

Proposed Natural Resources Plan:

Submitter:

Joan Allin and Rob Crozier

Submitter Number:

S175

Form 5: Submission on the Proposed Natural Resources Plan for the Wellington Region
 This is a submission on the Proposed Natural Resources Plan for the Wellington Region pursuant to Clause 6 of Schedule 1, Resource Management Act 1991



To: Freepost 3156
 Wellington Regional Council
 PO Box 11646
 Wellington 6142

Your details

Full name: Joan Allin and Rob Crozier

Organisation name (if applicable): _____

Address for service: 47 Rodney Ave RD1 Otaki 5581

Telephone no's: Work: _____ Home: 06 364 2291 Cell: 021 062 9444

Contact person: Joan Allin

Address and telephone no (if different from above): _____

Electronic communication

Wellington Regional Council has a preference for providing information about the Proposed Natural Resources Plan via email. We will send you updates on the process, information and provide you with details of any meetings and the hearing. Please tick here if you do not agree to receive communication via email.

Email address: joan.allin@inspire.net.nz

Trade competition

I/we could not gain an advantage in trade competition through this submission *(If you ticked this box, delete the rest of this section and go straight to 'Your submission')*

I/we could gain an advantage in trade competition through this submission

If you could gain an advantage please complete one of the following:

I/we are directly affected by an effect of the subject matter of my submission that adversely affects the environment, and does not relate to trade competition or the effects of trade competition.

I/we are not directly affected by an effect of the subject matter of my submission that adversely affects the environment, and does not relate to trade competition or the effects of trade competition.

Your submission


The specific provisions of the Proposed Natural Resources Plan that this submission relates to are:
 Please continue on separate sheet(s) – an excel spreadsheet of all of the proposed plan provisions is available online
www.govt.nz/regional-plan-review

Please see the attachment

The specific provision of the Proposed Natural Resources Plan that my submission relates to is (please specify the provision/section number): 	My submission on this provision is: →	<input type="checkbox"/> I support the provision <input type="checkbox"/> I oppose the provision <input checked="" type="checkbox"/> I wish to have the specific provision amended
	Reasons for my submission: →	
	I seek the following decision from WRC (give precise details): →	

Attendance and wish to be heard at hearing(s)

- We do wish to be heard in support of my/our submission**
[Note: This means that you wish to speak in support of your submission at the hearing(s).]
- We do not wish to be heard in support of my/our submission**
[Note: This means that you cannot speak at the hearing. However, you will still retain your right to appeal any decision made by the Wellington Regional Council to the Environment Court.]
- If others make a similar submission, I will consider presenting a joint case with them at a hearing.

Signature:  Date: 16/10/15

[Person making submission or person authorised to sign on behalf of person making submission. NB. Not required if making an electronic submission]

Publication of details

Wellington Regional Council is legally required to notify a summary of submissions, including **your name and address for service** as provided on this submission form. Your name and address are included so that a person making a further submission is able to serve you with a copy of it.

ATTACHMENT TO THE SUBMISSION OF JOAN ALLIN AND ROB CROZIER

INTRODUCTION

Thank you for extending the time for making this submission to Friday, 16 October 2015. We are grateful for the extension.

We live on the beachfront at Te Horo Beach, which is part of an area of long-term coastal accretion.

While our property was not badly affected by Kapiti Coast District Council's now-withdrawn coastal hazard provisions in its Proposed District Plan, we lived through the coastal erosion fiasco and do not want to have to repeat such an experience. Please see the attached Appendix "Notes on the Kapiti coastal erosion fiasco and problems caused more generally by a number of NZ coastal scientists", a document that Joan prepared in April 2015.

Joan, who is retired now, has been:

- a senior lecturer in law at Victoria University of Wellington;
- a resource management partner at Chapman Tripp;
- an independent hearings commissioner for resource management matters; and
- a judge of the Environment Court - the Principal Environment Judge and then an alternate Environment Judge.

It is important for the Proposed Natural Resources Plan (PNRP) to be written in a way that:

- limits the potential for a fiasco, such as the Kapiti one, to recur; and
- enables appropriate activities to occur.

In this submission, we address:

- some matters that are relevant to us directly (eg gravel extraction from the Otaki River and quality of water in the Mangaone Stream); and
- numerous more general matters.

GENERAL AND WHOLE PLAN ISSUES

Whole plan - oppose and seek amendment

Reasons: Except where support is expressed, the whole PNRP is opposed, including because it does not appropriately enable and address appropriate use and development, including coastal hazard mitigation (including protection) activities. That is particularly the case in relation to areas of significant existing development.

Please note that when reference is made in this submission to hazard mitigation, that includes protection.

The provisions of the PNRP are not in accordance with the Resource Management Act 1991 (RMA) and sound resource management practice.

The PNRP fails to give effect to the New Zealand Coastal Policy Statement 2010 (NZCPS) and seems to have had little or no regard to the provisions of the NZCPS.

Just by way of example, in contrast to Policy 3 of the NZCPS, Policy P3 in the PNRP fails to recognise that a precautionary approach is not appropriate in the wide-ranging circumstances set out in Policy P3 of the PNRP.

Another example is Policy 27 of the NZCPS. Policy 27 of the NZCPS is entitled "Strategies for protecting significant existing development from coastal hazard risk". It sets out a range of options that should be assessed for "areas of significant existing development likely to be affected by coastal hazards."

The range of options includes, among other things, hard protection structures.

Implicit in Policy 27 is that, having assessed the range of options, appropriate ones should be able to be progressed. The PNRP does not enable this to occur.

The PNRP fails to recognise the benefits from coastal hazard mitigation measures and fails to include appropriate objectives, policies and rules to enable appropriate coastal hazard mitigation activities, especially in areas of significant existing development.

Where activities are not permitted or controlled activities, appropriate support and enabling in the objectives and policies is critical to the ability to obtain consent and the PNRP does not provide that.

Objective 6 of the NZCPS is:

"To enable people and communities to provide for their social, economic, and cultural wellbeing [sic] and their health and safety, through subdivision, use and development, recognising [a number of identified matters]."

In relation to the entire PNRP:

- there have not been adequate or appropriate s 32 evaluations; and
- adequate or appropriate s 32 reports have not been undertaken or regarded.

Decision sought: Ensure that the provisions of the PNRP comply with the RMA, including that they give effect to the NZCPS and the Regional Policy Statement for the Wellington region (RPS).

Undertake appropriate s 32 evaluations and prepare revised s 32 reports, having proper regard to s 32 matters, including in relation to the implications of the PNRP for hazard mitigation (including protection) measures. Have regard to those revised reports.

Revise the PNRP to address the concerns expressed throughout this submission.

Reconsider the whole plan, including definitions, objectives, policies, rules, other methods, schedules and maps that relate to use and development and directly or indirectly to climate change, coastal hazards and mitigation (including protection) measures, both within the coastal marine area and otherwise eg in beds of rivers and streams to ensure that:

- the definitions are clear, consistent and appropriate and will allow all relevant activities;
- the definitions (existing or newly-created ones) and other relevant provisions relating to coastal hazard mitigation (including protection) appropriately address the concerns expressed throughout this submission, including the need to distinguish between hazard identification/risk assessment which is science-based and objective (rather than precautionary) and risk management which is policy-based and enables judgements to be exercised;
- the objectives and policies enable and encourage appropriate use and development, including hazard mitigation measures;
- the rules:
 - provide for as many activities as possible as permitted or controlled activities;
 - provide that the rest are restricted discretionary or discretionary activities;
 - do not result in activities becoming non-complying activities by virtue of any other rules, eg rules that refer to the Schedules or rules that refer to vehicles or because rules permitting activities are not appropriately inclusive;
 - do not make any activities non-complying or prohibited; and
- aspects from the whole PNRP including definitions, objectives, policies, rules, other methods, schedules and maps are added, revised or deleted to achieve these outcomes.

In relation to all of the decisions sought in this submission, this submission also seeks such other decisions as would address the concerns expressed. Where specific wording is suggested, that wording is an example of what might be acceptable wording but other wording or outcomes may be preferable and the decisions sought include such other options.

Where a more effective resolution of concerns expressed in the reasons would involve changes to provisions other than those referred to below, that decision is also sought.

Please note that when reference is made in this submission to hazard "mitigation", that includes "protection".

Whole plan - failure to address a range of matters relating to risk (including the definitions of “risk” and “risk-based approach (natural hazards)”), risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues - seek amendment

Reasons: Joan’s attached paper explains that there have been misinterpretations of the NZCPS, which have resulted in problems in Kapiti. Similar problems are occurring elsewhere.

The NZCPS states:

“This NZCPS is to be applied as required by the [RMA] by persons exercising functions and powers under the [RMA].” (page 7).

It is therefore the role of a Council (or the Environment Court) to apply the NZCPS as required by the RMA, not the role of coastal scientists.

Policy 24 states the functions of a Council in relation to the identification of coastal hazards:

“Policy 24 - Identification of coastal hazards

- (1) Identify areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected. Hazard risks, over at least 100 years, are to be assessed having regard to:
- (a) physical drivers and processes that cause coastal change including sea level rise;
 - (b) short-term and long-term natural dynamic fluctuations of erosion and accretion;
 - (c) geomorphological character;
 - (d) the potential for inundation of the coastal environment, taking into account potential sources, inundation pathways and overland extent;
 - (e) cumulative effects of sea level rise, storm surge and wave height under storm conditions;
 - (f) influences that humans have had or are having on the coast;
 - (g) the extent and permanence of built development; and
 - (h) the effects of climate change on:
 - (i) matters (a) to (g) above;
 - (ii) storm frequency, intensity and surges; and
 - (iii) coastal sediment dynamics;
 taking into account national guidance and the best available information on the likely effects of climate change on the region or district.” (emphases added)

Policy 24 is often seen set out incorrectly. The mistake that people make is indenting the words at the end ie “taking into account ... the likely effects of climate change on the region or district” so it looks like those words are part of (h). But they are not part of (h). They form the ending of what is a long sentence that effectively reads:

“Hazard risks, over at least 100 years, are to be assessed having regard to [(a) to (h)] taking into account ... the best available information on the likely effects of climate change on the region or district.”

Setting out Policy 24 incorrectly affects its meaning.

Policy 24 effectively says that a Council's function is to:

“(1) Identify areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected. Hazard risks, over at least 100 years, are to be assessed having regard to [(a) to (h)] taking into account national guidance and the best available information on the likely effects of climate change on the region or district.” (emphases added)

Risk is defined in the NZCPS as:

“Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence ...”. (emphasis added)

So, to carry out its functions under Policy 24, a Council needs to:

- identify areas potentially affected by coastal hazards, with the hazard risks being assessed taking into account the likely effects of climate change;
- give priority to the identification of areas at high risk of being affected;
- in assessing risk (likelihood x consequences), consider the likelihood of coastal erosion occurring and the consequences.

Policy 25 of the NZCPS deals with “areas potentially affected by coastal hazards”, so “potentially affected” is used on its own there. However, it should be read in the context of Policy 24, which specifically deals with the “[identification of] areas ... potentially affected by coastal hazards” and also refers to the likely effects of climate change (and hazard risks), so that Policy 25 addresses areas identified by Policy 24.

Policy 27 of the NZCPS identifies the range of options a Council should assess for reducing coastal hazard risks in areas of significant existing development likely to be affected by coastal hazards. These areas should also have been identified by a Council during the Policy 24 process, as a subset of the other areas.

The first part of Policy 27 states:

“Strategies for protecting significant existing development from coastal hazard risk

In areas of significant existing development likely to be affected by coastal hazards, the range of options for reducing coastal hazard risk that should be assessed includes: ...” (emphases added)

Providing only “very unlikely” results, as occurred in Kapiti (or in other areas of significant existing development):

- does not provide a Council with the appropriate scientific information that it needs to carry out its tasks;
- does not enable the community to participate in the RMA process with appropriate scientific information; and
- wastes resources as it does not enable a Council to focus attention on the areas where options for reducing coastal hazards are actually needed ie the areas likely to be affected.

Policy 3(2) of the NZCPS states:

“In particular, adopt a precautionary approach to use and management of coastal resources potentially vulnerable to effects from climate change, so that:

- (a) avoidable social and economic loss and harm to communities does not occur;
- (b) natural adjustments for coastal processes, natural defences, ecosystems, habitat and species are allowed to occur; and
- (c) the natural character, public access, amenity and other values of the coastal environment meet the needs of future generations.”

Some coastal scientists seem to have interpreted this provision as applying to them and therefore think that their scientific assessment of coastal hazards should be precautionary. Indeed, according to Coastal Systems Limited’s website as at March 2015, a number apparently consider that their results should be “very unlikely”.

However:

- Policy 3 is referring to what Councils are to do (not coastal scientists);
- it relates to “use and management of coastal resources” so, planning and resource consent matters, not identification of the hazards which is addressed in Policy 24;
- it uses different wording from Policies 24 to 27 ie “potentially vulnerable” so it is arguable whether it should be read in light of Policy 24 or not which makes it all the more important for coastal experts to prepare assessments based on objective science so that no matter what way the law is interpreted or what specific policies apply, the decision-maker has the relevant scientific basis for the decision;
- it refers to adopting a precautionary approach to use and management of coastal resources potentially vulnerable to effects from climate change, so that avoidable social and economic loss and harm to communities does not occur. That cuts both ways. Too stringent provisions can cause avoidable social and economic loss and harm to communities as can too lenient provisions.

In short, Policy 3 does not direct that coastal hazard assessments should be precautionary.

Confirmation of that also comes from DOC's Guidance note on Policy 3 that says "The application of the precautionary approach is a risk management approach rather than a risk assessment approach." (page 6)

It is also perhaps relevant to refer to Policy 3(1) of the NZCPS. It states:

"Adopt a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse."

While Policy 3(1) is dealing with the effects of proposed activities on the coastal environment, rather than the effect of climate change on activities, the references to "uncertain, unknown, or little understood" and to "potentially significantly adverse" are worth noting. There is a linkage between Policy 3(1) and 3(2) because Policy 3(2) begins "In particular,".

Finally, some coastal experts have taken the reference to "potentially affected" in Policies 24 and 25 to mean "very unlikely", ignoring the fact that Policy 24 refers to the "likely" effects of climate change on the region or district, and misinterpreting Policies 24 and 25.

The joint Australian and New Zealand International Standard on risk management, AS/NZS ISO 31000:2009 "Risk management - Principles and guidelines", is relevant. That Standard supersedes AS/NZS 4360:2004.

In an explanation to Policy 29 (but not in the policy itself), the RPS refers (at page 110) to the superseded Standard, not the current Standard. The current Standard that superseded AS/NZS 4360:2004 is what is now relevant to the PNRP provisions.

AS/NZS ISO 31000:2009 specifically addresses uncertainty and sets out a number of helpful principles. The definitions, objectives, policies and methods of the PNRP currently do not incorporate some of these principles as well as they should.

Some of the principles are:

"d) Risk management explicitly addresses uncertainty.

Risk management explicitly takes account of uncertainty, the nature of that uncertainty, and how it can be addressed.

...

f) Risk management is based on the best available information.

The inputs to the process of managing risk are based on information sources such as historical data, experience, stakeholder feedback, observation, forecasts and expert judgement. However, decision makers should inform themselves of, and should take into account, any limitations of the data or modelling used or the possibility of divergence among experts.

...

h) **Risk management takes human and cultural factors into account.**

Risk management recognizes the capabilities, perceptions and intentions of external and internal people that can facilitate or hinder achievement of the organization's [organization is a wide-ranging term] objectives.

i) **Risk management is transparent and inclusive.**

Appropriate and timely involvement of stakeholders ... ensures that risk management remains relevant and up-to-date. Involvement also allows stakeholders to be properly represented and to have their views taken into account in determining risk criteria."

The failure of the PNRP to address a number of these matters, including the failure to explicitly take account of uncertainty and the range of likely outcomes, instead of unreasonable, very unlikely outcomes or an inappropriately precautionary approach, needs to be remedied.

As the Standard says, it is relevant to take into account the human factor and recognise the capabilities, perceptions and intentions of external and internal people that can facilitate or hinder achievement of the objectives.

A critical factor relevant to coastal hazards that is currently problematic in New Zealand is the human factor of coastal scientists. Everyone assumes that the property owners are being unreasonable and that the scientists are being scientific. Those assumptions have been proven wrong in Kapiti. Some coastal scientists are misinterpreting both the NZCPS and their role in the legal process, with significant resulting problems and imposition of unreasonable costs and restrictions.

What is needed is transparent, objective, scientific information, including information about the uncertainties and the range of likely outcomes, to enable:

- submitters to participate effectively in the RMA process; and
- decision-makers to exercise their judgement appropriately and make informed decisions.

What is not needed is "precautionary" or "potential" results based on the scientist's misinterpretation of the NZCPS and a one-sided policy approach as to what the scientist considers to be appropriate, misleadingly dressed up as science.

Scientists who provide only unlikely or very unlikely results are not providing information that is appropriate for use in the RMA context.

It would be most unfortunate if GWRC ended up going down the same track as Kapiti Coast District Council relying on scientific information that is not sufficiently robust and that paints an unreasonably negative (indeed very unlikely, as it transpires) picture of outcomes, with all of the negative consequences of that.

The PNRP should clarify that hazard identification/risk assessment is an objective process and that any scientific or expert reports should be scientific and objective (not policy-based or precautionary). That is reinforced in the Department of Conservation's "NZCPS 2010 Guidance Note Policy 3: Precautionary Approach" which states (p.6), "The application of the precautionary approach is a risk management approach rather than a risk assessment approach."

In addition, a critical part of the risk assessment is to report the uncertainty, not hide it in false certainty.

Submitters and decision-makers need the appropriate type of objective hazard identification/risk assessment information to be able to participate in RMA processes in an informed, effective manner. That cannot occur if the hazard identification/risk assessment stage includes hidden (or difficult to disentangle) precautionary adjustments, rather than objective information that appropriately reports the uncertainties.

In contrast to hazard identification/risk assessment, risk management is policy/decision-maker based where decision-makers make judgements based on their assessment as to what, if any, precautionary approach is to be applied.

Decision sought: Revise the PNRP to deal with the concerns expressed.

Incorporate relevant aspects of the joint Australian and New Zealand International Standard on risk management AS/NZS ISO 31000:2009 "Risk management - Principles and guidelines" into the PNRP, including (without limiting the breadth of the decision sought) principles d, f, h and i.

Using appropriate language that is consistent with whatever is eventually adopted in the PNRP, include provisions in the PNRP, including definitions, that emphasise the importance of the distinction between:

- hazard identification/risk assessment, which involves an objective scientific approach (not a precautionary approach) as a component part that calls for uncertainty to be reported, not hidden and precautionary assumptions based on inappropriate, one-sided policy considerations to be avoided; and
- risk management being policy/decision-maker based where decision-makers make judgements based on their assessment as to what, if any, precautionary approach is to be applied.

Incorporate relevant aspects of "NZCPS 2010 Guidance Note Policy 3: Precautionary Approach" which records that "The application of the precautionary approach is a risk management approach rather than a risk assessment approach."

Add reference to AS/NZS ISO 31000:2009 "Risk management - Principles and guidelines" in the PNRP.

Whole plan - coastal icon - seek amendment

Reasons: It is useful that the coastal icon is used to identify matters relevant to the coastal marine area.

However, it is confusing because the statements in the rules "Provisions relevant to the coastal marine area are identified by his icon ..." infer that the provisions may only be relevant to the coastal marine area but that is not what Section 2.1 states.

Section 2.1 states "Unless otherwise stated, provisions marked with the coastal icon apply to both the coastal marine area and the areas landward of mean high water springs where the regional council has jurisdiction."

Decision sought: Clarify the meaning of the coastal icon and make the explanation of it consistent across the PNRP.

Whole plan - Lack of consistency of language and drafting throughout the PNRP, including in the objectives, policies, rules, etc - seek amendment

Reasons: There are inappropriate inconsistencies in language in, and across, the PNRP.

Just by way of example:

- in a number of places there is reference to what is "practicable" eg Policies P4, P25, P27, P132(g);
- in other places there is reference to what is "reasonably practicable" eg Policy P47;
- in other places there is reference to what is "reasonable or practicable" eg Policies P132(b) and (c), P139.

It is unacceptable to convey the impression that practicable does not mean what is reasonably practicable or that what is practicable may not be reasonable. These differences in wording must be avoided.

Decision sought: Review the use of language and drafting throughout the PNRP. Ensure that terminology is used consistently and appropriately and that combinations of terms are also used consistently and appropriately.

Review all of the references to "practicable", "reasonably practicable", "reasonable or practicable" and any other similar terms (or variations of those or similar terms) and use one form of wording that conveys the concept of reasonableness. "Reasonably practicable" is an option or simply "practicable" (provided that reasonably or reasonable is never used in relation to "practicable" or as an alternative to practicable anywhere throughout the PNRP) as a Court would infer an element of reasonableness (as long as the proviso is given effect to).

Where there are equivalent rules in different parts of the PNRP (or within the same parts of the PNRP), ensure that the rules are drafted in a way that is appropriate, consistent and complete.

