

Appendix E

**Proposed Change 2 (Natural Hazards) to the
Bay of Plenty Regional Policy Statement
Supplementary Report on Submissions,
31 July 2015 [Further Section 42A Report]**

**Report
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**The Chairman and Members Hearing Committee
Proposed Change 2 (Natural Hazards) to
the Bay of Plenty Regional Policy Statement
Supplementary Report on Submissions**

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Executive summary

The report is a supplementary officers' report "in reply" following the hearing of submissions on Proposed Change 2 to the Bay of Plenty Regional Policy Statement (PC2).

Twenty statements were presented to the Hearings Panel (including six tabled) in June 2014.

Evidence presented spanned most of the provisions of PC2 as well as raising other associated issues relating to guidance and policy testing undertaken prior to hearing. In all, the report addresses 54 submission points directly seeking changes to provisions (set out in Part B) and makes 44 recommendations in response. A further 30 submission points relating to matters arising from PC2 are addressed in Part C.

Although each of those points deserves equal attention by the Hearings Panel, for the purpose of this executive summary the seven key issues arising from these presentations and tabled evidence and the responses recommended in this report are set out below:

Issues relating to specific provisions of PC2:

- **Policy NH 5B**

What, if any, land use or subdivision activity should the requirement to assess natural hazard risk apply to:

- i. In the interim period before district and regional plans give effect to PC2; and
- ii. After district plans have given effect to PC2?

Recommendation: That Policy NH 5B be rewritten to require all development on sites greater than 5 ha to undertake risk assessment and provide discretion for consent authorities to require other activities to also undertake risk assessment (subject to consideration of specified criteria). Separate policies are proposed to address the different situations described in i and ii above.

- **Policy NH 7B**

Should new development, redevelopment or intensification of use always be required to achieve a low level of natural hazard risk within the boundaries of the development site?

Recommendation: That Policy NH 7B continue to apply broadly but be redrafted to provide two further exceptions to when a Low level of risk is required at the development site scale. One of those exceptions is when the intensified use is to take place within an existing building. The second is when the activity is occurring within a natural hazards zone (NHZ) of Low risk and the level of risk will remain low at the NHZ scale after the development, redevelopment or intensification.

- **Appendix K and susceptibility mapping**

Should susceptibility mapping be required as a first step in the risk assessment process?

Recommendation: That amendments be made to clarify that susceptibility mapping is a task required only of the regional council and territorial authorities in accordance with Policy NH 3A, but that Appendix K be amended to provide guidance on what information is required of resource consent applicants in the period before susceptibility mapping exists (i.e. before Policy NH 3A has been given effect to).

- **Appendix K and natural hazard zones**

Should the risk assessment methodology of Appendix K require an additional final step being the identification of NHZs?

Recommendation: That PC2 require the regional council and territorial authorities to define natural hazard zones as part of the plan-making process and that a new Step 6 be added to the Appendix K methodology being to assign a risk level to each natural hazard zone.

- **Appendix K and the AIFR**

Should the AIFR metric be applied at low population scales (i.e. individual sites)?

Recommendation: Yes. The AIFR has been specifically designed to work at the site scale.

Associated Issues

- **Implementation Guidance**

What guidance should be provided to assist clear and consistent implementation of PC2, where should that guidance be located and when should it be issued?

Recommendation: Non-statutory implementation guidance (i.e. guidance that sits outside the RPS) should be provided in two tranches. The first instalment should address matters critical to the implementation of PC2 before regional and district plans give effect to it. That guidance should be released at the same time as the decisions. A second and larger instalment of guidance should be produced within two years of the decisions being released.

- **Managing the Aecom report and further testing**

Is further testing of Appendix K required, particularly in light of “inaccuracies” in the Matatā and Te Tumu assessments? Should the Aecom report be revised?

Recommendation: No further testing or revision of the Aecom report be undertaken. The Aecom Report and its risk assessments of Te Tumu and Matatā be made available with caveats that the risk assessments contained therein were undertaken solely for the purpose of policy testing and the results of that testing should not be relied on for future planning or policy decision-making.

Attached as Appendix 1, is a marked-up Version 7.0 of PC2 that incorporates the Report’s 44 recommendations made in respect of submissions seeking changes to PC2. These include amendments to give effect to the five substantive issues outlined above, together with a host of changes and clarifications to address more minor issues and associated and consequential changes.

1 Introduction

This report has been prepared jointly by Martin Butler and Gerard Willis (referred to as “Officers” in the report that follows).

Martin Butler has been employed by the Bay of Plenty Regional Council (the Regional Council) since March 1990: from 1991 as Planning Manager, from 1997 as Resource Policy Manager, and from December 2007 as Regional Planner.

He holds a Master of Regional and Resource Planning degree from the University of Otago, a Bachelor of Science (Earth Sciences) degree from the University of Waikato, a New Zealand Certificate in Engineering (Civil), and is a Registered Engineering Associate.

He has 28 years experience in resource management and 10 years experience in civil engineering. In his roles at the Regional Council, he has (among other duties) advised the Council on the preparation, consideration, approval and implementation of the first Bay of Plenty Regional Policy Statement and proposed changes to it. For the second generation RPS he led the preparation of policy relating to the “Water quality and land use” and “Natural hazards” topics.

Gerard Willis is a consultant planner from Enfocus Ltd. Gerard has been a consultant planner for the past 15 years. He commenced his career as a local government planner working for territorial authorities in the Waikato and in the United Kingdom (1988-1993). From 1993 to 2000 Gerard held various roles in the Ministry for the Environment in Auckland and Wellington.

He holds a Degree in Regional Planning (Hons) and a total of over 25 years experience in planning practice spanning a very broad field of planning topic areas at both regional and territorial levels. In 2012 Gerard provided advice to the Canterbury Earthquakes Royal Commission about the planning practices of Canterbury local authorities prior to the Canterbury earthquakes. In 2014 Gerard authored a report on Natural Hazards Management in New Zealand for Local Government New Zealand.

Both Mr Butler and Mr Willis were present at the hearings discussed below.

2 Background

Public hearings were held on Proposed Change 2 (Natural Hazards) to the Bay of Plenty Regional Policy Statement (“PC2”) in Tauranga on 3 and 4 June 2015. Thirteen submitters presented at the hearings:

- Submitter 11 - Port of Tauranga Ltd
- Submitter 19 - Eastland Generation
- Submitter 16 - Bay of Plenty Civil Defence Emergency Management Group
- Submitter 17 - Whakatāne District Council, Opotiki District Council, Kawerau District Council (“the eastern councils”)
- Submitter 15 - Royal Forest and Bird Protection Society (Bay of Plenty Branches)
- Submitter 5 - Sustainable Matatā Incorporated
- Further submitter 9 - NZ Transport Agency
- Submitter 13 - Tauranga City Council
- Submitter 8 - Trustpower

- Submitter 7 - Te Arawa Ki Tai Trust
- Submitter 20 - Western Bay of Plenty District Council
- Submitter 25 - Te Tumu Landowners Group
- Submitter 18 - Carrus Corporation Ltd.

Six additional submitters tabled statements. These were:

- Submitter 21 - Powerco
- Submitter 22 - BP Oil NZ Ltd, Mobil Oil NZ Ltd, Z Energy Ltd
- Submitter 2 - Waikato Regional Council
- Submitter 8, Further Submitter 3 - Transpower
- Submitter 6 - Sanctuary Point Investments Ltd
- Submitter 33 - Director General of Conservation.

3 Purpose

This supplementary report provides an analysis of the key points arising from submissions and evidence presented on PC2 at public hearings. This report is supplementary to the reports provided to the Hearing Committee and submitters prior to the hearing commencing. These being:

1. Proposed Change 2 (Natural Hazards) to the Regional Policy Statement: Overview Report of Submissions (14 pages plus the Aecom report appended): and
2. Proposed Change 2 (Natural Hazards) to the RPS: Staff Recommendations on Provisions with Submissions and Further Submissions (Produced 19/05/2015, 221 pages, and its Errata 2 June 2015) replaced by the version produced 2/06/2015, 222 pages, incorporating the errata, distributed at the beginning of the hearing; and
3. Proposed Change 2 (Natural Hazards) V6.0 - Track Changes version 19 May 2015.

This report refers to items 1 and 2 above as “the Pre-Hearing Reports”. Item 3 above is referred to as the “Pre-Hearing Redline”

This report does not repeat the analysis of all submissions and submission points of the pre-hearing reports. Unless otherwise stated in this report, Officers’ analyses and recommendations in the Pre-Hearing Report and Pre-Hearing Redline continue to apply and do not, in the Officers’ opinion, need amending as a result of evidence presented at the hearing or recommendations made in response.

However, some of the analysis and associated recommendations from the prehearing reports do require reconsideration. That is the purpose of this report.

The further amendments which Officers recommend be made to the provisions of PC2 in light of evidence presented at the hearing are shown in this report at the end of each section and in consolidated form in Appendix 1 being version 7.1 of the Proposed Change. Note that Appendix 1 contains some additional consequential changes (including some extensive changes to explanations) that are not discussed in the body of this report. Those amendments do not raise matters of policy and for sake of brevity are incorporated directly into version 7.1 without elaboration in this report.

New text recommended by staff prior to the hearings is shown in red font and underlined. Text recommended by staff prior to hearings to be deleted is shown in ~~red font and struck through~~.

Where Part B of this report shows text recommended by submitters, or representatives of submitters, at the hearing, this is shown in red font and underlined with a yellow wash.

Amendments recommended by Officers as a result of evidence presented at hearings is shown in blue font and underlined and deleted text is also shown in ~~blue font and struck through~~. Appendix 1 of this report supersedes the pre-hearing redline.

The assessment and recommendations contained in this report are not binding on the Regional Council or the Hearing Committee and it cannot be assumed that the Hearing Committee will reach the same conclusions as those provided in this report.

No legal advice has been sought during the preparation of this report as, although some submitters were represented by legal counsel, none appeared to be challenging the legality of provisions, but were rather advocating for changes on the merits of provisions proposed.

4 **Structure**

This report identifies some key concepts and themes that were highlighted by discussion during the hearing, and which require clarification as part of the deliberation and decision-making process. These issues are set out in Part A of this report.

As noted above, this report also provides more detailed recommendations in respect of provisions sought to be amended by submitters that appeared at the hearing or who tabled additional information. These provisions and associated recommendations are set out in Part B of this Supplementary Report.

For the avoidance of doubt, the provisions addressed in Part B are all those provisions in respect of which a submitter listed in Section 2 above made a submission or further submission which they addressed in their presentation at the hearing.

The outstanding issues listed by the hearing committee following the hearing that are not addressed in Part B of this supplementary Report but which require a direct response are contained in Part C.

Recommendations are made at the conclusion of this report. The Redline attached as Appendix 1 includes all changes recommended to be made to PC2. For the avoidance of doubt, these include recommended changes to provisions made in the Pre Hearing reports and additional changes proposed following hearings.

5 PART A: Key Concepts and Themes

5.1 Structure of PC2

Some submitters have sought that certain matters be added to the Appendix K methodology. Others have sought matters to be added to the policy framework. These requests have raised issues about the general structure of PC2. In particular what needs to be “policy” and what is a matter of methodology (to be included in Appendices) or guidance?

The general structure of PC2 is loosely described in its introduction. The policies set out a framework that:

- a) Directs that a risk-based approach is to be used (Policy NH 1B)
- b) Establishes the risk categories to be used for the risk based approach (Policy NH 2B)
- c) Specifies the management approach to be taken in respect of each risk category (Policy NH 6B)
- d) Requires *risk identification* in the context of district and regional plan development (Policy NH 3A)
- e) Requires *risk analysis and evaluation* in the context of both plan development and consent applications (Policies NH 4A and NH 5B respectively)
- f) Provides direction on management of natural hazard risk in particular contexts:
 - i. Policy NH 7B
 - ii. Policy NH 8A
 - iii. Policy NH 9A
 - iv. Policy NH 10B

The Change reflects the risk management process from AS/NZS ISO 31000:2009, particularly d) and e) above, which together represent the “risk assessment” stage of the process.

Appendix K provides guidance on the methodology to be used *when risk analysis and evaluation is required* (i.e. when e) applies).

In simple terms, the requirements on local authorities and applicants (i.e. *what* needs to be done) is located in the policy (as it must be). *How* councils and applicants give effect to the policy requirements can be set out in Appendices (being a form of implementation guidance). Hence Appendix K sets out *how* risk analysis and evaluation is to be undertaken and Appendix L sets out *how* risk reduction can be achieved. The requirement to analyse, evaluate and reduce risk (the “*what*”) is the subject of policy.

This distinction between what goes in Policy and what goes in Appendix K is important for the discussion that follows.

5.2 Spatial scales and associated defined terms

It is clear from submissions and evidence that there is some confusion amongst submitters about the terminology used in PC2 to describe the various spatial scales and mapping that is envisaged.

PC2 defines the following terms:

- Hazard susceptibility area (HSA)
- Hazard assessment area (HAA)
- Natural hazard zone (NHZ)
- Development site.

These are interrelated terms.

- The HSA is simply a mapped area representing the spatial extent of a particular hazard (see Policy NH 3A).
- The HAA is the term applied to the scale of assessment carried out in accordance with Appendix K. It can mean either the *NHZ* or a *Development Site*. The term HAA is only used in Appendix K. It is included simply to avoid having to refer to “natural hazard zone or development site whichever is applicable”.
- The NHZ is a zone defined by a regional or district plan as being the scale at which hazard risk assessment is to be undertaken for the purpose of developing appropriate risk management provisions in plans (see policy NH 4A). An NHZ can be an entire HSA or (more likely) part of such an area, but it cannot be bigger than a HSA.
- A development site is also defined and means that area of land on which development of land is to be undertaken (being land held in a single certificate of title (CT) or land held in multiple CTs that are contiguous). The development site is the scale at which risk assessment is to be undertaken when required by Policy NH 5B.

A conceptual depiction of these terms is shown in Figure 1 below:



Figure 1 – Hypothetical example of hazards susceptibility area and natural hazards zone

In the above example, the HSA has been divided into three NHZs for the purpose of hazard risk assessment. These are based on actual or potential land use. It is anticipated that land use will be a common criterion used to define NHZs. Separating existing development from new development (future urban) for example will ensure that the risk level applicable to the future urban area is not influenced by the level of hazard mitigation present in the existing urban area. That is, if the existing urban area is already subject to high risk, that need not influence the “developability” of the future urban area provided that it can meet the low risk criterion within its own zone. Conversely, if an existing urban area has invested heavily in hazard risk mitigation to achieve “low” risk, it may not be appropriate to allow new adjacent development to rely on that low existing risk level to “dilute” the risk of its own development by effectively sharing the same zone for assessment purposes¹.

The HAA for the purpose of applying Appendix K will be:

- one of the NHZs (when applied in the context of plan development); or
- the development site (when applied in the context of a resource consent application, notice of requirement or plan change related to a specific development project).

Establishing the boundaries of NHZs will require considerable thought and the appropriate boundaries will be very much place and context-specific. For that reason, PC2 proposes (Policy NH 4A) that they be set through the Schedule 1 process as part of regional and district plan development and not be defined in an ad hoc manner.

5.3 Mapping risk

During the hearings on PC2 there was considerable talk about “mapping risk”, i.e. the spatial portrayal of natural hazard risk level or extent.

It is important to be clear about the purpose of risk assessment. It is not, as sometimes described, the precursor to “mapping risk” in the traditional sense of hazard lines on planning maps.

That said, areas of like risk can be spatially defined (i.e. “mapped”). For example, following risk assessment we might identify an area that, based on existing land use, is low risk. However, that does not mean that anything can occur within that area without hazard assessment simply because the area is low risk. A change of use can, and to a greater or lesser degree will, change the risk.

This is the fundamental difference between a risk-based approach and the more traditional approaches that have informed land use planning in the past where areas subject to a certain likelihood of hazard event (e.g. flooding or coastal erosion) have been mapped and only if an activity is proposed within such an area do hazards provisions apply.

Traditional hazard maps are more akin to what we have termed “susceptibility mapping” (although hazard susceptibility maps will often define the *maximum credible event* whereas traditional hazards maps are typically based on events of greater likelihood – i.e. more frequent – than the maximum credible event).

¹ Whether this should be allowed or not, ought to be a conscious decision of the local authority made in the context of defining NHZs through the Schedule 1 process prescribed in the RMA. Some increase in risk to an existing developed area may be acceptable, for example, provided the overall level of risk remains in the low range.

Risk classification by contrast is context (or “scenario”) dependent. That is, what the appropriate risk classification is on any site or area depends on what use that site or area is put to.

An area of greenfield land, therefore, cannot be described as low, medium or high risk unless that classification is associated with a particular future land use of known design.

In short, while the extent of effect of a particular hazard (of a certain likelihood) can be mapped, risk cannot be “mapped” except in respect of a particular development scenario.

Hence it is not accurate to refer to an area or site as being subject to a particular level of risk. Risk can only be assessed, and hence mapped, in respect of land and its associated use.

5.4 **Policy testing**

Several territorial authority and developer submitters had requested in their submissions that the Appendix K methodology be tested prior to the hearing of submissions. With input from those submitters to the brief, a consultant was commissioned to test the application of the methodology to “real world” scenarios. The brief was distributed to members of the Hearing Committee on 29 April 2015. The consultant’s report was distributed to the submitters who sought testing and was attached to the Overview report on Submissions that was distributed to all submitters. Justine Bennett, a representative of the consultant Aecom, presented the test findings early in the hearing as part of the staff introduction.

