

BEFORE THE IHP

TOPIC: Proposed Plan Change 92 Enabling housing supply to the Western Bay of Plenty District Plan

UNDER the Resource Management Act 1991

IN THE MATTER of submissions and further submissions

BETWEEN **BAY OF PLENTY REGIONAL COUNCIL**

Submitter

A N D **WESTERN BAY OF PLENTY REGIONAL COUNCIL**

Respondent

STATEMENT OF EVIDENCE OF MARK CHRISTOPHER IVAMY

DATED: 25 August 2023

Topic: Natural Hazards

STATEMENT OF EVIDENCE OF MARK CHRISTOPHER IVAMY

Qualifications, experience and background

1. My full name is Mark Christopher Ivamy. I am employed by Bay of Plenty Regional Council Toi Moana (**BOPRC**) as a Senior Natural Hazards Planner. I have held this role since February 2020. Prior to this role I was employed by BOPRC as a Natural Hazard Advisor from July 2015.
2. I have 17 years' work experience in natural hazard risk management in New Zealand. A key role of my current position is supporting the implementation of the Bay of Plenty Regional Policy Statement natural hazards provisions (RPS) including project management of natural hazards modelling and mapping. I provide support to the Territorial Authorities and resource consent applicants on interpreting and applying the RPS default natural hazard risk assessment methodology (Appendix L).
3. Prior to being employed by the BOPRC I worked at Tonkin + Taylor Ltd as an Environmental and Engineering Consultant for nine years specialising in coastal hazard management. This role involved providing technical advice to local government agencies and private companies assessing coastal hazard and climate change risk and designing mitigation options.
4. I hold a Master of Science Degree with First Class Honours, majoring in Geography. I obtained this qualification from the University of Auckland in 2002.
5. Where I have not expressly stated in this evidence the reasons why I disagree with other experts or submitters in relation to more minor matters, that should not be interpreted as agreement.
6. I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2023 and I agree to comply with it. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where I state I am relying on the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from my expressed opinion.

EXECUTIVE SUMMARY AND SCOPE OF EVIDENCE

7. My expert evidence covers the following submission points of BOPRC related to my subject area of natural hazards planning:
 - (i) 25.28 – Flood hazard risk for Seddon Street Development Site
 - (ii) 25.32 – Natural Hazard Maps: Flooding
 - (iii) 25.33 and 25.34 – Coastal erosion and inundation maps for Ōmokoroa
 - (iv) 25.35-25.39 – Liquefaction hazard maps and provisions
 - (v) 25.40 to 41 – Risk to life for flooding.

8. In preparing this statement, I have read:
 - (i) the Section 32 Report and relevant accompanying documents
 - (ii) the Section 42A Report released 11 August 2023
 - (iii) planning evidence of Mr Te Pairi (BOPRC)
 - (iv) technical evidence of Mr Townsend (BOPRC).

9. The main points I wish to bring to the Panel's attention are:
 - (i) I support the retention of the proposed flood planning maps for Ōmokoroa as notified and recommended for inclusion in the Section 42A Report (Section 8, Topic 5). I also support the proposed deletion of the Te Puke flood planning maps based on the notified version of the DHI model for the reasons given in the Section 42A Report recommendations (Section 8, Topic 6).
 - (ii) I support the introduction of new natural hazard maps for coastal inundation and coastal erosion at Ōmokoroa based on a 1% AEP event with an allowance for climate change (Section 42A Report Section 8, Topic 1, 8 and 9).
 - (iii) I support the removal of liquefaction hazard maps and associated proposed provisions (Section 42A Report Section 8, Topic 3 and 4).

- (iv) I support the withdrawal of the BOPRC submission point 25.40 and 25.41 requesting risk to life from flooding to be considered (Section 42A Report Section 8, Topic 7), noting that these points were recommended to be rejected by agreement between the Councils as not being required.
- (v) I support the withdrawal of the BOPRC submission point 25.28 requesting the potential increase in flood risk from the proposed Seddon Street Development Site is assessed, on the basis that the required assessments have occurred via the consent process.

FLOOD MAPPING - SUPPORT

- 10. I support the retention of the proposed flood planning maps for Ōmokoroa as notified and recommended for inclusion in the Section 42A Report (Section 8, Topic 5). I also support the recommended deletion of the proposed Te Puke flood planning maps based on the notified version of the DHI model for the reasons given in the Section 42A Report recommendations (Section 8, Topic 6). I understand that this matter may be addressed via future planning processes including the Te Puke Spatial Plan.

INCLUDING COASTAL EROSION AND INUNDATION MAPPING - SUPPORT

- 11. I support the inclusion of new coastal erosion and inundation maps for the Ōmokoroa Site in the proposed PC92. Both natural hazard maps were created through a collaborative project between Western Bay of Plenty District Council (WBOPDC) and BOPRC, which was independently peer reviewed. Although I see merit in locating natural hazard maps outside the District Plan¹ (with appropriate links to provisions), I consider it is outside the scope of the plan change to adopt this approach that would have a district wide impact. Therefore, I support the Option 1 recommended in the Section 42A Report under Section 8, Topic 1, Topic 8 and Topic 9.

¹ As sought by Kainga Ora to provide for more regular mapping updates (submission 29.3)

REMOVING LIQUEFACTION MAPPING AND PROVISIONS - SUPPORT

12. I support the removal of the liquefaction hazard maps and associated proposed liquefaction provisions for the reasons provided in the BOPRC submission points 25.35 to 25.39 and those provided in the Section 42A Report under Section 8, Topic 3 and 4.

FLOOD RISK - SUPPORT

13. I support the withdrawal of the BOPRC submission point 25.40 and 25.41 requiring risk to life from flooding be inserted as a matter of discretion because further information provided by WBOPDC identified the limited overlap between areas with high risk to life and existing property boundaries as discussed in the Section 42A Report (Section 8, Topic 7). Therefore, I support the Option 1 recommended in the Section 42A Report under Section 8, Topic 7.
14. I support the withdrawal of BOPRC submission point 25.28 because further information was obtained from the developer of the Seddon Street Site to confirm there will be no increase in flood risk off site for the following reasons:
- (v) attenuation of post-development runoff to 80% or the pre-development volume; and
 - (vi) maintain flood flow capacity of overland flow path entering the site on the southern boundary.

**25 August 2023**

Mark Ivamy