Where there are lists of things in different rules (eg activities associated with the main activity dealt with in the rule), ensure that all of the lists within and across the rules are appropriate, consistent and complete.

CHAPTER 2 - DEFINITIONS

Reasons: Please also see the reasons under the heading "GENERAL AND WHOLE PLAN ISSUES".

Decision sought: Please see the decisions sought under the heading "GENERAL AND WHOLE PLAN ISSUES".

Definitions - missing definitions - oppose and seek amendment

Reasons: For the reasons explained elsewhere in this submission, the differences in meaning of "disturbance", "damage" and "destruction", how they relate to each other, and how they relate to "reclamation" and perhaps "drainage" should be identified. It seems that including definitions would be the most appropriate way.

Decision sought: Include appropriate definitions of "disturbance", "damage" and "destruction" (or variations of those terms) to identify how they relate to, and differ from, each other and how they relate to and differ from "reclamation" and perhaps "drainage".

Definitions - "Beach recontouring (beds of rivers)" and "Beach recontouring (coastal marine area)" - seek amendment

Reasons: It seems that cutting river (including stream) mouths is not intended to come within these definitions and, if that is the case, this should be made clear.

If these definitions do cover cutting river (including stream) mouths (and indeed even if they don't), the differences in wording between the two definitions are problematic eg referring to mechanical means in one but not the other. The reference to a "river beach" and "beach" in the first definition also seems problematic and perhaps should also include reference to "bed".

Decision sought: Clarify that river (including stream) cutting is not included in these definitions.

Reconsider the differences in the wording of the provisions and make them consistent eg both should include reference to hand or mechanical methods so that provisions in the coastal marine area and in beds of rivers are drafted in a consistent and complete manner eg include reference to mechanical means in both.

Reconsider the use of the terms "river beach" and "beach" in the "beach contouring (beds of rivers)" definition and consider also including a reference to "bed".

Definitions - "Earthworks" - seek amendment

Reasons: While the PNRP says the more specific rule applies and while the definition of "Earthworks" refers to "soil", to avoid any potential for misunderstanding, it would be useful for the definition of "Earthworks" to exclude "**Beach recontouring (beds of rivers)**" and "**Beach recontouring (coastal marine area)**" as well as river and stream mouth cutting.

Decision sought: Insert that the definition does not include **Beach recontouring** (beds of rivers) and **Beach recontouring** (coastal marine area) and does not include river (including stream) mouth cutting.

Definitions - “Functional need” and “Operational requirement” - seek amendment

Reasons: The provisions use these terms in situations where use of the terms does not give effect to the NZCPS and does not enable appropriate hazard mitigation measures that might be able to be located elsewhere but are more efficiently, effectively or cost-effectively located in the particular location.

The focus on need in these terms is too narrow.

Decision sought: Reconsider use of the terms “functional need” and “operational requirement” in the rules and either change the rules or the definitions to enable appropriate hazard mitigation measures that might be able to be located elsewhere but are more efficiently, effectively or cost-effectively located in the particular location.

Definitions - Hazard management strategy - seek amendment

Reasons: The reference to “appropriately qualified agency” is too ambiguous. Does it include eg engineering firms or only government bodies? Depending on its meaning, it could prevent groups of individuals from taking action, leaving them reliant on some “agency” and that would be inappropriate.

The combination of Policy P28 and this definition is problematic in potentially preventing actions being taken in the absence of a hazard management strategy (whatever that might look like or be). Kapiti does not have a hazard management strategy and it could be a long time getting one.

There is also no recognition in the definition that a hazard management strategy should reflect the scale of the work. Again, in light of Policy P28, anything with more than minor effects (and there may well be dispute about the meaning of that) would require a hazard management strategy, but for something relatively minor any hazard management strategy should also be relatively minor.

See also the reasons expressed throughout this submission about hazard risk and coastal hazard management (including protection) matters.

Decision sought: Revise the definition to address the concerns expressed and reconsider the relationship between this definition and Policy 28.

Clarify the reference to “appropriately qualified agency” and make it wide enough to ensure that individuals or groups of individuals are not reliant on a local or central government agency for action to occur.

Reconsider the appropriateness of this definition in light of the reasons and decisions sought throughout this submission.

Definitions - "High hazard areas" - support

Reasons: In light of the current state of knowledge of high hazard areas in the region, the definition seems appropriate and has the benefit of being reasonably certain.

It seems foreseeable that, in the future, other areas may be added as "high hazard areas". There is therefore a need to ensure that the provisions in the PNRP are appropriate not only for the areas currently defined but for areas that might be added in the future.

Decision sought: Retain the definition.

Ensure that the provisions in the PNRP (objectives, policies, rules, etc) are appropriate not only for the areas currently defined but for areas that might be added in the future.

Definitions - "Risk" - seek amendment

Reasons:

The definition of "risk" is identified as being the same as that in the RPS. However, the RPS was initiated before the NZCPS and AS/NZS ISO 31000:2009 Risk management - Principles and guidelines, November 2009.

The NZCPS includes a somewhat unusual definition of "risk" in that it does not define the precise meaning of the term. Instead, it says that it is often expressed in the manner set out and includes reference to the 2009 AS/NZS risk management standard.

The definition of "risk" in the NZCPS is:

"Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence (AS/NZS ISO 31000:2009 *Risk management - Principles and guidelines*, November 2009).

AS/NZS ISO 31000:2009 Risk management - Principles and guidelines defines risk as:

**"2.1
risk
effect of uncertainty on objectives**

NOTE 1 An effect is a deviation from the expected - positive and/or negative.

NOTE 2 Objectives can have different aspects (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process).

NOTE 3 Risk is often characterized by reference to potential **events** (2.17) and **consequences** (2.18), or a combination of these.

NOTE 4 Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated **likelihood** (2.19) of occurrence.

NOTE 5 Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of an event, its consequence, or likelihood."

Note 1 indicates that the deviation can be positive or negative, which is relevant in terms of considering both positive and negative implications. Note 5 is relevant in that for uncertainty about risks progressing over time (eg uncertainty about the extent and timing of any sea level rise and its consequences in particular areas), time is likely to assist in decreasing the uncertainty. That means that regulating sooner rather than later may not be the optimal approach.

Please also see the earlier comments under the heading "Whole plan - failure to address a range of matters relating to risk (including the definitions of "risk" and "risk-based approach (natural hazards)", risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues".

Decision sought: Reconsider the definition of "risk" to address the issues raised throughout this submission.

Include reference to uncertainty.

Include reference to AS/NZS ISO 31000:2009 Risk management - Principles and guidelines, November 2009.

Definitions - "Risk-based approach (natural hazards)" - seek amendment

Reasons: The definition does not appropriately distinguish between:

- hazard identification/risk assessment, which involves an objective scientific approach (not a precautionary approach) as a component part that calls for uncertainty to be reported, not hidden and precautionary assumptions based on inappropriate, one-sided policy considerations to be avoided; and
- risk management being policy/decision-maker based where decision-makers make judgements based on their assessment as to what, if any, precautionary approach is to be applied.

The terminology in the definition conveys too much of a precautionary approach eg "that could potentially affect" and "that could arise".

In terms of the NZCPS and identification of coastal hazards, Policy 24 refers to areas being potentially affected by the likely effects of climate change.

Policy 3 of the NZCPS refers to adopting a precautionary approach to use and management of coastal resources potentially vulnerable to effects from climate change so that:

"(a) avoidable social and economic loss and harm to communities does not occur".

That cuts both ways. Being too precautionary results in avoidable social and economic harm, just as not being sufficiently precautionary does.

Being too precautionary has adverse effects. This is a point often not recognised by those formulating policy and apparently not recognised at all by a number of coastal experts. The RMA is not a no-risk statute.

The coastal expert in Kapiti, it eventually transpired, had provided "very unlikely" results (although not described in that way in the expert's report). These results were used to formulate hazard zones in the Proposed District Plan, with significant, inappropriate, and unsupportable adverse effects on property owners. The provisions were eventually withdrawn, and there is a need to prepare revised provisions, so the inappropriate precautionary approach had the effect of sabotaging the RMA process.

The definition needs to be revised to provide better guidance as to an appropriate risk-based approach.

Please also see the earlier comments under the heading "Whole plan - failure to address a range of matters relating to risk (including the definitions of "risk" and "risk-based approach (natural hazards)"), risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues".

Decision sought: See the decisions sought under the heading "Whole plan - failure to address a range of matters relating to risk (including the definitions of "risk" and "risk-based approach (natural hazards)"), risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues".

Revise the terminology to address the concerns expressed throughout this submission.

Revise the definition (and/or include new definitions):

- to recast it better as a risk-based approach rather than a precautionary approach; and
- using appropriate language that is consistent with whatever is eventually adopted in the PNRP, include wording that emphasises the importance of the distinction between:
 - hazard identification/risk assessment, which involves an objective scientific approach (not a precautionary approach) as a component part that calls for uncertainty to be reported, not hidden and precautionary assumptions based on inappropriate, one-sided policy considerations to be avoided; and
 - risk management being policy/decision-maker based where decision-makers make judgements based on their assessment as to what, if any, precautionary approach is to be applied.

CHAPTER 3 - OBJECTIVES

Objectives - general

Reasons: Please also see the reasons under the heading "GENERAL AND WHOLE PLAN ISSUES", including the reasons relating to the objectives.

Decision sought: Please also see the decisions sought under the heading "GENERAL AND WHOLE PLAN ISSUES".

All of Chapter 3 - oppose and seek amendment

Reasons: Except where support is expressed, all of Chapter 3 is opposed, including because it does not appropriately enable and address:

- appropriate use and development in general and in the coastal environment in particular; and
- coastal hazard mitigation (including protection) activities, especially in areas of significant existing development.

There should be an objective in respect of appropriate use and development generally and in the coastal environment, in particular.

In relation to the coastal environment, that is important so the PNRP does not inadvertently prevent activities that might otherwise be contemplated by the NZCPS and to enable decision-makers to make appropriate decisions based on all the circumstances of a particular case.

Decision sought:

Revise Chapter 3 and include new objectives to appropriately enable and address:

- appropriate use and development generally and in the coastal environment, in particular; and
- coastal hazard mitigation (including protection) activities, especially in areas of significant existing development.

Develop and include any other objectives to address the concerns expressed throughout this submission.

Ensure that the objectives in Chapter 3 provide decision-makers with sufficient flexibility to make appropriate decisions, based on all of the facts of a case. It is not appropriate to preclude that flexibility.

All of the matters addressed below and any suggested changes to provisions are subject to these general decisions sought.

Natural character, form and function - Objectives O19 to O22 - seek amendment

Reasons: We have seen the Coastal Ratepayers United Inc (CRU) submission that these objectives be deleted and replaced with wording suggested by CRU.

While we generally agree with the comments that CRU makes, we are doubtful about the specific wording suggested. The wording seems to be Objective 5 from the NZCPS, but changed from referring to coastal hazard risks (in Objective 5 in the NZCPS) to natural hazard risks (in CRU's suggested wording for the PNRP).

It seems inappropriate to take one objective from the NZCPS and insert it into the PRNP. One reason is that the NZCPS objective then loses the context of the other provisions of the NZCPS.

Decision sought: Reconsider Objectives O19 to O22 in light of our comments below and all of the comments in our submission.

Natural character, form and function - Objective O20 - seek amendment

Reasons: Subject to the comments made elsewhere in this submission, a risk-based approach is supported as is the reference to "acceptable" as using the term "acceptable" enables judgements to be made over time, which is appropriate. However, there should be reference to the risk being acceptable to those who need to bear the risk which may, in some circumstances, include the wider community but in other circumstances may be just the people directly affected.

Decision sought: Subject to the comments made elsewhere in this submission, retain the objective and, in particular, the term "acceptable". Add at the end of the objective to "to those who need to bear them".

Natural character, form and function - Objective O22 - seek amendment

Reasons: The objective is too black and white.

The reference to "last practicable option" implies eg that nourishment/erosion mitigation/planting etc has already been undertaken and failed, which will not always be the case (for a number of reasons).

It is inappropriate for an objective to be so black and white, in the absence of the wide range of relevant facts about a particular situation. It also needs to be recognised that this objective applies to management of all natural resources in the region, not just those in coastal areas.

As worded, the objective runs the risk of not enabling decision-makers sufficient flexibility to make appropriate decisions, depending on all of the facts of a case. It is inappropriate to preclude that flexibility in an objective such as this.

A small-scale hard engineering option with limited effects may be more efficient, effective or cost-effective than other options but other options may be "practicable", so the option may not be able to pass the "test" in this objective and that is inappropriate.

In addition, hard engineering may be the preferable option for a range of reasons but other options may be practicable. The wording of this objective could preclude the preferable option.

Decision sought: Delete Objective O22.

If that is not done, revise Objective O22 to make it less black and white and to address the concerns expressed above.

Remove the reference to "last practicable option".

Sites with significant values - Objectives O32 and O38 and all other relevant provisions that rely on proposed or operative district plans - seek amendment

Reasons: The PNRP is relying on proposed and operative district plans for identification of at least some outstanding natural landscapes and special amenity landscapes. In the fullness of time, these objectives run the risk of being inconsistent with the actual proposed or operative district plan provisions and how the provisions are implemented in those plans by the rules. Given the link to various plans of various districts, the provisions need to be kept general in the PNRP.

It is the attributes of a site that create the significant value that needs to be managed and potentially protected, not the site *per se*. The PNRP needs to focus on what constitutes inappropriate use of the site, not on protection regardless.

Referring to "maintained or enhanced" in Objective O38 is too rigid. Special amenity landscapes run along most of the Kapiti coast.

Decision sought: Reconsider the appropriateness of the provisions that rely on proposed and operative district plans and how they are best worded to ensure that, both now and in the fullness of time, there is no risk of the provisions being inconsistent with the relevant proposed or operative district plans.

Sites with significant values - Objective O33 and Schedule C - seek amendment

Reasons: The objective and Schedule C (and related provisions) are too extreme. Schedule C sets out an extensive list of areas with significant mana whenua values with resulting negative implications for activities, including hazard mitigation activities. Corresponding rules inappropriately make a wide range of activities, which would include soft and hard engineering hazard mitigation measures, in these areas non-complying activities. That is inappropriate.

In addition, regardless of the categorisation of coastal hazard mitigation activities, there needs to be appropriate policy support in the PNRP enabling such activities.

As noted above, it is the attributes of a site that create the significant value that needs to be managed and potentially protected, not the site *per se*. The PNRP needs to focus on what constitutes inappropriate use of the site, not on protection regardless.

Decision sought: Revise the objective and other relevant provisions in the PNRP to address the concerns expressed.

Sites with significant values - Objective O35 and Schedule F - seek amendment

Reasons: The objective and Schedule F (and related provisions) are too extreme. Schedule F sets out an extensive list of areas with significant ecosystems and habitats with significant indigenous biodiversity values with resulting negative implications for activities, including hazard mitigation activities.

As noted above, it is the attributes of a site that create the significant value that needs to be managed and potentially protected, not the site *per se*. The PNRP needs to focus on what constitutes inappropriate use of the site, not on protection regardless.

Decision sought: Revise the objective and other relevant provisions in the PNRP to address the concerns expressed.

Sites with significant values - Objective O36 and Schedule J - seek amendment

Reasons: The objective and Schedule J (and related provisions) are too extreme. Schedule J sets out an extensive list of geological features in the coastal marine area, with resulting negative implications for activities, including hazard mitigation activities.

Decision sought: Revise the objective and other relevant provisions in the PNRP to address the concerns expressed.

Sites with significant values - Objectives O38 - seek amendment

Reasons: Please see the reasons relating to Objectives O32 and O38, dealt with earlier.

Decision sought: Please see the decision sought relating to Objectives O32 and O38, dealt with earlier.

Coastal management - Objective O53 - oppose and seek amendment

Reasons: Objective O53 does not give effect to the NZCPS as the NZCPS does not require that use and development in the coastal marine area has a functional need or operational requirement to be there.

Both the definitions of "functional need" and "operational requirement" convey the message of a need to be in a location.

Objective 5 of the NZCPS refers to ensuring that coastal hazard risks are managed. It states:

"To ensure that coastal hazard risks taking account of climate change, are managed by:

- locating new development away from areas prone to such risks;
- considering responses, including managed retreat, for existing development in this situation; and
- protecting or restoring natural defences to such hazards."

Policy 6(2)(d) of the NZCPS states: "recognise that activities that do not have a functional need for location in the coastal marine area generally should not be located there". So need is not required in all situations.

In addition, Policy 27 of the NZCPS specifically addresses a range of options for reducing coastal hazard risk in areas of significant existing development.

The objective fails to address the situation where there is not technically a need/requirement to be in the coastal marine area but the activity is eg more efficiently, effectively or cost-effectively located there. The NZCPS would not preclude such a situation and neither should the PNRP.

Decision sought: Revise the objective to address the concerns expressed. Options include inserting “generally” after “area” and adding “or is more efficiently, effectively or cost-effectively located there” at the end of the objective or something along those lines.

Coastal management - Objective O56 - seek amendment

Reasons: The objective should also recognise the purpose of the new development eg coastal protection works.

Decision sought: Revise the objective to also recognise the purpose of the new development. An option is to add “and its purpose” at the end of the objective.

CHAPTER 4 - POLICIES

Policies - general - seek amendment

Reasons: Please also see the reasons under the heading “GENERAL AND WHOLE PLAN ISSUES”, including the reasons relating to policies.

Decision sought: Please also see the decisions sought under the heading “GENERAL AND WHOLE PLAN ISSUES”.

All of Chapter 4 - oppose and seek amendment

Reasons:

Except where support is expressed, all of Chapter 4 is opposed including because it does not appropriately enable and address:

- appropriate use and development in general and in the coastal environment in particular; and
- coastal hazard mitigation (including protection) activities, especially in areas of significant existing development.

Decision sought:

Revise Chapter 4 and include new policies to appropriately enable and address:

- appropriate use and development in general and in the coastal environment in particular; and
- coastal hazard mitigation (including protection) activities, especially in areas of significant existing development.

Develop and include any other policies to address the concerns expressed throughout this submission.

All of the matters addressed below and any suggested changes to provisions are subject to these general decisions sought.

Ensure that the policies in Chapter 4 provide decision-makers with sufficient flexibility to make appropriate decisions, based on all of the facts of a case. It is not appropriate to preclude that flexibility.

Policy P3: Precautionary approach - oppose and seek amendment

Reasons: A precautionary approach is not needed where the lack of information or uncertainty is not material.

The policy is too blunt and fails to recognise that being too precautionary is just as inappropriate (with inappropriate costs and consequences) as not being precautionary enough. That is recognised in Policy 3 of the NZCPS where it refers to “avoidable social and economic loss and harm to communities does not occur”. Being too precautionary results in avoidable social and economic harm, just as not being sufficiently precautionary does.

In contrast to Policy 3 of the NZCPS, Policy P3 in the PNRP fails to recognise that a precautionary approach is not appropriate in the wide-ranging circumstances set out in Policy P3 of the PNRP.

Please see DOC’s “NZCPS 2010 Guidance note Policy 3: Precautionary approach” where it explains that the NZCPS promotes a precautionary approach to managing activities in the coastal environment when the effects of those activities are uncertain but potentially significantly adverse.

It explains the origins of Policy 3 of the NZCPS, which GWRC should consider more carefully than is demonstrated in Policy P3 of the PNRP.

In relation to comments made elsewhere in this submission about the need for the PNRP to reinforce the distinction between hazard identification/risk assessment vs hazard or risk management (and the proper role of experts in the process), the DOC Guidance note also says (page 6):

“The application of the precautionary approach is a risk management approach rather than a risk assessment approach. It is when the risk of potential significant adverse or irreversible environmental effects cannot be adequately assessed (because of uncertainty about the nature and consequences of human activities or other processes) that a precautionary approach to risk management becomes appropriate.”

That relates to the coastal environment, not the region.

The RPS, in explanations to Policies 29 and 51 (but not in the wording of the policies themselves), refers to precaution. The explanations to the policies refer to a “precautionary, risk-based approach”. The explanation to Policy 29 says (page 110):

“Guidance documents that could be used to assist in the process include:

- Risk Management Standard AS/NZS 4360:2004 ...” (emphasis added).

That Standard has been superseded by the joint Australian and New Zealand International Standard on risk management AS/NZS ISO 31000:2009 "Risk management - Principles and guidelines", discussed earlier.

The Standard does not refer to a precautionary approach.

The 2009 Standard has been discussed earlier under the heading "Whole plan - failure to address a range of matters relating to risk (including the definitions of "risk" and "risk-based approach (natural hazards)"), risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues" and in relation to the definition of risk.

The new Standard has a focus on uncertainty.

Outside the coastal environment, there is no justification for referring to a precautionary approach. The approach of the RMA is sufficient and appropriate.

Decision sought: Revise the policy to deal with the concerns expressed.

Include something along the lines of "where uncertainty is material to the management of significant risks of use and development".

Limit the policy to the coastal environment.

Include wording to acknowledge that being too precautionary is just as inappropriate (with inappropriate costs and consequences) as not being precautionary enough.