The purpose of the testing had been to establish whether the proposed risk assessment policy (and methodological approach) is workable and delivers an appropriate outcome in the wider context of natural hazards being avoided or mitigated.

During the hearing, a question was raised regarding whether further testing of the policy is required. That matter is discussed in Part C of this report.

6 PART B: Specific provisions

6.1 Section 2.8, Paragraph 17 “Potential risk reduction ...”

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Use the term “risk treatment” rather than “risk reduction”	17:1	Support in part: 17-36, 18-36	Yes	Reject

6.1.1 Submitter’s Request

Craig Batchelar for Eastern Councils requested that the term “risk treatment” be used in place of “risk reduction” in the introductory text of section 2.8 (and elsewhere in PC2). This was justified on the basis that such wording would be more consistent with AS/NZS ISO 31000:2009 Standard. (Note this request is discussed further at paragraph 6.10.5.)

6.1.2 Background

Use of the term “treatment”, as in “risk treatment”, was considered by the Full Project Team at its meeting on 11 April 2014, attended by representatives of each of the three eastern councils as well as the other territorial authorities in the region. The meeting considered proposed principles to guide preparation of what has become PC2. The initial draft principles included the term “risk treatment” following the style of the AS/NZS ISO 31000:2009 Standard. An objection was raised that “Treating” comes from NZ Standards and is not an RMA term’. There was agreement not to use “treat”. At first, the term “risk mitigation” was used instead. However, it was realised that “mitigation” is used in the RMA in respect of adverse effects and in the expression “the avoidance or mitigation of natural hazards” but is not used in the RMA with risk.

The AS/NZS ISO 31000:2009 Standard’s definition of risk treatment includes as “NOTE 2”: Risk treatments that deal with negative consequences are sometimes referred to as “risk mitigation”, “risk elimination”, “risk prevention” and “risk reduction”. Since the PC2 policy is addressing negative consequences, it is appropriate to use one of these more precise terms from the Standard. “Risk reduction” was chosen as it is used in the Civil Defence Emergency Management Act 2002 and is familiar to those who will be applying PC2.

The current wording was used in v 1.5, the version sent to the Full Project Team on 6 June 2014 for comment. The issue was not raised by the Full Project Team at its meeting on 13 June 2014, attended by a representative of Whakatāne District Council.

6.1.3 Comment

Officers stand by the “Staff reason” given for their recommendation that the submission be rejected: “As noted in the footnote, although risk management terminology refers to “treating” risk, in the context of the Statement this stage of the process is referred to as risk reduction. This aligns with the terminology of the Civil Defence Emergency Management Act 2002, in the interest of integrated management.” Further reasons are provided at paragraph 6.10.5.

Recommendations

1. Reject submission 17:1

2. Retain the wording of paragraph 17 of section 2.8 as per the Pre-Hearing Redline.

6.2 Issue 2

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Reword Issue 2 to focus on the lack of information that the people require	18:4, 25:9	13-57	Yes	Accept in part

6.2.1 What the provision says

Officers recommended changes to Issue 2 in the Pre-Hearing Report as a result of submissions. In the Pre-Hearing Redline Issue 2 reads:

- 2 ~~Individual choices rarely take~~ Availability of natural hazards ~~risks into account~~ information

In making their individual choices about where they live and work, and how they develop the land, people ~~rarely take~~ require sound information on natural hazard risks ~~into account~~.

6.2.2 Submitters' requests in evidence

Mrs Ralph appearing for both Carrus Corporation (Submitter 18) and Te Tumu Landowners (Submitter 25) expressed a preference for the following wording:

2. ~~Individual choices rarely take natural hazards risks into account~~ A lack of natural hazard risk information and guidance impacts choices and can result in uninformed decisions. *In making their individual choices about where they live and work, and how they develop the land, ~~people rarely take~~ sound information on natural hazard risks ~~into account~~ is required*

6.2.3 Submissions: Scope for requests

Submission 18:4 seeks wording changes that would result in an issues statement that reads:

- 2 **Individual choices rarely take natural hazards risks into account**

In making their individual choices about where they live and work, and ~~how they develop the land~~, people ~~rarely~~ are now getting more information that they will take natural hazard risks into account.

Submission 25:9 seeks:

- Deletion of Issue 2.

OR

- Amendment of Issue 2 as follows (strikethrough and underline):

~~'2 Individual choices rarely take natural hazards risks into account~~

A lack of natural hazard risk information and guidance impacts individual choices and can result in uninformed decisions

In making their individual choices about where they live and work, and how they develop the land, ~~people rarely take~~ sound information on natural hazard risks ~~into account~~ is required.

Or words to similar effect.

On that basis there is scope for the amendment proposed by Mrs Ralph but also a strong argument that changes already proposed by Officers satisfies the submission.

6.2.4 Comment

The style of the RPS is for issue headings to provide a brief indication of the subject matter of the issue. The text that follows the heading is the statement of the issue itself.

As can be seen, the issue recommended by staff very closely matches what is sought by submitter 25, apart from the issue heading. The difference in the issue is that the Staff recommendation is expressed actively (“people require ... information”) rather than the submitter’s passive form (“information ... is required”). The evidence presented at the hearing acknowledges that the Staff recommendation is to amend the issue statement more in line with the submission point. However, the evidence then asserts, “The issue is, the lack of information that the people require.” This is at odds with the reason for the submission which states:

“Natural hazard awareness has increased significantly in the last 10-15 years Extensive local and national press combined with Civil Defence awareness programmes and Council programmes ... mean that people are now very aware of natural hazard risks.”

Turning to the heading: the heading proposed by submitter 25 goes further than the issue statement itself and expresses an aspect that is not referred to in the issue statement itself. As such, the submitter’s suggested heading wording is not supported.

<p>Recommendations</p> <p>3. Accept submissions 18:4, 25:9 in part</p> <p>4. Retain the wording of Issue 2 as per the Pre-Hearing Redline</p>
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6.3 Table 1 and references following explanations: cross referencing

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Correct Table 1 for consistency..	“Consequential amendments” point added to all submitter 25 submissions		Yes	Accept

<p>Recommendations</p> <p>5. Correct Table 1 cross referencing as shown in Post Hearing Redline (Attachment 1)</p>
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6.4 Objective

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Retain as recommended in	8:2	1-5, 8-5	Yes	Accept.

Officer's report				
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Recommendation

6. Retain Objective 23 as proposed in the Pre-Hearing Redline

6.5 Policy NH 2B

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
In policy introductory text, also insert "risk screening matrix".	18:6, 25:12	13-59, 7-7, 13-12	No	Reject
Continuing to seek submission wording: "Medium natural hazard risk being a level of risk that, although tolerable where it already exists, should generally be avoided or mitigated, where possible and reasonably practical through future decision-making."	25:12	7-7, 13-12	Yes	Reject
Explanation, last paragraph, insertion of words "resource consent application": Insert as recommended in Officer's report.	25:12	7-7, 13-12	Yes	Accept
Opposes inclusion of "(if reduced as far as practicable)" recommended in Officer's report.	21:8, 22:14		Yes	Accept

The Pre-Hearing Report sets out the full review of submissions and associated further submissions from page 57.

6.5.1 How Policy NH 2B is intended to work

Policy NH 2B is intended to set out in the three level risk framework with brief descriptors. It is not intended to indicate the policy response to those risk levels; that is set out in Policy NH 6B, Natural hazard risk strategy.

In the form that it was notified and the way in which it has been recommended to be amended in the Pre-Hearing Redline, it contains elements of policy direction. In hindsight, this is unfortunate and has possibly contributed to a lack of clarity and about the purpose of Policy NH 2B and unnecessary debate.

6.5.2 Submitters' requests in evidence

Mrs Ralph for Te Tumu land owners

Mrs Ralph's evidence observes that "the Officer's report has provided a reference to Appendix K which we agree with". However Mrs Ralph also seeks guidance on the

use of the term “mid-range risk” and its relationship with medium risk; this was addressed more fully in Mr Fletcher’s evidence².

Of key concern is item 2 of Policy NH 2B. The Pre-Hearing Redline proposed that to read:

“Medium natural hazard risk being a level of risk that, ~~although while~~ tolerable where it already exists (if reduced as far as practicable), should generally be avoided ~~through for~~ future ~~decision-making~~development.”

Mrs Ralph’s evidence is that the proposed wording sets a very high bar for development. She supports the original Te Tumu submission that sought a cross reference to Appendix K and the addition of the words “or mitigated, where possible and reasonably practical” in paragraph 2 so that it reads:

2 *Medium natural hazard risk* being a level of risk that, although tolerable where it already exists, should generally be avoided or mitigated, where possible and reasonably practical through future decision-making.

Or words to similar effect.

Tabled Statements

The statements tabled on behalf of submitters 21 and 22 argue that inclusion of “reduced as far as practicable” (as recommended in the Pre-Hearing Redline) introduces an element of uncertainty resulting in the description of medium risk being too complex.

Officers now accept that this insertion is a policy direction that is unnecessary and inappropriate in the context of how Policy NH 2B is intended to work. Officers now recommend that “reduced as far as practicable” not be included.

6.5.3 **Effect of Mrs Ralph’s requests if accepted**

Inclusion of the words “or mitigated, where possible and reasonably practical” has the effect of diluting the requirement to “avoid” and therefore does not correctly reflect the policy position set out in Policy NH 6B.

In a practical sense, this could lead to some confusion and debate in implementation because the lack of alignment between two key policies (NH 2B and NH 6B).

6.5.4 **Comment**

Officers continue to support inclusion in the policy’s introductory text of reference to Appendix K. We do not support extending that reference to “risk screening matrix” since the risk screening matrix is not the only element of Appendix K that sets risk levels. In particular, the Step 5, annual individual fatality risk, process for setting risk levels also applies. It is not necessary to reference both the matrix and step 5 in the introductory text to the policy as well as the parent term “Appendix K”.

Both the Officers’ recommendation and the wording sought in the submission go further than setting out the three level risk framework in general terms. They both include elements of policy direction. To safeguard against the possibility of inconsistency and to avoid confusion, Officers consider that it should be left to Policy NH 6B to provide the policy direction. To convey the intent of the policy, it is more straightforward to include simple statements describing the three level risk framework. For example, when the Proposed RPS was first notified in 2010, the three levels of risk were acceptable, tolerable and intolerable (equivalent to Low,

² The wording now proposed by officers does not use the term “mid-range risk” so the need for such guidance would no longer arise.

Medium and High); ‘tolerable’ risk was described as “Tolerable risk exceeds the acceptable level but does not meet the criteria for intolerable risk.”

Ideally, the Policy NH 2B framework would be similarly simple.

Recommendation

7. Amend Policy NH 2B and its Explanation to read as follows:

Policy NH 2B: Classifying risk

Classify risk according to the following three-category risk management framework as detailed in Appendix K:

- 1 High natural hazard risk being a level of risk beyond what should be tolerated; (although exceptional circumstances will apply).
- 2 Medium natural hazard risk being a level of risk that, although while tolerable where it already exists (if reduced as far as practicable), should generally be avoided through for future decision-making development exceeds the Low level but does not meet the criteria for High risk.
- 3 Low natural hazard risk being the level of risk generally acceptable (i.e. any level of risk below the medium risk threshold).

The policy direction associated with these levels of risk is set out in Policy NH 6B Natural hazard risk strategy.

Explanation

The risk-management approach to natural hazards management requires a framework of risk levels that provides a basis for consistent land use management decisions.

The concept of a three-tier risk framework is well-established in risk management practice and consistent with national risk standards and associated guidance.

Policy NH 2B establishes a framework for screening risk (and hence land and land use subject to risk) into three broad categories that allows for a differentiated natural hazard management policy position to be applied (as provided for in Policy NH 6B).

The levels of risk are established in two ways:

- 1 by applying likelihood and consequence assessments to the Appendix K Risk Screening Matrix which combines these factors and presents a risk level; and, if necessary,

- 2 by assessing the annual individual fatality risk and applying the criteria in Appendix K Step 5.

High risk generally occurs where both likelihood and consequence are relatively high. For the purpose of the Statement, In the Risk Screening Matrix, the red cells indicate High natural hazard risk is definable by reference to the red cells of the Risk Screening Matrix provided in Appendix K.

Medium risk ~~generally occurs where the can be generated by various combinations of a natural hazard's has both a moderate-likelihood and a moderate-consequence generates a mid-range risk, or when one or other is high and the other at least moderate.~~ For the purpose of the Statement, In the Risk Screening Matrix, amber cells indicate Medium natural hazard risk is definable by reference to the amber cells of the Risk Screening Matrix provided in Appendix K.

~~The Low risk category is the level of risk that is so small that any risk reduction controls are unnecessary. It is generally acceptable occurs where both likelihood and consequence are relatively low.~~ For the purpose of the Statement, In the Risk Screening Matrix, green cells indicate Low natural hazard risk is definable by reference to the Green cells of the Risk Screening Matrix provided in Appendix K.

For the purpose of the Statement, High, Medium and Low natural hazard risks are also defined by the application of the annual individual fatality risk criteria set out in Step 5 of Appendix K.

The boundaries of the risk categories are set by a combination of Appendix K's Risk Screening Matrix colour array was established by the Regional Council following technical advice and community input. These boundaries are further explained in the risk analysis and evaluation methodology set out in Appendix K. The annual individual fatality risk criteria in Step 5 align with national practice and the Council has adopted them accordingly.

Policies NH 1B and NH 2B provide the framework for the management of natural hazards in the Bay of Plenty Region. They apply to the development of plans and to the consideration of resource consent applications. However, unless Policy NH 5B applies, a ~~development project resource consent application~~ is not subject to the risk management approach of Policies NH 1B and NH 2B until Policy NH 4A has been implemented.

6.6 Policy NH 4A

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Inclusion of "planning study area" in Explanation paragraph "2. The AIFR ...".	25:14	13-14	Yes	Reject

6.6.1 Submitters' request in evidence

In her written evidence, Mrs Ralph for Te Tumu stated that the Officer's Report recommendations had provided the sought-after clarity and that Te Tumu and Carrus accepted the recommended changes. In response to a question from a member of the Hearing Committee, Mrs Ralph retreated from that position somewhat by confirming that part of original submission point 25:14 (seeking insertion of reference to "planning study area" and an associated definition) stands.

In its parent submission, the submitter has requested substitution of terms used in PC2 (as notified) by terms proposed by the submitter.

In particular, the submitter seeks use of "planning study area" which it defines as:

Planning study area means either:

(a) The area of proposed natural hazard assessment for the purposes of application under Policies NH 3A and NH4A; or

(b) The development proposal area being assessed or managed under NH 5B and NH 7B’.

This corresponds with the Officers’ preferred term, “Hazard assessment area”, and its definition:

Hazard assessment area means the natural hazard zone ~~susceptibility area~~ or development site whichever is applicable.

6.6.2 Comment

This proposal of replacement terms has identified shortcomings in the notified terms and their definitions. Officers recommend that addressing these shortcomings is preferable to replacing the notified terms with new terms. Accordingly, the Pre-Hearing Redline has recommended amendments to several Definitions, and in this report Officers recommend further definitions (see paragraph 6.19).

Recommendation
8. Reject submission 25:14.

6.7 Policy NH 5B

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Deletion of entire policy	11:1		Yes	Reject
Have policy only apply after PC2 has been addressed by the district plan	14:8	<u>Accept/accept in part:</u> 15-29, 16-29, 17-29, 18-29		Reject
Deletion of reference to subdivision	25:15		No	Reject (even if there is scope)
Clarification/specificity about what activities will be required to assess risk and/or a narrowing down of the activities potentially caught by the rule	General 29:2, 30:2			
	Limit scope in interim period to sites over 5ha* (delete (a) (ii)) 25:15, 18:9	<u>Accept/accept in part:</u> 29-2, 13-62, 14-23, 15-57, 16-57, 17-57, 18-57 <u>Reject</u> 13-15,		Accept in part
	Limit scope (to greenfield and rural areas) 6:1	<u>Accept/accept in part:</u> 15-6, 16-6, 17-6, 18-6 <u>Reject:</u> 1-2, 8-12	Yes	Reject
	Reassess assessment threshold/Broaden scope beyond areas specified in explanation 17:9	<u>Accept/accept in part:</u> 14-17, 15-41, 16-41, 17-41, 18-41 (These support		

		an incidental part of the submission only)		
Deletion of “regionally significant infrastructure” from the explanation	11:1 21:15 22:21	<u>Accept/accept in part:</u> 5-1, 15-78, 16-78, 17-78, 18-78, 5-2, 9-1, 15-87, 16-87, 17-87, 18-87	Yes	Accept
Support policy	12:1, 16:7, 32:4			

* Remove reference to 5ha from the explanation and locate to the Policy itself.

The Pre-Hearing Report sets out the full review of submissions and associated further submissions from page 79.

6.7.1 **How Policy NH 5B is intended to work**

Policy NH 5B is included in PC2 to ensure that, in certain circumstances, risk assessment is to be undertaken as part of development projects (i.e. at the time of resource consent).

In the absence of this policy, risk assessment would be solely a local authority responsibility, undertaken as part of the plan making process (in accordance with Policy NH 4A).

