

**BEFORE THE INDEPENDENT HEARING PANEL APPOINTED TO HEAR AND MAKE DECISIONS
ON SUBMISSIONS AND FURTHER SUBMISSIONS ON THE PROPOSED PORIRUA DISTRICT
PLAN**

IN THE MATTER of the Resource Management Act 1991
(the Act)

AND

IN THE MATTER of Hearing of Submissions and Further
Submissions on the Proposed Porirua
District Plan under Schedule 1 of the Act

**STATEMENT OF EVIDENCE OF IAIN NICHOLAS DAWE ON
BEHALF OF WELLINGTON REGIONAL COUNCIL**

19 November 2021

Executive Summary

- 1 Greater Wellington supports the natural hazards provisions in the Porirua City Council Proposed District Plan and seeks to retain the supporting hazard overlays in the plan maps so that plan users are able to obtain all information relevant to a property in one place. It also gives certainty about the hazards affecting different areas in the district and where the hazard provisions apply.
- 2 Retaining the hazard overlays in the plan provides a clear and transparent means for incorporating risk-based natural hazards planning into the provisions and ensures changes to these maps are subject to scrutiny through the publicly notified processes, rather than opaque non-statutory processes.
- 3 In this way, the Proposed District Plan gives effect to the Regional Policy Statement that requires high hazard areas to be identified and provisions to avoid inappropriate development in these areas using best practice risk-based approaches. The hazard provisions and mapping also fulfil some the core aims of the Regional Hazard Management Strategy and put into practice national hazard management guidance.
- 4 For these reasons, I oppose requests to remove the hazard overlays from the mapping and various requests to downgrade hazard sensitive activities on the basis that it does not fulfil best practice hazard planning or properly give effect to the Regional Policy Statement, Regional Hazard Management Strategy or national guidance. It creates uncertainty for plan users and provides loop holes that could be exploited to allow more permissive development in hazard prone areas.

Introduction

- 5 My full name is Iain Nicholas Dawe. I am a senior regional natural hazards analyst and policy advisor for the Wellington Regional Council (**Greater Wellington**). I have been employed at the Council since 2006.

Qualifications and experience

- 6 I hold an MSc with 1st class Honours in environmental sciences and a PhD specialising in coastal processes from the University of Canterbury and over 20 years hazard management and resource planning experience.

- 7 As the natural hazards analyst for the Council I provide scientific analysis, commentary and research into natural hazards that affect the Greater Wellington region and to write and/or provide expert advice and evidence for hearings, the Environment Court and policy that deals with managing the risks from natural hazards. I provide advice to policy analysts, resource managers, consents officers, engineers and elected councillors in the region, and to businesses and the wider public.
- 8 I was team leader writing the natural hazards section of the Regional Policy Statement and was a team coordinator for the review of the natural hazards sections of the Proposed Natural Resources Plan (**pNRP**).
- 9 Currently I am the chair of the national Hazard Risk Management Special Interest Group that represents regional councils across New Zealand. The group advocates for integrated hazards management across the local and central government sectors in areas of hazards planning and research.

Code of conduct

- 10 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence. My experience and qualifications are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

Scope of evidence

- 11 My evidence addresses submissions and further submissions on the natural hazard provisions contained in the Porirua City Council Proposed District Plan (**PDP**). In particular I will speak primarily to requests to modify or remove natural hazard overlays from the plan and changes that allow a more permissive approach to development in these areas.

Regional Policy Statement

- 12 The Regional Policy Statement for the Wellington region (**RPS**) identifies significant resource management issues, including natural hazards, and sets out objectives, policies, and methods to achieve the integrated management of natural and physical resources for the Wellington region.