Make it clear that precaution does not apply to hazard identification/risk assessment, as discussed earlier under the heading "Whole plan - failure to address a range of matters relating to risk (including the definitions of "risk" and "risk-based approach (natural hazards)"), risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues" and in relation to the definition of "Risk-based approach (natural hazards)".

Policy P4: Minimising adverse effects - seek amendment

Reasons: It will not always be appropriate to reduce adverse effects to the smallest amount practicable. That is especially the case in light of the extent of the areas referred to in Policy P4(b).

Consideration of the range of matters in Policy P4 will not always be appropriate and may add unnecessarily to the costs of an application.

There is a need for sensible cost/benefit evaluation in the particular circumstances.

Decision sought: Delete Policy P4. If that is not done, revise the policy to deal with the concerns expressed.

Policy P7: Uses of land and water - oppose and seek amendment

Reasons: The list inappropriately “picks winners” (eg aquaculture, gravel extraction, transport). It deals in a lopsided way with many of the matters eg:

- referring to gravel extraction without recognising its effects in reducing the supply of materials to the coast, resulting eg in slowing accretion in areas where continued accretion is needed to deal with ongoing sea level rise;
- referring to transport along, and access to, water bodies without recognising the problems that can be caused by vehicles (although there are also benefits in appropriate circumstances of enabling vehicles) and without recognising that Policy 19 of the NZCPS refers to walking access, not transport access (with Policy 20 of the NZCPS dealing with vehicular access), and seemingly without recognising that the definition of water body in the RMA does not include the coastal marine area.

If the list remains, the benefits of natural hazard mitigation measures should be referred to. There are considerable benefits of natural hazard mitigation measures that should be recognised and that are just as important as the other matters referred to, with no worse effects than many of the activities referred to.

Decision sought: Delete Policy P7.

If the policy is not deleted, then:

- reconsider the appropriateness of including each of the items and remove those that should not be there;
- delete (a) aquaculture;
- include reference to the benefits of river (including stream) mouth cutting and protecting against natural hazards by structures. An option is to revise (g) along the following lines “natural hazard mitigation measures including gravel extraction from rivers, river (including) stream mouth cutting, and structures, particularly in areas of significant existing development”. If that is not done, delete (g); and
- revise (k) to remove the word “transport” and reword the policy so it refers to something like “appropriate access to and along water bodies and the coastal marine area”.

Policy P8(h): Beneficial activities (h) - support and seek amendment

Reasons: Policy P8(h) dealing with existing structures is supported but, given the limited definition of “upgrade”, upgrade should also be included.

Decision sought: Include reference to “upgrade” in Policy 8(h).

Policy P9: Public access to and along the coastal marine area and the beds of lakes and rivers - oppose and seek amendment

Reasons: The policy:

- is too uncertain in its reference to “extent or quality” of public access. Coastal hazard mitigation works might affect the extent or quality of public access but be an appropriate outcome and this policy should not be precluding that. Indeed, they can also improve aspects of public access but that might not be in accordance with this policy;
- is too extreme in referring to “shall be avoided” and “necessary”;
- is too limited in (a) to (c) in that the purposes do not include reference to other beneficial activities eg natural hazard mitigation;
- does not distinguish between vehicular and walking access (Policy 19 of the NZCPS deals with walking access and Policy 20 of the NZCPS deals with vehicular access); and
- could interfere with attempts to limit inappropriate vehicular or pedestrian access (but changing the policy to refer only to walking access would limit appropriate vehicular access and that would be inappropriate).

Decision sought: Revise the policy completely to address the concerns that the policy:

- is too uncertain in its reference to “extent or quality” of public access;
- is too extreme in referring to “shall be avoided” and “necessary”;
- is too limited in (a) to (c) in that the purposes do not include reference to other beneficial activities, including in particular natural hazard mitigation measures; and
- fails to distinguish between walking and vehicular access and could interfere with attempts to limit inappropriate pedestrian or vehicular access.

Policies P15: Flood protection activities and P16: New flood protection and erosion control and the failure to include equivalent provisions for coastal locations - seek amendment

Reasons: The definition of “catchment based flood and erosion risk management activities” refers only to a river management scheme or a flood plain management plan so the policies are not sufficiently wide to cover coastal activities away from rivers. It is inappropriate to fail to recognise the benefits of coastal flood and erosion or other coastal hazard mitigation activities and they should be provided for.

There is no reason to recognise the benefits of river and flood plain protection and fail to recognise the benefits of dealing with flood and erosion matters and other coastal hazard mitigation matters for coastal properties. That is particularly the case as some of the river works have adversely affected the flow of gravel, sand, etc to the coast and therefore benefits those affected by river flooding to the detriment of those potentially affected by reduced supply to the coast.

Decision sought: Either widen Policies P15 and P16 to include coastal hazard mitigation activities (using appropriate terminology) or create new policies to deal with those activities.

In addition, given the limited definition of “upgrade” and the importance of the existing activities, upgrade should be included.

Policy P20: Exercise of kaitiakitanga as well as all other relevant objectives, policies and rules and Schedule C - seek amendment

Reasons: There are problems with the combination of:

- this policy (and possibly other relevant objectives and policies);
- the failure of the PNRP to include objectives and policies enabling appropriate activities generally as well as coastal hazard mitigation activities;
- the extensive areas identified in Schedule C; and
- the fact that the rules make many activities in those areas non-complying activities.

That combination is not appropriate and needs to be revised so that kaitiakitanga can be exercised but also so that appropriate activities do not become non-complying activities because they happen to be in areas identified in Schedule C. Because a non-complying activity can only be granted consent if the effects are minor or the activity is not contrary to the objectives and policies of the plan, the combination is particularly problematic.

Decision sought: Reconsider the combination of Policy P20 (and other relevant objectives and policies), the failure of the PNRP to include objectives and policies enabling appropriate activities generally as well as coastal hazard mitigation (including protection) activities, the extensive areas identified in Schedule C, and the fact that the rules make many activities in those areas non-complying activities when discretionary activity status would be more appropriate.

Revise the provisions so that kaitiakitanga can be exercised but also so that appropriate activities, including coastal hazard mitigation activities, do not become non-complying activities because they happen to be in areas identified in Schedule C.

Policy P24: Outstanding natural character - oppose and seek amendment

Reasons: The policy is too uncertain as the areas of outstanding natural character in the coastal marine area have not been identified in the PNRP.

The policy also does not give effect to the NZCPS in that the areas have not been mapped or otherwise identified in the PNRP (see Policy 13(1)(c) and (d) of the NZCPS).

The references to “preserved” and “avoiding” are too extreme and again do not give effect to the NZCPS. Policy 13 of the NZCPS refers to protecting against inappropriate subdivision, use and development which conveys the meaning that appropriate subdivision, use and development can be acceptable. Omitting the

reference to that part of the Policy conveys a different meaning from that in the NZCPS.

It is also not clear what is meant by "outside the area" in (e).

Decision sought: Delete the policy or notify a variation to identify the areas of outstanding natural character in the coastal marine area.

If the policy is not deleted, revise the policy to address the concerns expressed, including by making it less extreme and by giving effect to the NZCPS.

Policy P25: Natural character - oppose and seek amendment

Reasons: As with the previous policy, this policy is too uncertain as areas with high natural character in the coastal marine area have not been identified in the PNRP. This policy does not give effect to the NZCPS in that the areas have not been mapped or otherwise identified in the PNRP (see Policy 13(1)(c) and (d) of the NZCPS).

The reference to "avoid" is too extreme. It does not give effect to the NZCPS as Policy 13 refers to protecting against inappropriate subdivision, use and development which conveys the meaning that appropriate subdivision, use and development can be acceptable. Putting the reference to inappropriate subdivision, use and development in (d) rather than in the introductory words of the policy conveys a different meaning from the NZCPS.

In d(ii), referring only to functional need is not sufficient or appropriate and does not give effect to the NZCPS. Policy 6 of the NZCPS does not require that there be a functional need for an activity to be located in the coastal marine area (see the reference in Policy 6(2)(d) to "generally"). Reference should also be made to operational requirement and also to activities that are more efficiently, effectively or cost-effectively located there (using appropriate terminology).

Decision sought: Delete the policy or notify a variation to identify the areas of natural character and high natural character.

If the policy is not deleted, revise the policy to address the concerns expressed, including by making it less extreme, by giving effect to the NZCPS, and by widening d(ii) as discussed above.

Policy P27: High hazard areas - oppose and seek amendment

Reasons: In relation to hazard mitigation measures, the policy is inappropriate.

The reference to avoiding hazard mitigation measures is too extreme. Where hazard mitigation measures would be effective, they should be encouraged and there should be a policy that encourages hazard mitigation measures.

The restrictions in (a) are not appropriate because eg there might be a practicable alternative, but the best option would be to locate in the high hazard area and, in that case, that option should be adopted. In addition, an activity may be more efficiently, effectively or cost-effectively located there, in which case it should be able to be located there.

The use of the term “development” in (b) and (c) is confusing if the “development” is actually a hazard mitigation measure. It seems that two different meanings of development are intended.

The reference to “low” in (b) is inappropriate. Consistent with the wording of Objective O20, the word “acceptable” should be used. That wording enables judgements to be made, over time, as to what the community considers is acceptable.

The reference to “potential” in (e) is inappropriate and does not give effect to the NZCPS. The situation in New Zealand in terms of dealing with climate change is getting out of control due, in part, to misinterpretations of the NZCPS and inappropriate work being done by some coastal scientists with unreasonably precautionary approaches being advanced.

In terms of misinterpretation of the NZCPS, please see the discussion under the heading “Whole plan - failure to address a range of matters relating to risk (including the definitions of “risk” and “risk-based approach (natural hazards)”, risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues”.

Decision sought: Revise this policy to address the concerns expressed and/or create a new policy to deal appropriately with hazard mitigation measures, including by stating that appropriate hazard mitigation measures are encouraged.

Some suggestions for revising the policy (that would also be relevant to creating a new policy) include:

- removing the reference to avoiding hazard mitigation measures;
- adding a statement that appropriate hazard mitigation measures will be encouraged;
- revising (a) to address the concerns referred to in the reasons eg by removing the reference to no practicable alternative and by adding reference to hazard mitigation activities that are more effectively, efficiently or cost-effectively located there (using appropriate terminology);
- reconsidering use of the terms “functional need” and “operational requirement”, including their definitions, and revising them as necessary or using different terminology to enable appropriate hazard mitigation measures that might be able to be located elsewhere but are more efficiently, effectively or cost-effectively located in the particular location;
- reconsidering the confusing use of the term “development” in (b) and (c) and using appropriate terminology;
- changing “potential for” to “likelihood of” and make corresponding wording changes including adding “likely” before movements.

Policy P28: Hazard mitigation measures - oppose and seek amendment

Reasons: The policy is too black and white and extreme.

As worded, it runs the risk of not enabling decision-makers sufficient flexibility to make appropriate decisions, depending on all of the facts of a case. It is not appropriate to preclude that flexibility.

A hard engineering option may be a good, or the best, option but could be contrary to this policy eg if it is put in place as a prudent preventative measure rather than waiting until there is unacceptable risk.

References to "avoided" and "necessary" are too extreme.

In addition, the wording "and the works ... minor" are problematic. It is not appropriate to require a hazard management strategy in each case where environmental effects are more than minor, particularly in light of the definition of hazard management strategy, which is itself problematic.

Please also see the reasons in relation to the definition of "hazard management strategy".

Decision sought: Revise the policy to make it less black and white and extreme and to address the concerns expressed above and elsewhere in this submission in relation to enabling appropriate hazard mitigation measures.

Please see the decision sought in relation to the definition of "hazard management strategy".

Policy P29: Climate change - oppose and seek amendment

Reasons: This policy fails to give effect to the NZCPS, including Policies 24, 25, 27 and 3, and reflects a misinterpretation of the NZCPS.

In terms of misinterpretation of the NZCPS, please see the discussion under the heading "Whole plan - failure to address a range of matters relating to risk (including the definitions of "risk" and "risk-based approach (natural hazards)"), risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues".

As worded, and particularly the use of the word "potential", the policy is likely to result in unreasonable outcomes, as is happening in NZ in relation to problems being caused by inappropriate work being done and actions being taken in relation to climate change, including the failure to consider the uncertainties and the range of likely climate change outcomes. Please see the attached document "Notes on the Kapiti coastal erosion fiasco and problems caused more generally by a number of NZ coastal scientists".

The word "guidance" in (d) is inappropriate and relative sea level rise is more important than sea level rise so what is likely to occur in the particular areas in the region is what is relevant. A generic regional study should not be given prominence.

Decision sought: Revise the policy so that it deals appropriately with the range of issues raised throughout this submission.

Revise the policy so that it gives effect to the proper interpretation of the NZCPS.

Replace the words “the potential for” with “the likelihood of” and make corresponding wording changes including changing “that could adversely affect” to “adversely affecting”.

Consider whether (d) should be revised to refer to “relative” sea level rise.

In (d), replace the word “guidance” with “evidence”, and refer to “for the local area within the Wellington Region”.

Include reference to the need to consider the uncertainties and the range of likely outcomes.

Policies P39, P40, P41, P42, P44, P45 and the areas identified in the relevant schedules, including Schedules A, C, F1, F2, F3, F4, F5 - oppose and seek amendment

Reasons: It is relevant to protect and restore important areas but it is equally relevant not to include policies that effectively would prevent appropriate activities in those areas or make consent for those activities unreasonably difficult or impossible to obtain.

The extent of the areas identified in the relevant schedules is extensive therefore the schedules need to be less extensive and/or the policies need to be less extreme.

The emphasis in the policies should be on the attributes that create the significant values, not the areas *per se*.

Reference to the precautionary approach in Policy P41 is not appropriate as the RMA provisions provide for an appropriate level of “precaution” and for the reasons expressed in relation to Policy P3.

Decision sought: Limit the extent of the areas identified in the schedules and/or qualify the schedules (and any relevant defined terms) and revise the policies so that they are less extreme and focus on the attributes of the areas that create the value.

Remove the reference to a precautionary approach in Policy P41 as the RMA provides the appropriate approach.

Policy P48: Protection of outstanding natural features and landscapes - oppose

Reasons: The heading of the policy does not match the text in that the text does not just deal with outstanding natural features and landscapes.

The policy is too uncertain as the locations of the areas of outstanding and other natural features and landscapes (including seascapes) have not been identified in the PNRP.

If it includes areas identified in the schedules, it is too extreme. In fact, as worded, it seems that it is referring to, basically, all natural features and landscapes (including seascapes) of the coastal marine area, rivers, lakes and their margins and natural wetlands. That is too extreme.

If it is relying in the NZCPS (Policy 15) for the almost identical wording of Policy P48, it is inappropriate to apply that wording beyond the coastal environment and in relation to a wide range of unidentified areas.

In addition, the references to "protected" and "avoiding" are too extreme. The focus should be on the attributes that create the values and balancing other uses against these.

Decision sought: Delete the policy or notify a variation to identify the outstanding and other areas of natural features and landscapes (including seascapes) being referred to.

Revise the policy to address the concerns expressed, including by making the policy less extreme, including in relation to the references to "protected" and "avoiding".

Revise the focus to be on the attributes that create the values and to enable balancing of other uses against these.

Policy P49: Use and development adjacent to outstanding natural features and landscapes and special amenity landscapes - oppose and seek amendment

Reasons: There is a risk of this policy being inconsistent with the policies of the various district plans and how the provisions are implemented in those plans by the rules, both now and over time.

It would be inappropriate eg for more stringent or inappropriately different considerations to occur for activities in the coastal marine area compared with what would be the case if the activity occurred in the actual area identified in the district plan, when relying on a district plan for identification of the area.

In addition, the references to "protected" and "avoiding" are too extreme.

Given the link to district plans of various districts, the policy needs to be kept general in the PNRP.

Decision sought: Revise Policy P49 to address the concerns expressed above. An option is to make the policy much more general in referring to district plan provisions.

Policy P103: Management of gravel extraction and any related rules - oppose and seek amendment

Reasons: The title of the policy does not reflect the wording of the policy as it extends beyond just gravel extraction.

The policy does not adequately address the flow of gravel, sand or rock to the coast and the need to protect coastal areas and properties against excessive and inappropriate extraction from rivers.

Just protecting against coastal erosion is inadequate as effects should not be allowed to get to that stage.

In addition, the flow of gravel, sand or rock to the coast should not be reduced to the extent that it:

- limits the flow of gravel, sand and rock to coastal areas where that gravel, sand and rock protects against sea level rise adverse effects;
- changes a neutral coastline to an eroding one; or
- changes an accreting coastline to a neutral or eroding one.

Along the northern coast of Kapiti, accretion has protected against sea level rise but in some areas the rate of accretion is slowing. Where the flow of gravel, sand or rock to the coast is interrupted, coastal areas may be adversely affected and that is inappropriate.

In relation to (c), if something is needed to address aggradation, the gravel should be moved, not extracted at a rate that exceeds the natural rates of gravel deposition.

Decision sought: Revise title of the policy to refer to gravel, sand or rock extraction.

Revise the policy so that it addresses the concerns expressed above, including about the flow of gravel, sand or rock to the coast. Suggestions are:

- at the end of (b), add ", changing a neutral coastline to an eroding one, changing an accreting coastline to a neutral or eroding coastline, or reducing ongoing accretion in areas where continued accretion protects against ongoing sea level rise adverse effects" or something similar after the word "erosion";
- in (c), change "gravel" to "material" (or another term to capture gravel, sand and rock) and remove ", unless this is required to manage aggradation" and replace it with something along the lines of "unless the material extracted is moved to another location in the river bed".

Revise any related rules that need revision to put these decisions sought into effect.

Policy P132: Functional need and efficient use (and other relevant policies) - oppose and seek amendment

Reasons: Earlier, the issue of inappropriate inconsistencies in language in the PNRP was addressed and an example given that:

- in a number of places there is reference to what is "practicable" eg Policies P4, P25, P27, Policy 132(g);
- in other places there is reference to what is "reasonably practicable" eg Policy P47;
- in other places there is reference to what is "reasonable or practicable" eg Policies P132(b) and (c), P139.

Indeed, there is inconsistency within Policy P132 between (b) and (g).

It is unacceptable to convey the impression that practicable does not mean what is reasonably practicable or that what is practicable may not be reasonable or that reasonable and practicable are different ideas when used in these contexts. These differences in wording must be avoided.

In addition, this policy does not cater for the situation where appropriate natural hazard mitigation measures might be able to be located elsewhere but are more efficiently, effectively or cost-effectively located in the coastal marine area.

Decision sought: Revise the policy to address the concerns expressed.

Revise the policy so that language that is currently problematically inconsistent across the PNRP is made consistent. A suggestion is to replace "practicable" and "reasonable or practicable" in this policy with "reasonably practicable" and to use that terminology throughout the PNRP.

Revise the policy to enable the situation where appropriate hazard mitigation measures might be able to be located elsewhere but are more efficiently, effectively or cost-effectively located in the coastal marine area.

Policy P134: Public open space values and visual amenity - seek amendment

Reasons: The coastal environment can be extensive and can include numerous buildings, residential areas, etc extending well inland. In Kapiti, in both the Proposed District Plan and the Submitter Engagement Version, significant built areas are included in the coastal environment. That should be recognised in the policy.

Decision sought: Revise the policy to address the concerns expressed.

An option is, in (b), to add "built character," before "natural character".

Policy P138: Structures in sites with significant values - oppose and seek amendment

Reasons: The policy is inappropriate and too extreme in that it covers extensive areas and the policy says structures are to be avoided except for very limited exceptions.

Hazard mitigation structures or indeed other structures may well be appropriate in these areas and should not be disadvantaged by this policy.

In addition, this policy does not cater for the situation where there may be "practicable alternative methods" (to use the language of the policy) but something in the area would be the best practicable option or the alternative methods are not as efficient, effective or cost-effective as something in the area proposed.

Decision sought: Delete the policy or make it less extreme to deal with the concerns expressed. A possible solution is to simply refer to avoiding, remedying or mitigating the effects of structures in the areas and remove "and in respect of (a) to (d): (e) there are no practicable alternative methods of providing for the activity".

Policy P139: Seawalls - oppose and seek amendment

Reasons: The policy inappropriately asserts that construction of a new seawall is inappropriate except in extremely limited circumstances. It fails to give effect to Policy 27 of the NZCPS and fails to recognise that Policy 27 acknowledges that seawalls may be appropriate for purposes beyond those set out in Policy P139.

Policy 27 of the NZCPS identifies that a range of options for reducing coastal hazard risk should be assessed for protecting areas of significant existing development from coastal hazard risk and specifically recognises the possibility of hard protection structures, which could include seawalls.

Whether a seawall is appropriate or not should be addressed in all the circumstances of a case including eg whether millions or billions of dollars of property would be protected by it, after considering the range of options, not as a policy inappropriately ruling out one option in advance.

Decision sought: Delete Policy P139 and replace it with a policy that gives effect to Policy 27 of the NZCPS, including that seawalls may be appropriate to protect areas of significant existing development from natural hazards.