Policy NH 5B provides for two situations:

- a) The period before district and regional plans give effect to Policies NH 3A and NH 4A (the “interim period”); and
- b) The period after district and regional plans give effect to Policies NH 3A and NH 4A.

The requirement for risk assessment is more stringent in the interim period because plans may not have undertaken adequate hazard risk assessment in zoning and land use provisions.

There is also a default provision for district or regional plans to provide for risk assessment at the time of subdivision or change or intensification of land use.

Overall, Policy NH 5B was intended to provide high-level guidance but sought to ensure that the regional, city and district councils retained considerable discretion regarding when to require risk assessment in the interim period. That intent was based on the belief that it would be difficult for the RPS to predict, in any detailed sense, all the situations when risk assessment would be prudent.

6.7.2 **Submitters’ requests in evidence**

Three submitters presented evidence/statements on this matter.

- Mr Nick Swallow for Port of Tauranga (submitter 11)
- Mrs Christine Ralph for Te Tumu Landowners Group (submitter 25)
- Mr Campbell Larking for Tauranga City Council (submitter 13)

Port of Tauranga

Mr Swallow sought that the entire policy be deleted or, failing that, that the reference to activities meeting the test of Policy NH 5B (a) include “*any more than minor extension to, or redevelopment of, regionally significant infrastructure*” be deleted.

6.7.3 **Effect of Port of Tauranga’s requests if accepted**

Should Mr Swallow’s request for deletion of Policy NH 5B be accepted, then PC2 would have no effect until regional and district plans are reviewed through their

normal cycle. Even then, PC2 would not take effect until decisions on submissions relating to the district or regional rules are made and publicly notified. This could be many years from now.

Although Mr Swallow contends that the RPS could be had regard to in a consent application, in reality without Policy NH 5B there is nothing in PC2 that would suggest it is to apply to consent applications (indeed Policy NH 4A would expressly limit the relevance of PC2 to district and regional plan reviews).

Mr Swallow's alternative suggestion of deleting reference to "*any more than minor extension to, or redevelopment of, regionally significant infrastructure*" from the explanation would leave broad discretion to individual councils to determine whether a proposal warrants risk assessment.

Mrs Ralph for Te Tumu land owners

Mrs Ralph sought that:

- a) The application of Policy NH 5B to subdivision be removed. In her opinion much subdivision occurs without changing the natural hazard risk.
- b) The definition of the nature and scale of a proposal caught by the policy (i.e. the 5 ha threshold and the more than minor extension to regionally significant infrastructure) be in the policy itself (rather than the explanation).
- c) Sub clause (a) (iii) be amended so that the only proposals caught by the policy after the interim period are those "not provided for in the district or regional plan" (i.e. the words "or is provided for only as a non-complying activity" be deleted).
- d) Clause (b) be clarified.
- e) Clause c) (iii)³ be clarified and the nature of how a proposal might increase exposure to a natural hazard be limited (to "an increase in occupancy or built form").
- f) The requirement to assess risk be limited to hazards "which are the subject of analysis by the Regional Council" and that the regional council be required to provide available relevant information at the time of the application.
- g) The obligation to assess risk not arise when hazard susceptibility mapping has not been completed in accordance with Policy NH 3A.

6.7.4 **Effect of Mrs Ralph's requests if accepted**

Mrs Ralph's suggestion of deleting reference to subdivision would, if adopted, mean that in the interim period new lots could be created in areas susceptible to hazards. Such lots, under existing rules, could have an associated right to development as a permitted or controlled activity. This would effectively create a "loophole" in the policy allowing for new development to proceed without assessment of risk under Appendix K. When applied after the interim period, it would be extremely difficult for a council to manage risk arising from development on lots it has granted consent to create. Where there would be high hazard risk should land be developed, the most prudent course may be to avoid subdivision. The amendment proposed would remove that option.

Although it is true that some subdivision generates little or no change to hazard risk, the policy does not require that Appendix K be applied for *every* subdivision. Matter (a) (i) makes clear that there is discretion to ignore subdivision and development that, if affected by a natural hazard, would not constitute a significant consequence.

The proposal to bring the 5 ha threshold into the policy has merit and is discussed in the comment section below.

³ The "c)" indexing has been added by Mrs Ralph and does not appear in the marked-up version of PC2.

The proposed deletion of reference to “non-complying activity” from part a) (iii) of the Policy would mean that activities specified as *non-complying* by the plan could be considered by a council without any a hazard risk assessment under Appendix K. If that proposal is accepted, the only consent applications that would require an assessment under Appendix K would be those “not provided for in a plan”. In practice because of the way plans are drafted there are unlikely to be any such applications⁴. The effect would be that Policy NH 5B would have no meaningful purpose after Councils have given effect to Policies NH3A and NH 4A.

The change Mrs Ralph proposes to (b) does not substantively alter the effect of the policy but some aspects do provide useful clarification.

The change Mrs Ralph proposes to c) (iii) would leave open the opportunity for a development to avoid risk assessment under Appendix K in situations where it was non-compliant with a development or performance standard (making it non-complying), and that non-compliance increased exposure to the natural hazard (albeit it did not involve a *material increase in occupancy of the site or built form*). It does seem likely that a breach of a development or performance standard could increase exposure to a hazard without involving an increase in occupancy. An example would be non-compliance with a coastal protection yard requirement which might expose the development to a higher probability of effect from, say, inundation or coastal erosion.

The additional fourth matter (iv) (referred to as f) above) Mrs Ralph proposes to add to Policy NH 5B appears to be an error as it does not set out a situation where the obligation to assess risk using Appendix K ought not arise.

The additional fifth matter (v) Mrs Ralph proposes to add to Policy NH 5B would make the policy largely redundant since, if included, it would mean the policy would not apply prior to Policy NH 3A being implemented. However, the purpose of Policy NH 5B is to provide for interim obligations prior to district and regional plans implementing Policies NH 3A and NH 4A (noting the Policy NH 3A will only be given effect to in the context of district and regional plan development).

Tauranga City Council

Mr Campbell sought that sub clause (a) (ii) of Policy NH 5B be deleted because it would result in “*any discretionary/non-complying activity proposal having to undertake a full range of hazards assessment...Such an imposition is unreasonable for individual landowners/developers*”.

6.7.5 **Effect of Tauranga City Council’s requests if accepted**

If Mr Campbell’s request was accepted, Policy NH 5B would not apply prior to Policies NH 3A and NH 4A being implemented by district and regional plans (i.e. the interim period). Because these policies are to be given effect to by new Methods 1A and 2A⁵, there could be a very lengthy period where there is no regional policy applying to natural hazard management (apart from those policies included in the Regional Coastal Plan).

⁴ See, for example, the Tauranga City Plan which provides for Business activities (a very broadly defined class of activity) not listed elsewhere in Activity *Table 14D.1: City Living Zones Activity Status*, as non-complying activities. The same approach is taken in the Plan’s *Suburban Residential, Wairakei Residential and Large Lot Residential Zone* and other zones

⁵ These new methods allow for implementation of policies by district and regional plan “*as part of the next review*”. Hence there could be an absence of natural hazard risk assessment in accordance with PC2 for 10 years.

Tabled evidence

Evidence tabled by submitter 21 (Powerco) and submitter 22 (the Oil Companies⁶) requested retention of new subclause iii. recommended to be inserted by the Staff report and deletion of reference to regionally significant infrastructure from the explanation of the policy.

6.7.6 **Effect of Tabled evidence request if accepted**

The effect of this change, if accepted, would be that more than minor extension to, or redevelopment of, regionally significant infrastructure would not necessarily be required to undertake risk assessment in accordance with Appendix K but would be a matter for council discretion under the more general wording of the policy itself.

6.7.7 **Submissions: Scope for requests**

There is scope for the change sought by Port of Tauranga since submission point 11-1 did seek deletion of Policy NH 5B in its entirety.

With regard to Mrs Ralph's evidence:

- a) There does not appear to be scope for the proposal to delete all reference to "subdivision" from Policy NH 5B since that was not included in the Te Tumu submission and Te Tumu did not make a submission in support of any other party that suggested deleting subdivision from the policy. Instead the submission sought to limit the subdivision proposals caught by the policy to those applications creating allotments that could lawfully accommodate a dwelling.
- b) There is scope to bring the 5 ha limit within the policy (and out of the explanation).
- c) There does not appear to be scope for the proposal to delete the words "Is provided for only as a non-complying activity" from clause (a) (iii). The submission sought, by contrast, deletion of the words "is not provided for in the district or regional plan".
- d) There is scope to clarify clause (a) (ii) since the Te Tumu submission sought deletion of that clause.
- e) There is scope to clarify clause (c) (iii) (i.e. iii.) as this is recommended (by the staff report) to be added in response to submissions.
- f) There does not appear to be scope to add new matter c) iv) (i.e. iv.) as this proposal was not included in the submission.
- g) There does not appear to be scope to add new matter c) (v) (i.e. v.) as this represents a substantive change that was not included in the submission.

There is scope for the change sought by Mr Larking since submission point 13-6 did seek deletion of clause (a) (ii) of Policy NH 5B.

The decisions sought by the evidence tabled on behalf of submitters 21 and 22 are within scope being consistent with the submissions.

6.7.8 **Comment**

Submissions and associated evidence raise three issues requiring consideration and decision.

- A. Is Policy NH 5B necessary at all?
- B. Should Policy NH 5B apply before Policies NH 3A and NH 4A are implemented or only afterwards?

⁶ BP Oil NZ Ltd, Mobile Oil NZ Ltd and Z Energy Ltd

C. Who should the policy apply to and should the policy allow for discretion to be exercised by the consent authority as to which applications are caught, or should the scope be clearly prescribed in the policy itself?

A. Is Policy NH 5B necessary at all?

As discussed above, because of the way the balance of the Change is drafted, without Policy NH 5B there would be no requirement in the RPS to assess natural hazard risk using Appendix K (or anything else) as part of a development proposal. That would place onus on regional and district plans to anticipate all possible land uses. That would be unrealistic.

Officers disagree with Mr Swallow's analysis that there is no regulatory risk of deleting the Policy because "the matter is still able to be considered". While natural hazards may be legally able to be considered as part of a full discretionary or non-complying activity, in a practical sense without any support in the RPS it is inconceivable that any consent authority would require risk assessment using Appendix K because, in the absence of Policy NH 5B, the RPS would expressly require such assessment only in the context of district or regional plan development.

For that reason, Officers consider Policy NH 5B needs to be retained in some form or other.

B. Should Policy NH 5B apply before Policies NH 3A and NH 4A are implemented?

The Officers' view has always been that the obligation for risk assessment should apply (to some extent at least) once PC2 becomes operative and should not await changes to be made to regional and district plans.

To do otherwise would be to put off natural hazard risk assessment (and hence the full suite of hazard management policies in PC2) for, potentially, a very lengthy period (because, as explained earlier, district plans do not have to give effect to PC2 until their next review).

An alternative approach would have been to require implementation of PC2's "A" policies by Method 1. That would have required district plans to give effect to the policies within 2 years⁷.

During discussion with stakeholders it was decided that a two-year plan implementation timeframe would be too onerous given the work that is required and hence new Method 1A was inserted allowing implementation through plans to be phased in over the normal plan review cycle. The *quid pro quo* was that a policy would apply in the interim requiring larger, unanticipated (by the relevant plan) development proposals to undertake risk assessment as part of their assessments of environmental effects associated with consent applications. This would ensure that risk was not significantly increased in the period before plans comprehensively addressed the issue.

Although there are many requests for amendment, there is little evidence presented that challenges the rationale of the proposed approach. No evidence for example, sets out why it is appropriate for no hazard risk assessment of large development proposals for a period of time that could extend 10 years.

⁷ Deleting Methods 1A and 2A to require implementation by regional and district plans within two years (and hence remove much of the justification for Policy NH 5B) would not now be within scope and no submitter sought that decision. On the contrary, the eastern councils, for example, expressly supported these new methods.

Mr Larking says that the requirement would be “unreasonable for individual landowners/developers”. Mrs Ralph says that “*application of this Policy before Policies NH 3A and NH 4A have been given effect to by City and District Councils may present significant challenges to an applicant where the hazard work has not been undertaken such as for flooding or tsunami risk*”.

While neither Mr Larking nor Mrs Ralph elaborate on their assertions, they do make an important and relevant point that requires consideration.

In doing so, two matters should be considered:

- First, the testing that was undertaken by Aecom was carried out before Policies NH 3A and NH 4A were implemented. It used already available information held by the regional and relevant territorial councils – in respect of both flooding and tsunami risk. One of its conclusions was that “*in many cases a defensible result can be achieved with less-than-perfect data*”. In other words Aecom did not consider that lack of comprehensive susceptibility mapping and associated analysis under Policies NH 3A and NH 4A *necessarily* inhibited the reasonable application of Appendix K.

Consistent perhaps with the submitters’ point, The Aecom report did go on to say “*However, this will not always be the case, and where there are insufficient data/reports to enable good judgement to be applied, then additional work may need to be undertaken prior to assessing risk*”.

- Second, Appendix K itself contains significant discretion. The default methodology need not be used if another recognised methodology is available and applicable. Even if the Appendix K default methodology is used the analysis need not be quantitative but may be qualitative. Appendix K spells out how the *qualitative* method is to be applied when it states “*Where a qualitative approach is taken, judgement is to be exercised using best available information to estimate the level of each potential consequence and the assignment of an overall consequence rating and the corresponding likelihood rating*”. [Emphasis added]

The phrase “*best available information*” is important as it implies that a person undertaking the risk assessment can rely on the information that exists in the public domain and is not expected to commission primary research. It is intended to suggest that, except perhaps in exceptional circumstances, those undertaking assessment should do the best they can with the information that exists.

In conclusion to this point, the appropriate response to submitters concerned about the reasonableness of asking an applicant to apply Appendix K before Policies NH 3A and NH 4A have been implemented, ought to be to:

- a) Acknowledge that in some situations the information may not exist to credibly undertake an Appendix K assessment; and
- b) Provide assurance within PC2 that, within the interim period, applicants will generally only be expected to undertake assessment using information held by the regional council, the relevant territorial authority or that is otherwise publicly available from a public research provider (such as a CRI or university).

Note that a proposed amendment to Appendix K outlined on page 53 would address this matter.

C. Who should the policy apply to and how much discretion should be exercised by the consent authority?

As noted above, in the absence of Policy NH 5B applying to subdivision, it is possible that new lots will be consented which, when developed for the uses that the plan provides for could conflict with PC2's risk strategy. Mrs Ralph says that *"what is more important is the land use change (that relates to the subdivision) – which may not occur at the same time as the subdivision"*.

While officers agree with that statement, the fact remains that once new lots are created it is extremely difficult (and sometimes legally impossible⁸) for a council to deny land use change for the purpose for which the subdivision was undertaken.

The concerns raised by Mrs Ralph that, for example, boundary adjustments or leases of more than 35 years are unlikely to generate a change in natural hazard risk are valid. However, Policy NH 5B needs to be read as a whole. As noted earlier, it does not require risk assessment for *every* subdivision. The first threshold test of the policy must be passed. That states that the subdivision or land use must be *"of a scale and/or nature that could, if affected by a natural hazard event, represent a significant consequence"*. That part of the policy is clearly intended to sift out the type of subdivision activity described by Mrs Ralph (among other similar activities).

For that reason, even if deletion of subdivision was within scope, Officers recommend that subdivision be retained in the policy (subject to other recommended amendments).

The bigger questions are:

- a) Whether Policy NH 5B should spell out the specific class of activity that needs to undertake risk assessment at the time of resource consent, or
- b) Whether it should be left, with some general guidance, as a matter over which the regional council and territorial authorities may exercise considerable discretion.

Acknowledging the desire for absolute clarity from some submitters (and full discretion from others) Officers are not persuaded, on the basis of evidence presented, that the types of activities that ought to come within the ambit of Policy NH 5B have been, or can be, specifically and comprehensively identified.

For that reason, we remain of the opinion that considerable discretion should be left with the consent authorities, subject to general guidance and to certain activities being listed in the policy as absolute minimum requirements. It is agreed that providing detail in the explanation but not in the policy is unhelpful.

Other specific points:

- a) The 5 ha threshold referred to in the policy seems to be broadly accepted as an appropriate threshold for automatic qualification for risk assessment. However, there are two reasons why relying on that threshold alone may not be prudent.
 - i. First, as noted above, officers consider that there may well be specific activities and/or specific locations which justify risk assessment notwithstanding a site may be less than 5 hectares.

⁸ Where the use follows as a permitted activity, for example.

- ii. Secondly, a threshold trigger of 5 ha creates an opportunity for developers to stage development in 4.9 ha parcels to avoid hazard risk assessment.

For those reasons Officers propose that the policy include reference to the 5 ha threshold but that not be the exclusive criterion. The policy should include direction for consent authorities to consider cumulative impacts when considering whether they require assessment (to address the matter outlined in ii. above).

- b) Officers agree with submitters who have indicated that reference to discretionary and non-complying activities adds considerable complexity and necessitates similarly complex explanations and exceptions (as included in sub clause iii). With careful drafting and by relying on the sound exercise of discretion by consent authorities, these references can be deleted without risk of altering the effect of the policy.
- c) On a more general note, it is also clear from submissions and evidence that the policy is not well understood. The policy's complex and lengthy construction makes it susceptible to misunderstanding and misapplication. Indeed part of the opposition to the rule seems based on a difference of view about what the policy says and how it would likely be applied in practice. Some of the concern therefore may be alleviated by simplifying and restructuring the rule.