- 13 The RPS contains a set of natural hazard provisions that provide local authorities with direction and guidance on hazard management issues that must be given effect to when making changes to city and district plans in accordance with section 75 of the Resource Management Act 1991.
- 14 In particular, Policy 29 deals with avoiding inappropriate subdivision and development in areas at high risk from natural hazards:
- “Regional and district plans shall:*
- (a) identify areas at high risk from natural hazards; and*
- (b) include policies and rules to avoid inappropriate subdivision and development in those areas.”*
- 15 The RPS goes on to say that the process of identifying ‘areas at high risk’ from natural hazards must consider the potential natural hazard events that may affect an area and the vulnerability of existing and/or foreseeable subdivision or development. An area should be considered high risk if there is the potential for moderate to high levels of damage to the subdivision or development, including the buildings, infrastructure, or land on which it is situated. The assessment of areas at high risk should factor in the potential for climate change and sea level rise, and any consequential effect that this may have on the frequency or magnitude of related hazard events.
- 16 The RPS also provides direction with hazard policies 51 and 52 that must be considered in applications for a resource consent, notice of requirement, or a change, variation or review to a district or regional plan. The considerations require that the risk and consequences of natural hazards on people, communities, their property and infrastructure shall be minimised and a determination made about whether an activity is inappropriate for that area on the basis of a number of natural hazard considerations.
- 17 In my opinion, the PDP has given fully considered these policies and is thereby fulfilling its statutory requirements in relation to the RPS natural hazard provisions. The PDP and associated hazard mapping gives full effect to Policy 29 of the RPS, which requires district plans to identify areas at high risk from natural hazards and include policies and rules to avoid inappropriate subdivision and development in those areas.
- 18 I strongly support the all hazards, risk-based approach to natural hazards that is incorporated throughout the PDP from the district wide natural hazards section through to the coastal environment, earthworks and subdivision sections. I also support the hazard

sensitive cascading policy and rule approach in the natural hazards and coastal environment sections and the guidance for applying these rules in the natural hazard risk assessment section, as they give effect to the RPS.

- 19 This policy approach is underpinned by accurate and scientifically robust mapping of natural hazard areas that creates certainty and clarity for plan users of the areas that these provisions apply without the need for individuals, development companies or businesses to undertake their own costly and time consuming geotechnical studies.

Regional Natural Hazards Management Strategy

- 20 The Wellington Region Natural Hazards Management Strategy was developed in 2019 as a collaboration between all councils in the region including Porirua City Council and was signed up to by Kāpiti, Porirua, Wellington, Hutt and Upper Hutt councils and the Wellington Region Emergency Management Group.

- 21 The core objectives of the Strategy are:

1. Our natural hazards and risks are well understood (Knowledge and Understanding)
2. Our planning takes a long term risk-based approach (Planning)
3. Consistent approaches are applied to natural hazard risk reduction (Consistency)
4. We have an agreed set of priorities to reduce the risk from natural hazards (Prioritisation)

- 22 Of particular relevance to this evidence, are the objectives to take a *risk-based* approach for hazard planning and have *consistent* approaches to hazard risk reduction. These objectives have a series of supporting clauses. In particular, Objective 3 has a sub-clause to; “*develop regionally consistent and coordinated provisions through a set of agreed city/district/regional plan objectives, policies, rules and methods*”.

- 23 The strategy is supported by a natural hazards management working group that worked with the Porirua City Council planning team in developing these policy approaches to be consistent with the strategy. In addition, this work was undertaken so that it may be a template and example for other councils in the region that were soon to be embarking on their city and district plan reviews.

Best practice hazards management and regional and national guidance

24 As directed by the RPS, the Wellington Region Natural Hazards Management Strategy and national guidance, the PDP promotes a precautionary, risk-based approach, taking into consideration:

1. The characteristics of the natural hazard (magnitude, frequency, likelihood);
2. The potential impacts, consequences and the vulnerability of the development;
3. Assigning a risk level based on the consequence and likelihood rating; and
4. Analysing the results to determine how the risk profile might change with climate change.

25 This represents best practice hazard management approaches that are contained within national guidance such as:

- Planning for development of land on or close to active faults, MfE (2003);
- Preparing for future flooding: a guide for local government in New Zealand, MfE (2010);
- Planning for Risk: Incorporating risk-based land use planning into a district plan, GNS Science (2013);
- Risk Based Approach to Natural Hazards under the RMA, Prepared for MfE by Tonkin & Taylor (2016) and;
- Coastal Hazards and Climate Change: Guidance for Local Government, MfE (2017).