Policy P143: Deposition in a site of significance - oppose and seek amendment

Reasons: Given the extent of the areas covered by the policy, the policy needs to allow a range of activities, including the activities in (a) to (f), with reasonable efficiency. The need to demonstrate that there are "no practicable alternative methods of providing for the activity" is excessive, costly and unnecessary.

In addition, the reference to "sand, shingle or shell" is unclear in terms of what is meant by "shingle" eg would rocks or rip rap be included and how does one distinguish between rock and shingle? The terminology "sand, shingle or shell" used here is different from that in Policy P103 which refers to "gravel, sand or rock".

In addition, the wording of (b) and (d) is potentially problematic as it might be taken to infer that in coastal areas only renourishment is permitted but not flood protection and/or erosion mitigation. If that is what is intended, that is inappropriate and the policy needs to be revised so there is no potential for dispute. Coastal areas should not be treated differently from other areas.

Decision sought: Reconsider the entire policy to deal with the concerns expressed.

Clarify what is meant by "shingle" in "sand, shingle or shell" and ensure that terminology in the PNRP is consistent, keeping in mind that Policy P103 refers to "gravel, sand or rock".

Delete "and in respect of (a) to (f): (g) there are no practicable alternative methods of providing for the activity".

Reconsider (b) and (d) and include reference to coastal hazard mitigation (including protection), using terminology consistent with that developed for the PNRP.

Policy P145: Reclamation, drainage and destruction - oppose and seek amendment

Reasons: While the definition of "reclamation" excludes coastal or river mouth protection structures, this policy could prevent appropriate coastal hazard mitigation, including protection, works.

What is meant by "destruction" and how it relates to reclamation, disturbance, or damage is not clear.

Decision sought: Revise the policy so that appropriate coastal hazard mitigation activities are enabled (using appropriate language that is consistent with that used in the PNRP).

Include definitions of "destruction", "disturbance", and "damage" (or variations of those terms) so that the differences in meaning of the terms, and their relationships with "reclamation", and perhaps "drainage", are clear.

CHAPTER 5 - RULES

Rules - general

Reasons: Please also see the reasons under the heading "GENERAL AND WHOLE PLAN ISSUES".

Decision sought: Please also see the decisions sought under the heading "GENERAL AND WHOLE PLAN ISSUES".

All of Chapter 5 - oppose and seek amendment

Reasons: Except where support is expressed, all of Chapter 5 is opposed, including the rules, general conditions etc.

The rules and conditions do not appropriately:

- reflect risk management approaches; or
- enable and address appropriate uses and activities, including coastal hazard mitigation (including protection) activities, especially for areas of significant existing development.

In terms of remedying the issue of coastal hazard mitigation (including protection) methods, this could include:

- revising individual rules; or
- creating a new section dealing with coastal hazard mitigation (including protection) and including relevant rules in that section.

Decision sought: Revise Chapter 5, including the rules, general conditions, etc to appropriately:

- reflect risk management approaches; and
- enable and address appropriate uses and activities, including coastal hazard mitigation (including protection) activities, especially for areas of significant existing development.

Consider the most appropriate option for addressing coastal hazard mitigation (including protection) methods. This could include:

- revising/adding individual rules; or
- creating a new section dealing with coastal hazard mitigation (including protection) and including/adding relevant rules in that section.

All of the matters addressed below and any suggested changes to provisions are subject to these general decisions sought.

Chapter 5 - Interpretation explanation - if an activity is covered by more than one rule - support and seek amendment

Reasons: At the beginning of the sections containing rules there is an interpretation statement:

“If an activity is covered by more than one rule, then the rule that applies is the rule that is more specific for the relevant activity, area or resource. This does not apply where a proposal includes a number of activities which trigger separate specific rules. In that case, all rules are considered when assessing the proposal.”

It is helpful to identify what should occur if an activity is covered by more than one rule and helpful to limit it to the more specific rule. However, there seems to be room for dispute as to what rules would apply to an activity, especially if there is a specific rule about an activity but also a specific rule about another activity or an area or resource.

On a matter as important as what rule(s) apply, the PNRP needs to be clear and unambiguous.

Decision sought: Reconsider the Interpretation statement that deals with the situation where an activity is covered by more than one rule and ascertain if its meaning is beyond dispute so that there is no potential for debate as to what rule(s) apply, especially where there are also specific rules about certain areas or resources.

If its meaning is not beyond dispute, revise it so that its meaning is clear and there will be no dispute about what rules apply to an activity, area or resource when various specific rules might apply. Include the revised statement everywhere that it should be included.

Revise any rules that need to be revised to ensure that there is no dispute about which rule trumps others.

Chapter 5 - all general conditions and all rules and definitions - seek amendment

Reasons: There are issues about inconsistencies and inappropriate wording throughout Chapter 5 in relation to:

- inconsistencies in the references to discharges and the location of the discharge;
- inconsistencies in general conditions throughout the PNRP;
- general conditions or conditions within rules that inappropriately result in the activity not being a permitted activity;
- lack of clarity in the meaning of the general conditions;
- inconsistencies in associated activities;
- internal inconsistencies within some rules; and
- lack of clarity in terms of the meaning of rules that refer to “disturbance”, “damage”, “destruction” (or variations of those terms), what those words mean (how they differ from each other and “reclamation” and perhaps “drainage”), and the implications of some of those words being missing from a number of the rules.

Inconsistencies in the references to discharges and the location of the discharge: In relation to inconsistencies in the references to discharges and the location of the discharge, and just by way of example:

- in section 5.5.2, wetlands general condition (a), there is reference to no discharge of contaminants to water or the bed other than “sediment and other materials inherent to the water or bed”;
- Rule R104 refers to “discharge of sediment to water”, without referring to the other materials referred to above or to any discharge other than to water;
- Rule R42 refers to “discharge of contaminants into water, or onto or into land where it may enter water”;
- Rules R149 and R150 refer to “discharge of contaminants” with no mention of to where the discharge can be;
- in section 5.7.2, coastal management general condition (f) refers to “sediment” but, in contrast to wetlands general condition (a), does not refer to “other materials inherent in the water or bed”.

These differences are inappropriate.

Inconsistencies in general conditions throughout the PNRP: In relation to inconsistencies in general conditions throughout the PNRP, there are other significant differences between what are equivalent general condition discharge provisions. For example:

- general condition (a) in section 5.5.2 for wetlands says:
 - “there shall be no discharge of contaminants (including but not limited to oil, petrol, diesel, paint, or solvent) to water or the bed, other than sediment and other materials inherent to the water or bed, but excluding any discharge of heavy metals or other toxicants”; but
- general condition (a) in section 5.5.4 for beds of lakes and rivers says:
 - “except where the discharge is expressly allowed by the activity description of a rule in this chapter there shall be no discharge of contaminants (including but not limited to oil, petrol, diesel, paint, or solvent) to water or the bed, other than sediment and other materials inherent to the water or bed, but excluding any discharge of heavy metals or other toxicants”; and, in contrast to those two different general conditions
- general condition (e) in section 5.7.2 (coastal management general conditions) uses different terminology again and says:
 - “There shall be no discharge of contaminants (excluding sediment which is addressed by clause (f)) to water or the foreshore or seabed, except where the minor discharge is permitted by another rule in this Plan.”

It is not clear why there are such differences between these general conditions. The differences are inappropriate and need to be resolved and the wording made consistent throughout the PNRP, the meaning of the conditions needs to be clear, and the conditions need to be such that they do not effectively remove permitted activity status.

General conditions or conditions within rules that inappropriately result in the activity not being a permitted activity: In many cases, the conditions referred to above effectively turn the permitted activity into something that is no longer a permitted activity as some discharge of contaminants other than eg just sediment or materials inherent to the bed is likely to occur as a necessary consequence of some of the permitted activities.

Lack of clarity in the meaning of the general conditions: In terms of a lack of clarity in the meaning of the general conditions, and just by way of example, the problems with general condition (a) in section 5.5.4 include:

- what is meant by “expressly allowed”?
- does reference to discharges in a rule mean that all discharges are expressly allowed?
- or does the rule need to actually expressly allow a particular type of discharge?

- when eg painting of a structure is permitted, is sanding material from sanding the structure to prepare it for painting or the occasional paint drop permitted or not?
- is painting a structure even permitted in the rules about beds of rivers/streams? Rule R149 (maintenance or repair of a structure in the coastal marine area) includes a note that repainting is permitted but the equivalent Rule R112 for the beds of rivers/streams doesn't and only permits discharge of sediment to water;
- when a structure is repaired or built and there are discharges of eg some sawdust or discharge of whatever is incidental to actually being able to carry out the activity, are the discharges incidental to the activity permitted or not?

The meaning needs to be made clear.

All differences between conditions on the range of matters addressed in general conditions in different chapters of the PNRP, and in rules throughout the PNRP, should be identified and remedied in an appropriately consistent manner and in a manner that does not result in an activity not being a permitted activity because of unfortunate general or other condition wording.

Inconsistencies in associated activities: In relation to inconsistencies in associated activities, the rules relating to beds of lakes and rivers and also for wetlands refer only to the associated activity of:

“discharge of sediment to water”;

but the rules for the coastal marine area refer to the associated activity of:

“discharge of contaminants”.

Again, these inconsistencies are inappropriate and, again, the wetlands/beds of lakes and rivers wording can effectively turn a permitted activity into something else as some discharge of contaminants other than just sediment is likely to occur as a necessary consequence of some of the permitted activities.

For the wetland and beds of lakes and rivers wording, there is also no reference to discharge to land in circumstances where a contaminant may enter water, which seems to be a foreseeable possibility in relation to some of the permitted activities.

Furthermore, in terms of inconsistencies in associated activities referred to in rules in different sections of the PRNP, there are also significant differences between equivalent rules. For example, in relation to beach recontouring of the bed of a river (a permitted activity), Rule R119 refers to:

“discharge of sediment to water associated with the clearing of flood debris”, with no mention of anything relating to beach recontouring; but

Rule R192, which deals with beach recontouring for coastal restoration purposes in the coastal marine area (a controlled activity) refers to:

“discharge of contaminants”.

The reason for the difference in the wording of the associated activities is not apparent and neither is the reason for one being a permitted activity and the other being a controlled activity.

There are also inconsistencies in that some associated activities that are included in some rules are not included in others. By way of example, there are a number of rules where reference to diversion of water has not been included as an associated activity but where it would seem to be appropriate to include it eg Rule R178, R192 and some rules dealing with the beds of rivers and lakes/coastal marine areas.

Internal inconsistencies within some rules: In relation to some rules being internally inconsistent, by way of example, Rule R105 (in relation to wetlands) in (e) only permits the "discharge of sediment to water" but condition (h) says that only agrichemicals approved by the EPA are to be used. But the activity does not permit discharge of contaminants so no agrichemicals are permitted to be discharged. There is a conflict between the activity and the conditions.

Another example is Rule R207. The rule does not include diversion of water as an associated activity but matter of control 3 refers to the effects of diversion associated with the activity.

Lack of clarity in terms of the meaning of rules that refer to "disturbance", "damage", "destruction" (or variations of those terms), what those words mean (how they differ from each other and "reclamation" and perhaps "drainage"), and the implications of some of those words being missing from a number of the rules: A number of rules refer to disturbance but not damage or destruction. There are also rules that refer to "disturbance or damage" (eg Rules R194 and R195) and rules that refer to "destruction, damage or disturbance" (eg Rules R204 and R205). The differences in meaning of those terms, and therefore what the rules cover or do not cover, is unclear. That lack of clarity is particularly problematic for permitted activity rules that only permit "disturbance" if someone could argue that the "disturbance" was also "damage" (whatever that means) or indeed "destruction" (again, whatever that means).

Decision sought: Reconsider all the general conditions and rules in Chapter 5 to address the range of concerns expressed.

Resolve the following matters in all of the general conditions, rules and definitions by using appropriate, clear and consistent language across the PNRP:

- inconsistencies in the references to discharges and the location of the discharge;
- inconsistencies in general conditions and conditions throughout the PNRP;
- general conditions or conditions within rules that inappropriately result in the activity not being a permitted activity;
- lack of clarity in the meaning of conditions;
- inconsistencies in associated activities;
- internal inconsistencies within some rules; and

- lack of clarity in terms of the meaning of rules that refer to “disturbance”, “damage”, “destruction” (or variations of those terms), what those words mean (how they differ from each other and “reclamation” and perhaps “drainage”), and the implications of some of those words being missing from a number of the rules.

Identify and remedy all differences between conditions on the range of matters addressed in general conditions in different chapters of the PNRP, and in rules throughout the PNRP:

- in an appropriate and consistent manner; and
- in a manner that does not result in an activity not being a permitted activity (or other type of activity) because of unfortunate omissions or general or other condition wording.

Reconsider all of the references to discharges of various items, make them consistent, appropriate to the circumstances, and complete and clarify to where the discharge can be (eg water or onto or into land where it may enter water) either in each rule or as general interpretation statements that apply to sets of rules.

Whatever wording is adopted should be used consistently across all of the provisions in the PNRP.

Reconsider all rules where there is not reference to diversion of water as an associated activity and add the reference where appropriate.

In all of the rules, reconsider use of the terms “disturbance”, “damage”, “destruction” and make the rules consistent so that there is eg no gap in permitted activity status and/or include definitions of those terms so that what is covered or not covered in each rule is clear.

Chapter 5 - All rules relating to activities in beds of rivers (including streams) and all rules relating to the coastal marine area - seek amendment

Reasons: At river and stream mouths, some activities will be occurring both in the coastal marine area and in beds of rivers (including streams) eg river and stream cutting.

Currently, there is a mismatch between rules dealing with the coastal marine area and rules dealing with beds of rivers (including streams). Where an activity is occurring in the coastal marine area and the bed of a river, the rules and any relevant definitions should be appropriate and consistent.

Currently, they are not. Consider, eg:

- the rules that apply to cutting river/stream mouths in the coastal marine area vs those for the beds of rivers/stream; and
- the beach recontouring definitions, and therefore the rules, that differ between the coastal marine area and beds of rivers.

Decision sought: Reconsider all rules relating to beds of rivers (including streams) and all rules relating to the coastal marine area to address the concerns expressed.

Where an activity may be occurring in the bed of a river (including a stream) and in the coastal marine area eg river (including stream) mouth cutting or beach recontouring or any other such activity, make the rules governing such activities, including any relevant definitions, appropriate and consistent both in the coastal marine area and in the bed of the river.

5.5.2 - Activities in wetlands general conditions and all relevant rules - seek amendment

Reasons: Please see the reasons above under the heading "Chapter 5 - all general conditions and all rules and definitions - seek amendment".

The definition of "natural wetland" in the PNRP includes areas in the coastal marine area and in beds of lakes and rivers.

The rules provide for a range of activities as permitted activities. General condition (a) runs the risk of effectively precluding some permitted activities or making them unreasonably difficult to comply with by saying that there is no discharge of contaminants "other than sediment and other materials inherent to the water or bed".

In addition, that wording is not consistent with the wording of the actual permitted activity rules, which refer only to "sediment" and make no mention of the ability to discharge "materials inherent to the water or bed".

General condition (a) would seem to be directly contrary to eg Rule R105(h) which refers to agrichemicals being used and therefore presumably permitting some discharge of agrichemicals ie a contaminant into the water. Furthermore, Rule R105(h) seems to be directly contrary to Rule R105(k).

Decision sought: Please see the decisions sought above under the heading "Chapter 5 - all general conditions and all rules and definitions - seek amendment".

Revise (a) so that it does not effectively turn permitted activities into something else by the restrictions on the discharge of contaminants and so that its wording is consistent with the wording of the actual rules or vice versa, and consistent with wording to be adopted across the PNRP.

Reconsider the wording of all of the rules relating to wetlands to ensure the above and to ensure that there are not inconsistencies between the rules and the general conditions, or within the rules, or inconsistencies with general conditions or rules in other sections of the PNRP.

Section 5.5.3 Activities in wetlands - Rules R104 to R111 - oppose and seek amendment

Reasons: The definition of "natural wetland" in the PNRP includes areas in the coastal marine area and in beds of lakes and rivers, is widely defined and so it is not entirely clear what might be considered to be a wetland.

It seems that the intention is that river and stream cutting would override all of these rules. However, there are rules here about specific wetland areas that could potentially mean that cutting of river and stream mouths by GWRC would not be a

permitted activity (eg Rule R108(b) or Rule R110(d)) if river or stream mouth cutting occurs in relevant wetland areas.

The rules also potentially restrict or prohibit appropriate flood or erosion or other hazard mitigation measures.

In addition, there are some problematic drafting issues. Rule R104 and other rules in this section refer to "discharge of sediment to water" but Rules R149 and R150 refer to "discharge of contaminants" with no mention of water or to where the discharge can be. There should be consistency of terminology across the PNRP. Equivalent rules should be worded in equivalent, and appropriate, ways.

In relation to the wetlands rules, wetlands general condition in 5.5.2(a) runs the risk of overriding permitted activities by permitting no discharge of contaminants - rather Shylock-esque. Interestingly, that condition refers to sediment or other materials inherent to the water or bed, but Rule R104 does not include reference to "other materials inherent to the water or bed".

Decision sought: Revise the rules or the definitions to ensure that cutting of river (including) stream mouths is a permitted activity and not restricted by any of these rules.

Revise the rules to ensure that appropriate hazard mitigation measures are not captured by the rules and ensure that hazard mitigation measures are not non-complying or prohibited activities.

Reconsider the wording of the rules to address apparent inconsistencies between the general conditions and conditions of some rules, apparent inconsistencies of conditions within rules, and apparent inconsistencies between general conditions and rules in this section and general conditions and rules in other sections.

Section 5.5.4 Activities in beds of lakes and rivers general conditions and all rules that relate to beds of lakes and rivers - seek amendment

Reasons: Please see the reasons above under the heading "Chapter 5 - all general conditions and all rules and definitions - seek amendment".

As explained earlier, general condition (a) in section 5.5.4 for beds of lakes and rivers says:

"except where the discharge is expressly allowed by the activity description of a rule in this chapter there shall be no discharge of contaminants (including but not limited to oil, petrol, diesel, paint, or solvent) to water or the bed, other than sediment and other materials inherent to the water or bed, but excluding any discharge of heavy metals or other toxicants".

In contrast, general condition (e) in section 5.7.2 (coastal management general conditions) says:

"There shall be no discharge of contaminants (excluding sediment which is addressed by clause (f)) to water or the foreshore or seabed, except where the minor discharge is permitted by another rule in this Plan."

It is not clear why there are such differences between general condition (a) in section 5.5.4 and general condition (e) in section 5.7.2. These differences are inappropriate

and need to be resolved and the wording made consistent throughout the PNRP, the meaning of the conditions needs to be clear, and the conditions need to be such that they do not effectively remove permitted activity status.

As already noted, in terms of general condition (a) in section 5.5.4, problems include:

- what is meant by "expressly allowed"?
- does reference to discharges in a rule mean that all discharges are expressly allowed?
- or does the rule need to actually expressly allow a particular type of discharge?
- when eg painting of a structure is permitted, is sanding material from sanding the structure to prepare it for painting or the occasional paint drop permitted or not?
- is painting a structure even permitted in the rules about beds of rivers/streams? Rule R149 (maintenance or repair of a structure in the coastal marine area) includes a note that repainting is permitted but the equivalent Rule R112 for the beds of rivers/streams doesn't and only permits discharge of sediment to water;
- when a structure is repaired or built and there are discharges of eg some sawdust or discharge of whatever is incidental to actually being able to carry out the activity, are the discharges incidental to the activity permitted or not?

The meaning needs to be made clear.

Any other differences between conditions on the range of matters addressed in general conditions in different chapters of the PNRP, and in rules throughout the PNRP, should be identified and remedied in an appropriately consistent manner and in a manner that does not result in an activity not being a permitted activity because of unfortunate general or other condition wording.

In addition, the rules relating to beds of lakes and rivers and also for wetlands (in contrast to rules in the coastal marine area), refer only to the associated activity of:

"discharge of sediment to water".

In many cases, that condition effectively turns the permitted activity into something else as some discharge of contaminants other than just sediment is likely to occur as a necessary consequence of some of the permitted activities.

There are also significant differences between equivalent rules. For example, in relation to beach recontouring of the bed of a river (a permitted activity), Rule R119 refers to:

"discharge of sediment to water associated with the clearing of flood debris", with no mention of anything relating to beach recontouring; but

Rule R192, which deals with beach recontouring for coastal restoration purposes in the coastal marine area (a controlled activity) refers to:

“discharge of contaminants”.

The reason for the difference in the wording of the conditions is not apparent and neither is the reason for one being a permitted activity and the other being a controlled activity.

In addition, some rules are internally inconsistent. Just by way of example, Rule R105 (in relation to wetlands) in (e) only permits the “discharge of sediment to water” but condition (h) says that only agrichemicals approved by the EPA are to be used. But the activity does not permit discharge of contaminants so no agrichemicals are permitted to be discharged.

Decision sought: Please see the decisions sought above under the heading “Chapter 5 - all general conditions and all rules and definitions - seek amendment”.

