

Kapiti Coast District Council – Submission on the National Policy Statement – Natural Hazard Decision-making

General questions:

1. Is more action needed to reduce development from occurring in areas facing natural hazard risk?

Yes. This is an area of growing community exposure as climate change impacts the severity of natural hazard risk.

2. Are there any other parts of the problem definition that you think should be addressed through the NPS-NHD? Why?

The problem definition is complete, and the problems are adequately defined. Problems with the current approaches to managing natural risks under the RMA is appropriately captured.

3. Are there other issues that have not been identified that need to be addressed through the NPS-NHD or the comprehensive National Direction for Natural Hazards?

No, not directly. However, there is a potential conflict with between managing natural hazard risk and the regulatory framework of the RMA which is broadly permissive. The RMA allows for most things to occur, with appropriate mitigations, which may be problematic for managing natural hazard risk. This point is revisited further under Question 13.

Key policies - General

Purpose:

4. Do you support the proposed NPS-NHD's requirement that decision-makers take a risk-based approach when making decisions on new development in natural hazard areas? Why or why not?

Yes. Risk assessment for natural hazards should be a first test for any development and one that must be passed before further priority considerations (such as housing supply) are considered.

Consistency in approach is also key if the NPS-NHD is to be successfully implemented. It aligns with the established approach that has been used for National Climate Change Risk Assessment, and in other formats in asset management and insurance for many years. It is imperative that a single approach applies across all planning decisions.

Proposed scope:

5. Should all natural hazards be in scope of the proposed NPS-NHD? Why or why not?

Yes, all natural hazards should be included. Where they are slow in their effect, or are more precisely an exacerbating factor, they must be included within any risk assessment consideration.

For instance, sea level rise is a slow evolving process and result of climate change., It directly impacts the likelihood and consequence of a number of natural hazard events, such as flooding, which pose a potential hazard risk. Considering the effects of climate change on natural hazards is part of determining the extent of the natural hazard and the

risks associated with an event. Therefore, in this respect sea level rise should be treated as a potential exacerbating factor and included within any assessment of risk.

6. If not all natural hazards are in scope, which ones should be included? Why?

The NPS-NHD adopts the RMA definition of natural hazards, which includes any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.

We assume that flooding includes all types, including coastal inundation, high groundwater, ponding, increased rainfall, etc. This is quite comprehensive, and we don't think there is anything else that needs to be added. We also don't think that the NPS-NHD should be limited to certain natural hazards that pose the most widespread risk.

7. Should all new physical development be in scope of the proposed NPS-NHD?

Why or why not?

Yes, as any type of infrastructure or development will be affected by increasing likelihood and severity of impact from natural hazards due a changing climate. Even though lives may be less at risk with, for example with commercial buildings, the economic and social impacts of these buildings becoming unusable has cascading impacts on the community and economy. Depending on the category of development/infrastructure affected, risk appetite may vary, and mitigations differ.

8. What impact do you think the proposed NPS-NHD would have on housing and urban development? Why?

As stated under Question 4, natural hazard assessment should be a primary consideration when bringing land into development, as natural hazard risk may act as a constraint on development potential. In some regions and districts, land areas 'set aside' or 'labelled' for growth may have reduced development capacity as it may not be appropriate to accept a greater hazard risk in exchange for greater development capacity. For some areas of the country, when a risk-based approach is taken to natural hazards, the constraints imposed may result in some districts struggling to provide sufficient development capacity that fits the local risk appetite (depending on their local hazard-scape). If we are serious about avoiding undue hazard risk, some risks may not be able to be sufficiently mitigated to allow for development, particularly at the intensity encouraged by the NPS-UD.

However, in the case of the NPS-UD's implementation, there may not be significant impacts because hazard areas can be considered as qualifying matters, and reduced capacity already identified. This would not mean that no development can occur, it just means that there may be an extra layer of matters to address (for example additional mitigation measures employed to reduce level of risk).

Proposed objective:

9. Do you agree with the proposed objective of the NPS-NHD? Why or why not?

Yes, the outcome the NPS-NHD seeks to achieve is over-arching and clear. It sets direction on a broad spectrum of potential impacts from natural hazards that decision-makers must consider.

