction of the cost.
Mr Allis takes into account the Buller River training walls which are blocking part of the northward drift of sand and sediment, and therefore causing accretion, not erosion.
In 2017, 8 years ago, he noted that "the erosion risk to private land and property at Carters beach is not high". And with the continual accretion, it is even less so today.
I am testament to this observation myself, as where I live at Carters Beach, there is a steady formation of sand dunes and

grasses at the back of the beach. When I moved here 4 years ago, it was completely flat, with no vegetation. In this relatively short time, I estimate the dunes to now be about 1 m high, and 4 mts wide, with a thick covering of marram grass. If this rate of evolution continues, they will have doubled in size in another 4 years, and provide a huge protection for the farmland and property behind. These are natural occurrences, which are happening all the time, and, as Prof Allis suggests, can be regularly monitored to see what is happening to the shoreline. A sea level rise, if any, is something that occurs slowly, so there will be plenty of time to act before there is any real risk to property.

Dr Willem de Lange (BSc, MSc Hons, DPhil), recently completed a risk assessment report of the Kapiti Coast, and this has been peer reviewed by Dr Ian Wright (PhD, MSc, BSc Hons, FGS, Geologist).
In Dr de Lange's report, he also notes that most sandy shorelines around the country are accreting - particularly where there is a high sediment supply.
In his view, any projections beyond 20 years for any coastal region around NZ, are the same as tossing a coin.

The NZ Sea Rise uses 8 years of data from NIWA, collected between 2003 and 2011, and then uses this to project out to 100 years and more (to the year 2300 for some graphs)
Both scientists note that the short term inSAR estimates used by the NZ SeaRise online tool are inconsistent with the cGPS data, supporting the conclusion that this data is not fit for purpose, and should not be used for planning purposes or projecting long term trends.

I decided to check it out for myself.
I find that the NZ SeaRise is a 5 year research program, costing $7.1 million, funded by the Ministry of Business,Innovation & Employment.
Takiwa is a maori owned data management and analytics platform that hosts and provides access to the NZSeaRise projections through an online tool.
The program ran from 2018 to 2023. The goal of the program is to improve predictions of sea level rise.
Although the program stopped in 2023, the last publication I can find is July 2022, and astoundingly, it states that the paper is currently under review in the American Geophysical Union journal. The paper is titled:

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"Working paper: the significance of vertical land movements at convergent plate boundaries in 1 probabilistic sea-level projections for AR6 scenarios: the New Zealand case"
So here we are in March 2025 - nearly 3 years later, and it has still not been accepted for publication.
What does this tell us?
If the NZ SeaRise method has not been accepted by the scientific community, why is it being used by the TTPP?

But maybe even worse, are the punitive disclaimers, both from NZSeaRise and Takiwa.
NZSeaRise: The 8 years of data collected is an estimate only, and subject to uncertainty. We make no representations or warranties as to the data, and shall not be liable to any person who uses, or relies on the data, or this web map, on any ground, for any loss, damage or expense arising from such use or reliance.
Takiwa: The data used is supplied by customers or other third parties. You agree that Takiwa has no responsibility or liability for such data, including where it is incorrect, incomplete, inaccurate or unsuitable for your purposes. Any reliance placed on such data is at your own risk.
And then there is a "decline" or "accept" button.

So why is the TTPP using the NZSeaRise/Takiwa programs, when there is absolutely no endorsement or guarantee from the Government agencies themselves? Why is so much money being spent on so much uncertainty? Why is any of the data or programs or modelling being taken seriously, when they are based on a method which has not passed scientific scrutiny?

Would anyone buy a car, or a washing machine, if the manufacturers made you sign a disclaimer for their product?
Why are sets of rules and policies being put in place when there is no certainty, no evidence, and no accurate data at all to support this?
The only certainty is the immediate effect this has on our properties:

Higher rates
Increased insurance premiums or insurance withdrawal
Mortgage applications denied
A crash in real estate values
A stop or restrictions on renovations or building permits.

And a lot of angst, worry and anger for the owners.

But perhaps the TTPP committee are not wholly to blame.
After all, they are just following orders.

Perhaps the finger of blame could be pointed at the NZ Coastal Policy Statement for requiring councils around NZ to project 100 years into the future, rather than a much more realistic 20 years. Prof. De Lange also states " it is not feasible to use models to assess the effects of climate change on coastal hazards 100 years from now, as required under Policy 24."

Many of the submitters are pointing this out, so why don't the councils and planners also object and say so? It seems that they prefer to go along with the unreasonable directives, and throw the coastal property owners under the bus.