Recommendation

9. Redraft Policy NH 5B into two policies as follows:

Policy NH 5B: Assessment of natural hazard risk before Policies NH 3A and NH 4A have been given effect to

Before a district or, where applicable, regional plan gives effect to Policies NH 3A and NH 4A, assess natural hazard risk associated with a development proposal to subdivide land or change or intensify land use using the methodology set out in Appendix K where:

(a) The subdivision of land or the change or intensification of land use is proposed to occur on an urban site of five hectares or more; or

(b) The relevant consent authority considers risk assessment appropriate having regard to:

- i. the nature, scale and/or intensity of the activity,*
- ii. the location of the development site relative to known hazards,*
- iii. the cumulative effect on risk of developments on sites less than 5 hectares,*
- iv. the nature and extent of any risk assessment that may be required under or incorporated within the operative district or regional plan,*

Except that:

the obligation to assess the risk of the natural hazard under this policy shall not arise where the risk derives from a geothermal hazard which is managed under this Statement's section 2.4 and the Geothermal Resources Policies and Methods.

Policy NH 5B(a): Assessment of natural hazard risk at the time of subdivision, or change or intensification of land use after Policies NH 3A and NH 4A have been given effect to

After the relevant district or, where applicable, regional plan gives effect to Policies NH 3A and NH 4A assess natural hazard risk associated with a development

proposal to subdivide land or change or intensify land use using the methodology set out in Appendix K where the relevant district or regional plan specifically requires that natural hazard risk assessment be undertaken.

Except that:

the obligation to assess the risk of the natural hazard under this policy shall not arise where:

(a) An assessment of the susceptibility of the land subject to the development proposal has demonstrated that the land is not susceptible to the hazard; or

(b) The risk derives from a geothermal hazard which is managed under this Statement's section 2.4 and the Geothermal Resources Policies and Methods.

The explanation accordingly also requires amendment as shown in the attached full marked up version of the change.

6.8 Policy NH 6B

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Add a new clause between (a) and (b) for natural hazard zones subject to Medium risk, and not existing use rights (e.g. greenfield development) to achieve a Low risk.	20:2	<u>Support:</u> 7-14, <u>Oppose:</u> 1-15, 8-15, 15-70, 16-70, 17-70, 18-70.	Yes	Support in part
Re-title the policy :Natural Hazard Risk Treatment Strategy	17.11 (refers to NH 7B in error)		Yes	Reject

6.8.1 How Policy NH 6B is intended to work

Policy NH 6B is the core of PC2. It sets out the risk outcomes/strategy sought from the implementation of the balance of the proposed change. As proposed, the policy did not distinguish between outcomes for new development versus outcomes sought in respect of existing uses. Rather, it set out the desired risk outcomes on the basis of a spatial area – the NHZs. That is, it assumed the Region would be covered by NHZs and the risk outcomes set out in Policy NH 6B would be achieved within each of those zones over time. To achieve that it relies on:

- Policy NH 7B (see next section) to drive down risk in existing Medium and High risk NHZs by ensuring new development achieves a Low risk
- Policy NH 8A to ensure appropriate development controls are included in plans.

Hence, it was intended that the risk obligation in respect of new development would be set out solely in Policy NH 7B (because risk for new development is to be assessed at the development site scale, whereas Policy NH 6A focuses solely on the NHZ scale).

As a result of submissions, it became apparent that stakeholders did not see the distinction between Policy NH 6A and Policy NH 7A and were accordingly concerned that the different expectations of new development were not reflected in the wording of Policy NH 6A. To address some of those submission points, some

additional wording was proposed in the Pre-Hearing Redline referring to existing uses.

That wording is as follows:

By the application of Policies NH 7B and NH 8A, achieve the following natural hazard risk strategy:

(a) *In natural hazard zones subject to High natural hazard risk reduce the level of risk from natural hazards to Low (although mMedium levels (and may be tolerable for existing land uses lower if achieving Low is not reasonably practicable); and*

(b) *In natural hazard zones where an existing use is subject to Medium natural hazard risk reduce the level of risk from natural hazards to be as low as reasonably practicable.*

(c) *In natural hazard zones areas subject to Low natural hazard risk maintain the level of risk within the low natural hazard risk range where Low risk exists and achieve it for new development.*

6.8.2 Submitters' requests in evidence

Although Policy NH 6B attracted nine submissions and 29 further submissions only one submitter addressed the matter in evidence.

Mr Martelli for Western Bay of Plenty (WBoPDC) (Submitter 20) suggested that a consequential change was required to "add a new clause between (a) and (b) for natural hazard zones subject to Medium risk, and not existing use rights (e.g. greenfield development) to achieve a Low risk.

6.8.3 Effect of accepting the WBoPDC request

The request by WBoPDC illustrates that there is still some confusion around Policy NH 6A. Officers consider that accepting WBoPDC's request would compound confusion around risk expectations on existing development and new development and the relationship between policies NH 6B and NH 7B.

Accordingly we do not believe it would provide the clarity required

6.8.4 Comment

Having considered the policy again in detail, officers now consider that rather than assisting understanding of the policy the additional wording added as a result of submissions has embedded an unhelpful way to interpret the policy.

Further, each of the three parts of the policy is structured differently and we consider this will lead to interpretation difficulties.

Accordingly, we believe that the wording used in the notified version of PC2 (with some amendment) will achieve the intended effect with greater clarity.

Submitter 17 sought use of the word "treatment" in place of "management". Our position on this issue is set out in respect of Section 2.8 and Policy NH 7B (at paragraphs 6.1 and 6.10 respectively). The same opinion applies here.

Recommendations

10. Reject submissions 17:11 and 20.2

11. Redraft Policy NH 6B as follows:

By the application of Policies NH 7B and NH 8A, achieve the following natural hazard risk strategy at the natural hazard zone scale.:*

<p>(a) In natural hazard zones subject to High natural hazard risk reduce the level of risk from natural hazards to <u>Low (although mMedium levels (and may be tolerable for existing land uses lower if achieving Low is not</u> reasonably practicable); and</p> <p>(b) In natural hazard zones <u>where an existing use is</u> subject to Medium natural hazard risk reduce the level of risk from natural hazards to be as low as reasonably practicable.</p> <p>(c) In <u>natural hazard zones areas</u> subject to Low natural hazard risk maintain the level of risk within the low natural hazard risk range.</p> <p>* the risk strategy specific to new development on specific development sites is set out in Policy NH 7B.</p>

6.9 Policy NH 7B

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Use of term “risk treatment” rather than “risk reduction”	17:12	15-44, 16-44, 17-44, 18-44	Yes	Reject
Deletion of “low” and insertion of reference to Policy NH 6B to read: A new clause be inserted between (a) and (b) for natural hazard zones subject to Medium risk, and not existing use rights (e.g. greenfield development), to achieve a Low risk.	20:3		Yes	Reject
Redraft Policy NH 7B so that it only relates to large scale (>5 ha) developments	25:17		Yes	Reject

6.9.1 How Policy NH 7B is intended to work

Policy NH 7A requires that new development or redevelopment achieve a low natural hazard risk level when assessed at the scale of the development site. It applies to greenfield development, infill, intensification and redevelopment within the established urban area and to rural lifestyle development.

The important distinction between Policy NH 6B and NH 7B is that:

- Policy NH 6B applies at the scale of the NHZ whereas Policy NH 7B applies at the scale of the development site; and
- Policy NH 7B applies only to risk levels that are acceptable for new development. It is not concerned about what might be acceptable risk level for existing development at the NHZ scale.

6.9.2 Submitters’ requests in evidence

Mr Batchelar presented evidence in relation to Policy NH 7B on behalf of the Eastern Councils (Submitter 17). He sought that the word “treat” be substituted for “manage”. His evidence was that that terminology would be more consistent with ISO 31000 and that *“the term ‘treatment’ also includes the concept of avoiding so is more appropriate”*.

Mr Martelli appeared for WBoPDC (Submitter 20). The WBoPDC submission is that Policy NH 7B conflicts with Policy NH 6B because re-establishment of activities can be achieved within existing use rights and therefore, district councils could not require a low level of risk to be achieved. For that reason, Mr Martelli considers that the obligation should be to achieve risk “as low as reasonably practicable”. As noted above, Mr Martelli also sought that Policy NH 6B refer to existing uses achieving a level of risk as low as reasonably practical. Hence, WBoPDC requests that Policy NH 7B be reworded to begin:

*“Require a **low** natural hazard risk to be achieved **in accordance with Policy NH 6B** on development sites”*

Mrs Ralph for Te Tumu also addressed Policy NH 7B. Her evidence was that:

- a) The Policy was likely to be impractical in existing urban areas which in many cases already have a medium level of risk that cannot be reduced to a low level on a reasonably practical basis.
- b) The policy conflicts with Policy NH 6B which sets out a three-tiered approach to risk management.
- c) To require existing, often most intensively used land to achieve low risk is not practical
- d) The requirement to achieve a low level of risk should be limited to new greenfield and lifestyle land over 5 ha (where there is greater scope to apply mitigation measures).
- e) The policy should only apply to existing urban areas to the extent that a risk level “as low as reasonably practical” should be required and only from large scale (over 5 ha) development.

Mrs Ralph’s suggested redraft is as follows:

*When Policies NH 4A or NH 5B apply, require **a low natural hazard risk to be achieved on development sites after completion of the development (without increasing risk outside of the development site)** by **applying natural hazards risk reduction measures, including** controlling the form, density and design **of development.***

- (a) **A low natural hazard risk to be achieved on development proposals sites in Greenfield and Rural Lifestyle development activities areas after completion of the development (without increasing risk outside of the development site).** **by controlling the form, density and design of:***
 - (a) **Greenfield development;***
 - (b) **A risk level as low as reasonably practical, for Any large scale land use change establishment, re-establishment or large scale (over 5ha in area) intensification of an urban activity within the existing urban area (including any subdivision associated with such activities) that are within a natural hazard zone subject to medium natural hazard risk; and***
 - (c) **Rural lifestyle activities.***

A definition of “development proposal” is also proposed which effectively limits Policy NH 7B (a) (as proposed above) to developments over 5 ha.

6.9.3 **Effect of Mr Batchelar’s (Eastern Councils) requests if accepted**

In the Officers’ assessment, Mr Batchelar’s amendment would have no substantive effect on the operation of Policy NH 8A.

The background to, and merits of, using the term “treatment” in preference to “manage” is discussed in relation to changes sought to the introductory text of section 2.8 (see paragraph 6.1) and in relation to Policy NH 8A (see paragraph 6.10 below). In brief, officers do not recommend the use of the term “treatment”.

6.9.4 **Effect of WBoPDC requests if accepted**

WBoPDC's proposed change could cause or perpetuate confusion about the relationship between Policy NH 6B and NH 7B.

6.9.5 **Effect of Mrs Ralph's (Te Tumu's) requests if accepted**

Mrs Ralph's redrafted policy would mean that development on sites less than 5 ha would not be required to achieve a low level of risk. It would mean, for example, that infill development within the existing urban area that may involve a second dwelling on a site through a cross-lease arrangement, or redevelopment of a previously single-dwelling property to accommodate three new dwellings would not be captured by the policy. Similarly, development of greenfield land where the development site is less than 5 ha would not be caught by the requirement to achieve a low level of risk. This type of development makes up a significant part of the overall level of development within Bay of Plenty Region.

As a result, over time, more and more dwellings (and other commercial activities) will be added to NHZs that already have a risk level exceeding "Low" meaning that natural hazard risk could increase over time (over both the existing urban areas and in greenfield and less urbanised areas that do not experience large scale (more than 5 ha) development).

On the other hand, Mrs Ralph's proposal would mean that many property owners would not have to face additional costs of reducing building vulnerability and in some cases possibly foregone property development rights.

6.9.6 **Comment**

Officers consider that it would be wrong to exempt development of less than 5 ha from the purview of PC2 as sought by submitter 25. That would not "avoid or mitigate" natural hazard risk and likely lead to such risk increasing over time (particularly in areas where development on sites less than 5 ha continues). At its simplest the policy aims to ensure (where necessary) redevelopment is more "natural hazard resilient" than the development it replaces. In that sense, making the change sought would remove one of the key tools for reducing natural hazard risk within the established urban area.

It is accepted, however, that PC2 needs to deliver an outcome that does not involve landowners and developers having to bear unnecessary costs or being required to be overly risk averse.

Turning to the specific comments of submitters 20 and 25, two matters need a response.

First, we do not agree that there is any conflict (as alleged) between Policy NH 6A and NH 7B because Policy NH 6A does not apply to risk assessment at the development site scale. The strategies in respect of High, Medium, and Low risk all apply at the NHZ scale. They are the risk outcomes we want to see achieved for specific defined areas (which may be at a broad scale). As noted above, one of the main ways the risk outcomes set out in Policy NH 6A will be achieved in those defined areas (NHZs) over the long term is by making incremental reductions to risk over time through controlling development at the site scale (Policy NH 7B). That is the fundamental strategic approach of PC2.

Furthermore, it does not follow that because the risk across a NHZ may be Medium or High that it will be Medium or High on a particular site within that NHZ. It is quite possible that within a NHZ with High or Medium risk there will be individual sites where a low risk level occurs. This will depend on (amongst other things) how territorial authorities define the boundaries of NHZs and on the nature of any buildings on, or proposed for, the particular site.

The second matter is the concern that a low level of risk will be impractical to achieve on individual sites within an existing urban area. This view appears to be based on an assumption that Appendix K will readily classify risk development site as Medium or High and that major changes will be required to achieve a low level of risk.

Although Appendix K does involve a complex matrix approach, when applied at the scale of an individual site it is very simple: if the site has a single building and that building would be “functionally compromised” after the assessed hazard event, or the AIFR is greater than 10^{-4} then the risk cannot be low.

Officers agree that a building being functionally compromised is a test that will be limiting when applied to an individual development site⁹. However, it would seem ill-advised to allow further development to occur in locations where buildings will be functionally compromised by hazard events. This is particularly so where it would increase beyond “Low” the level of risk for the wider NHZ within which the site is located. Furthermore, as noted earlier, if the site is within an NHZ that has an existing Medium or High risk level, ensuring redevelopment and infill achieve a Low risk level is a key means of reducing the overall (“average”) risk across the wider NHZ over time.

It is accepted by Officers that addressing natural hazard risk will not be a costless exercise. However, Officers do not accept that nothing or very little can be done at the level of an individual development site to reduce risk to Low.

Tsunami risk and flooding are two of the most prevalent natural hazards risks affecting the existing urban area. Both these risks can usually be reduced, and a Low risk level achieved, by ensuring new buildings are resilient. That may mean, for example, ensuring new buildings have a floor level high enough to avoid being flooded and or being structurally able to withstand a tsunami with provision for vertical evacuation to protect from loss of life.

This may mean that the type of development that has historically occurred will no longer be adequate but it need not mean that infill development needs to cease.

Furthermore, it is important to remember the Policy NH 7B will apply to development of small individual sites through the RPS being “had regard to” under section 104 of the RMA (which governs the consideration of resource consents). “Having regard to” is a much less directive legal test than the “give effect to” test that applies to the relationship between the RPS and district plans. In practice it means that Policy NH 7B need not be applied remorselessly, with no regard to individual circumstances. Rather, the policy will need to be considered but consent authorities will retain discretion about the degree of weight to be given the matter in the overall judgment of a consent decision.

6.9.7 **Key policy change**

All the above arguments aside, we think there is one policy change that could be made that would better target intervention.

As noted in Policy NH 6B, the overriding strategy is that NHZs that are Low risk should remain Low risk. As explained above, being Low risk at the scale of the NHZ does not mean that every building within that zone needs to be protected from being functionally compromised. Therefore, there is a strong argument that new

⁹ When applied at the NHZ scale up to 49% of buildings can be functionally compromised (depending on the likelihood of the event) before the risk level moves beyond Low. That may be dozens, hundreds, or even thousands, of buildings across an NHZ. Whereas when applied at the site level with just one building if that single building would be functionally comprised the risk level cannot be Low.

development should be acceptable when it can occur within a NHZ that is Low risk without resulting in that Low risk status changing at the NHZ scale (despite the fact that the development site itself may not achieve a low risk level).

Having reflected on submitters' concerns, and associated issues raised, officers consider that should be provided for in Policy NH 7B and expect that may satisfy some submitters.

Furthermore, Mrs Ralph did point out that some forms of "intensification" can occur within the existing building envelop. In such instances Officers agree that imposing obligations that may require rebuilding would be unreasonable. For that reason, some minor wording change is proposed.

Officers consider that if there is any further adjustment to the policy settings to be made in respect of site-specific risk assessment and associated obligations, that adjustment should be made to Appendix K rather than to the fundamental policy position that new development and redevelopment should achieve a Low level of natural hazard risk at the development site scale or, at the very least maintain a Low level of risk at the NHZ scale where a Low level of risk already exists. We suggest that could be a matter that is addressed in policy guidance if, and when, required.

Mr Martelli's point regarding existing use rights is accepted. However, Officers do not consider amendment is necessary. Clearly the policy cannot require a territorial authority to do something it does not have the power to do. In that case, to the extent that existing use rights do need to be curtailed to ensure implementation of the policy the responsibility will fall on the regional council.