26 To support this approach and provide a robust underpinning to the hazard management provisions and certainty to plan users, the PDP has included a number of hazard overlays:

- Flood hazards (stream corridor; overland flow paths; ponding extents);
- Coastal erosion hazards (current erosion areas; future erosion areas with 1.0 m sea level rise);
- Coastal inundation hazards (current inundation areas; future inundation areas with 1.0 m sea level rise);
- Tsunami hazards (1:100 yr extents; 1:500 yr extents; 1:1000 yr extents) and;
- Fault rupture zone.

27 The PDP also recognises and supports the Civil Defence Emergency Management Act principles of risk reduction, readiness, response and recovery, in order to encourage more resilient communities that are better prepared for natural hazards, including climate

change impacts as promoted by the 'Sendai Framework for Disaster Risk Reduction 2015-2030' developed by the United Nations and to which the New Zealand Government is a signatory.

Further submissions

28 Greater Wellington made a further submission [FS40] in opposition to Kāinga Ora – Homes and Communities submission points [81.404, 81.408 & 81.409] and submissions made by Trustees of the Ken Gray No. 1 Family Trust & Ken Gray No. 2 Family Trust [211.4 & 211.5], Graham and Janet Reidy [234.5 & 234.7] and Linda Dale [247.6 & 247.11]. I will address these below.

Submissions requesting removal of hazard map overlays

29 Some submitters and submission points were made requesting hazard overlays be either adjusted or removed entirely from the plan. The Kāinga Ora submission [81.404] requested that all natural hazard overlays be removed from the plan objectives, policies and rules and replaced with hazard areas. It stated the following:

“Including Flood Hazard overlays in the PDP ignores the dynamic nature of flood hazards and will create unnecessary additional cost and uncertainty for landowners and land developers. Kāinga Ora accepts that it is appropriate to include rules in relation to flood hazards but seeks that the rules are not linked to static maps...”

“The advantage of this approach is the ability to operate a separate set of interactive maps which are continually subject to improvement and updates, outside of and without a reliance on the Schedule 1 Resource management Act 1991 process.”

30 Greater Wellington’s further submission on this point states:

“The natural hazard layers are underpinned by robust science that clearly identify areas prone to natural hazards that may pose a risk to development. They provide certainty for planners, developers and members of the public using the plan and allow risk-based decisions to avoid or mitigate the effects of hazard events that have a large cost on the community.”

31 All submission points related to the removal of the natural hazard overlays and replacement with natural hazard areas should be disallowed and I strongly argue for the retention of the natural hazard overlay within the plan as notified.

- 32 In my opinion, providing for a separate set of maps (as proposed by Kāinga Ora) is unhelpful for Plan users and risks this important hazard information being missed. The Section 42a Officer's Report [3.5] recommends that the Kāinga Ora submissions [81.404, 81.928] be rejected, and inclusion of the hazard overlays is consistent with national best practice.
- 33 The Kāinga Ora submission referenced the Auckland Unitary Plan (**AUP**) as an example of how hazard mapping can sit outside plans. The AUP contains rules for flood hazard management but has no maps in the plan identifying where these areas are located. Instead, Auckland Council has a 'Geomaps' website that contains hazard maps of fluvial, pluvial and coastal flooding. This creates a disconnect between the rules and the areas they are meant to apply to, as plan users have to go elsewhere to figure out where the rules apply.
- 34 Furthermore, referencing information external to a plan does not mean that it can be changed at will as new information comes to hand. It still requires time consuming Schedule 1 processes in order to effect the change. In this way, it provides little advantage and only acts to hide information in the background.
- 35 The flood maps included in the PDP were subject to a peer review and presented through publicly advertised drop-in sessions in 2018. In my opinion this demonstrates that flood maps have been developed through a robust and transparent process.
- 36 Similarly, the coastal erosion maps were developed following extensive consultation with affected communities and coastal management experts in the run-up to the notification of the plan.
- 37 The tsunami modelling has been undertaken by some of New Zealand's leading tsunami experts at GNS Science using the latest understanding of local faults and fault rupture mechanisms, including the Hikurangi Subduction Zone. This same science underpins the latest Civil Defence Emergency Management tsunami evacuation maps.
- 38 With regard to the submissions made by Trustees of the Ken Gray No. 1 Family Trust & Ken Gray No. 2 Family Trust [211.4 & 211.5] and Graham and Janet Reidy [234.5] for the removal of any hazard overlays on their properties. I disagree with making *ad hoc* adjustments to the hazard mapping as there is no justifiable reason to take this course of action. The hazard mapping has been scientifically modelled and peer reviewed and represents the best understanding of areas prone to natural hazards in Porirua.