And yet, on the contrary, the TTPP planners have NOT followed the NZCPS guidance when it comes to which Sea Level Rise projections to use.

Sharon Hornblow confirms that for the TTPP planning maps, they used 1% AEP (1 in 100 yr event), and 8.5 RCP/SSP with a projected 1 mt sea level rise.
They have used worst case scenario, when the guidance from the IPCC, and the NZCPS, is to use the best available information on the LIKELY effects, NOT unlikely outcomes which are implausible.
Policy 3 of the NZCPS is the precautionary principle. It "requires precaution for decisions where full information on effects is not available". This has not been followed.
Add to this, that Vertical Land Movement (VLM) has NOT been accounted for, and we have a very sketchy and unreliable projection for the future indeed.

NEMA (2023) recently advised the government that there is a 75% probability of a major Alpine Fault earthquake in the next 50 years. So this is far more likely than a projected 1m sea level rise in 100 years, and underlines the limitations and value of these long term studies, due to their high level of uncertainty. So why is all this money, time and effort being spent on them?

It seems that the modelling and projections are pretty far removed from real life. A good example of this is a case of a man living near the Wairoa River in Hawkes Bay, whose property was caught in the floods last year. When he reported and detailed his experience to the Hawkes Bay regional Council, he was told "that can't possibly have happened, because our models tell us a different story".
This is a total disconnect from reality. Computer generated projections of what might happen, can never replace the reality of what does happen.

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As reported in The News, many West Coast residents and homeowners are distressed by the hazard mapping zones. Some are worried they may have to declare bankruptcy, others called the process illegal and morally wrong. Business groups in places like Punakaiki are critical of the unworkable rules for business and tourism development.

I note that in the Coastal Hazards and Climate Change Guidance from July 2024, it states:
Technical supplementary documents to support this guidance on the adaptation process had been planned for publication later in 2024. However, the Government has since announced the development of an adaptation framework for NZ, informed by a select committee inquiry.
The supplementary documents and additional adaptation guidance are not being progressed while the framework is under development, and will be reassessed once the new framework is established.

To date, the government has not yet completed the adaptation framework. So I say, if the MfE is stopping and waiting, then so should the TTPP. Wait for the Resource Management Act new national direction for councils with referral to natural hazards and consenting new development.
Wait for the new framework which is expected to cover the following :

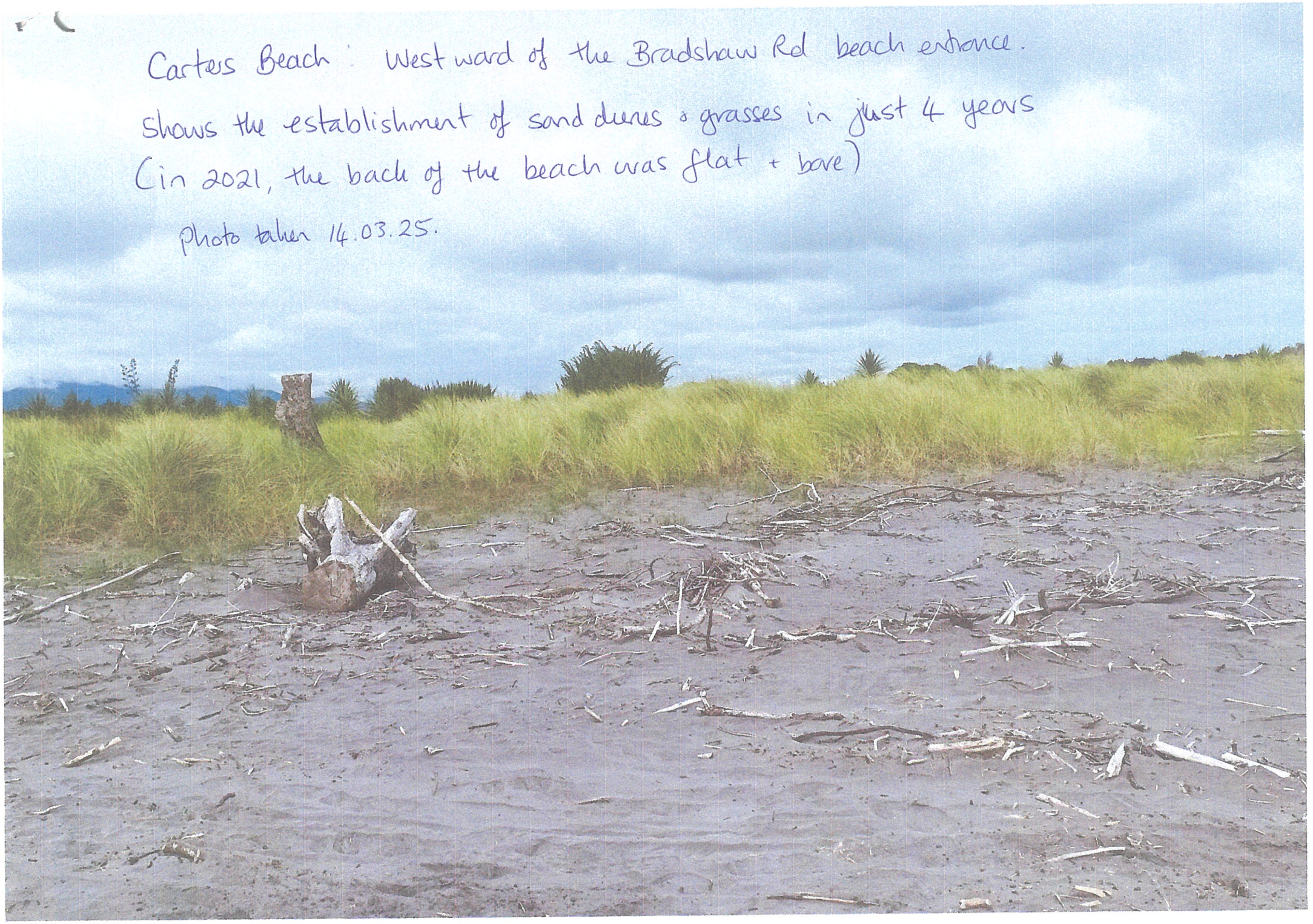
1) Provide certainty for property owners and ensure any support is predictable, principled and fair. This includes government response and the roles of insurers, local government and other groups.
2) Improve the sharing of information so that everyone - individuals, councils, and industries - can make informed decisions.
3) Contribute to maintaining efficient housing and insurance markets.
4) Ensure people have the ability and incentive to make decisions to reduce their risk where they can.