Revise general condition (a) in section 5.5.4 and relevant rules to address the problems discussed above to satisfactorily resolve issues including:

- what is meant by “expressly allowed”?
- does reference to discharges in a rule mean that all discharges are expressly allowed?
- or does the rule need to actually expressly allow a particular type of discharge?
- when eg painting of a structure is permitted, is sanding material from sanding the structure to prepare it for painting or the occasional paint drop permitted or not?
- is painting a structure even permitted in the rules about beds of rivers/streams? Rule R149 (maintenance or repair of a structure in the coastal marine area) includes a note that repainting is permitted but the equivalent Rule R112 for the beds of rivers/streams doesn't and only permits discharge of sediment to water;
- when a structure is repaired or built and there are discharges of eg some sawdust or discharge of whatever is incidental to actually being able to carry out the activity, are the discharges incidental to the activity permitted or not?

Revise the rules and general conditions to deal with the concerns expressed throughout this submission.

Rule R119: Clearing flood debris and beach recontouring - permitted activity and Rule R192: Beach recontouring for coastal restoration purposes - controlled activity - seek amendment

Reasons: Please see the reasons above under the heading "Chapter 5 - all general conditions and all rules and definitions - seek amendment".

As noted earlier, there are significant differences between equivalent rules. In relation to beach recontouring of the bed of a river (a permitted activity), Rule R119 refers to:

"discharge of sediment to water associated with the clearing of flood debris", with no mention of anything relating to beach contouring; but

Rule R192, which deals with beach recontouring for coastal restoration purposes in the coastal marine area (a controlled activity) refers to:

"discharge of contaminants".

The reason for the difference in the wording of the associated activities is not apparent and neither is the reason for one being a permitted activity and the other being a controlled activity.

Decision sought: Please see the decisions sought above under the heading "Chapter 5 - all general conditions and all rules and definitions - seek amendment".

Reconsider Rules R119 and R192 and make them appropriately consistent.

Reconsider why Rule R119 is a permitted activity but Rule R192 is a controlled activity and make them consistent one way or the other.

Consider whether reference to diverting water should be included in these rules as moving material for the beach grooming could arguably result in diversion of water when the water reaches that area.

Section 5.7 - Use of the term "open coastal water" throughout this section (and anywhere else in the PNRP) - seek amendment

Reasons: In various places, the term "open coastal water" is used. Given the definition of the term in the RMA, in a number of cases (if not all cases) "open coastal water" is not a correct term to use. By way of example, to use that term in the context of river mouth cutting is inappropriate. Many of the coastal management rules inappropriately refer to diversion of "open coastal water" being permitted when the permitted activity should preferably refer to diversion of "water".

Decision sought: Reconsider all references to "open coastal water" throughout the PNRP and replace them with "water".

Section 5.7 - Coastal management general conditions and all of the rules that refer to them - seek amendment

Reasons: Please see the reasons above under the heading "Chapter 5 - all general conditions and all rules and definitions - seek amendment".

There is a confusing interaction between the coastal management general conditions and the rules that refer to them, especially between:

- general condition (e) which says that there shall be no discharge of contaminants (excluding sediment which is addressed by clause (f)) to water or the foreshore or seabed, except where the minor discharge is permitted by another rule in this Plan; and
- the rules in this section that include discharge of contaminants but also refer to complying with the general conditions. Where the activity (eg painting or replacing a structure) can result in the discharge of contaminants other than sediment, the interaction is confusing and potentially results in the activity not being a permitted activity.

Decision sought: Please see the decisions sought above under the heading "Chapter 5 - all general conditions and all rules and definitions - seek amendment".

Revise the rules and general conditions to deal with the concerns expressed throughout this submission.

In the rules that permit discharge of contaminants, remove the confusing interaction between the coastal management general conditions and the rules that refer to them, preferably by indicating that general condition (e) does not apply.

Section 5.7 - All rules relating to structures and all rules relating to seawalls - seek amendment

Reasons: The interaction between the rules about structures and the rules in section 5.7.6 about seawalls is potentially confusing.

In addition, some structures may have associated material deposition that is not part of the structure but that is there to help to protect the structure eg rocks.

It is not clear whether "any associated ... deposition ..." in the rules about structures and seawalls would include that protection material or not. It seems that it would not as loose material separate from the structure or seawall would not come within the definition of structure and presumably is not part of the seawall, but protecting the seawall.

There needs to be provision to allow activities in relation to the associated material eg disturbing the foreshore/seabed by moving the rocks, depositing new rocks, occupation of space by the rocks.

Decision sought: Revise the rules to deal with the concerns expressed throughout this submission.

Make it clear that the rules about structures apply to seawalls except for those explicitly different in section 5.7.6 or create new rules in the seawalls section that

deal with matters that are missing in relation to the seawall rules, eg maintenance and repair.

Include a note in the relevant general structure rules referring the reader to the different seawall provision.

For all rules about structures and seawalls (and any other relevant rules), the rules need to be expanded (or new rules created or definitions created) to address associated activities that are not structures eg materials to protect the structures but that are not fixed to the land so do not come within the definition of structures eg disturbing the foreshore/seabed by moving the material, depositing new material, occupation of space by the material.

Rule R162: New structures, additions or alterations to structures inside sites of significance - non-complying activity and related rules - oppose and seek amendment

Reasons: Given the extent of the areas covered by this rule, it is inappropriate for it to be a non-complying activity for flooding and erosion mitigation structures or other coastal hazard mitigation activities.

The rules relating to dredging for flood and erosion control purposes can be used as an appropriate a guide. Rule R201 makes dredging for flood protection purposes or erosion mitigation inside sites of significance a discretionary activity with dredging outside those sites a controlled activity.

Decision sought: Revise the rule and related rules (or create new rules) to address the concerns expressed throughout this submission.

Make coastal hazard mitigation (including protection) structures outside sites of significance a permitted, controlled or restricted discretionary activity with structures inside sites of significance being a discretionary activity.

Rule R163: Replacement of structures or parts of structures - permitted activity - seek amendment

Reasons: Replacement of structures is supported but the requirement in (f) of a functional need or operational requirement does not give effect to the NZCPS eg Policy 6(2)(d) with its reference to generally and Policy 27. It may be more efficient, effective or cost-effective to replace the structure in the existing location and this should be permitted.

Decision sought: Remove condition (f).

Section 5.7.6 Rules about seawalls Rules R165 to R167 - oppose and seek amendment

Reasons: Please see the reasons throughout this submission about the need for appropriate rules for coastal hazard mitigation (including protection) activities, especially for areas of significant existing development.

There is also a need to address the material that may be associated with a seawall but that may not be fixed to the land so would not be a structure within the definition of structure in the RMA eg rocks or rip rap.

Given the extent of the areas covered by Rule 167 and the fact that seawalls would likely be built only to protect significant assets, it is inappropriate for it to be a non-complying activity.

One option (based on the approach to dredging for flood and erosion control purposes) could be to revise the rules to address the concerns expressed throughout this submission and also to move each of these rules down a category of activity for coastal hazard mitigation (including protection) activities.

Decision sought: Amend the rules about seawalls to address the concerns expressed throughout this submission, especially in relation to areas of significant existing development.

Amend the rules or create new rules to address eg the deposition of materials that may be associated with a seawall eg rocks or rip rap but that are not fixed to the land so are not a structure, occupation of space in the coastal marine area for such materials, and any other aspects that need to be addressed eg diversion of water, disturbance.

Make coastal hazard mitigation (including protection) structures outside sites of significance a permitted, controlled or restricted discretionary activity with structures inside sites of significance a discretionary activity.

Rule R192: Beach recontouring for coastal restoration purposes - controlled activity and Rule R119: Clearing flood debris and beach recontouring - permitted activity - seek amendment

Reasons: Please see the reasons above under the heading "Chapter 5 - all general conditions and all rules and definitions - seek amendment".

As noted earlier, there are significant differences between equivalent rules. In relation to beach recontouring of the bed of a river (a permitted activity), Rule R119 refers to:

"discharge of sediment to water associated with the clearing of flood debris", with no mention of anything relating to beach contouring; but

Rule R192, which deals with beach recontouring for coastal restoration purposes in the coastal marine area (a controlled activity) refers to:

"discharge of contaminants".

The reason for the difference in the wording of the associated activities is not apparent and neither is the reason for one being a permitted activity and the other being a controlled activity.

Decision sought: Please see the decisions sought above under the headings:

- "Chapter 5 - all general conditions and all and definitions"; and
- "Rule R119: Clearing flood debris and beach recontouring - permitted activity and Rule R192: Beach recontouring for coastal restoration purposes - controlled activity".

Rule 193: River and stream mouth cutting - permitted activity and the lack of an equivalent rule for rivers and streams - seek amendment

Reasons: It is appropriate to permit river (including stream) mouth cutting and that is supported.

The river (including stream) mouth cutting is not only in the coastal marine area but also in the beds of the rivers and streams. It is inappropriate to have rules with different provisions for the same activity depending on whether it happens to be in the coastal marine area or not. There needs to be an equivalent rule to Rule R193 prepared to permit river (including stream) mouth cutting in beds of rivers and streams.

The definition of river in the RMA includes a stream so the terminology "river and stream" should be reconsidered.

The reference in (c) to "open coastal water" is inappropriate in light of its definition in the RMA.

The list of associated activities includes discharge of contaminants twice. As noted already, there are inconsistencies in the PNRP in terms of references to where the discharge is permitted to be.

Decision sought: Change the references from "river and stream" to "river (including stream)" here and anywhere else such terminology occurs in the PNRP.

Change the reference in (c) from "open coastal water" to "water" and anywhere else inappropriate "open coastal water" terminology appears in the PNRP.

Check the list of associated activities, remove the duplicated reference to "discharge of contaminants", consider whether in this rule and in all other rules the location of the discharge of contaminants should be specified rather than being silent (or say, at the beginning of the rules, that where there is silence it means eg to water, or onto or into land in circumstances where it may enter water, or any other appropriate provision), and make the list complete and consistent with equivalent lists in all other rules.

Create a new rule that is the equivalent of Rule 193 but that deals with river and stream mouth cutting in the beds of rivers (including streams) or otherwise ensure that appropriate provision is made for such activities in beds of rivers (including streams).

Rule R194: Disturbance or damage - discretionary activity and Rule R195: Disturbance or damage inside sites of significance - non-complying activity - seek amendment

Reasons: Given the general nature of this rule, the extent of the areas covered by Rule R195, and the reference to "damage" that is missing from most of the other rules, these general rules are potentially problematic.

The lack of reference to diversion of water seems problematic.

Decision sought: Reconsider the relationship between these general rules and all of the other rules, including the reference to "damage" that is missing from most of the other rules.

Revise these and all other rules to address the concerns expressed throughout this submission.

Consider whether diversion of water should be added.

Ensure that any coastal hazard mitigation (including protection) activities, including soft and hard engineering activities, are no worse than discretionary activities.

Rule R196: Motor vehicles - permitted activity - oppose and seek amendment

Reasons: This rule does not give effect to Policy 20 of the NZCPS.

Motor vehicle are not permitted by cities and districts in certain areas along the coast eg in front of some areas of housing for safety purposes. By way of example, motor vehicle are not permitted in the area in front of the houses on Rodney Avenue, Te Horo Beach and they should not be permitted by this rule.

In those areas, Policies 20(1)(c) and (d) of the NZCPS are particularly relevant

The disturbance of the foreshore and seabed from motor vehicles in those areas should not be a permitted activity. That would deal with safety issues, peaceful enjoyment issues, and would enable any person to take enforcement action, all of which are benefits.

Decision sought: Exclude from this rule the areas in districts where motor vehicles are not permitted (and areas seaward of those areas), including the area seaward of the houses on Rodney Avenue, Te Horo Beach.

A suggestion is to create a new schedule and map, identify all of these areas, and exclude these areas from Rule R196 and, with appropriate exceptions, make such an activity a discretionary activity.

Rule R197 - Motor vehicles for certain purposes - permitted activity - seek amendment

Reasons: The reference to "local authority activities" is not sufficiently clear. The rule needs to cover not only work done by local authorities and but also work done by others (eg contractors) on behalf of local authorities. It also needs to cover activities done by or on behalf of local authorities that arguably might not come within the wording of "local authority activities" (whatever that actually means) eg work commissioned by a local authority but for the benefit of private landowner(s).

There should also be reference to coastal hazard mitigation (including protection) activities as these may not be done by or on behalf of local authorities. They could be done by virtue of a consent obtained by eg an organisation of affected residents rather than by the local authority.

Decision sought: Change "local authority activities" here and anywhere else that term (or any similar term) is used in the PNRP to activities carried out "by, or on behalf of, a local authority" or similar wording (wording in Rule R207 is "by, or for, a local authority" but that is less desirable wording) to convey the message that the provision covers not only work done by local authorities and but also work done by others (eg contractors) on behalf of local authorities for a range of purposes.

Include coastal hazard mitigation (including protection) activities (using appropriate terminology) as one of the purposes so that motor vehicles (the PNRP definition includes heavy machinery) for that purpose are permitted activities.

Rules R200 and R201 - dredging - support and seek amendment

Reasons: The general approach to dredging for flood protection or erosion mitigation measures is supported and should also be adopted for coastal hazard mitigation (including protection) measures generally ie no activity being a non-complying activity.

Please see the concerns expressed elsewhere in this submission.

Decision sought: Please see the decisions sought elsewhere in this submission.

Rules R204 and R205 - Destruction, damage or disturbance and general concerns about terminology throughout the rules - seek amendment

Reasons: It is not clear what activities these rules will deal with and how they relate to other rules. The references to destruction, damage and disturbance differ from some earlier rules which eg only refer to disturbance.

Destruction, damage or disturbance of what should be set out in the rule.

As expressed before, given the extent of the areas in Rule R205, it is not acceptable for activities in those areas to be non-complying activities.

Decision sought: Reconsider the terminology used in all of the rules to ensure that it is consistent and appropriate.

Destruction, damage or disturbance of what needs to be set out.

How these rules relate to other rules eg rules that refer to disturbance but not destruction or damage needs to be addressed and remedied.

The meaning of "damage" and "destruction" should be clarified, perhaps by a definition, to clarify what exactly is damage or destruction of the foreshore or seabed and how those terms differ from, and relate to, "disturbance" or "reclamation" or perhaps "drainage".

Make Rule R205 a discretionary activity and revise the category of Rule R204 or otherwise address the concerns expressed throughout this submission.

Rule R207: Deposition for beach renourishment - controlled activity - support and seek amendment

Reasons: Subject to the reasons expressed, and decisions sought, elsewhere in this submission, making this a controlled activity is supported.

Reference is made in (d) to "by, or for, a local authority" but "by or on behalf of" is preferable.

There should be reference to associated diversion of water, which is not mentioned, despite matter of control 3 referring to the effects of diversion associated with the activity.

Decision sought: Please see the decisions sought in the rest of the submission.

Add diversion of water to this rule and to all other relevant rules as deposition may divert water when the water reaches that area.

Change (d) "by, or for, a local authority" to "by, or on behalf of, a local authority" and use that terminology consistently throughout the PNRP when reference is made to things being done by a local authority or local authority activities so it is clear that the work can be done by others who are not part of the local authority and can be done for a variety of purposes.

Rules R208 and R209 - Deposition - seek amendment

Reasons: Given the extent of the areas covered by this rule, it is inappropriate for deposition to be a non-complying activity for deposition that is for coastal hazard mitigation (including protection) activities.

In relation to structures or seawalls, it is not clear if the activities associated with those rules would cover deposition of eg rock to protect the structure or seawall or if these deposition rules would cover that. It seems that these deposition rules would apply.

Occupation of space of the material does not seem to have been addressed sufficiently.

The existing rules relating to dredging can perhaps be used as an appropriate a guide. Rule R201 makes dredging for flood protection purposes or erosion mitigation inside sites of significance a discretionary activity with dredging outside those sites a controlled activity.

Decision sought: Revise the rule and related rules (or create new rules) to address the concerns expressed here and throughout this submission.

Clarify if the structures or seawalls rules cover the deposition of material to protect those structures (where the material is not fixed to the land) or whether these rules apply.

Add reference to associated diversion of water.

Add reference to occupation of space in the coastal marine area for whatever rules do apply to the material used to protect any structures or seawalls or other materials deposited for coastal hazard mitigation (including protection) activities.

In terms of categorisation of the activities, a suggestion is that deposition outside sites of significance should be a permitted, controlled or restricted discretionary activity with deposition inside sites of significance being a discretionary activity.

CHAPTER 6 - OTHER METHODS

Other methods - general

Reasons: Please also see the reasons under the heading "GENERAL AND WHOLE PLAN ISSUES".

Decision sought: Please also see the decisions sought under the heading "GENERAL AND WHOLE PLAN ISSUES".

Method M3: Wellington regional hazards management strategy - seek amendment

Reasons: Please see relevant comments throughout this submission.

The reference to "work in in partnership with ... stakeholders" lacks clarity in intention, both with respect to the type of participatory process envisioned as well as the determination of stakeholder groups or individuals. Natural hazard management strategies must be developed using a genuinely collaborative process, facilitated by regulators but involving local communities and property owners. In particular, such a strategy development process must proactively seek participation by those property owners likely to be the most directly impacted by a particular natural hazard in order to achieve local support and buy-in for successful implementation.

Please also see the reasons set out below regarding Method M4.

Decision sought: Revise the method to address the concerns expressed in relation to Methods M3 and M4.

When expanding on the intention, refer to a "collaborative process" and "local communities or stakeholders, including affected property owners".

Method M4: Sea level rise - seek amendment

Reasons: Please see the relevant comments throughout this submission.

Given the poor-quality approach by local and central government authorities in New Zealand to dealing with sea level rise and coastal hazard risks as well as problems caused by some experts (see the attached paper "Notes on the Kapiti coastal erosion fiasco and problems caused more generally by a number of NZ coastal scientists"), GWRC should not be developing regional guidance on its own. It needs to do this in partnership with city and district councils and stakeholders, including affected property owners and any such guidance should be made available for public comment before it is produced.

Proper statistical input should be obtained as statistical input was an important recommendation of the Kapiti international coastal panel.

There should be information on the uncertainties (see eg, the joint Australian and New Zealand International Standard on risk management AS/NZS ISO 31000:2009 "Risk management - Principles and guidelines"), including the range of likely sea level rise outcomes over what likely timeframes to enable submitters to participate effectively in any RMA processes.

That Standard has been discussed earlier under the heading “Whole plan - failure to address a range of matters relating to risk (including the definitions of “risk” and “risk-based approach (natural hazards)”), risk assessment, and risk management, including in relation to climate change and coastal hazard mitigation issues”.

The uncertainties should not be exaggerated “to be on the safe side” as appears to be current practice in coastal science. Instead, best estimates of the uncertainties should be provided to enable informed participation in RMA processes and informed judgements to be made by resource management decision-makers as well as individual property owners.

GWRC should be seeking contestable and broad-based expert advice, should explicitly advise any professionals that what is provided should not be tainted by conservative or precautionary considerations, needs to be based on likely, not unlikely impacts of climate change and should not simply be producing a number and purporting to say that it is the sea level rise that should be adopted for the Wellington Region. It should be made clear that the uncertainty needs to be quantified so it can be used in subsequent risk analysis and management.

Decision sought: Revise the method to address the concerns above, including the concerns in the attached paper “Notes on the Kapiti coastal erosion fiasco and problems caused more generally by a number of NZ coastal scientists” and the concerns expressed throughout this submission.

Revise Method M4 to say “will work in partnership with city and district councils and stakeholders, including affected property owners to develop...” or something along those lines.

Add reference to using appropriate statistical input, information on the uncertainties, and the range of likely sea level rise outcomes over what likely timeframes.

Add that the purpose is to enable a “consistent, robust and high-quality approach...”

Add reference to draft guidance being provided for public comment.

Method M10: Water quality investigations and remediation actions (e) and (g) - support and seek amendment

Reasons: Issues with Te Horo groundwater and the poor state of the Mangaone Stream need to be addressed.

Decision sought: Retain method M10 (e) regarding Te Horo groundwater and (g) regarding the Mangaone Stream and, if anything, change the dates to being sooner than 2018.

CHAPTER 10 - KĀPITI COAST WHAITUA

Kāpiti Coast Whaitua - general

Reasons: Please also see the reasons under the heading “GENERAL AND WHOLE PLAN ISSUES”.

Decision sought: Please also see the decisions sought under the heading “GENERAL AND WHOLE PLAN ISSUES”.

Chapter 10 Kapiti Coast Whaitua all provisions relating to taking groundwater - seek amendment

Reasons: The provisions in this chapter seem to conflict with Rule R136 that provides that taking groundwater in certain circumstances is a permitted activity. That rule also includes a note drawing the reader’s attention to s 14(1)(b) of the RMA that provides, among other things, for taking water for an individual’s reasonable domestic needs.

Decision sought: State in Chapter 10 that Rule R136 and s 14(1)(b) of the RMA override all of the provisions and rules in Chapter 10.