Submissions requesting downgrading hazard sensitive activities

- 39 Submissions by Kāinga Ora [81.408 & 81.409], Graham and Janet Reidy [234.7] and Linda Dale [247.6 & 247.11] requested changes to the definitions of hazard sensitive activities. Specifically, submission 234 requested changes to NH-P2 *Hazard-Sensitive Activities and Potentially-Hazard-Sensitive Activities within the High Hazard Areas* to delete 'avoid' and replace with 'discourage'. The submitter also requested 'mitigation' to be included in the list of point 2.
- 40 Similarly, Kāinga Ora requested that NH-P3 includes 'mitigation' at the end of point 1 within medium hazard areas and NH-P4 be amended to replace 'avoided' with 'mitigated'.
- 41 Discouraging development in hazard prone areas is not strong enough to prevent inappropriate development. The risk-based framework for the natural hazard provisions needs to include avoidance for development that could face intolerable risk and be regarded as inappropriate for the location. Many experiences in New Zealand in recent years (for example, Christchurch earthquakes, Westport flooding) have shown the huge toll that having buildings unusable after an event has on the length and cost of recovery on people's mental health outcomes. Inappropriate development may place an unnecessary burden on the community at a later date and therefore, should be avoided. In my opinion, the 'avoid' option should be retained within policies NH-P2 and NH-P4 as this keeps it consistent with the risk-based approach and the RPS.
- 42 Inclusion of mitigation is a duplication within the intent of the policies NH-P2 and NH-P4. The policies already include a directive concerning mitigation measures. The aim of the policies is to avoid increasing the risk with appropriate mitigation measures.
- 43 Submission 247 requested the deletion of CE-P12 *Hazard-Sensitive Activities and Potentially-Hazard-Sensitive Activities in the Low Hazard Areas within the Coastal Hazard Overlays* on the basis it is too restrictive and requires total avoidance of all risk. The submission also requested changes to CE-R9 *Hazard-Sensitive Activities within the Low Hazard Area of the Coastal Hazard Overlays* on the basis that it is too restrictive and discourages development.
- 44 I believe that CE-P12 and CE-R9 provide appropriate pathways for consenting and are enabling policies and rules. It is appropriate that buildings within the low hazard areas are built with floor levels above tsunami flow depths. This also provides protection from other coastal flooding hazards such as storm tides and future effects from ongoing sea level rise.

Closing points and conclusion

- 45 It is important that the PDP contains spatially defined hazard maps and information that is easy to find and interpret so that plan users are able to obtain all information relevant to a property.
- 46 Retaining the hazard overlays in the plan provides a clear and transparent means for incorporating risk-based natural hazards planning into the provisions and ensures changes to these maps are subject to scrutiny through the publicly notified processes, rather than a non-statutory update. This ensures that the hazard maps incorporated in the PDP have been subject to a robust public process and all information relevant to a property or area is available in one location.
- 47 This approach is similar to that of the Kāpiti Coast District Plan, and as proposed in the Wellington City, Hutt City, Upper Hutt City and Wairarapa district plan reviews. It provides for a regionally consistent, risk-based approach to hazard planning and provides consistency for developers and plan users as promoted by both the RPS and the Regional Natural Hazards Management Strategy.