The only realistic and practical approach to estimate coastal risks, is to use historical data, monitor each area of coastline for changes in sea levels, accretion and erosion, and adjust short term projections accordingly as new advances in knowledge emerge. And for this, we do not need the TTPP, or to spend millions of dollars of taxpayers money on questionable, unconvincing and implausible projections.

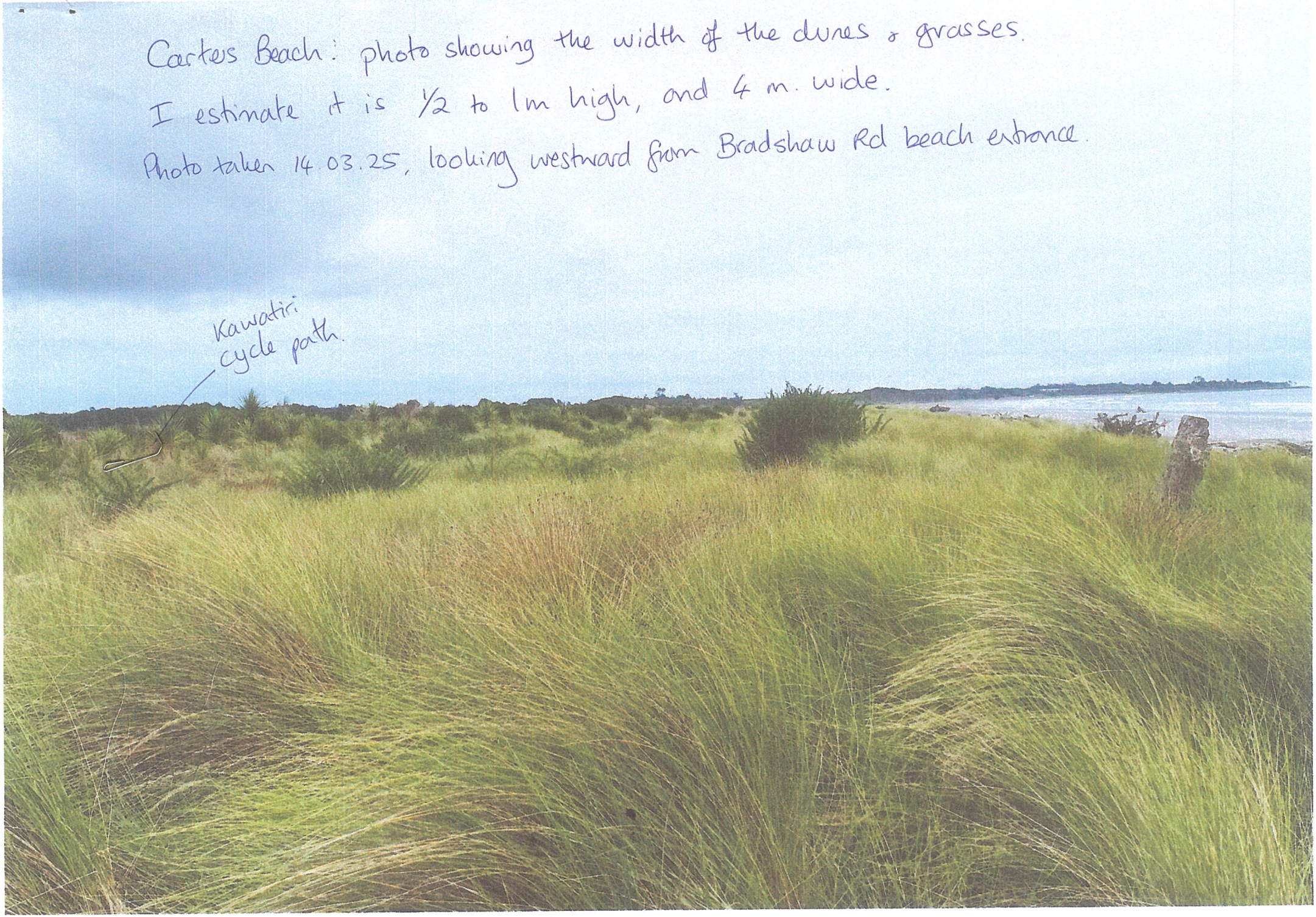
Carters Beach: Westward of the Bradshaw Rd beach entrance.