The proposed objective fits well with the system outcomes at 6(4) of the NBEA: "The risks arising from natural hazards and the effects of climate change are reduced and other measures are taken to achieve an environment that is more resilient to those risks." and the definition of natural hazard in section 11.

Policy 1 and definitions: natural hazard risk categories:

When making planning decisions, decision-makers are to determine the level of natural hazard risk as high, moderate, or low.

10. What are the pros and cons of requiring decision-makers to categorise natural hazard risk as high, moderate or low?

In principle we agree with decision-makers having to clearly evaluate and categorise hazard risk. However, we have concerns as to how this would be implemented.

Different types of natural hazards can be 'scored' for their likelihood and consequence, resulting in high, low, or moderate risk. The scoring categories should be in fixed ranges to be used across all decisions. As these cannot be defined at a local level, they should be defined nationally, or at least regionally, as there must be consistency in application. Without such decision-making support, decision become very subjective.

The approach as presented, is not highly prescriptive and does not provide scoring ranges for the assessments, running the risk of inconsistency creeping into assessments, potentially defeating the purpose of the NPS-NHD.

Also, it needs to be made clear whether the assessment of risk is of absolute risk from an identified risk and a given location, and for a particular category of development (as the situation stands prior to development), or the residual risk that remains after controls have been applied.

We wonder also, how this decision-making would differ between plan making and resource consents? In plans would the decision-maker have to demonstrate how mitigations, through rules, would reduce risk to a tolerable level. With resource consents, would the decision-maker be making judgement on the applicants approach to reducing the risks?

Overall, the proposal, it seems to be an asset focussed, industry standard approach to risk assessment, topped up with 'tolerance'. The terms 'tolerable' and 'acceptable' should be further defined for consistency in application.

Policy 2: Assessing natural hazard risk:

When determining natural hazard risk, decision-makers are to consider:

- (a) first, the likelihood of a natural hazard event occurring (either individually or in combination) and the consequences of the natural hazard event occurring, including potential loss of life, serious injury, adverse effects on the environment, and potential serious damage to property and infrastructure; and*
- (b) second, tolerance to a natural hazard event, including the willingness and capability of those who are subject to the risk (such as a community, Māori, or the Crown) to bear the risk of that natural hazard (including its cost) and any indirect risks associated with it.*

11. What are the pros and cons of directing decision-makers to assess the likelihood, consequence and tolerance of a natural hazard event when making planning decisions?

Being able to assess the 'likelihood' and 'consequences' of a hazard would enable the decision-maker to determine the level of associated risk to guide decision-making. However, applying this approach is not without issues. Such decision-making relies on good science providing good data, which is not readily available and expensive to gather, maintain and kept up to date.

There is also a problem when attempting to assess the tolerance level to a natural hazard. Is the tolerance level based on the developer/applicant's tolerance to the risks and expenses of mitigation, or on the wider community's tolerance. Would this need to be tested through a natural hazards plan change. Greater guidance around determining tolerance levels with the community, is required.

The approach taken in the National Climate Change Risk Assessment was that risk is a function of climate hazards, the degree to which assets and values are exposed to the hazard and their vulnerability to its effects. Vulnerability and exposure are influenced by socio-economic and cultural processes which can increase or decrease the consequences of exposure.

Existing natural hazards are exacerbated by a changing climate. Some climate risks, like sea level rise and temperature rise, are not 'event based' so it is not sufficient or useful to only estimate the likelihood of an event as a major component of the risk. While the risk assessment model of likelihood/consequence can apply to slow onset/escalating events (like sea level rise), their likelihood is almost certain, but the consequences will increase overtime. The issue is understanding at what point in the future a risk is likely to become intolerable, and understanding what timeframe we are supposed to be managing to. If we assume the useable life of a residential house is 50-years, then should we be managing for risks that will become intolerable over that timeframe.