Recommendation

12. Reject submissions 17:12, 20:3

13. Accept submission 25:17 in part

14. Retain Policy NH 7B with minor amendment as follows:

~~When Policies NH 4A or NH 5B apply, r~~ Require a low natural hazard risk to be achieved on development sites after completion of the development (without increasing risk outside of the development site) by controlling the form, density and design of:

- (a) Greenfield development;
- (b) Any ~~establishment, re-establishment or intensification of an~~ urban activity within the existing urban area that involves the construction of new and/or additional buildings or reconstruction of or addition to existing buildings (including any subdivision associated with such activities); and
- (c) Rural lifestyle activities.

Except that:

a Low level of risk is not required to be achieved on the development site after completion of the development where the development site is located within a natural hazard zone of Low natural hazard risk and that natural hazard zone will maintain a Low level of natural hazard risk after completion of the development.

15. That guidance be provided on the meaning of "functionally compromised", as used in Table 4 of Appendix K, particularly in the context of risk assessment at the scale of the development site.

6.10 Policy NH 8A

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Use the term “treating” rather than “managing” to describe the role of councils following the risk evaluation stage of the risk management process	17:14	<u>Oppose:</u> 1-16, 8-16, <u>Support in part</u> 15-46, 16-46, 17-46. 18-46	Yes	Reject

6.10.1 How Policy NH 8A is intended to work

Policy NH 8A requires those preparing city, district and regional plans to ensure that their plans address the risk associated by natural hazards by managing that risk to comply with the overall natural hazards risk strategy set out in Policy NH 6A.

6.10.2 Submitters’ requests in evidence

Mr Batchelar presented evidence on Policy NH 8A on behalf of the Eastern Councils (Submitter 17). He sought that the word “treat” be substituted for “manage”. His evidence was that that terminology would be more consistent with ISO 31000 and that *“the term ‘treatment’ also includes the concept of avoiding so is more appropriate”*

6.10.3 Effect of Eastern Councils’ requests if accepted

In the Officers’ assessment, Mr Batchelar’s amendment would have no substantive effect on the operation of Policy NH 8A.

6.10.4 Submissions: Scope for requests

The Eastern Councils’ submission (17-14) stated:

For consistency with NZS 31000 it would be more appropriate to use the term “Risk Treatment. The submission sought that the heading be amended to “Policy NH 8A: Treating natural hazard risk at the time of plan development”

It also sought that the term “treatment” be used at various places within the explanation to the policy.

6.10.5 Comment

Officers agree, in principle, that the term “treatment” is a better fit with ISO 31000 and that it better communicates the idea that the obligation to do something about risk arises in respect of existing risk not just risk that might be associated with new development.

While those points are valid, this needs to be weighed against the fact that the term “risk treatment” would be new and unfamiliar RPSs and plans. The RMA requires that adverse effects are avoided, remedied or mitigated. This is commonly referred to in the RMA context as “managing” effects. The term “effect” includes effects of low probability and high potential impact. Hence risk is an adverse effect for the purpose of the RMA. Introducing a new term may cause debate about whether it means something different to “avoid, remedy or mitigate”, and if so, what that meaning might be and whether any such different meaning is *vires* the RMA.

For those reasons on balance, the term risk *management* is preferred.

Recommendation

16. Retain Policy NH 8A as proposed in the Pre-hearing Redline.
17. Reject submission point 14:17.

6.11 Policy NH 9B

Request evidence in	Submitter/Submission point	Further submitters	Scope	Recommendation
Amend explanation to the Policy to more accurately reflect the intent of Policy 25 of the NZCPS	33:6	-	No (but incidental in nature)	Accept

6.11.1 How Policy NH 9B is intended to work

Policy NH 9B is included to ensure that PC2 gives effect to the NZCPS. Policy 25 of the NZCPS contains some specific directives for natural hazards management in the coastal environment that would not otherwise be reflected in the generic hazard risk approach of PC2. These relate to areas potentially affected by natural hazards with a 100 year period and the need to not increase risk from development within those areas. The generic approach under PC2 would allow risk to increase provided risk remains in the “low” category.

6.11.2 Submitters’ requests in evidence

Dr Berry produced evidence for the Department of Conservation (DOC) to be tabled. He supported the policy and the wording change made to Policy NH 9A in the Pre-Hearing Redline in response to DOC’s submission. However, Dr Berry sought an additional change to the second paragraph of the explanation of the policy to read as follows:

This requirement applies irrespective of the level of risk of the coastal hazard. It is also specific that the risk to the development should not be increased over that pre-development. Mitigation or management actions can be undertaken to reduce the risk to this level is to be addresses by avoiding development and not by way of other risk reduction measures that might be acceptable under Policies NH 7B or NH 8A

6.11.3 Effect of DoC’s requests if accepted

Officers do not consider there would be any substantive effect of making a change to the explanation to the effect of that sought by Dr Berry although it would make the explanation more closely reflect the intent of Policy 25 of the NZCPS.

6.11.4 Submissions: Scope for requests

No change to the explanation was sought in DoC’s Submission. That submission simply sought that the policy title be amended as follows:

“Avoiding or ~~mitigating~~ reducing natural hazard risk in the coastal environment”

Despite the submitter not requesting the change sought in evidence, Officers do not believe any party would be disadvantaged as a result of making a change to the effect of that sought and, based on relevant case law¹⁰, consider that the change

¹⁰ *Clearwater Resort v Christchurch City Council* HC Christchurch AP 34/02, 14 March 2003 and *Palmerston North City Council v Motor Machinists* [2013] NZHC 1290.

sought is within the power of the Hearing Panel to make without breaching its duty to adequately inform and offer real opportunity for participation to those who are potentially affected.

6.11.5 Comment

As noted above, Dr Berry’s suggested amendment to the explanation does clarify the intent of Policy 25 of the NZCPS that redevelopment may occur provided that risk is not increased. There is some benefit in making a change since it usefully confirms that development, even within coastal areas likely to be affected by hazards within a 100-year planning horizon, can be acceptable if measures are taken to ensure potential consequences are not increased.

That said, the wording proposed by Dr Berry can be improved with some minor changes to more closely align the explanation with Policy 25(b) of the NZCPS.

Recommendation

18. Amend the second paragraph of the explanation to Policy NH 9B as follows:

This requirement applies irrespective of the level of risk of the coastal hazard. It is also specific that the risk to the development should not be increased as a result of redevelopment or change in land use. Mitigation or management actions can be undertaken to maintain risk at the required level is to be addresses by avoiding development and not by way of other risk reduction measures that might be acceptable under Policies NH 7B or NH 8A

6.12 Policy NH 10B

Request evidence	in	Submitter/Submission point	Further submitters	Scope	Recommendation
Accept changes recommended in Officer Report.		11:2	<u>Support/support in part:</u> 1-17, 6-7. 8-17 <u>Oppose in part:</u> 10-1	Yes	Accept
		8:1	<u>Support:</u> 6-1	Yes	Accept
Refer to “upgrading” rather than “minor upgrading”		31:2	<u>Support/support in part:</u> 2-8, 3-5	Yes	Accept
Delete the words “it serves”				No	Reject
Insert of “environmental” in the list of qualifying benefits to the community. Insert reference to “industry standards, guidelines and procedures” in explanation		25:20	<u>Support:</u> 7-16, 13-20 <u>Oppose:</u> 6-11	Yes	Accept in part/reject in part

Insert “as low as reasonably practicable” and reference to Policy NH 9B and NH 7B into explanation.				
Amendment to (or replace of) “Policy to give effect to the NZCPS” [no wording provided in original submission].	33:7	<u>Oppose:</u> 1-18, 6-12, 8-18, 15-92, 16-92, 17-92, 18-92	Yes (although specific wording not provided in submission)	Reject

6.12.1 How Policy NH 10B is intended to work

Policy NH 10B creates exceptions for certain activities so that they need not comply with the obligations imposed by Policies NH 6B, NH 7B, NH 8A and NH 9B.

The policy would not absolve the specified activities from being subject to natural hazard risk assessment but it would enable such activities to locate in an area even though the assessed natural hazard risk might be medium or high.

This is justifiable on the basis that certain activities produce a necessary or high valued service and to provide that service requires them to locate in particular locations.

6.12.2 Submitters’ requests in evidence

Three submitters who appeared at the hearing addressed Policy NH 10B.

- a) Mr Swallow for Port of Tauranga supported the change recommended in the Pre-hearing Reports. Those recommended changes accepted the Port of Tauranga’s submission that the policy:
 - i. Could be worded using more direct language; and
 - ii. Should be extended so that minor upgrading of the specified activities is also captured.
- b) Ms Shand tabled statement for Transpower (Submitter 8). That statement confirmed that Transpower was satisfied with the changes recommended in the Officer’s report.
- c) Dr Berry, for DOC, proposed amendments to the policy to give effect to the NZCPS. The redraft would be as follows:

Recognise that an activity that has significant social, economic or cultural benefit to the community it serves or is a lifeline utility; and has a functional need for the location may be appropriate to be situated within a high or medium natural coastal hazard risk zone

Risk reduction management measures (including industry standards, guidelines or procedures) must be applied to reduce risk to life and property to be as low as reasonably practicable. Infrastructure should be located away from the coastal hazard risk where practicable.

- d) Ms Foran for Trustpower (Submitter 31) sought that, rather than refer to “minor upgrading”, Policy NH 10B refer to “upgrading”. She also sought that reference to “community it serves” be replaced the word “community”.
- e) Mrs Ralph for Te Tumu (Submitter 25) sought that the word “environmental” be inserted into the list of benefits that an activity might provide justifying access to the exception. She also sought the following amendments to the explanation of Policy NH 10B:

- i. At the end of the first sentence of the fourth paragraph, insert the words “*unless the activity is related to infrastructure that has standards, guidelines and procedures with [sic] for managing natural hazards risk*”.
- ii. In the fourth paragraph, include reference to achieving low natural hazard risk “*as low as reasonably practicable*” and clarify that the exemption applies to the requirement to achieve a low level of risk under Policy NH 7B (and not just Policy NH 9B).

6.12.3 Effect of Port of Tauranga’s and Transpower’s requests if accepted

Accepting Mr Swallow’s and Ms Shand’s requests would simply mean accepting the Pre-Hearing Reports and would allow the policy to apply as intended.

6.12.4 Effect of DoC’s requests if accepted

The effect of Dr Berry’s request is difficult to ascertain since it provides no real guidance or direction over and above what the NZCPS already states. An activity “may” be appropriate but what factors will be relevant determining when that will be so are not stated¹¹. It is likely that a high level of uncertainty would remain regarding hazard zone dependent activities and this uncertainty would be to be debated and resolved on a district plan by district plan and consent-by-consent basis.

6.12.5 Effect of Trustpower’s requests if accepted

If the hearings panel accepted Ms Foran’s evidence and amended the reference to “minor upgrading” to “upgrading existing qualifying activities would be allowed to upgrade without necessarily having to achieve a low level of risk, regardless of the scale of the upgrade. It would in other words, broaden the scope of the exemption.

Deleting the words “it serves” would have unknown effect. The words are intended to convey the notion that a utility might be serving a community outside of the immediate area affected by a hazard and the fact that a local community might get little or no benefit did not mean that the activity was not providing benefit elsewhere that is equally relevant and worth of recognition through the policy.

6.12.6 Effect of Te Tumu’s requests if accepted

Adding “environmental” to part a) would be unlikely to have any substantive effect. Mrs Ralph’s example of a boardwalk would not, in any event, cause the risk classification to move beyond low. Hence it is difficult to conceive of a situation where such an activity would need the exemption provided by Policy NH 10B. By the same reasoning providing an exemption for activities with an environmental benefit is highly unlikely to lead to any significant increase in risk (because environmental loss is not a consequence considered in the risk assessment process of Appendix K).

Mrs Ralph’s request to amend the explanation may not have direct effect because it is in the explanation rather than the policy. However, the explanation may be referred to when there is debate about the correct application of the policy. In that respect, the suggestion that there is no need for natural hazard risk assessment if the activity is infrastructure and industry standards/guidelines/procedures for managing natural hazard risk, is misleading and could result in Policy NH 5B not being applied as and when it should.

Similarly, reference to achieving *low natural hazard risk as low as reasonably practical under Policy NH 9B and 7B*, misrepresents what Policy NH 7B states. Accordingly, this could lead to confusion over the meaning of Policy NH 7B.

¹¹ These appear to be different to/separate from the *significance of benefit to be derived* and the *functional dependency of the location* that are the relevant factors under Policy NH 10B.

6.12.7 **Submissions: Scope for requests**

There is scope for Mr Swallow's proposed relief as set out in Port of Tauranga submission 11:2 and for Ms Shand's relief as set out in submission 8:1.

There is scope for Ms Foran's proposed relief as set out in Trustpower's submission (31-2).

Scope for Mrs Ralph's proposed changes is provided by submission 25:20.

The DoC submission (33:7) sought that the policy be amended to be "consistent with Policy 25 NZCPS in the coastal environment". No specific wording was, however, provided. Despite the absence of specific wording the change now sought in evidence is likely to be regarded as being within scope. The key test for scope is whether the process adequately informed and offered real opportunity for participation to those who are potentially affected. Key here is whether there was any party likely to have made a further submission in relation to the DoC submission who did not do so because of the absence of specific wording.

Based on the fact that submission 33:7 attracted seven further submissions all seeking rejection of the submission it appears that potentially affected parties were sufficiently aware of the effect of Council accepting the submission.

6.12.8 **Comment**

The primary issue to be determined is whether Policy NH 10A is in conflict with Policy 25 of the NZCPS. Secondary issues include:

- a. Whether Policy NH 10B should include "upgrading" generally or be restricted to "minor upgrading"; and
- b. Whether Policy NH 10B a) should refer to *environmental* benefits (along with social, cultural and economic benefits); and
- c. Whether any amendment to the explanation is required.
- d. Whether the words "its serves" should be deleted from Policy NH 10B a)

Primary issue

Dr Berry's evidence is that Policy NH 10B is inconsistent with the specific direction in Policy 25 of the NZCPS to avoid increasing risk.

Officers are of the opinion that the NZCPS needs to be read in the round. Regional policies on natural hazards need to give effect to the NZCPS as a whole and not just one of its 29 policies. In that regard Objective 6, Policy 6 and Policy 9 are all important considerations. Those provisions recognise the importance of the coastal environment as a location for certain activities and the contribution they make to the social, economic and cultural well-being of people and communities.

Dr Berry seems to acknowledge this broader NZCPS policy context by saying that "*appropriate policy direction is required to allow these [necessary and beneficial] activities to be assessed through a consenting process*". He also says that "*the appropriateness of these activities must be determined on a case by case basis*".

It is clear then that DoC's position is that necessary and beneficial activities may be allowed notwithstanding a strict reading of Policy 25 but that must be on a case by case basis.

With respect, that is not a position with which Officers agree. Indeed Officers are of the opinion that, if the NZCPS allows for discretion to be exercised as suggested, then a policy in the RPS directing how that discretion is to be exercised is highly desirable, if not required.

Policy NH 10B does not require district or regional plans to provide for the activities as permitted activities and requires judgement to be exercised over whether

benefits to be derived are significant and whether a functional need genuinely exists.

In that respect, Officers agree with further submission points 1-18, 6-12, 8-18, 15-92, 16-92, 17-92, 18-92 that Policy NH 10B appropriately gives effect to the NZCPS.

Secondary issues

As proposed in the Pre-Hearing Reports, Policy NH 10B a) would allow for minor upgrading but not major upgrading. That would be a difficult position to defend given that the policy allows establishment of a new activity (but not major upgrading of an existing one). Accordingly, there is logic in allowing the exemption to apply to all upgrading and not just “minor upgrading” because the “establishment” of the activity is already provided for in the policy.

There seems to be little harm in adding the word “environmental” to Policy NH 10B a) and this would reflect the full range of benefits an activity might conceivably provide.

The proposed amendments to the explanation are potentially misleading and contrary to the intent of the policy. Policy NH 10B, for example, does not say that Policy NH 5B does not apply if there are relevant industry standards, guidelines and procedures. The relevance of industry standards, guidelines and procedures is that these must be used, where they exist, in circumstances where an activity is exempted from Policy NH 6B to NH 9A. Similarly, the suggestion that Policy NH 6B requires risk “as low as reasonably practicable” within a Low risk zone is erroneous. The concept of risk as low as reasonably practicable only applies under Policy NH 6B in zones of medium risk. The reference to Policy NH 7B in the final paragraph of the explanation is correct and the error contained in the proposed version of PC2 is already proposed to be corrected in the Pre-Hearing Redline.

The words “community it serves” were deliberately included in the policy. Ironically, that wording was used to address the very concern raised by Trustpower. Officers remain of the view that the words “community it serves” does not, and could not be construed to mean, “local community” but would, under any reasonable interpretation, mean the community that gains services from the activity (which may be distant as is the case with electricity generation). A minor wording change to “community it services” would be within scope and may assist clarity.

A final matter relates to the insertion of the word “risk” so that the first sentence of the policy concludes with “...medium natural hazard risk zones”. That addition was recommended by Officers in the Pre-Hearing Redline. For the reasons discussed elsewhere in this report, (relating to the clarification now provided to the various spatial zones referred to in PC2), Officers propose that the word “risk” not be inserted and that the policy refer to *natural hazard zone*, being a defined term.