Shows the establishment of sand dunes + grasses in just 4 years (in 2021, the back of the beach was flat + bare)

Photo taken 14.03.25.



Cartes Beach: photo showing the width of the dunes & grasses.
I estimate it is ½ to 1m high, and 4 m. wide.
Photo taken 14.03.25, looking westward from Bradshaw Rd beach entrance.



About this guidance

Why is this guidance required?

Since 2001, the Ministry for the Environment has provided guidance to local government on adapting to coastal hazards and the risks presented from climate change,[1] particularly sea-level rise (SLR). Hazards associated within a complex and dynamic coastal zone, have been an historic and are an ongoing occurrence for the coastal communities of Aotearoa New Zealand. Hence, the need to plan for coastal hazards that exist irrespective of climate change and SLR (ie, cliff collapse, coastal erosion due to changes in sediment supply due to land-use changes, tectonic activity and so on). There is also a need to plan for the way that coastal hazards that will be modified and, in most cases, amplified by SLR.

This guidance incorporates the NZ SeaRise research programme's updated Aotearoa sea-level rise projections that were released on 2 May 2022. These projections combine the 2021 Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) sea-level data (downscaled to Aotearoa), with localised rates of vertical land movement (VLM) around the coast (Fox-Kemper et al, 2021; Kopp et al, 2023; Naish et al, in review). The result is estimates of relative sea-level rise (RSLR), or sea-level rise relative to the local landmass. This information is critical for planning and implementing hazard and risk assessments, as well as adaptation approaches locally in our complex and dynamic coastal environments.

The NZ SeaRise method represents an emerging scientific approach. While the SLR projections are based on the same framework used by the IPCC, the satellite-derived estimates of VLM are new science and cover a relatively short time period (8 years). At the time of publication of this guidance, the NZ SeaRise method was still under peer review by an international scientific journal and had not yet been accepted for publication (Naish et al, in review). Further improvements to the NZ SeaRise projections with new and longer measures of satellite-derived VLM and other data are already signalled (Levy et al, 2023). Land Information New Zealand is also set to establish a further six global navigation satellite system stations, which will result in improved measures of sea level.

The NZ SeaRise method is the only currently available approach for estimating RSLR around the entire Aotearoa coast under a range of plausible future climate change scenarios. Using environmental models or approaches like NZ SeaRise, which are emerging science or contain uncertainties, is deemed appropriate for providing insight into complex systems when they represent the only available information (MfE, 2023b).). However, because of the uncertainty associated with these types of models, it is recommended that they are used alongside multiple sources of information (MfE, 2023b). Due to the uncertainty associated with the NZ SeaRise method, particularly with the satellite-derived VLM rates, this guidance recommends a multi-evidence approach for assessing RSLR. This guidance recommends using these as part of a precautionary approach alongside a dynamic adaptive pathways planning (DAPP) approach, which allows for adjusting pathways as new information emerges.

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[1] *Climate hazards* here are the physical stressors that arise from climate change at the coast. *Climate risk* is the potential for adverse consequences for human and ecological systems.