SCHEDULES

All of the schedules - oppose and seek amendment

Reasons: All of the schedules are opposed for reasons expressed elsewhere in the submission.

Decision sought: Revise the schedules to appropriately address the concerns expressed.

Please see the decisions sought elsewhere in this submission about the schedules and also about new schedules, including in relation to identifying areas where motor vehicles are not a permitted activity (subject to appropriate exceptions).

MAPS

All of the maps - oppose and seek amendment

Reasons: All of the maps are opposed for reasons expressed elsewhere in the submission.

Decision sought: Revise the maps to appropriately address the concerns expressed.

Please see the decisions sought elsewhere in this submission about the maps and also about new maps, including in relation to identifying areas where motor vehicles are not a permitted activity (subject to appropriate exceptions).

CONCLUSION

The Appendix follows next and we ask that you read it please.

Thank you for considering our submission.

Joan Allin and Rob Crozier
16 October 2015

APPENDIX

Notes on the Kapiti coastal erosion fiasco and problems caused more generally by a number of NZ coastal scientists

1. In these notes, I explain:
 - a. what has happened in the Kapiti coastal erosion fiasco where the exact same results have morphed from:
 - i. "likely"; to
 - ii. "based on a worst case scenario" but worse than what and by how much were not explained; to
 - iii. "very unlikely";
 - b. my reactions to, and some opinions about, what has happened; and
 - c. problems being caused more generally by a number of New Zealand coastal scientists who, in my opinion, are misinterpreting or ignoring the law and misunderstanding their role in the context of the Resource Management Act 1991 (RMA) and the New Zealand Coastal Policy Statement 2010 (NZCPS 2010 or in full).

2. I address:
 - a. Kapiti long-term erosion/accretion;
 - b. Kapiti reports/documents on coastal erosion;
 - c. the problems that the independent panel of international and NZ coastal experts and a statistician (Coastal Panel)¹ engaged by Kapiti Coast District Council (KCDC) identified with the Coastal Systems Limited (CSL) reports;
 - d. the practice of ignoring accretion, which is contrary to Policy 24(1)(b) of the NZCPS 2010;
 - e. what KCDC has done in response to the Coastal Panel's report and an independent planning/legal report;
 - f. the morphing information as to Kapiti results, where the exact same results have gone from:
 - i. "likely"; to
 - ii. "based on a worst case scenario" but worse than what and by how much were not explained; to
 - iii. "very unlikely";
 - g. some relevant statutory, and related, provisions;
 - h. how some NZ coastal scientists interpret the law and approach their role;
 - i. some hints to the contrary from the Environment Court;

¹ Dr Paul Komar (USA), Mr James Carley (Australia), Dr Paul Kench (NZ) and Dr Robert Davies (NZ statistician).

- j. the problems with providing only very unlikely results or overstating results;
 - k. risk management and uncertainty - AS/NZS ISO 31000:2009 *Risk management - Principles and guidelines*; and
 - l. in conclusion, NZCPS 2010 provisions, the recommendations of the Coastal Panel vs conventional practice of NZ coastal experts, and what, in my opinion, submitters and decision-makers are entitled to expect from scientific reports and coastal experts.
3. By way of background, our property was not affected by CSL's 50 year lines. The 100 year line touched the seaward side of our house. We were not concerned when we received the letter from KCDC advising us of this "likely" outcome. The concerns that I have are professional rather than personal.
 4. During my career², I have encountered many well-meaning, but ultimately misguided, concerned citizens. I have read and evaluated many scientific and technical reports and dealt with expert evidence. I did not even intend to read the CSL reports as I assumed that the reports were validly prepared and that the residents were misguided. However, due to the ongoing controversy over the reports, I eventually felt that I should at least read CSL's 2012 Update to satisfy myself that it was valid. I was stunned (and not in a good way) by what I read and ultimately discovered.
 5. It has been difficult to get to the bottom of the nature of the CSL results. It has taken me far too many hours, and several years, to uncover that the CSL results are not:
 - a. "likely" as initially described by KCDC; or
 - b. "precautionary" or "conservative", terms used in the 2008 and 2012 reports; or
 - c. "based on a worst case scenario" as later described by KCDC; but
 - d. "very unlikely" as described on CSL's own website in March 2015.
 6. Over time, I have also developed concerns about what other NZ coastal experts are doing. It seems that a number of them consider that it is appropriate in the RMA/NZCPS 2010 context to provide only results that are very unlikely, or overstated. That does not accord with my view of the nature of scientific results that coastal experts should be providing. In my opinion, providing only very unlikely or overstated scientific results undermines (and in the Kapiti case sabotaged) the RMA/NZCPS 2010 process.

² Senior lecturer in law at Victoria University, resource management partner at Chapman Tripp, independent hearings commissioner, Principal Environment Judge (ie the chief judge) and an alternate Environment Judge of the Environment Court. Retired now.

Kapiti long-term erosion/accretion

7. The southern part of the Kapiti coast has been affected by long-term erosion (although some predictions of erosion made in the past have not occurred).
8. The net effect of coastal processes (including the ongoing long-term sea level rise) on the central and northern parts of the Kapiti coast has not been erosion, but accretion.
9. A positive outcome of the CSL reports was demonstrating the areas of longer-term erosion and accretion, and that the trends are not linear.

Kapiti reports/documents on coastal erosion

10. The various reports/documents (including my comments on some of them) have been:
 - a. 2003 Lumsden report on coastal erosion.
 - b. 2005 Coastal Systems Limited (CSL³) review of Lumsden report which found it wanting.
 - c. CSL 2008 (March 2008) Open Coast report⁴ and Inlets report⁵:
 - i. 50 years;
 - ii. references to "precautionary" and "conservative";
 - iii. KCDC puts process on hold pending updated New Zealand Coastal Policy Statement.
 - d. CSL 2012 Update⁶ (August 2012) to take account of the New Zealand Coastal Policy Statement 2010:
 - i. 50 and 100 years;
 - ii. accretion not included where report says progradation (accretion) is "expected" ie generally the central and northern parts of the Kapiti coast;
 - iii. under Policy 24(1)(b) NZCPS 2010, the Council is to have regard to the "short-term and long-term natural dynamic fluctuations of erosion and accretion";
 - iv. numerous references to "precautionary" and some to "conservative" strike me as unusual for a scientific report;
 - v. precautionary assumption added to precautionary assumption added to precautionary assumption;
 - vi. peer review of 2012 Update is 1 page "Overview comments" (Appendix H), which refers to results being "necessarily conservative (precautionary)", purportedly to comply with the 2008 MFE Guidance Manual;
 - vii. flashing lights to me saying "investigate further";
 - viii. and then I read the 2007 peer reviewer report.

³ The author of all of the CSL reports that I refer to is Dr Roger Shand.

⁴ Available at http://www.kapiticoast.govt.nz/Documents/Downloads/District-Plan-Review/coastal-hazards/Kapiti_Coast-Erosion_Hazard_Assessment_Part1_Open_Coast.pdf.

⁵ Available at http://www.kapiticoast.govt.nz/Documents/Downloads/District-Plan-Review/coastal-hazards/Kapiti_Coast_Erosion_Hazard_Assessment_Part2_Inlets.pdf.

⁶ Available at http://www.kapiticoast.govt.nz/Documents/Downloads/District-Plan-Review/coastal-hazards/Kapiti_Coast_Erosion_Hazard_Assessment_2012_Update.pdf.

- e. 2007 CSL "Summary of Peer Reviewer comments on the KCDC Open Coast Erosion Hazard Report"⁷, February 2007 (2007 Compilation) - 50 years. The following quotes are from the author of the CSL reports:

"Given the conservative manner in which all the components have been derived, coupled with the extrapolation uncertainty noted above, it is recommended that the 50 yr values be used be adopted [sic], with an understanding that they are [sic] can be applied to a 50 to 100 yr period if a hazard review is undertaken at 10 yr intervals." (page 20)

"In an effort to simplify the computation method - thereby facilitating hazard update by future council staff, the method of combining hazard components has now been modified. All positive (accretionary) [sic] long-term rates of change have been set to 0. This practice is becoming more common in hazard assessment. The approach also remove [sic] the models [sic] reliance on trend continuity. This approach has effectively doubled the hazard distances along the north coast." (underlining is original, page 23)

So:

- the components are so conservative that the 50 year results could be used for 100 years, with reviews;
- with \$1 billion+ of property affected, to simplify the computation method "thereby facilitating hazard update by future council staff", all accretionary long-term rates of change are set to 0; and
- the effect of putting accretion at 0 is to double the hazard distances along the north coast.

That's all rather startling.

This February 2007 compilation (over a year before the March 2008 reports were finished), the 3 page "Peer Review" of the 2008 Inlets report and the 1 page "Overview comments" in the 2012 Update are the only peer review documentation available and, in my opinion, demonstrate the superficiality of the peer review.

- f. 29 November 2012 - KCDC Proposed District Plan notified under the RMA:
- i. will eventually replace the operative District Plan (does not just deal with coastal erosion);
 - ii. CSL reports are used as the basis for no-build and relocatable zones.

⁷ Not currently available on KCDC's website but I understand that KCDC may add it to the website.

- g. September 2013 - CSL report on the northern shore of the Waimeha Inlet⁸ produces different results:
 - i. "The 1973 and 1988 aerial photo-based inlet shorelines used for the previous assessments were of poor quality so improved imagery was acquired, processed and shorelines abstracted." (page 6);
 - ii. lines moved substantially seaward, if not completely off, the property of the landowner.

- h. November 2013 - CSL draft (but not released⁹) report for the Mangaone Inlet produces different results:
 - i. original reports - "it was not considered necessary to carry out a separate hazard assessment for a managed inlet scenario" (2008 Inlets report page 27, see also the 2012 Update page 36) for the Mangaone Inlet. That was despite the inlet being managed, the 2008 report identifying the management regime¹⁰, the 2012 Update referring to the stream mouth cutting¹¹ and KCDC's terms of reference for CSL stating that managed and unmanaged scenarios should be done;
 - ii. revised outcome (now providing a managed scenario) = 2 or 3 properties affected, not around 30¹².

- i. January 2014 - CSL report for the Waikanae estuary in the vicinity of Kotuku Parks subdivision¹³ produces different results:
 - i. "Both the managed and unmanaged lines are now seaward of the Kotuku Parks boundary by about 40 m with the managed line adjustment increasing up to about 65 m in the northern sector" (page 7).

⁸ Available at <http://www.kapiticoast.govt.nz/Documents/Downloads/District-Plan-Review/coastal-hazards/reports/Erosion-Hazard-Reassessment-northern-shoreline-of-Waimeha-Inlet.pdf>.

⁹ The version that KCDC has is labelled "DRAFT" and "NOTE this is a DRAFT assessment for professional review. This document is not to be forwarded without the authors [sic] permission." It is not on KCDC's website.

¹⁰ Page 27 of the 2008 Inlets report, section 3.4.1 states: "More recently, erosion and flood prevention management has been carried out when formal trigger conditions defined in the Wellington Regional Coastal Plan are exceeded. In particular, *stream mouth cutting is carried out when the channel outlet within the coastal marine area migrates either 100 m south or 300 m north of Te Horo Beach Road*, or when the water level increases 300 mm or more above its normal level at Sims Road." (emphasis original).

¹¹ The 2012 Update records "... more recently, stream mouth cutting has been carried out to prevent lateral migration of the channel." (page 36).

¹² In the draft managed scenario report, our property is not affected at all.

¹³ Not currently available on KCDC's website but I understand that KCDC may add it to the website.

- j. mid 2013 - June 2014 - KCDC appoints independent Coastal Panel - 2 international coastal experts (USA¹⁴ & Australia¹⁵), 1 New Zealand coastal expert¹⁶ and 1 statistician¹⁷ to review the CSL reports. The Coastal Panel's report¹⁸:
 - i. identifies numerous problems with the CSL reports;
 - ii. ironically, rejects CSL's approach to the short-term component in favour of Lumsden's, but subject to qualifications;
 - iii. concludes "... the hazard lines recommended by CSL are not sufficiently robust to be incorporated into the Proposed District Plan ...". (section ES.1 Overview, see also page 51).
- k. December 2013 - June 2014 - KCDC appoints Richard Fowler QC and senior planner Sylvia Allan to review the Proposed District Plan (PDP). Their report¹⁹:
 - i. has significant recommendations regarding the PDP generally, but not that it be totally withdrawn;
 - ii. recommends that all of the coastal hazard provisions be removed from the PDP.

Coastal Panel - problems with the CSL reports

11. The Coastal Panel identified a number of problems in the CSL reports, including:
- a. intentionally double-counting the recession caused by sea level rise - "Purposely double counting is a decidedly unconventional approach, and should not be followed ..." (page 34);
 - b. concern that there may also be double counting when the "catch up" term is applied to some areas where a sea wall is lost or removed (page 29). "In the modelling of the "remove sea-walls" scenario the "catch-up" term in the 100-year projection appears to be incorrectly handled. It is doubled ... It should be left as is." (page 45);
 - c. inappropriate approach to the short-term component - "the CSL assessments of the short-term hazards cannot be viewed as being robust ...". "It is the recommendation of this Panel that the analysis methodologies applied by Lumsden (2003) be adopted ...", subject to qualifications (section ES.4 see also pages 37-39);

¹⁴ Dr Paul D Komar, Emeritus Professor of Oceanography, Oregon State University, USA.

¹⁵ Mr James T Carley, Principal Coastal Engineer, Water Research Laboratory, UNSW, Australia.

¹⁶ Dr Paul S Kench, Professor and Head of Department, School of Environment, University of Auckland.

¹⁷ Dr Robert B Davies, Statistician, Statistics Research Associates Limited, Wellington.

¹⁸ Available at http://www.kapiticoast.govt.nz/Documents/Downloads/District-Plan-Review/Proposed-District-Plan/Independent-review/Coastal_Erosion_Hazard_Assessment_Review_of_the_science_and_assessments_undertaken_for_the_PDP.pdf.

¹⁹ Available at http://www.kapiticoast.govt.nz/Documents/Downloads/District-Plan-Review/Proposed-District-Plan/Independent-review/Independent_Review_of_the_Kapiti_Coast_PDP.pdf.

- d. failure to include accretion where it exists -
 - i. "The Panel recognises that CSL is correct in this [setting accretion at 0 in accreting coasts] being a common practice ... although in the case of the [Kapiti] Coast it represents a rather extreme assumption that future rates of rising sea levels will overcome the positive balance provided by the sediment budget. The question of this being a valid assumption, that the cusped foreland would soon disappear under rising sea levels, could be addressed by an evaluation of the sediment budget ..." (page 30). (CSL did not do a sediment budget).
 - ii. "Along with revised open coast assessments, scenarios of change [for inlets] under accretionary coast conditions should be considered" (section ES.5, see also pages 44 and 53);
- e. in relation to the dune stability component, "More elevated portions of the coast (south of about Raumati) are subject to more complex slope stability processes than the simple dune stability model used in CSL (2008a). Issues include (but may not be limited to) the sand grain size adopted and the assumption of dry sand. It is recommended that specialist geotechnical engineering advice be sought regarding slope stability in these areas" (page 40);
- f. the inlets reports produced a "first approximation" of inlet erosion hazards (repeated several times on pages 43 and 44 of the Coastal Panel's report, although neither the CSL 2008 Inlets report nor the 2012 Update described the inlets approach as a "first approximation"). Weaknesses in the inlets approach include a number of matters (see pages 43, 53 and section ES.5) including:
 - i. the approach masks the variability in the alongshore dynamics of inlet entrances;
 - ii. the approach assumes that the lagoon shorelines will migrate landward, which ignores the likely primary control on such shorelines;
 - iii. it assumed the coast will be erosional/recessionary, despite evidence that some parts of the coast and inlets have been in net accretion in the past; and
 - iv. how the inlet and open coast hazard zones are merged should be reconsidered and a transparent procedure invoked;
- g. a number of statistical technique issues (page 45):
 - i. "It is recommended that studies such as these involve an experienced statistician, preferably one familiar with time-series analysis. There seems to have been only limited involvement of a statistician in the CSL analyses";
 - ii. "...the simple regression analysis, linear or not, used in the CSL analyses is likely to be inappropriate for the data sets considered here.";

- iii. "From a statistical perspective, it is recommended that "best estimates" rather than precautionary values be adopted, with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate. Alternatively, one could give several scenarios based on best, worst and mid-way cases.";
 - iv. "An economic assessment of the consequences of planning restrictions needs to be undertaken before imposing them, since the restrictions may have been made on the basis of calculations which may be excessively precautionary. One needs to balance the cost to property owners of any restrictions with the actual risk (and its time scale) and one can't do this if there are hidden "precautionary" adjustments."
12. As already noted, the Coastal Panel concluded:
- "... the hazard lines recommended by CSL are not sufficiently robust to be incorporated into the Proposed District Plan ...". (section ES.1 Overview, see also page 51).
13. The Coastal Panel also said (page 47):
- a. "Adaptive management provides a realistic alternative to excess speculation regarding definitive future coastal hazards."; and
 - b. "The assessment of coastal hazard zones should consider a range of plausible scenarios (e.g. low, mid, high, or best estimate and extremes)."

Practice of ignoring accretion is contrary to Policy 24(1)(b) of the NZCPS 2010

14. I return to the Coastal Panel's comment that:
- "The Panel recognises that CSL is correct in this [setting accretion at 0 in accreting coasts] being a common practice ... although in the case of the [Kapiti] Coast it represents a rather extreme assumption that future rates of rising sea levels will overcome the positive balance provided by the sediment budget."
15. It may be that a practice of ignoring accretion has developed over time among New Zealand and/or overseas coastal experts. However, such a practice cannot override the express provision introduced in New Zealand in Policy 24(1)(b) of the NZCPS 2010 that a Council is to assess hazard risks having regard to:
- "short-term and long-term natural dynamic fluctuations of erosion and accretion" (emphasis added).
16. If coastal scientists in New Zealand had developed a practice of ignoring accretion, such a practice should have stopped as of 3 December 2010 to enable Councils to fulfil their obligations under the NZCPS 2010.

What KCDC has done in response to the Coastal Panel and the Planning/Legal reports

17. KCDC has:

- a. withdrawn the coastal hazard provisions of the PDP;
- b. put a disclaimer, outlined in red, on the CSL reports on the KCDC website:

“Disclaimer: before reading this report you need to be aware that an independent panel of coastal experts has found that the information contained in this report is not appropriate for planning purposes. A further independent planning report has subsequently recommended that the Council withdraw from the Proposed District Plan the coastal hazard management areas associated with this report and undertake further work in regard to the underlying methodologies for use in relation to future planning for the [Kapiti] District. The information contained in this report should not therefore be relied upon.”;
- c. removed the projected shorelines maps from KCDC's website;
- d. withdrawn the information on the LIMs but included a general comment about coastal erosion;
- e. stopped using the CSL reports as a basis for putting a notice on a property title under the Building Act if a building consent is granted for construction of a building, or major alterations to a building, on land that is subject or is likely to be subject to coastal erosion. KCDC's letter dated 19 December 2013 to property owners said that the endorsements that had been put on title would be reviewed and, where necessary, removed at no cost to the owner. Further building consents are being dealt with under the operative District Plan or on a case-by-case basis, not the PDP or CSL reports;
- f. started reviewing all of the PDP and taking steps for further relevant coastal erosion work to be done;
- g. written to CSL about misleading statements on the CSL website. The letter dated 12 February 2015 said:

“... For the record the Council does not accept that the independent panel identified “very few issues” and that the CSL report is “fit for purpose”...

It is therefore difficult to see how any reasonable person could conclude that the CSL report is “fit for purpose”... The Council will not hesitate to make its views known to any person making inquiries about the work CSL carried out for the Council on coastal hazards...

The Council wishes to make it quite clear to you that it disassociates itself from the statements made on the CSL website regarding the Kapiti erosion assessments.”

18. As of March 2015 (the website records that the page was updated 15 March 2015), the information in the Kapiti Erosion Hazard Assessments tab on the CSL website became more misleading further to KCDC's letter, not less. The CSL assertions are misleading, contain errors of law and fact, and should not be relied upon.

Morphing information as to Kapiti results

19. Over time, the CSL results have morphed from:
- a. "likely" and "likely risk of significant erosion or inundation" (KCDC letter of 25 August 2012 to affected residents); to
 - b. "based on a worst case scenario" (KCDC letter of 18 January 2013 to affected residents) - worse than what and by how much were not explained; to
 - c. "Very unlikely" (CSL website March 2015).

20. 25 August 2012 letter to affected residents - the coastal hazard assessment:

"... predicts where the shoreline is likely to be along [Kapiti] Coast within 50 and 100 years...

Around 1,800 properties - including most beachfront properties in the district - are at likely risk of significant erosion or inundation (flooding) within 100 years. Up to 1,000 of these may be affected within 50 years." (emphases added)

21. 3 September 2012 - the then Mayor's column "A Moment with our Mayor" in the *Kapiti Observer*:

"Around 1800 coastal properties in Kapiti are likely to be at significant risk of coastal erosion within the next 100 years and up to 1000 of these within the next 50 years.

...