Recommendations

19. Retain Policy NH 10B as proposed in the Pre-hearing Redline with minor wording changes as follows:

~~Despite~~ Policies NH 6B, NH 7B, NH 8A and NH 9B, ~~provide for do not apply to~~ the establishment, operation, ~~and~~ maintenance and minor upgrading of activities that have more than low natural hazard risk or which are located in high and medium natural hazard risk zones if the activity:

- (a) Has a significant social, economic, environmental or cultural benefit to the community it services or is a lifeline utility; and
- (b) Has a functional need for the location

In the circumstances described in (a) and (b) above, risk ~~reduction~~ management measures (including industry standards, guidelines or procedures) must be applied to reduce risk to life and property to be as low as reasonably practicable. Infrastructure should be located away from coastal hazard risk where practicable.

20. Retain the explanation to Policy NH 10B as per the Pre-Hearing Redline.

6.13 Policy NH 13C

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Delete "Existing uses: Bay of Plenty Regional Council" from Table 3 Amend introductory wording of policy and explanation.	11:3	<u>Support:</u> 7-17	Yes	Accept in part

6.13.1 How Policy NH 13C is intended to work

Policy NH 13C assigns respective responsibilities to the regional and territorial councils for controlling the use of land for the purpose of avoiding or mitigating natural hazards.

A policy assigning responsibility is required by section 62(1)(i) of the RMA. The policy does that as set out in its Table 3.

6.13.2 Submitter's requests in evidence

Mr Swallow (Port of Tauranga) raised two issues with Policy NH 13C.

- First, Mr Swallow seeks that reference to the Regional Council having responsibility for developing rules in relation to existing uses deleted from Table 3. His submission is that there is no need to allocate that function to regional councils because the ability of the regional council to impose regional rules over and above section 10 existing use rights is a component of the RMA itself and does not need to be authorised or allocated by a policy in the RPS.
- Second, he requests that the introduction to Policy NH 13C be recast so that it is less directive that councils must specify objectives policies and rules; and more consistent with Method 23B (which requires councils to decide what and how much they will regulate). The proposed wording is:

Require regional and district plans **to consider** specifying **where appropriate** objectives, policies and methods, including any rules, for the control of the use of land **for the purpose of** the avoidance or mitigation of natural hazards as set out in the table below.

6.13.3 Effect of Port of Tauranga's requests if accepted

The effect of deleting the reference to the regional council controlling existing uses for the purpose of hazards management is difficult to gauge. Certainly, if the Regional Council chose to regulate to modify existing land use rights by way a regional plan at some future point it could become a source of debate as to whether that responsibility rests with the regional council given that it is not expressly provided for in the RPS.

In short, while unlikely to have any immediate effect, deletion of the regional council role in potentially regulating existing use rights would reduce transparency and could provide a source of debate and legal challenge in the future.

Mr Swallow's second proposal would have minimal practical effect being more a matter of emphasis.

6.13.4 **Submissions: Scope for requests**

The proposals put forward by Mr Swallow are consistent with the Port of Tauranga's submission and are therefore within scope.

6.13.5 **Comment**

Officers agree that any regulation of existing uses can only be by way of the regional council as only the regional council has the power to do so under the RMA. In that sense, there is no potential overlap of functions between the regional council and territorial authorities and hence no need to allocate the responsibility (the responsibility must, by statute, rest with the regional council).

While that point is accepted, Officers consider there is some benefit in the RPS reminding those reading and applying the policy that that regional power exists and signalling that it may be used, where necessary, to promote sustainable management – in addition to the responsibilities assigned by Policy NH 13C. That is a matter of transparent resource management.

The redrafting of the introduction to Policy 13C is not supported. Section 61 (1)(i) is clear that the:

The regional policy statement must state

(1) ...

(i) the local authority responsible in the whole or any part of the regional for specifying the objectives, policies and methods for the control of the use of land –

(i) to avoid or mitigate natural hazards or any groups of hazards; and ...

The submitter's request amounts to assigning responsibility to "consider" specifying objectives and policies. As can be seen from the above excerpt from the RMA, the statutory requirement of the RPS is to state who is responsible for specifying the objective and policies etc. In that sense the wording in the Pre-Hearing Redline is consistent with the RMA's requirement of RPSs.

Further, as a matter of clarification, Policy NH 13C does not require rules to be made on the issue as the submitter suggests. In fact the Policy uses the expression "any rules" which implies that there may not be rules. The provisions adopted by territorial councils in their district in response to Policy NH 13C will be subject to section 32 of the RMA and a Schedule 1 process. Officers agree it would be wrong to *require* rules be made.

Use of the word "require" is highly directive. Other policies of the RPS that allocate responsibilities for hazardous substances and biodiversity – Policies IR 7C and IR 8C respectively) use a different formula and for consistency it would be appropriate to apply that to natural hazards.

Recommendation

21. Reword Policy NH 13C as follows:

~~Require~~ regional and district plans ~~to shall be responsible for~~ specifying objectives, policies and methods, including any rules, for the control of the use of land ~~for the purpose of~~ the avoidance or mitigation of natural hazards as set out in the table below.

Table 3 - Natural hazards land use control responsibility table

	Responsibility for developing objectives and policies	Responsibility for developing any rules	Responsibility for developing methods other than rules
Land except land in the coastal marine area	City and district councils and Bay of Plenty Regional Council	City and district councils* <u>Existing uses:</u> <u>Bay of Plenty Regional Council</u>	City and district councils and Bay of Plenty Regional Council
Land in the coastal marine area	Bay of Plenty Regional Council	Bay of Plenty Regional Council	Bay of Plenty Regional Council

* Under section 30 (1)(c) (iv) of the Act, the Regional Council has the function to control land use for the avoidance or mitigation of natural hazards. The Act allows the Regional Council to exercise that function in such a way as to override any existing use rights available under section 10(4) of the Act. The allocation of responsibilities under this policy does not remove the right of the regional council to exercise its functions and powers in that regard. Should it chose to do so, any such provisions will be subject to a plan or plan change process under Schedule 1 to the Act.

6.14 Method 1A

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Add Policies NH 1B, 2B, 5B, 6B, 7B, 9B, 10B, 12C and 13C to list of policies to be given effect by Method 1A.	25:23	<u>Support:</u> 13-23	Yes	Reject

6.14.1 How Method 1A is intended to work

Method 1A has been inserted as a means of providing territorial authorities with additional time to implement PC2 through their district plans.

If PC2 was to rely on Method 1 of the RPS, territorial authorities would have just two years to implement the policy. That is considered to be too short a timeframe given the size of the task. Accordingly, Method 1A is added by PC2. That new method enables implementation of policies through district plans at the time of the next district plan review.

However, Method 1A is not intended to delay the implementation of all policies of PC2. Some policies are intended to apply through resource consents from the date PC2 is notified.

If a PC2 policy is to be implemented by both the district plan and by resource consent then that policy is referenced under Method 3. Method 3 does not have the two-year implementation deadline of Method 1 and 2 and hence does not pose the same difficulty for territorial authorities.

For some policies, however, it would be inappropriate to suggest that they be implemented by Method 3 because they cannot be implemented by resource consents. Hence the need for and purpose of Method 1A.

6.14.2 Submitter's requests in evidence

Mrs Ralph (for Te Tumu) asserted that the cross-referencing at the end of Method 1A does not appear to be comprehensive and accurate. She appeared to support the Te Tumu submission that the cross referencing should be "corrected" by inserting reference to all the policies at the end of Method 1A.

Reference to Policies NH 5B, NH 6B and NH 7B is, accordingly, sought to be deleted from the end of Method 3 and located under Method 1A.

6.14.3 Effect of the request

If the changes sought were made there would be a strong argument that policies NH 5B, NH 6B and NH 7B do not apply to resource consents (at least until after they have been implemented through district plans). That would be contrary to the intent and would delay implementation of PC2 (indeed there would be a strong argument that the policies would never apply to resource consents).

6.14.4 Comment

The approach taken by the RPS in general terms is that if a policy is to be implemented by a district plan alone then Method 1 is referenced (or Method 1A in the case of natural hazards). If the policy is to be implemented *both* by plans (regional or district) and by resource consent processes then Method 3 is referenced.

That intent is achieved by the referencing as shown in PC2 as notified.

Recommendation

22. Reject submission 25:23.

23. Referencing of policies at the end of Method 1A remain as stated in the Pre-hearing Redline.

6.15 Method 2A

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Add Policies NH 1B, 2B, 5B, 6B, 7B, 9B, 10B, 12C and 13C to list of policies to be given effect by Method 2A	25:24	<u>Support:</u> 13-24	Yes	Reject

Method 2A is the same as Method 1A except it relates to regional rather than district plans.

The submission point and related issues in respect of Method 2A are the same as discussed in respect of Policy 1A and Officers' opinion is, accordingly, the same as previously outlined.

Recommendation

24. Reject submission 25:24

25. Referencing of policies at the end of Method 2A remain as stated in the Pre-hearing Redline.

6.16 Method 3

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Delete Policies NH 5B, 6B and 7B from	25:25	<u>Support:</u> 13-25	Yes	

Method 3.				
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The submission and related issues are as discussed in relation to Method 1 and Officers' opinion is, accordingly, the same as previously outlined.

Recommendation

26. Reject submission 25:25

27. Referencing of policies at the end of Method 3 remain as stated in the Pre-hearing Redline.

6.17 Method 23B

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Delete the method	17:17	4-1, 6-16, 14-20, 15-48, 16-48, 17-48,18-48	Yes	Reject
Delete the word "regulatory" form the method	25:28	6-18, 13-28	Yes	Reject
Delete the method	31:4	2-10, 11-6	Yes	Reject

6.17.1 How Method 23B is intended to work

Method 23B states that where existing development is subject to High or Medium risk there will be an investigation into what can be done to reduce that risk consistent with the risk strategy of NH 6B.

The responsibility for this method rests with all local authorities. However, Method 23B makes the point that if a regulatory option is determined to be necessary and appropriate, and that would affect existing uses, then the responsibility needs to rest with the regional council as the only party that has the legal power to regulate existing uses for that purpose.

6.17.2 Submitters' requests in evidence

Mr Batchelar (for the eastern councils) seeks that the entire method be deleted. His evidence is that PC2 provides no detail on how this method would be used by the regional council. He also questions how regulation in the form of a regional plan rule could override a specific statutory right (s.10). He suggested that until the practical and legal implications of the method are more fully understood it is inappropriate to include the method in the RPS.

Mrs Ralph (for Te Tumu) pointed to the consultation that would be required and the challenging decisions that would need to be made. She suggested a community response through non regulatory methods will have a better chance of success and hence supported deletion of the word "regulatory" from the method.

Ms Foran (for Trustpower) made similar points to Mr Batchelar and Mrs Ralph and sought that Method 23B be deleted.

6.17.3 Comment

In the Officers' opinion Method 23B does not commit the regional council to regulate existing uses. It simply identifies this as a policy option that may be favoured after an investigation of the issues and options available. Should that occur any regulation would of course be subject to the Schedule 1 process. All parties acknowledge that regulation to extinguish existing use rights would be very difficult

and would be likely part of a much broader policy response that arises out of extensive community consultation. It is likely to be used (if at all) only in exceptional cases.

Nevertheless, we consider it appropriate to identify the method, as a possibility, in the RPS. That is simply transparent resource management. In reality, the regional council could exercise its powers in respect of regulating to alter existing use rights whether or not that is listed as a method in the RPS. The power to develop a regional plan or promulgate a regional rule is not dependent on that first being listed as a method in the relevant RPS. In that sense deleting the method would not have any practical effect apart from reducing transparency about what options are available to the regional council.

With regard to the legal ability for a regional rule to affect existing use rights available under section 10, officers are confident that judicial decisions¹² have confirmed that a regional council can override existing use rights available under section 10 of the RMA.

Despite that, we accept the “must” in the current wording of Method 23B has led to the method being interpreted in an unintentionally heavy-handed way. For that reason we propose that some wording change be made.

<p>Recommendation</p> <p>28. Reject submissions 17:17, 25:28 and 31:4</p> <p>29. Reword Method 23B to read:</p> <p><u>Method 23B: Investigate and apply measures to reduce natural hazard risk</u></p> <p><u>Investigate options for addressing existing use or development subject to high or medium risk must be investigated and apply the most appropriate non-regulatory and/or regulatory risk-reduction option applied measures, subject to Policy NH 10B.</u></p> <p><u>Implementation responsibility: Regional council for areas of high risk where if the favoured response is regulation of existing uses; <u>regional, city and district councils in all other instances.</u></u></p>
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6.18 Appendix A — Definitions: Lifeline Utilities

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Accept the recommendation in the Pre-Hearing Officer's to clarify the definition of lifeline utilities	8:3	6-21	Yes	Accept

<p>Recommendation</p> <p>30. Amend the definition of Lifeline Utilities as shown in the Pre-Hearing Redline.</p>
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¹² See for example McKinlay v Timaru DC C024/01 (2201 7 ELRNZ 116)

6.19 Appendix K: Susceptibility mapping

(Refer also to “5.2 Spatial scales and associated defined terms” above.)

6.19.1 Summary of request

Request	Submitter/Submission point	Further submitters	Scope	Recommendation
Additional susceptibility mapping included Appendix K (As step 1)	17:22 (eastern councils)	15, 16, 17, 18	No (but related scope)	Accept in part

6.19.2 How PC2 provides for susceptibility mapping

Policy NH 3A requires local authorities to identify hazard susceptibility areas (HSAs) in regional and district plans. As noted in the explanation to that policy, “*the purpose of mapping susceptibility is to identify where risk assessment should be undertaken and where it is not required.*”

As also stated in the explanation, HSAs identify the spatial extent of a potential hazard event. They do not represent risk because they do not take into account consequences (i.e. a flood of a certain return period, for example, may be high risk or low risk depending on what development is in within the potential inundation zone).

This intent is reflected in the definition of “hazard susceptibility area” being:

Hazard susceptibility area means the spatial extent of a potential hazard event identified by susceptibility mapping.

6.19.3 Submitters’ request in evidence

In his statement of evidence in support of the eastern councils’ submission Mr Batchelar sought that a new Step 1 be added to Appendix K as follows:

Step 1 – Establishing the Hazard Susceptibility Area

- a) Identify the spatial extent of the hazards*
- b) Document the factual information and assumptions used in setting the Hazard Susceptibility Area:*
- c) Assess the potential sensitivity of the risk assessment to changes in the extent of the Hazard Susceptibility Area*

6.19.4 Effect of request if accepted

The effect of the requested wording would depend on whether plans have given effect to Policy NH 3A (i.e. whether it applies within and/or after the transition period¹³).

a) Within the transition period

- If Policy NH 3A has not been given effect to, the proposed wording would require an applicant for resource consent to undertake their own susceptibility mapping. That would mean searching the available data held by councils and other agencies or, potentially, commissioning new work if that was necessary to map the hazard.

b) After the transition period

¹³ The term “transition period” is used here to describe the period before Policy 3A is given effect to in regional and district plans

- In the case of an application for resource consent, there would be no need to undertake susceptibility mapping because it will already exist in the relevant regional or district plan. Hence the proposed wording could create confusion as it implies that despite susceptibility maps existing, the applicant has to do such mapping again.
- In the case of a territorial authority applying Appendix K in the context of district plan development the new step would be superfluous because the territorial authority will be required to undertake susceptibility mapping under Policy NH 3A.

Accordingly, while the proposal has some merit in clarifying expectations in the transition period, the wording proposed by Mr Batchelar would not be appropriate because Appendix K needs to be relevant both within and post the transition period.

Further, if there is an express requirement for applicants to undertake susceptibility mapping in the interim period, greater guidance would be required on this as it could become an uncertain and onerous obligation. In particular, guidance would be needed on the size/likelihood of hazard event that is to be mapped and on the expectations about when (if ever) primary research would be required (as opposed to relying on existing published information).

6.19.5 **Submission - Scope for provisions suggested**

The relevant submission made by the eastern councils is 17:22. It reads as follows:

The methodology is dependent on analysis and evaluation of consequences within the “hazard assessment area”.

There is uncertainty on how the hazard assessment area is to be established which has implications for the qualitative assessment of consequences. The setting of the hazard area will affect the divisor for calculating percentages of affected buildings.

Although there is a note that refers to a “natural hazard zone”, this is circular as the definition of natural hazard zone includes the assessed risk.

The relief sought by the submitter is:

Include in Appendix K a methodology for determining the extent of the “hazard assessment area”.

6.19.6 **Comment**

In general terms the submission point is valid. The boundaries of the HAA are critical to a meaningful and accurate risk assessment. It is also valid that the definition of HAA was circular as suggested. The latter point was addressed in the Pre-Hearing Redline.

However, the submission refers to the HAA not the HSA. Similarly, the discussion in Mr Batchelar’s evidence focuses on the HAA and the issues he raises all relate to the way HAAs are identified (not the HSA).

Accordingly, it seems likely that Mr Batchelar’s proposed wording was intended to refer to the HAA (or NHZ) and the reference to the HSA is an error. Certainly there is not scope in the eastern councils’ submission to amend Appendix K to include the step of defining a HSA (despite there being a legitimate issue raised by that proposal as outlined above).

For that reason, the following analysis assumes that the reference in Mr Batchelar’s proposed drafting (above) to HSA reads HAA/NHZ.

Hazard Assessment Area

The HAA is defined by PC2 (Pre-Hearing Redline) as:

Hazard assessment area means the hazard susceptibility area or development site whichever is applicable.