Planners/Council should not have the role to assess tolerance as put forward in this proposal (willingness to bear the risk, including the cost). This needs to be established at societal/community level. Tolerance to risk is a very subjective matter that an applicant will have to be willing to provide information about. However, it is unclear what 'type' of information could establish this. As noted above, a Natural Hazard plan change may be a suitable vehicle for establishing community tolerance to risk.

The approach suggested will exacerbate existing inequities. Those with the economic means to take greater risks will be able to do so, while those with less means will not be able to or may become trapped in deteriorating situations. (See comment below on 'life of development').

The question is also how Councils would test this 'tolerance' and how well understood the question would be by the community. In 'peace time' tolerance is high – once experienced, major event tolerance is 'low'. As Behavioural Economics has demonstrated, humans are notoriously bad at accurately comprehending risks. (For a non-scholarly article: [Why You're Probably Not So Great at Risk Assessment - The New York Times \(nytimes.com\)](https://www.nytimes.com/2011/05/01/business/01risk.html)). This makes it very difficult to have an informed conversation with our community about natural hazard risk.

Also, there is the wider community's and council/governments' tolerance to having to continue servicing compromised areas as they potentially become de-populated, with

servicing costs increasing, and recovery actions becoming increasingly demanding. Also, communities aren't homogenous. How do we weigh up the different risk tolerances of different groups? Do we have to go with the lowest level of tolerance? Is there a hierarchy? Or can we take a balanced approach, which will see some parts of our community being exposed to greater risks than they are comfortable with?

Policy 3: Precautionary approach in decision-making:

Decision-makers must adopt a precautionary approach when determining natural hazard risk if: (a) the natural hazard risk is uncertain, unknown, or little understood; and (b) the natural hazard risk could be intolerable.

12. What are the pros and cons of directing decision-makers to adopt a precautionary approach to decision-making on natural hazard risk?

We agree with taking a precautionary approach when determining natural hazard risk where there is high uncertainty and where the natural hazard risk could be intolerable., Where information is lacking for making assessments there needs to be a defined set of unacceptable outcomes that could potentially arise should caution not be exercised, where a precautionary approach is there for warranted. . The degree of precaution should also be linked to the degree of uncertainty of the information.

Also, a 'precautionary' approach will need to be mandated in a way that does not continually expose councils to legal challenge. The downside is that some local authorities may take a lax approach to gather new information and may be content with using the precautionary approach for the long-term.

It needs to be clear whose responsibility is it to provide the assessment of natural hazard risk and to what scale/granularity? If the regional council does a high-level assessment to inform zoning in plans, is it then up to applicants to do a site-specific assessment? That is the approach that was generally taken under the RMA. If the applicant doesn't want to do a site-specific assessment, then a precautionary approach on the available information will be applied.

Policy 4: Restricted discretionary and controlled activities:

Natural hazard risk must be a:

- (a) matter of control for any new development that is a controlled activity; and
(b) matter of discretion for any new development that is a restricted discretionary activity.*

13. What are the pros and cons of requiring natural hazard risk as a matter of control for any new development classified as a controlled activity in a plan, and as a matter of discretion for any new development classified as a restricted discretionary activity?

This approach will put natural hazard risk on the radar, especially when considering consent applications, by compelling decision-makers to give regard to natural hazard risks. However, controlled activity status may not always be appropriate, as it assumes that the risk from the natural hazard can always be mitigated to an appropriate level, which may not always be the case.

Policy 5: Direction on new development in areas of high, moderate and low risk:

Planning decisions must ensure that:

- (a) in areas of high natural hazard risk, new development is avoided unless the level of risk is reduced to at least a tolerable level or:*

- (i) the new development is not a new hazard-sensitive development; and*

- (ii) there is a functional or operational need for the new development to be located in the area of high natural hazard risk, and
(iii) there are no practicable alternative locations for the new development; and
(iv) risk is reduced to as low as reasonably practicable; and
(b) in areas of moderate natural hazard risk, mitigation measures are taken to reduce natural hazard risk to new development as low as reasonably practicable; and
(c) in areas of low natural hazard risk, new development is enabled.