We have also been briefing a number of other significant stakeholders including local real estate agents, lawyers and valuers.

At this point it is not known what effect this will have on property values, although an economic study in Whakatane District shows this information did not have a long term impact.

Council's current policy is to maintain and protect roads and public health infrastructure (water supply, stormwater and sewerage) in the short term. However, we will progressively move public infrastructure away from areas of high risk.

I completely empathise with residents who are anxious about this new direction and encourage you to visit our website ...

Have a good week." (emphasis added)

22. KCDC was obviously under the impression that the CSL reports were providing information as to what was likely to occur. Busy telling real estate agents, lawyers and valuers. Considering what to do about infrastructure. Considering the effect on property values. Empathising with affected residents.
23. 5 months later, on 18 January 2013, - KCDC letter to affected residents - the assessment is:

“based on a worst case scenario”

but worse than what and by how much were not identified.
24. March 2015 - CSL website’s newly-created key to the Kapiti projected shorelines maps describes the results as:

“Very unlikely”.
25. So, between August 2012 and March 2015, the exact same results have morphed from likely to very unlikely. In my opinion, that is appalling.

Some relevant statutory, and related, provisions

26. The CSL reports were prepared for RMA purposes, including the NZPCS and district plans. Under s 75(3)(b) of the RMA, a district plan must give effect to the NZCPS 2010.
27. The NZCPS 2010 states:

“This NZCPS is to be applied as required by the [RMA] by persons exercising functions and powers under the [RMA].” (page 7).
28. It is therefore the role of the Council (or the Environment Court) to apply the NZCPS 2010 as required by the RMA, not the role of coastal scientists.

29. Policy 24 states the functions of the Council in relation to the identification of coastal hazards:

“Policy 24 - Identification of coastal hazards

- (1) Identify areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected. Hazard risks, over at least 100 years, are to be assessed having regard to:
- (a) physical drivers and processes that cause coastal change including sea level rise;
 - (b) short-term and long-term natural dynamic fluctuations of erosion and accretion;
 - (c) geomorphological character;
 - (d) the potential for inundation of the coastal environment, taking into account potential sources, inundation pathways and overland extent;
 - (e) cumulative effects of sea level rise, storm surge and wave height under storm conditions;
 - (f) influences that humans have had or are having on the coast;
 - (g) the extent and permanence of built development; and
 - (h) the effects of climate change on:
 - (i) matters (a) to (g) above;
 - (ii) storm frequency, intensity and surges; and
 - (iii) coastal sediment dynamics;
 taking into account national guidance and the best available information on the likely effects of climate change on the region or district.” (emphases added)

30. I have often seen Policy 24 set out incorrectly. The mistake that people make is indenting the words at the end ie “taking into account ... the likely effects of climate change on the region or district” so it looks like those words are part of (h). But they are not part of (h). They form the ending of what is a long sentence that effectively reads:

“Hazard risks, over at least 100 years, are to be assessed having regard to [(a) to (h)] taking into account ... the best available information on the likely effects of climate change on the region or district.”

31. Setting out Policy 24 incorrectly affects its meaning.
32. Policy 24 effectively says that the Council’s function is to:

- “(1) Identify areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected. Hazard risks, over at least 100 years, are to be assessed having regard to [(a) to (h)] taking into account national guidance and the best available information on the likely effects of climate change on the region or district.” (emphases added)

33. Risk is defined in the NZCPS 2010 as:
- “Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence ...”. (emphasis added)
34. So, to carry out its functions under Policy 24, a Council needs to:
- a. identify areas potentially affected by coastal hazards, with the hazard risks being assessed taking into account the likely effects of climate change;
 - b. give priority to the identification of areas at high risk of being affected;
 - c. in assessing risk (likelihood x consequences), consider the likelihood of coastal erosion occurring and the consequences.
35. Policy 25 of the NZCPS 2010 deals with “areas potentially affected by coastal hazards”, so “potentially affected” is used on its own there. However, it is my view that it should be read in the context of Policy 24, which specifically deals with the “[identification of] areas ... potentially affected by coastal hazards” and also refers to the likely effects of climate change (and hazard risks), so that Policy 25 addresses areas identified by Policy 24.
36. Policy 27 of the NZCPS 2010 identifies the range of options the Council should assess for reducing coastal hazard risks in areas of significant existing development likely to be affected by coastal hazards. These areas should also have been identified by the Council during the Policy 24 process, as a subset of the other areas.
37. The first part of Policy 27 states:
- “Strategies for protecting significant existing development from coastal hazard risk**
- (1) In areas of significant existing development likely to be affected by coastal hazards, the range of options for reducing coastal hazard risk that should be assessed includes: ...”
(emphases added)
38. Affected Kapiti properties = \$1 billion+.
39. Providing only “very unlikely” results, especially in Kapiti (or in other areas of significant existing development):
- a. does not provide KCDC (or any Council) with the appropriate scientific information that it needs to carry out its tasks;
 - b. does not enable the community to participate in the RMA process with appropriate scientific information; and
 - c. wastes resources as it does not enable the Council to focus attention on the areas where options for reducing coastal hazards are actually needed ie the areas likely to be affected.

40. Policy 3(2) of the NZCPS 2010 states:
- “In particular, adopt a precautionary approach to use and management of coastal resources potentially vulnerable to effects from climate change, so that:
- (a) avoidable social and economic loss and harm to communities does not occur;
 - (b) natural adjustments for coastal processes, natural defences, ecosystems, habitat and species are allowed to occur; and
 - (c) the natural character, public access, amenity and other values of the coastal environment meet the needs of future generations.”
41. Some coastal scientists seem to have interpreted this provision as applying to them and therefore think that their scientific assessment of coastal hazards should be precautionary. Indeed, according to CSL’s website as at March 2015, a number apparently consider that their results should be “very unlikely”.
42. I have had a coastal expert (not any expert referred to on the CSL website) confidently tell me to my face that they need to provide precautionary results, and look at me like I was an idiot for thinking otherwise.
43. However:
- a. the provision is referring to what Councils are to do (not coastal scientists);
 - b. it relates to “use and management of coastal resources” so, planning and resource consent matters, not identification of the hazards which is addressed in Policy 24;
 - c. it uses different wording from Policies 24 to 27 ie “potentially vulnerable” so it is arguable whether it should be read in light of Policy 24 or not which makes it all the more important for coastal experts to prepare assessments based on objective science so that no matter what way the law is interpreted or what specific policies apply, the decision-maker has the relevant scientific basis for the decision;
 - d. it refers to adopting a precautionary approach to use and management of coastal resources potentially vulnerable to effects from climate change, so that avoidable social and economic loss and harm to communities does not occur. In my view, that reads both ways. Too stringent provisions can cause avoidable social and economic loss and harm to communities as can too lenient provisions.
44. In short, Policy 3 does not direct that coastal hazard assessments should be precautionary.
45. Confirmation of that also comes from DOC’s Guidance note on Policy 3 that says “The application of the precautionary approach is a risk management approach rather than a risk assessment approach.” (page 6)

46. Other relevant statutes for different purposes:

- a. Section 44A(2)(a) Local Government Official Information and Meetings Act 1987 different - matters to be included in a land information memorandum (LIM) are:

“information identifying each (if any) special feature or characteristic of the land concerned, including but not limited to potential erosion, ... [that] ... is not apparent from ... a district plan under the [RMA]” (emphasis added).

Potential erosion is referred to on its own without qualifications. The provision ceases to apply when the district plan deals with the matter so limited effect. The reference to the district plan is relevant in that a Council would not normally expect to receive a report in the nature of CSL's reports, identifying only very unlikely results, for district plan purposes.

This is the provision the *Weir v KCDC* High Court judicial review case was about [2013] NZHC 3522 and [2015] NZHC 43.

- b. Sections 71-74 Building Act 2004 - relevant to notices on title for building consents - s 71(1)(a) refers to land which:

“is subject or is likely to be subject” (emphases added) to natural hazards.

If a person obtains a building consent for construction of a new building, or major alterations to a building, on land that is subject or is likely to be subject to a natural hazard, a notice goes on the property title about the hazard. A coastal hazard assessment that doesn't identify land that is subject or is likely to be subject to coastal erosion jeopardises Council's use of the Building Act, as has happened in Kapiti.

How some NZ coastal scientists interpret the law and approach their role

47. One wonders how the exact same results can morph from:

- a. “likely”; to
 b. “based on a worst case scenario” (but worse than what and by how much were not explained); to
 c. “very unlikely”.

48. It seems extraordinary for that to be able to occur. How could such a thing happen, with \$1 billion+ of property affected?

49. If I hadn't lived through it myself I would have found it difficult to believe that such a thing could happen.

50. My view is that it has occurred because some coastal scientists are:
- a. misinterpreting or ignoring the law;
 - b. misunderstanding their proper role in the RMA process;
 - c. providing only very unlikely results (or results of that ilk);
 - d. failing to explain clearly the nature of such results (instead, referring to precautionary, conservative, potential) thereby camouflaging the very unlikely nature of the results;
 - e. failing to get proper statistical input;
 - f. failing to report the uncertainties;
 - g. providing false certainty of overstated results; and
 - h. unintentionally undermining, or indeed sabotaging, the RMA processes.
51. I have already noted that the district plan must give effect to the NZCPS 2010. I have set out some elements of Policies 3, 24, 25 and 27 and discussed the relevant wording. All of the provisions of the NZCPS 2010 are relevant, including the objectives and policies.
52. It is the Council's role (not coastal scientists) to give effect to the NZCPS 2010 in the district plan.
53. It is the role of the coastal scientist to provide appropriate objective, scientific information:
- a. to enable submitters to participate in the RMA process; and
 - b. decision-makers to make appropriate decisions,
- in an informed manner.
54. Some NZ coastal scientists seem to be usurping the decision-maker's role in deciding that only "precautionary" or "conservative" or "potential" results should be provided without clarifying how precautionary or conservative the results are or what the coastal scientist means by potential - and compared to what. Some are providing only results that are very unlikely.
55. The Supreme Court in *Sustain our Sounds Inc v The New Zealand King Salmon Company Ltd* [2014] NZSC 40 said:
- "[157] We accept that public participation is a key tenet of decision making under the RMA with many public participatory processes... As noted by Keith J in *Discount Brands Ltd v Westfield (New Zealand) Ltd*, the purpose of these processes is to recognise and protect the particular rights of those who are affected and to enhance the quality of the decision making."

56. The extract below is from the CSL website under the tab Kapiti Erosion Hazard Assessments (the website indicates that the page was updated on 15 March 2015). The extract is interesting (though troubling) in its failure to understand the difference between the High Court judicial review LIM statutory context and the NZCPS 2010/RMA context, and in what it says about how coastal practitioners interpret their role:

“The 2008 assessment had been carried out conservatively enough to meet the “potential” hazard (risk) level specifically stipulated in the NZCPS 2010, along with additional requirements to allow for increased uncertainty associated with predicted climate change. It is noted that “potential erosion” is typically interpreted by practitioners as erosion occurring under an extreme set of circumstances and as such is “very unlikely” to occur. It is noted that the High Court has recently defined potential erosion as a “reasonably possible worst case scenario... i.e. a worst case scenario objectively determined and evidentially based” (CIV-2012-485-2577 [2015] NZHC 43). Such definitions are entirely appropriate as developers, prospective purchasers and insurers want to know that in the future their property of interest will be virtually free of erosion hazard.” (emphasis added)

57. The newly-created key (as of March 2015) for the Kapiti projected shorelines maps on CSL’s website identifies that CSL’s Kapiti results are “Very unlikely”.
58. So, the extract and the newly-created key are saying that, in the RMA context and according to the NZCPS 2010, coastal practitioners consider that their proper role is to provide only very unlikely results.
59. It becomes particularly problematic if coastal scientists consider it their role to provide only very unlikely results, but label them in ambiguous ways such as precautionary, conservative, or potential, thus camouflaging the fact that they are providing results that are, in fact, “very unlikely”.
60. It is relevant to note that there is no reference in the CSL 2008 reports or the 2012 Update to the results being a worst case scenario, let alone a reasonably possible one. The language about a worst case scenario started with KCDC’s letter to affected residents in January 2013.
61. Instead, the CSL 2008 and 2012 reports use the terms “precautionary” or “conservative”, but just how precautionary or conservative, or precautionary or conservative compared to what, is not explained.
62. Kapiti has many areas of significant existing development. KCDC obviously considered that it was being given results that were likely, not very unlikely.
63. Using ambiguous language to describe “very unlikely” results is not helpful.
64. In addition, the idea that it is the role of coastal scientists to provide only “very unlikely” results in the RMA and NZCPS 2010 context:
- a. ignores the difference between s 44A of the Local Government Official Information and Meetings Act (where the word “potential” erosion is used on its own) and the RMA and Policies 24, 25 and 27 of the

NZCPS 2010 where it is not²⁰, as has already been discussed;

- b. ignores the difference between judicial review of LIMs where there is a low threshold for assuming the validity of results and the RMA process where the "science and the reliability of his 50 and 100 year lines will be put to the test", as noted by the High Court in para [35] of the interim judgment;
 - c. fails to understand that it is the role of the coastal scientist to provide objective, scientific results to enable submitters to participate, and decision-maker to make decisions, based on results that are fit for purpose;
 - d. fails to understand that it is the role of the Council (or the Environment Court) to apply the Policy 3 precautionary approach, not the coastal scientist.
65. I refer to the point in b in the preceding paragraph about ignoring the difference between judicial review of LIMs where there is a low threshold for assuming the validity of results and the RMA process where the "science and the reliability of his 50 and 100 year lines will be put to the test". In the final judgment, the High Court said:

[7] The panel has since found, I am advised, that the Shand lines were not sufficiently robust to warrant their inclusion in the District Plan. With that finding in hand, the Council has now resolved to remove the lines from all LIMs because, according to Mr Stephens, they do not now meet the criteria for mandatory disclosure in s 44A(2). There remains on the LIMs some precautionary wording about coastal erosion, the terms of which have been agreed between the parties...

[17] ... In truth, the review panel undertook its work in the context of the Council's consideration of the proposed District Plan. That is evidence that the system works as it was designed to work. As I said at [53] of the interim judgment:

I am satisfied that Mr [sic] Shand's science is sufficiently robust to satisfy that relatively low threshold requirement [i.e. a reasonable possibility of erosion]. Of course I say nothing at all about whether the Shand Report and the Shand lines should survive a more rigorous merit-based review through the District Plan Review process under the Resource Management Act 1991. That is not my arena. [the square brackets in the quote are the Court's]

[18] The merits of the Shand lines were tested and found wanting...".

²⁰ As already noted, Policy 25 of the NZCPS 2010 deals with "areas potentially affected by coastal hazards", so "potentially affected" is used on its own there. However, it is my view that it should be read in the context of Policy 24, which specifically deals with the "[identification of] areas ... potentially affected by coastal hazards" and also refers to the likely effects of climate change (and hazard risks), so that Policy 25 addresses areas identified by Policy 24.

66. KCDC had affidavits from 4 coastal scientists in the *Weir v KCDC* case. The interim judgment includes statements that, in my view, demonstrate that coastal scientists are misunderstanding their role:

[47] It is also reflected, Mr Stephens argued, in the Ministry for the Environment's Coastal Hazards and Climate Change Guidelines ...:

Coastal erosion, on the other hand, at present tends not to be expressed probabilistically. As it is an ongoing process (a creeping hazard) it is usually defined as the expected position of the coast at a certain future point in time. [emphasis added]

[48] The thrust of the evidence of scientists for KCDC was that the lines provide a sound worst case prediction over the assessment period using orthodox and up-to-date methods, together with an appropriately precautionary approach as required by the NZCPS. (emphases added)

67. The coastal scientists have apparently:
- a. failed to consider that the MFE Guidelines refer to the "expected position" of the coast, not the worst case or very unlikely position;
 - b. failed to consider the reference in Policy 24 to the "likely effects" of climate change, the definition of risk which requires consideration of the likelihood of the event, and the reference in Policy 27 to areas of significant existing development "likely" to be affected;
 - c. failed to realise that it is not the role of coastal scientists to apply a "precautionary approach" to hazard identification. As already noted, Policy 3(2) refers to use and management of coastal resources. Application of the precautionary approach is the role of the Council (or the Environment Court), not the coastal scientists.
68. In addition, the evidence demonstrates the misleading nature of the CSL reports. Nowhere do the reports identify that the results are a worst case. Instead, they are precautionary or conservative, conveying a different meaning. Indeed, we know now that the results are in fact very unlikely.
69. In summary, my view is that a number of coastal experts have the wrong end of the stick in terms of their interpretation of the relevant legal provisions and their appropriate role in the process. That is causing a lot of trouble and undermines both the RMA and the NZCPS 2010.
70. The recommendations of the independent Coastal Panel engaged by KCDC are instructive.
71. The Coastal Panel said:
- "It is recommended that studies such as these involve an experienced statistician, preferably one familiar with time-series analysis. There seems to have been only limited involvement of a statistician in the CSL analyses" (page 45);

“From a statistical perspective, it is recommended that “best estimates” rather than precautionary values be adopted, with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate. Alternatively, one could give several scenarios based on best, worst and mid-way cases.” (page 45); and

“An economic assessment of the consequences of planning restrictions needs to be undertaken before imposing them, since the restrictions may have been made on the basis of calculations which may be excessively precautionary. One needs to balance the cost to property owners of any restrictions with the actual risk (and its time scale) and one can’t do this if there are hidden “precautionary” adjustments” (page 45).

72. From a legal perspective, I generally endorse what the Coastal Panel has said about these matters, but many coastal experts do not provide either:
- a. “best estimates” rather than precautionary values, with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate; or
 - b. several scenarios based on best, worst and mid-way cases.
73. Doing what the Coastal Panel recommends from a statistical perspective would enable everyone in the RMA process to participate effectively.
74. Risk management and effective decision-making requires an understanding of the uncertainties. Providing only very unlikely results (and/or describing them in ambiguous terms) does not assist submitters to participate effectively in the RMA process or enable Councils and the Environment Court to make informed decisions.
75. Interestingly, the Coastal Panel also said:
- “Where no factor of safety is adopted, conventional practice has been to adopt conservative/precautionary values. While it is appropriate to include a safety margin, this needs to be done in a transparent way and after taking account of the uncertainties involved in the estimates.” (page 40)
76. So conventional practice developed among coastal experts, presumably without considering:
- a. the appropriateness of the “best estimates” statistical perspective; and
 - b. the need for transparent information to be provided in the RMA legal process both for submitters and decision-makers
- may be a large part of the problem.
77. It is my view that variability in results should be reported and the uncertainties explicitly identified.
78. Just by way of example, if there is variability along a coast in relation to different components relevant to modelling, my view is that such variability

should also be reported rather than adopting precautionary/conservative values to each component as the “conventional practice” apparently supports.

79. The regrettable result of the “conventional practice” is that one ends up with precautionary assumption, added to precautionary assumption, added to precautionary assumption for each component of the model. The effect of those precautionary assumptions remains hidden and the cumulative effect can be significant.
80. As the Coastal Panel noted, from a statistical perspective “best estimates” are appropriate with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate.
81. In my view, the same applies from a legal perspective. It enables properly-informed participation and decision-making in the RMA processes.
82. The approach of a number of New Zealand coastal scientists in providing only very unlikely results (and describing them in ambiguous terms) is, in my view, highly problematic.
83. It is particularly problematic as it is difficult to get to the bottom of what the coastal experts are actually doing. Over time, I have developed suspicions about what some might be doing. But it has taken me far too many hours, and several years, to uncover that the CSL results are not:
 - a. “likely” as initially described by KCDC; or
 - b. “precautionary” or “conservative”, terms used in the 2008 and 2012 reports; or
 - c. “based on a worst case scenario” as later described by KCDC; but
 - d. “very unlikely” as described on CSL’s own website in March 2015.
84. In the next section, I deal with some recent New Zealand cases that give an indication of what the Environment Court may be thinking in relation to these aspects as well.

Hints from the Environment Court

85. There may be some hints from the Environment Court about appropriate approaches, but I don’t want to overstate what the Court may be inferring.
86. It is relevant to recall the Coastal Panel’s comment about adopting “best estimates” rather than precautionary values, with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate. Or several scenarios based on best, worst and mid-way cases.
87. *Gallagher v Tasman District Council* [2014] NZEnvC 245 was a plan change hearing mainly about inundation from sea level rise rather than coastal erosion.

88. At para [95], the Court said:

“The coastal witnesses all agreed that a conservative approach should be adopted in assessing the hazard risk from coastal inundation induced flooding on the Gallagher property ... we have decided that [a specified overtopping rate] should be adopted as the *best fit* from all of the evidence which we heard. We consider that it is a realistic possibility.” (emphasis is the Court’s)

89. In the end, it was not determinative, but:

- a. it is interesting that all of the coastal witnesses agreed that a conservative - there’s that word again - approach should be adopted; but
- b. the Court seems to be saying it is adopting the rate because it is the “best fit”, rather than because it is a conservative approach.