As a further complication it is apparent that an error has been made in that definition. It should read¹⁴:

Hazard assessment area means the natural hazard zone susceptibility area or development site whichever is applicable.

In other words, a HAA is a term used to refer to the scale at which the risk assessment is to be carried out. For a territorial authority undertaking risk assessment at the time of plan development (under Policy NH 4A) the HAA will be the NHZ. For an applicant needing to undertake risk assessment under Policy NH 5B the HAA will be the development site.

This error may explain why Mr Batchelar's evidence says what it does. Rectifying the error may address the eastern councils' concern (at least in part).

Issues raised by Mr Batchelar's evidence

That aside, Mr Batchelar's proposal raises two issues:

1. Should Appendix K provide guidance on the approach to be taken by applicants for resource consent in the interim period before susceptibility maps are included in plans?
2. Should the HAA be "fixed" by a district or regional plan or be a matter that is determined at the time assessment occurs?

As set out in the recommendation below, there is a strong case that Appendix K should clarify how an applicant should apply Appendix K in the absence of any mapped hazard susceptibility areas. However, there may be scope issues in addressing this matter as it was not referred to in the eastern councils' submission.

The question raised in b) above is more complex.

The first point to note is that, for a resource consent applicant required to undertake assessment in accordance with Policy NH 5B, the HAA is fixed. It is the *development site*. There is then no need to establish the HAA, document assumptions and assess sensitivity etc. as sought by Mr Batchelar. The boundaries for the assessment are quite clear as a matter of policy.

That leaves the question of whether a council should be able to determine the boundaries of the HAA when it is undertaking risk assessment as required under Policy NH 4A. The answer to that is of course it should. However, it is required to assess risk in the context of developing planning provisions. It is also required to set the NHZ (being the HAA) in district and regional plans. So, by definition, a council will be defining NHZs and undertaking risk assessment within the boundaries of the NHZ as part of the same statutory planning process. That is clear and explicit in Policy NH 4A which states (in the Pre-Hearing Redline):

Assess natural hazard risk by:

(a) Defining natural hazard zones within hazard susceptibility areas; and

¹⁴ (This wording corresponds with the definitions in the notified version, Version 4.1, located in Step 2 above the heading "Determining consequences" and in the notes under Table 7. The error was made in transcribing those definitions to "Definitions" in response to submissions.)

- (b) Determining the level of natural hazard risk within each natural hazard zone by undertaking a risk analysis using the methodology set out in Appendix K; and
- (c) Classifying natural hazard risk within each natural hazard zone as either High, Medium or Low natural hazard risk using the methodology set out in Appendix K.

Mr Batchelar sought that, in respect of the setting of boundaries of HAAs, assumptions are made clear and sensitivity assessed. In our opinion that is not required within Appendix K because the setting of NHZs will occur within the statutory plan making process that is open to submissions and appeal and subject to section 32 of the Act.

Recommendation

31. Amend the definition of “Hazard assessment area” as follows

Hazard assessment area means the natural hazard zone susceptibility area or development site whichever is applicable.

32. Add a new section to Appendix K (immediately before Step 1) as follows:

Risk assessment in the absence of hazard susceptibility areas mapped in accordance with Policy NH 3A

In the period before regional and district plans give effect to Policy NH 3A, consent applicants, requiring authorities lodging notices of requirement, and proponents of private plan changes may be required to undertake risk assessment in accordance with Policy NH 5B.

In those situations the risk assessment steps 1-5 of this Appendix should be preceded by an initial assessment of the development site’s susceptibility to the range of natural hazards set out in Policy NH 3A. This should be required from the applicant as part of the assessment of environmental effects consistent with clause 7 of Schedule 4 to the Act (or as part of the information otherwise required as part of a notice of requirement or private plan changes). The Regional Council, together with the territorial authorities, will hold information about the extent of natural hazards prior to hazards susceptibility mapping under Policy NH 3A. That information, together with published information from other agencies, is expected to form the basis of applicants’ hazard susceptibility statements within their AEEs. Only in exceptional circumstances would applicants be expected to commission primary research to fulfil this requirement during this interim period.

6.20 Appendix K – Step 2 Determining consequences (“Recent past”)

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Reinstate reference to the 50 year planning horizon	Tauranga City Council (response to amendment proposed in Officer’s Pre-Hearing Report)	-	-	Reject
Provide guidance on what is meant by “recent past”	25:45	13-46	Yes	Reject

6.20.1 How Appendix K Step 2 is intended to operate

The section “Determining consequences” under Step 2 of Appendix K (paragraph 2) aims to provide guidance on when the quantitative method for determining consequences must be used in preference to the qualitative method. The section sets out three situations that would justify the use of the quantitative method. The first of these states:

The hazard has generated a damaging event in the recent past [emphasis added] and there is a high likelihood that events of a similar scale will continue to occur or occur again ~~within a 50-year planning horizon.~~

This guidance is targeted at ensuring that in areas and communities that have a heightened sensitivity to hazards (because of events occurring in living or recorded history) a robust assessment is undertaken when new development is proposed within those areas. This is justified on the basis that the potential for damage in those areas is demonstrably real and potentially ongoing (or frequently occurring) in nature. Mataatā and its debris flow risk is an obvious example that officers had in mind when formulating this part of the assessment methodology. In that situation there has been a recent damaging event and there is very real potential for ongoing events within the life span of current inhabitants and their buildings. Rockfall/landslip along the Whakatāne escarpment is another example.

As a result of the submission of Te Tumu, the reference to the likelihood of the event occurring “within a 50 year planning horizon” was proposed to be deleted in the Pre-Hearing Redline. This was on the basis that there was no technical justification of the 50 year period threshold.

6.20.2 Submitters’ request in evidence

Two submitters addressed this matter in evidence.

- Mr Larking for Tauranga City Council considers that deleting of reference to a “50 year planning horizon” would result in there being “no guidance on what is a damaging event in the recent past”. His evidence is that the 50 year planning horizon should be reinstated.
- Mr Fletcher for Te Tumu requested guidance on applying judgement and discretion in determining and assigning consequence levels particularly with regard to what is meant by a “damaging event in the recent past”. (This departs from the submission which appeared to seek amendment to PC2 itself.)

6.20.3 Comment

Although there is a limit to how much guidance can be provided, Officers agree that the question of when the quantitative method of determining consequences should be used is a matter that could be further elaborated on in non-statutory implementation guidance. In the meantime, we consider that Appendix K already provides a basis for a consent officer to exercise a reasonable judgement based on the criteria stated. For the avoidance of doubt, guidance should explain what “recent past” means in the context in which it is used. Our opinion is that this should mean “within recorded history”.

Although the 50 year planning horizon provided a easy-to-implement threshold for considering whether an event was likely to occur again, it was not based on any particular technical evidence and did not relate to the return periods set out in Table 6 of Appendix K. On that basis, we stand by the recommendation to delete that wording as per the Pre-Hearing Officer Reports.

Recommendation

33. Reject submission 25:45.

34. Prepare guidance on when the quantitative determination of consequences must be used (and, in particular, what “recent past” and “will continue or occur again” mean).
35. Delete reference to the 50 year planning horizon as recommended in the Pre-Hearing Officers reports.

6.21 Appendix K: Natural Hazards Zones and variable risks

Request	Submitter/submission point	Further submitters	Scope	Recommendation
NHZs and natural hazard sub zones be an output of risk assessment under Appendix K (new Step 6).	17:23	15, 16, 17, 18	No (but related scope)	Accept in part

6.21.1 How PC2 provides for NHZs

As discussed in section 6.19 above, Policy NH 4A requires NHZs to be defined within regional and district plans. That is, PC2 conceives NHZs as an *input* to the risk assessment process. It anticipates that each NHZ will, through the application of Appendix K, be assigned a single risk level (High, Medium or Low).

6.21.2 Submitters’ request in evidence

In his statement of evidence in support of the eastern councils’ submission Mr Batchelar sought that a new Step 6 be added to Appendix K as follows:

Step 6 Defining natural hazard zones

- a) *Define natural hazards zones where a hazard area is subject to medium or high levels of risk;*
- b) *Where appropriate, identify variable levels of risk within a hazard zone through sub-zones;*
3. *Document the factual information and assumptions used in setting the Hazard Zone and any subzones.*

6.21.3 Effect of request if accepted

The request would be problematic if accepted in its current form because it would require something to be defined post risk assessment that has already been defined through regional and district plans. If accepted as proposed the request would make PC2 confusing and contradictory.

6.21.4 Scope for provisions suggested

Submission point 17:23 states:

The output from the risk assessment will be the determining of “natural hazard zones”. This is not explicit in the methodology.

The methodology implies that each “hazard assessment area” will have a single risk level attributed to it. For some hazards such as coastal erosion and debris, the risk will vary across the hazard assessment area from “low” to “high”. In order to treat the risk appropriately, variations in risk should be reflected in the natural hazard zoning.

The explanation to Policy NH2B states that the “boundaries of the risk categories are set by a combination of technical advice and community input”. However the risk analysis and evaluation methodology set out in Appendix K makes no reference to community input.

Decisions sought:

Include in Appendix K a description of how natural hazard zones are formulated, including the delineation of variable risks within a natural hazards area/zone. Landowners should be able to challenge any delineation lines. Identify how the setting of risk boundaries will incorporate community input.

6.21.5 **Comment**

As with the issue discussed in section 6.19 above, the submission and evidence seems based on a misunderstanding of the framework proposed. That may result in part from a lack of clarity in the notified change.

The notified version of PC2 was not clear about what NHZs are. In the definitions it implied that an NHZ was an output of the Appendix K risk assessment process. To resolve associated issues (including the circularity of definitions identified by the same submitter - submission point 17:22) the Pre-Hearing Redline recommends that the NHZ is clearly defined as an input to the risk assessment process not an output from that process (as assumed by the submitter).

The output from the application of Appendix K in the context of a plan review will be a risk level being assigned to each identified NHZ (as discussed in section 2.1 above).

Because the council defines the NHZs as part of the plan process, and in conjunction with risk assessment, there would appear to be no need to provide for subzones as sought by the submitter. A council can define as many NHZs as it considers appropriate. It can do this in an iterative way as it works through its risk assessment. Adding another category, "NH sub zone", would add complexity.

Only a minor amendment is considered necessary in response to the submission. This may though (in combination with the submitter better understanding the changes made in response to submissions) satisfy the submitter.

The amendment would see a new Step 6 added to Appendix K that would state:

"Assign a risk level to each natural hazard zone".

The second issue raised by the submission point relates to the opportunity for community input into the "risk categories". The explanation of Policy NH 2B states that:

The boundaries of the risk categories are set by a combination of technical advice and community input.

However, this statement does not relate to the assignment of risk to an NHZ as the submitter appears to have assumed. It relates to the boundaries between Low, Medium and High risk as portrayed in the Risk Screening Matrix. Community input was indeed sought in defining which cells in that matrix are red, which are orange, and which are green. That is what the explanation was attempting to communicate. Some minor wording change to the explanation of Policy NH 2A as per Recommendation 7 would assist in making that point clearer.

Recommendations

36. Add a new Step 6 to Appendix K as follows:

Step 6 - Assign a risk level to each natural hazard zone

Following any secondary or subsequent analysis and any further iterations undertaken to test the effect of alternative or additional mitigation options, confirm the final risk level for each natural hazard zone and assign that risk level to the natural hazard zone and assessed actual and potential land use.

37. Amend the 8th paragraph of the explanation to Policy NH 2B as per Recommendation 7:

6.22 Appendix K: Table 7 Lifeline utilities

Summary of requests

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Inclusion of further assessment/methodology for the consequence of a lifeline utility's loss of service.	2:8	15-5, 16.5, 17-5, 18-5	Yes	Reject

6.22.1 Submission

In its tabled item, Waikato Regional Council continued to pursue its submission point relating to Table 7, Consequences, and its treatment of the transportation lifeline utility.

Waikato Regional Council has identified that the resilience of land based transportation routes is the most significant cross boundary issue (i.e. rail and road links to and from the bay, primarily the Port) with implications for both the Waikato and Bay of Plenty economy if these are affected by a natural hazard.

It submits that:

- The current methodology in Appendix K does not prioritise the lifeline utility by the consequence of a loss of service on the Waikato and Bay of Plenty economy.
- There also needs to be an assessment of prioritisation between different lifeline utilities and also within a lifeline utility i.e. comparing the consequence of loss of service of electricity compared to transportation, or a power substation compared to transformer.

6.22.2 Comment

The submitter is correct in observing that Table 7, Consequences, does not prioritise between or within lifelines. The Table differentiates on the basis of the loss of service. It can be inferred that the approach reflected in the table is that it is the variations in the loss of service that generate the different levels of consequence, regardless of which lifeline is involved.

The PC2 Table 7 Consequence table is derived from Saunders, W. S. A.; Beban, J. G.; Kilvington, M. 2013. Risk-based approach to land use planning, *GNS Science Miscellaneous Series* 67. 97 p. In particular, the “Lifelines utilities” column corresponds, with minor corrections, with that in the Figure 3.4 Consequence table in the Saunders report. The Pre-Hearing Redline recommends additional amendments to focus on the service being lost rather than the utility, but this does not address the submitter’s concern.

The PC2 approach is based on the best-practice New Zealand guidance in the Saunders report. That report confirms (under 3.2.2 Consequence table assumptions) that “Transportation” is considered to be a lifeline. It provides no additional guidance on the point at issue.

The submitter has not provided sufficiently precise details as to the decision it seeks for Officers to recommend an amendment that would depart from the notified approach that is consistent with national guidance.

Recommendation

38. Reject the submission.

6.23 Appendix K: Table 7 Health & Safety

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Seeks that the death and injury figures in the Health & safety column be converted to percentages.	20:4	<u>Support in part:</u> 12-9, 15-71, 16-71, 17-71, 18-71	Yes	Reject

6.23.1 How Table 7 assesses health and safety consequences

Table 7 assesses consequences on the basis of absolute numbers of projected deaths. More than 100 people dead, for example, equates to a catastrophic consequence (regardless of the population size); 1 or fewer deaths equates to a minor consequence, again regardless of the population size.

6.23.2 Submitter's request in evidence

Mr Martelli for WBoPDC requested that the Health and Safety column in Table 7 be converted to percentages so that the consequence of a death relates to the size of the community experiencing the hazard.

The bigger the population the more deaths would be tolerable. The smaller the population affected the fewer deaths would be tolerable.

6.23.3 Comment

The levels of risk are established in two ways:

- by applying likelihood and consequence assessments to the Appendix K Risk Screening Matrix which combines these factors and presents a risk level; and, if necessary,
- by assessing the annual individual fatality risk (AIFR) and applying the criteria in Appendix K Step 5.

The Risk Screening Matrix approach is derived from Saunders, W. S. A.; Beban, J. G.; Kilvington, M. 2013. Risk-based approach to land use planning, *GNS Science Miscellaneous Series* 67. 97 p. In particular, the "Health & safety" column in the PC2 Table 7 Consequence table corresponds exactly with that in the Figure 3.4 Consequence table in the Saunders report. That report confirms (under 3.2.2 Consequence table assumptions) that "*Deaths are an absolute number ...*".

In contrast, the AIFR measure includes a population factor that has the effect of treating deaths as a proportion or percentage of the population in question.

Inclusion of both the absolute deaths and the AIFR allows the PC2 approach to both apply the best-practice New Zealand guidance in the Saunders report and gain the benefits of the AIFR measure. Inclusion of the AIFR measure reflects that the consequence "deaths" has a greater significance than other consequence factors when multiple deaths are involved even though the hazard event that causes them may occur only rarely. Using the matrix alone could result in a risk never exceeding Medium if the likelihood average return interval exceeded 1000 years regardless of how many deaths would occur.

Inclusion of both the matrix and AIFR ensures that PC2 gives appropriate weight to loss of life both in absolute terms and in proportional terms.

Recommendations

39. Reject submission 20:4

40. Retain the Health and Safety column of Table 7 as per the Pre-hearing Redline.

6.24 Appendix K: AIFR and individual sites

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Provide greater clarity, guidance or don't require AIFR to be used for low scale development or small hazard areas.	13:10	<u>Support in part:</u> 14-9, 15-21, 16-21, 17-21, 18-21	Yes	Accept in part

6.24.1 How PC2 uses the AIFR

The Annual Individual Fatality Risk (AIFR) is explained in paragraph 6.23 above. In brief, it is used in PC2 to provide a secondary healthy and safety risk metric that complements the Table 7 approach and fills a potential “hole” in the assessment of consequences that might occur in the absence of AIFR applying.

6.24.2 Submitter's request at Hearing

The submitter's position is that while AIFR is a useful tool in assisting with regional/district scale assessment of risk (e.g. Policy NH4A) it is less relevant for smaller scale assessments (such as Policy NH5B and NH7B) where the population base is very small such as at the scale of a development site.

In the paper tabled as part of the presentation to the Hearing, the submitter has used the formula for calculating AIFR to generate a table showing the effect of one death on the AIFR, for a range of populations and over a number of return periods. The submitter correctly observes that the “AIFR is highly dependent on the population and return period”. The submitter then comments that these factors may skew the outcomes, implying that this is a flaw in the AIFR measure.

6.24.3 Comment

What has been inferred to be a flaw in the AIFR measure is, on the contrary, its strength. The AIFR provides a consistent measure of risk that applies over a range of population sizes and return periods.