14. What are the pros and cons of requiring planning decisions to ensure the specific actions to address natural hazard risk outlined in policy 5?

Requiring planning decisions to ensure the specific actions to address natural hazard risk is taken will force decision-makers to consider more carefully the levels of natural hazard risks, the implications and appropriate mitigation measures. However, this must be backed by good data and sound interpretation, and where possible community acceptance. Otherwise, councils will continually be at odds with developers and property owners.

Also, as noted above, are we assessing the absolute or residual risk. If residual, what is the level of certainty required that mitigations will work. Policy 5 would suggest its the absolute risk (ie before any mitigation measures). But then matters become messy when you try to fold tolerance into that assessment as well.

15. What is the potential impact of requiring decision-makers to apply this framework in their decision-making? Will it improve decision-making?

Requiring decision-makers to apply this framework will improve decision-making. Greater consideration will be required around how the levels of risk are determined and the appropriate mitigation measures to reduce risk.

Decision-makers will need to look at the impact of mitigations, and what that does to the risk level. Also, risk assessment going to be consolidated, or will they assess risks against any present natural hazards individually

Reducing risk to a 'tolerable level' is a very subjective test. The reasonably practicable will absolutely be tested by developers -but how much is reasonable? Developers will argue 'tolerable level' or 'low as reasonably practicable' and then pass all risk on to future owners to manage. Natural hazards generally get worse with time and therefore how is this protecting future generations? A risk that is tolerable today may not be so in 30 years. (See comment below under Question 16).

Policy 6: Reducing natural hazard risks through mitigation:

The most effective natural hazard mitigation measures are adopted to reduce natural hazard risk over the life of any proposed new development, provided the natural hazard mitigation measures do not exacerbate natural hazard risks in other areas, and where possible:

- (a) nature-based solutions are preferred over hard-engineering solutions; and
(b) comprehensive area-wide measures are preferred over site-specific solutions.

16. What are the pros and cons of providing direction to decision-makers on the types of mitigation measures that should be adopted to reduce the level of natural hazard risk?

Providing direction on the types of mitigation measures would be helpful to guide decision-makers and to advise land developers. Nature-based solutions can prove costly,

and developers often want to do the least and the cheapest, so if there is national guidance requiring certain measures this may be better received by developers (perhaps a similar regime to the Acceptable Solutions approach under the Building Act). Council's and therefore the wider community should not have to 'inherit' failed systems.

Important in this respect is applying a mandated definition of life expectancy for a proposed new development. Do we use the Building Act definition of exceeding 50 years? Mitigation measures often require on-going maintenance to ensure their efficient future functioning – such as stormwater management systems. How do we ensure that this happens and at whose cost – the community within a development area, the wider community as a general public good? What happens if a particular community's ability to pay reduces over time?

Typical maintenance actions for engineered solutions may involve:

- frequently checking for and rectifying any problems evident during/after heavy rain,
- regularly, about every 2 – 3 months, checking state of repair of built/mechanical device, removing growth, repairing leaks, clearing blockages, etc.,
- periodic (e.g. once or twice a year), inspections of pipes, removing sediment, etc.,
- every 2 years, inspections and maintenance by a qualified contractor, and
- renewal of the asset at the end of its life (or earlier if required)

How do we ensure this scheduled maintenance occurs, and how do we stop mitigation solutions from being removed in the future? Longevity and permanence of mitigation solutions is important, both in design and in useful life.

Policy 7: Recognising and providing for Māori and tangata whenua interests and te Tiriti principles: Māori and, in particular, tangata whenua values, interests, and aspirations are recognised and provided for, including through early engagement, when making decisions on new development on specified Māori land where there is a high or moderate natural hazard risk.

17. Does policy 7 appropriately recognise and provide for Māori rights, values and interests? Why or why not?
18. Can traditional Māori knowledge systems be incorporated into natural hazard risk and tolerance assessments?
19. Does the requirement to implement te Tiriti settlement requirements or commitments provide enough certainty that these obligations will be met? Is there a better way to bring settlement commitments into the NPS?

We defer to input from tangata whenua on these questions.

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