90. It is also relevant to note the Court’s reference to a “realistic” possibility.

91. At para [73], the Court said:

“During the hearing there was extensive questioning of the witnesses on a number of key parameters ... for which there were significant differences of opinion... Despite this questioning, for the most part we were left little the wiser.”

92. A problem if coastal experts are not careful, explicit and transparent about what they are doing is that it makes it unnecessarily difficult for the decision-maker.

93. *Mahanga E Tu Inc v Hawkes Bay Regional Council and Wairoa District Council* [2014] NZEnvC 83 is a case about a resource consent for a new subdivision in quite particular facts, not a case about provisions in a plan.

94. But it’s interesting, and troubling, to see the differences in the predictions of the experts and interesting to see the comments of the Court.

95. The Environment Court identified that the property would be affected by erosion (at para [16]):

“The Council submits, we think correctly, that the proposal cannot *avoid* the effects of coastal erosion over either 50 or 100 year periods. The best that can be done is to *mitigate* those effects through the process of managed retreat once the shoreline retracts to the chosen trigger point.” (emphases are the Court’s)

96. The Court said at para [35]:

“It became evident from the different approaches by the coastal scientists dealing with essentially the same set of facts, that the preparation of accurate long term predictions for the behaviour of complex natural systems at a very small site is fraught with difficulty.”

97. The erosion rates from the three experts, and the relevant paragraph references from the case, are:
- Mr Moynihan = - 0.14 m/yr (the long-term erosion rate will reduce or reach zero but some potential for no more than -0.14) (para [29]);
 - Mr Reinen-Hamill = - 0.9 m/yr (para [30]); and
 - Dr Roger Shand = - 1.2 m/yr (para [31]).
98. So after, say, 50 years, the differences in the predicted erosion at the site would be:
- Mr Moynihan = 7 m;
 - Mr Reinen-Hamill = 45 m; and
 - Dr Roger Shand = 60 m.
99. The Council in that case considered that 100 years was the appropriate planning period.
100. After 100 years, the differences would be even more dramatic:
- Mr Moynihan = 14 m;
 - Mr Reinen-Hamill = 90 m; and
 - Dr Roger Shand = 120 m.
101. So, what initially seem to be relatively small differences become enormous when multiplied by 50 or 100 years. In the special circumstances of that case, the Environment Court decided to use 20 years.
102. Both Dr Shand and Mr Reinen-Hamill had applied a 30% “factor of safety” to their predictions, a point that was criticised by Mr Moynihan (para [34]).
103. In relation to Dr Shand’s prediction, the Court said:
- “[32] Dr Shand acknowledged that his analysis focused on the *potential* erosion hazard at the site over the 100 year planning period. He agreed that the *most likely* outcome was somewhat less than the potential hazard he identified, and would be around the predictions of Mr Reinen-Hamill.” (emphases are the Court’s)
104. The Environment Court did not accept the predictions of either Dr Shand or Mr Reinen-Hamill, referred to “a likely average rate of retreat of the shoreline at the site of around -0.4 m/yr”, and decided to use 20 years as a relevant timeframe in the special circumstances of that case. The Court said:
- “[36] ... we are more inclined to the rather more pragmatic approach of Mr Moynihan. In simple terms, there is an observed rate of long-term erosion ... of less than -0.2 m/yr. If the influence of sea level rise in the future that is greater than that already observed in the long term rate is factored in, this could double the rate of long term erosion.
- [37] For the purpose of this decision, this would indicate a likely average rate of retreat of the shoreline at the site of around -0.4 m/yr ...

[38] We have not found it necessary to determine a precise time frame based on erosion rate predictions beyond the *most likely* scenario described above in order to answer the core question...”
[emphasis is the Court’s]...

[84] When the coastal issues are explored, and the proposed mitigation accepted, there really is no reason, on the evidence, to decline the necessary consents. The appeal is declined and the grant of subdivision and resource consents by both Councils is confirmed.”

105. An additional interesting factor about overstating results is that the Court explained that Mr Moynihan based his erosion rate predictions for the earlier Commissioners’ hearing on the 2005 and 2007 analyses by Dr Jeremy Gibb (since retired and not available to give evidence at the Environment Court hearing). Various factors involved Mr Moynihan revisiting the erosion predictions. The Court said (at para [28]):
- “... Mr Moynihan noted that the observed rate of erosion at the site was far less than predicted by Dr Gibb in his coastal hazard assessment. This led to the conclusion that other processes (not accounted for in the model used by Dr Gibb ...) were influencing the actual rate of erosion.”
106. Again, without wishing to push things too far, interesting aspects of the *Mahanga E Tu Inc* case are:
- a. the vast difference in the experts’ predictions for coastal erosion for 50 years (7 m vs 45 m and 60 m) and 100 years (14 m vs 90 m and 120 m);
 - b. the Court not accepting the two more extreme predictions;
 - c. Dr Shand apparently referring to his results as “potential”;
 - d. the difficulties the Court faced;
 - e. the Court referring to the most likely scenario and basing its decision on that; and
 - f. the Court indicating the difficulties of predictions at a small site.
107. From the opposite, and more general perspective, the vast difference in the predictions in this case (and the fact that observations had shown that earlier erosion predictions were in fact overstated) helps to demonstrate the potential perils of drawing lines on maps out 50 or 100 years, purporting to convey some measure of certainty, in what is an uncertain science, even when one is looking at specific facts at a specific site.

Problems with providing only very unlikely results or overstating results

108. A number of coastal experts apparently consider it their role to provide unlikely or very unlikely results, but label them in ambiguous ways such as precautionary, conservative, or potential.

109. A fundamental problem with providing only very unlikely results, or overstating results, is that it completely undermines the legal process that has been designed to enable informed participation and decision-making.
110. Proper expert information, including the uncertainties, is needed for informed participation and informed decision-making.
111. Decision-makers need to be able to consider all of the relevant factors that go into the mix and make their decisions based on informed judgement. Society ends up with sub-optimal decision-making when experts fail to provide the requisite information, including the uncertainties and any variability in any elements.
112. For as long as coastal scientists produce results that are not transparent and for as long as reports overstate the situation, conflicts between parties will continue and time and money will be wasted.
113. As already noted, to carry out its functions under Policy 24, the Council needs to:
 - a. identify areas potentially affected by coastal hazards, with the hazard risks being assessed taking into account the likely effects of climate change;
 - b. give priority to the identification of areas at high risk of being affected;
 - c. in assessing risk (likelihood x consequences), consider the likelihood of coastal erosion occurring and the consequences.
114. In addition, Policy 24(1)(b) says that hazard risks are to be assessed having regard to "short-term and long-term natural dynamic fluctuations of erosion and accretion".
115. If coastal scientists in New Zealand had developed a practice of ignoring accretion, it should have stopped in New Zealand in December 2010 to enable Councils to fulfil their obligations under the NZCPS 2010.
116. Policy 27 sets out the range of options that KCDC (or any Council) should assess for reducing coastal hazard risk in areas of significant existing development likely to be affected by coastal hazards.
117. Providing only very unlikely results fails to recognise that for KCDC (or any Council) to consider a range of options for reducing coastal hazards in the areas of significant existing development that are very unlikely to be affected is:
 - a. contrary to what Policy 27 says;
 - b. a highly inefficient use of time and money; and
 - c. perhaps most seriously, a distraction from the areas likely to be affected where the real focus, time and money should occur to identify options for reducing coastal erosion hazard risk.

118. Some of the troubling aspects about providing only very unlikely or overstated results, or not reporting the uncertainties, include:

- a. coastal practitioners, rather than lawyers, purporting to interpret the law;
- b. failing to realise the relevance and importance of the wording of the actual NZCPS 2010 provisions;
- c. failing to appreciate that “developers, prospective purchasers and insurers [wanting] to know that in the future their property of interest will be virtually free of erosion hazard” is not an appropriate approach in the context of the RMA and the NZCPS 2010. Someone might well ask for such an assessment if that is what they want to achieve in a particular set of circumstances. But that is not what the wording (or the intent) of the NZCPS 2010 or the RMA contemplates and that is not what submitters and decision-makers in the RMA process need to participate effectively and to make informed decisions;
- d. scientists providing policy results based on their own one-sided understanding of what they think people want rather than objective, scientific results based on the applicable law;
- e. failing to realise that there are costs if restrictions are too precautionary, just as there are costs if restrictions are not sufficiently precautionary. It is for others ie the Council or the Environment Court to make the appropriate judgement, not coastal scientists;
- f. failing to appreciate that the courts have said that the RMA is not a no-risk statute;
- g. failing to appreciate that the role of a scientist is to provide the appropriate type of objective, scientific information, including the uncertainties, to enable KCDC (or any Council and, ultimately, the Environment Court) to make a decision on the basis of reliable and relevant scientific information and for submitters to participate effectively in the RMA process;
- h. failing to understand that a coastal scientist should be providing objective, scientific results that are able to be used for the intended purpose. As the Coastal Panel said:

“From a statistical perspective, it is recommended that “best estimates” rather than precautionary values be adopted, with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate. Alternatively, one could give several scenarios based on best, worst and mid-way cases.” (page 45)

“The assessment of coastal hazard zones should consider a range of plausible scenarios (e.g. low, mid, high, or best estimate and extremes).” (ES.7 and page 47);

- i. failing to appreciate that KCDC or any Council needs to assess the costs and benefits of any regulatory approaches (although it is required to give effect to the NZCPS 2010²¹). It is not for the coastal expert to decide to provide only results that show that properties will “in the future ... be virtually free of erosion hazard” based on very unlikely results or for the coastal scientist to apply their own idea of acceptable policy. As the Coastal Panel said;

“An economic assessment of the consequences of planning restrictions needs to be undertaken before imposing them, since the restrictions may have been made on the basis of calculations which may be excessively precautionary. One needs to balance the cost to property owners of any restrictions with the actual risk (and its time scale) and one can't do this if there are hidden “precautionary” adjustments” (page 45);

- j. failing to describe the results in the CSL reports (or other experts' reports) as “very unlikely”, instead using words like “precautionary” or “conservative” (others also use such terms, as well as “potential”), not identifying what is meant by those terms, and masking the true nature of the results being provided;
- k. failing to appreciate that providing only very unlikely results, and doing that without explicitly stating that the results are very unlikely (instead of using ambiguous terms like “precautionary”, “conservative” or “potential”), sabotages the legal process. There is not proper, objective, scientific information, including the uncertainties, to enable submitters to participate in an informed manner and to enable KCDC or any Council to carry out its functions.

119. Many people assume:

- a. that residents will react negatively if provided with good information about risks to their property;
- b. that in Kapiti it is the residents who are unreasonably rejecting steps that the Council is trying to take; and
- c. if only people would listen to the coastal scientists everything would work out well.

120. Some residents may react negatively, but many want to know if their properties are exposed to risk and over what timeframe.

121. What Kapiti residents objected to was:

- a. no consultation;
- b. misrepresentation of the results;
- c. lack of compliance with the law; and

²¹ *Environmental Defence Society Inc v The NZ King Salmon Co Ltd* [2014] NZSC 38.

- d. precautionary assumption added to precautionary assumption added to precautionary assumption resulting in unreasonable, and now “very unlikely”, results.
122. CSL’s own subsequent reports for specific areas demonstrated that its own 2008 and 2012 reports considerably overstate the situation. In:
- a. the northern part of the Waimeha inlet report, the lines were moved substantially seaward, if not completely off, the property of the landowner;
 - b. the Waikanae estuary in the vicinity of Kotuku Parks subdivision report, the lines were moved off the property. “Both the managed and unmanaged lines are now seaward of the Kotuku Parks boundary by about 40 m with the managed line adjustment increasing up to about 65 m in the northern sector” (page 7); and
 - c. the draft (but not released) managed scenario report for the Mangaone Inlet resulted in 2 or 3 properties being affected, not about 30.
123. Ultimately, it has been proven that the Kapiti residents were right. The results are not sufficiently robust to be used for the Proposed District Plan (Coastal Panel), should not be relied upon (KCDC’s website), and are very unlikely (CSL’s website).
124. But what a terrible waste of time, money, energy and emotion. And little or no progress in assessing the range of options for the areas that are truly at risk of erosion.
125. It is counterproductive to overstate the problem for many other reasons including:
- a. it causes people to react negatively to the overstatements;
 - b. focusses attention on the overstatements rather than the main messages or solutions;
 - c. does not focus attention on areas truly at risk and assist in dealing with the issues faced by those in the areas at risk;
 - d. unfairly affects those not at risk;
 - e. wastes resources on areas not at risk;
 - f. does not enable the RMA process to proceed efficiently and effectively, with appropriate information for the submitters and the decision-maker.

Risk management and uncertainty - AS/NZS ISO 31000:2009 Risk management - Principles and guidelines

126. The definition of risk in the NZCPS 2010 refers to AS/NZS ISO 31000:2009 *Risk management - Principles and guidelines*. That Standard supersedes AS/NZS 4360:2004.
127. While the Standard may not legally be directly applicable, it is perhaps worth noting some of the principles from the Standard:
- "d) **Risk management explicitly addresses uncertainty.**
- Risk management explicitly takes account of uncertainty, the nature of that uncertainty, and how it can be addressed.
- ...
- f) **Risk management is based on the best available information.**
- The inputs to the process of managing risk are based on information sources such as historical data, experience, stakeholder feedback, observation, forecasts and expert judgement. However, decision makers should inform themselves of, and should take into account, any limitations of the data or modelling used or the possibility of divergence among experts.
- ...
- h) **Risk management takes human and cultural factors into account.**
- Risk management recognizes the capabilities, perceptions and intentions of external and internal people that can facilitate or hinder achievement of the organization's [organization is a wide-ranging term] objectives.
- ii) **Risk management is transparent and inclusive.**
- Appropriate and timely involvement of stakeholders and, in particular, decision makers at all levels of the organization, ensures that risk management remains relevant and up-to-date. Involvement also allows stakeholders to be properly represented and to have their views taken into account in determining risk criteria."
128. Providing only very unlikely results, overstated results, or results with hidden (or difficult to untangle) precautionary adjustments:
- a. does not explicitly take account of uncertainty;
 - b. does not provide the best available information;
 - c. perhaps demonstrates that a human factor currently being ignored is the human factor of the coastal scientists. Everyone assumes that

property owners are being unreasonable and that the scientists are being objective and scientific. That was my view of the Kapiti situation for a long time, before I eventually read the scientific reports; and

- d. is not transparent and does not enable appropriate involvement of stakeholders. There is not the appropriate range and type of transparent, objective information to enable informed participation by submitters, or decision-makers, in the RMA process.

NZCPS 2010 provisions, the recommendations of the Coastal Panel vs conventional practice of NZ coastal experts, and what submitters and decision-makers are entitled to expect from scientific reports and coastal experts

129. In conclusion, I:

- a. repeat what I said earlier about the wording of Policies 24, 25 and 27;
- b. repeat some of the recommendations of the Coastal Panel;
- c. consider the apparent conventional practice of NZ coastal experts; and
- d. set out what, in my opinion, submitters and decision-makers are entitled to expect from scientific reports and coastal experts.

130. Policy 24 effectively says that the Council's function is to:

"(1) Identify areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected. Hazard risks, over at least 100 years, are to be assessed having regard to [(a) to (h)] taking into account national guidance and the best available information on the likely effects of climate change on the region or district." (emphases added)

131. Risk is defined in the NZCPS 2010 as:

"Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence ...". (emphasis added)

132. So, to carry out its functions under Policy 24, a Council needs to:

- a. identify areas potentially affected by coastal hazards, with the hazard risks being assessed taking into account the likely effects of climate change;
- b. give priority to the identification of areas at high risk of being affected;
- c. in assessing risk (likelihood x consequences), consider the likelihood of coastal erosion occurring and the consequences.

133. Policy 25 of the NZCPS 2010 deals with “areas potentially affected by coastal hazards”, so “potentially affected” is used on its own there. However, it is my view that it should be read in the context of Policy 24, which specifically deals with the “[identification of] areas ... potentially affected by coastal hazards” and also refers to the likely effects of climate change (and hazard risks), so that Policy 25 addresses areas identified by Policy 24.
134. Policy 27 of the NZCPS 2010 identifies the range of options the Council should assess for reducing coastal hazard risk in areas of significant existing development likely to be affected by coastal hazards. These areas should also have been identified by the Council during the Policy 24 process, as a subset of the other areas.
135. So producing only very unlikely or overstated results is not helpful. Nor are results where there are hidden precautionary adjustments or precautionary assumptions that cannot be readily untangled.
136. I repeat some of the recommendations of the Coastal Panel:
- “It is recommended that studies such as these involve an experienced statistician, preferably one familiar with time-series analysis. There seems to have been only limited involvement of a statistician in the CSL analyses” (page 45);
- “From a statistical perspective, it is recommended that “best estimates” rather than precautionary values be adopted, with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate. Alternatively, one could give several scenarios based on best, worst and mid-way cases.” (page 45);
- “An economic assessment of the consequences of planning restrictions needs to be undertaken before imposing them, since the restrictions may have been made on the basis of calculations which may be excessively precautionary. One needs to balance the cost to property owners of any restrictions with the actual risk (and its time scale) and one can’t do this if there are hidden “precautionary” adjustments.” (page 45)
- “Adaptive management provides a realistic alternative to excess speculation regarding definitive future coastal hazards.” (page 47)
- “The assessment of coastal hazard zones should consider a range of plausible scenarios (e.g. low, mid, high, or best estimate and extremes).” (page 47)
137. From a legal perspective, I particularly agree with the statement that:
- “From a statistical perspective, it is recommended that “best estimates” rather than precautionary values be adopted, with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate.”
138. That is generally what I would have expected coastal experts to be doing. Doing that enables submitters and decision-makers to have access to transparent information about the assessment. I certainly did not expect to

uncover results based on precautionary assumption added to precautionary assumption added to precautionary assumption.

139. However, it is apparent that at least some coastal experts consider it their role to provide only very unlikely or overstated results.
140. The Coastal Panel said:
- “Where no factor of safety is adopted, conventional practice has been to adopt conservative/precautionary values. While it is appropriate to include a safety margin, this needs to be done in a transparent way and after taking account of the uncertainties involved in the estimates.” (page 40)
141. So part of the problem may be this “conventional practice” that has apparently developed, presumably without considering:
- a. the appropriateness of the “best estimates” statistical approach; and
 - b. the need for transparent information to be provided in the RMA legal process to enable submitters to participate, and decision-makers to make well-informed decisions, based on appropriate scientific information.
142. As already noted, the Supreme Court in *Sustain our Sounds Inc v The New Zealand King Salmon Company Ltd* [2014] NZSC 40 said:
- “[157] We accept that public participation is a key tenet of decision making under the RMA with many public participatory processes... As noted by Keith J in *Discount Brands Ltd v Westfield (New Zealand) Ltd*, the purpose of these processes is to recognise and protect the particular rights of those who are affected and to enhance the quality of the decision making.”
143. The Coastal Panel said “One needs to balance the cost to property owners of any restrictions with the actual risk (and its time scale) and one can’t do this if there are hidden “precautionary” adjustments”.
144. I would comment that one cannot make informed decisions of any type, or properly give effect to the NZCPS 2010, if there are hidden precautionary adjustments and/or if coastal experts are providing only very unlikely or overstated results.
145. It is made worse if the results are described ambiguously as precautionary, conservative or potential.
146. In my opinion, submitters and decision-makers are entitled to expect that scientific reports:
- a. convey objective, scientific, transparent information;
 - b. are fit for purpose;
 - c. have regard to the “short-term and long-term natural dynamic fluctuations of erosion and accretion” as set out in Policy 24(1)(b) and

to other scientific matters referred to in Policy 24 to enable the Council to perform its functions;

- d. are based on sound statistics, involving statisticians with appropriate statistical expertise;
 - e. state all assumptions, and state the implications of the assumptions (as far as possible), clearly;
 - f. not contain hidden precautionary adjustments (or precautionary adjustments that cannot readily be untangled from the results);
 - g. not add precautionary assumption, to precautionary assumption to precautionary assumption;
 - h. use, as the Coastal Panel recommends from a statistical perspective (and also recalling the *Gallagher* case, where the Environment Court selected the specified overtopping rate because it was the "best fit"), "best estimates" rather than precautionary values, with margins of error or factors of safety kept separate from the estimates and added at the end if appropriate;
 - i. not provide very unlikely results (unless for some reason they have been specifically told to do so and then the results will be described as very unlikely);
 - j. not describe results using ambiguous terms such as precautionary, conservative, or potential (or, if that is done, identify precautionary or conservative or potential compared to what, and by how much, so that submitters and decision-makers can understand what the coastal scientist actually means when they use those terms); and
 - k. identify the uncertainties eg by, as the Coastal Panel recommends, considering a range of plausible scenarios (e.g. low, mid, high, or best estimate and extremes).
147. From my perspective, if that is done (and especially in areas where there is significant existing development), some of the difficulties with the current RMA processes may at least diminish.
148. If the CSL results had been reasonable in the first place, I certainly would not have troubled myself with what has become the Kapiti coastal erosion fiasco. There are other things I would rather be doing with my life.

Joan Allin
April 2015