At a fundamental level, the AIFR describes the annual individual life loss risk for the person most at risk. Thus, it is directly applicable to a single dwelling subject, say, to a landslide hazard. On the other hand, as applied in, for example, tsunami modelling¹⁵, the AIFR calculation allows for the risk to individuals to be summed or aggregated and the risk to a population to be calculated.

¹⁵ Beban, J. G.; Cousins, W. J.; Wang, X.; Becker, J. S. 2012. Modelling of the tsunami risk to Pāpāmoa, Wairakei and Te Tumu assuming an altered ground level due to development of Wairakei and Te Tumu, and the implications for the SmartGrowth Strategy, *GNS Science Consultancy Report 2012/54*, 168 p. on page 50

A strength of the AIFR, and a reason why it is widely used, is that “it provides clear and equitable treatment of individuals”¹⁶.

Much guidance on the use of AIFR already exists. It may be useful to provide references to this existing guidance to assist those commissioning risk assessments.

Recommendation

41. Accept in part submission 13:10
42. Provide additional guidance to address this point
43. Proposed Change 2 be unchanged in response to this submission.

6.25 Appendix L (Natural Hazards Risk Reduction Measures)

Request in evidence	Submitter/Submission point	Further submitters	Scope	Recommendation
Delete “without recourse to hard structures” from measure (b).	17:24	<u>Oppose/Oppose in part:</u> 4-2, 10-3	Yes	Accept in part

6.25.1 Appendix L

Appendix L sets out a list of potential natural hazard risk mitigation measures. It is included largely for information purposes and to provide assurance that a wide range of measures are available and potentially appropriate. Item (b) refers to:

Replacement or modification of existing development over time to reduce potential consequences without recourse to hard defensive structures.

Appendix L is referred to in 2.8 Natural hazards and in the Explanations of Policies NH 7B and NH 8A.

6.25.2 Submitters’ request in evidence

Mr Batchelar (for the Eastern Councils) seeks that the words “without recourse to hard structures” be deleted. He considers that hard defensive structures (such as debris nets for landslide risk) can be appropriate and that item (b) is contradicted by item (g) which refers to the merits of some hard defensive structures).

Mr Batchelar argues that if the reference to hard defensive structures is to be retained to should only apply to the coastal environment.

The Director General of Conservation’s further submission in opposition to the submission to delete the wording “without recourse to hard structures” notes that it gives effect to NZCPS Policy 25(d) [should be (e)]:

“Policy 25 Subdivision, use, and development in areas of coastal hazard risk

“In areas potentially affected by coastal hazards over at least the next 100 years:

“(e) discourage hard protection structures and promote the use of alternatives to them, including natural defences;”

¹⁶ Taig, T., Massey, C., Webb, T. 2012. Canterbury Earthquakes Port Hills Slope Stability: Principles and Criteria for the Assessment of Risk from Slope Instability in the Port Hills, Christchurch, *GNS Science Consultancy Report 2011/319*, page 29]

6.25.3 Comment

The wording in question, “without recourse to hard structures”, derives from a policy that was in the Proposed RPS when it was originally notified in 2010. That policy stated:

“Policy NH 3B [as numbered in 2010]: Reducing natural hazard risk in existing use and development

“Reduce the risk from natural hazards to life and property in areas of existing use and development to be as low as reasonably practicable until acceptable levels of risk are achieved.

Particular regard shall be given to: ...

“(d) Replacement or modification of existing development to reduce risk without recourse to hard protection structures.”

It is clear from this earlier Explanation to that policy (not repeated here for sake of brevity) that paragraph (d) of the policy derives from consideration of coastal hazards.

Officers agree that the way the concept is currently expressed in the policy indicates an intention for the concept to have more general application. That is clearly unnecessary to give effect to the NZCPS and may as pointed out by Mr Batchelar lead to perverse outcomes.

Officers are, however, mindful of the need to give effect to the NZCPS and note that item (g) currently does not fully do so (due to its location under “Property-specific works ...” and its qualifier “community scale”).

In summary, it is appropriate to recognise that “without recourse to hard structures” is relevant mainly in the coastal environment and to agree that it be deleted from paragraph (b). To meet the obligation to give effect to NZCPS Policy 25(e), a replacement paragraph expressed in terms of NZCPS Policy 25(e) could be inserted.

Recommendations

44. Delete “without recourse to hard structures” from paragraph (b). Insert a replacement paragraph to read:

“(b1) Promoting the use of natural defences against coastal hazards and discouraging hard protection structures;”

7 PART C: Other Issues

7.1 Implementation Guidance

Te Tumu, TCC and the eastern councils all sought guidance to assist implementation of Appendix K consistent with the recommendations made in the Aecom Report.

The issues around implementation guidance revolve around three questions:

- a. What guidance should be produced?
- b. Where should that guidance be located (i.e. within or outside the RPS)?
- c. When should the guidance be made available?

Each of these questions is discussed in turn.

7.1.1 What Guidance?

Officers agree that there is a range of issues on which guidance could be helpful. In broad terms, the matters identified by Aecom are matters on which guidance would be helpful to the clear and consistent implementation of Appendix K. These matters, with some modification and clarification based on our understanding of key areas of uncertainty and ancillary issues raised by submitters, are:

- a. How to apply the specified *likelihoods of Table 6* when available data relates to events of different likelihoods than those specified in Table 6.
- b. How the test of “*functionally compromised*” should be applied and whether application should vary according to hazard type or size of the HAA. A particular issue is the length of time a building’s functionality might be compromised
- c. How *natural hazard zones* should be defined to ensure a sound risk assessment.
- d. How to determine the likely *consequences on lifeline utilities* (i.e. the length of time they are likely to be out of service).
- e. How to assign a consequence level to *social/cultural buildings*, particularly when there are very few within a hazard zone
- f. How to estimate the *risk of death or injury*
- g. How to *account for mitigation measures* to be employed (including civil defence and emergency management measures that might reduce death and injury)
- h. What approach should be taken when required *information is not available*.
- i. How to apply a *qualitative approach* to assessment of consequences and when such an approach would be acceptable.
- j. How to account for *multiple hazards* and whether the effect of concurrent events should be considered.
- k. Whether *sensitivity analysis* should be applied to the assessment (to consider, for example, how sensitive the outcome is to assumptions about the timing of a hazard event).
- l. What would constitute a “*recognised risk assessment methodology*” (being the alternative that may be used in place of Appendix K) and what the approval process would be for such a methodology to be accepted.

Officers understand that the methodology set out in Appendix K is new and unfamiliar to many stakeholders and that, accordingly, there is a desire for a high degree of clarity about what is required and how those requirements may be fulfilled. We are also conscious that a good part of the obligations arising from PC2 fall on city and district councils.

While that motivation is understood, it would be highly unusual for any regional council to provide detailed technical guidance on matters related to expert professional practice. The role of the RPS is to establish the policy. How that policy is applied in terms of the detailed methodological approaches to be used by practitioners is a matter for experts to determine. For that reason, while we agree with the value of guidance on matters a. to l. above, we note that there will be a limit to the level of detail that can be appropriately provided by the regional council on some of these matters. In some cases, the most appropriate way may be to refer to published documentation from recognised risk experts and specialist agencies.

Recommendation

45. That the Regional Council commit to providing guidance on each of the matters listed in a. to l. above

46. That the level of guidance provided be limited to that required for users to understand fully the requirements of the methodology and the expectations for how that methodology is to be implemented.

7.1.2 Where should that Guidance be located?

Submitter 25 (Te Tumu) seeks that the requested guidance be provided within the RPS itself.

Officers do not agree with that proposal. Locating guidance within the RPS itself would mean it could only be changed through the Schedule 1 RMA process. Given that hazard risk assessment is an area of evolving policy and practice it is likely that the regional council will want to add to and/or amend guidance over time as new tools and information sources become available and as experience with Appendix K is gained. That could not be easily or efficiently achieved if each and every change was subject to consultation, submissions, further submissions, hearings and (potentially) appeals.

Even to introduce the first iteration of guidance would necessitate another formal change to the RPS or a re-notification of the existing Change with the further guidance included. This would cause a significant delay in implementation.

In our opinion, the better approach to guidance is to locate it outside of the RPS as a separate volume that is non statutory in effect. Although that would mean it would not be mandatory for RPS users to act on the guidance, because it is designed to assist implementation it is highly likely to be used.

There is precedent for this approach with the both the current Operative RPS and the first generation RPS. In both instances the Regional Council published guidance (a "User Guide") outside of the RPS on how Appendix F of the RPS (criteria for assessing Matters of National Importance) should be implemented.

The same approach should logically be taken here by producing a User Guide on how to apply Appendix K.

Recommendation

47. That the implementation guidance in relation to Appendix K (referred to in Recommendation 45) remain non statutory in status and be located outside the RPS as a “user guide”.

7.1.3 When should the guidance be made available?

One of the key issues raised by submitters 13, 17 and 25 relates to the timing of the implementation guidance. Submitter 17 seeks that guidance be released at the same time as decisions are released. Submitter 13 indicated that guidance should be available before PC2 becomes operative. Submitter 25 seeks that guidance be issued now and incorporated within the change.

Officers are mindful of the long list of matters suggested to be addressed by guidance. We are also aware of the need to work in consultation with stakeholders and produce genuinely meaningful and useful material and advice. In short, producing quality, comprehensive guidance is a task that will take some time.

In our opinion delaying issuing decisions until all guidance is complete is not a practical option. Nor do we consider that deferring the date on which PC2 becomes operative to allow for a period of time to develop guidance is necessary.

PC2 already provides significant guidance on what is meant by taking a risk based approach to hazards management and what methodology can be used to assess natural hazard risk. PC2 goes well beyond the detail provided in the original natural Hazards Chapter of the notified RPS. It also goes well beyond usual practice in RPSs generally in terms of the level of detail already provided. It is a case, it seems, of the more detailed prescription is provided the more demand for detailed guidance.

We that note it is also worth noting that several other regions' RPSs require that a risk-based approach be taken to natural hazards management but provide almost no guidance on what that means. The Proposed Waikato RPS, for example, “*appropriate assessment of the risks*” and refers in multiple places to “*acceptable risk*” and “*intolerable risk*”.

The Waikato RPS provides no guidance on what these terms mean. The natural hazards provisions of that RPS have recently been settled on appeal by consent order.

The most practical response at this point would be to produce interim guidance on some of the key issues between now and the date on which PC2 becomes operative. While it is not possible to predict with certainty when Change 2 will become operative, a realistic timeframe for producing such interim guidance would be the end of October 2015. This first tranche of guidance would focus on addressing some of the key issues related to the application of Appendix K to consent applications given current state of information. This would address matters a, h, i and l above.

Officials propose that a further round of more detailed and comprehensive guidance could then be produced for publication by 31 December 2016. That second tranche of guidance could focus on the remaining issues with particular emphasis on those matters that need clarification before Appendix K is implemented by regional and district plans (which is unlikely to occur before the end of 2016). Officers anticipate a high level of consultation with stakeholders on this comprehensive Appendix K User Guide.

Recommendation

48. That the regional council prepare and make available:

- a. Interim guidance on selected implementation issues by 31 October 2015; and**
- b. The full Appendix K User Guide (referred to in Recommendation 45) by 31 December 2016.**

7.2 How Aecom report should be managed and the need for further testing

There was some discussion at the hearing regarding how the Aecom Report should be managed. Eastern councils and Te Tumu both expressed concerns about the accuracy of some of the data and/or assumptions used in the risk assessment. Both submitters sought that the natural hazard risk (for Matatā and Te Tumu respectively) be reassessed by Aecom and the report amended accordingly.

In the Officers' opinion, the purpose of the Aecom Report was not to produce a risk assessment accurate in all respect that could be relied on for further decision-making. Rather, the purpose was to test whether the methodology of Appendix K could be applied – whether sufficient explanation was provided to allow an expert third party to make sense of the methodology, whether the information/tools existed to allow the methodology and whether the methodology itself was workable. It was a “pilot” exercise. The output of the assessment itself was of no particular consequence.

In that respect, the Aecom Report met the brief and served the purpose asked of it.

We understand that submitters may be concerned that the results of the assessments would have been different had some of the information and assumptions used been different. That may be. However, it is open for the submitters to produce their own risk assessments using Appendix K should they need that information for their own decision-making or regulatory compliance purposes.

Officers accept that it would be unfortunate if third parties sought to use the risk assessment from the Aecom report for purposes it was not intended. For that reason, we propose that the Aecom report be made available on the regional council website (as part of the section 32 information associated with PC2) but that it be clearly labelled (on each page of the document if necessary) that the purpose of the report was to test the practicality of the proposed assessment methodology and that the results of testing may be unreliable and should not be used for any other purpose.

Recommendation

49. That the Aecom report not be amended to incorporate reassessment of the Matatā and Te Tumu natural hazard risk but that the report be made available in its current form with clear caveats as to its purpose and future use.

7.3 Appendix L to be given more weight

A proposal was made at the hearing that Appendix L be given more weight. Appendix L sets out a menu (not exclusive) of measures that may be used to limit

or reduce natural hazard risk. It is provided for information purposes only to illustrate the breadth of options available and confirm that “avoiding development” is by no means the only risk management option available.

We understand that the request made was aimed at redrafting Appendix L (and perhaps moving the material to a policy) so that particular risk management measures would be identified as being appropriate to address particular risks. In that way there would be certainty that a particular risk was to be addressed by a particular measure and there could not be an expectation of measures being applied that might be regarded as unnecessary or high cost.

In the Officers’ opinion such a change at this point would be out of scope of the submissions. No submitter provided wording for any such redrafted provisions and such an amendment would constitute a significant policy change that other parties might have had a strong interest in had the proposal been clearly “on the table” and subject to further submissions.

For that reason, we do not consider the proposal in detail here. We would add, however, that the approach taken by PC2/Appendix L is deliberate and consistent with a risk-based approach. In our view, it provides resource users maximum flexibility to demonstrate how a hazard risk can be adequately managed without prescribing potentially inappropriate or ineffective solutions. In that sense we suggest that the PC2 approach is aligned with the general effects based approach of the RMA.

7.4 Low probability, high consequence hazard events

In his evidence for TCC, Mr Larking suggests that land use planning should not be employed as a response to Low probability/high consequence events.

Tauranga City submits that events with annual recurrence interval (ARI) of 2500, 3000 and 20,000 years “essentially sit within the realm of catastrophe management and not land use planning”.

Officers consider that the TCC submission misrepresents what PC2 requires by suggesting that a land use planning response is necessarily required for these low probability events. Several points need to be made in response.

First, a key purpose of taking a risk-based approach is to be able to compare hazards using a uniform currency – “risk”. Hence, it is important that all hazards – even those with large ARIs - are addressed by PC2. The risk-based approach does not treat hazards with an ARI of 50 years and a hazard with a 2500 ARI that have the same consequence the same.

This is illustrated by the Risk Screening Matrix in Appendix K. That clearly shows that events with an ARI greater than 1000 years have a Low risk even when they would have “major” consequences. If such events have catastrophic consequences they could be Medium risk but they could never achieve a High risk outcome from the Matrix methodology; note however that, for the loss of life consequence, the AIFR measure can result in a low likelihood hazard having a High risk. .

The other key point is that the framework does require that risk be reduced using land use planning. The land use planning system is used to require risk assessment but the measures that may be taken to manage risk to the required levels are not limited to land use regulation. When other mitigation is applied, that is taken into account in the risk assessment.

7.5 Australian Geomechanics Society risk model

In the Hearing, reference was made to the Australian Geomechanics Society methodology for landslides. Whakatāne District Council used the AGS approach to investigate the Matatā debris flow, and the Whakatāne and Ohope landslide hazard. The AGS approach was first published in 2000 and it has been evolving since. It takes a risk management approach that PC2 is consistent with, including the loss of life risk thresholds. It is an example of what the Officers believe would qualify as a “recognised risk assessment methodology” as referred to in the introductory test to Appendix K.

The AGS approach has informed the New Zealand guidance for landslides: Saunders, W, & P. Glassey (Compilers) 2007. Guidelines for assessing planning policy and consent requirements for landslide prone land, *GNS Science Miscellaneous Series 7*. The AGS principles and guidance are largely transferrable to other hazards and will be of great assistance in the preparation of further guidance for the implementation of PC2 and its Appendix K.

8 Conclusion

The submissions and evidence presented at the hearings raised many issues that have led Officers to identify the need for clarification in many of the provisions of PC2 and their explanations. PC2 has been significantly improved as a result of submitters’ input.

The policy approach underpinning PC2 is, however, considered sound, albeit there will be numerous implementation issues to work through.

These implementation issues are best addressed through provision of non-statutory guidance.

That guidance, together with the various amendments and clarification provided in the attached Version 7.0 of PC2, are likely to satisfy, in whole or part, a large number of the submission points raised at the hearing.

Where recommendations made here do not give effect to submissions the difference of opinion is often based on a difference of view about what level of detail is appropriate to include in an RPS and the extent of discretion regional policy should provide.

9 Recommendation

That the Hearing Committee:

- 1 Receives this report – Proposed PC2 (Natural Hazards) to the Bay of Plenty Regional Policy Statement Supplementary Report at the Conclusion of Presentation of Submissions 16 June 2015.
- 2 Receives the Proposed PC2 (Natural Hazards) V7.0 - Track Changes version.

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