

OIR: 2223/523

11 May 2023

[REDACTED]

Kia ora [REDACTED],

Request for Information under the Local Government and Official Information and Meetings Act 1987 (the Act) (the LGOIMA)

Thank you for your email of 17 April 2023 requesting the following information:

Q1: Can you provide an explanation of this sentence in the Update, please?

"Jacobs assessed the inland boundaries based on complex hydrogeological modelling which estimates where groundwater levels are likely to stop rising as a result of rising seas".

The April 2023 edition of the Takutai Kāpiti newsletter outlined how 38kms of the district's coastline had been divided into five adaptation areas for the purpose of the Takutai Kāpiti project. The sentence *"Jacobs assessed the inland boundaries based on complex hydrogeological modelling which estimates where groundwater levels are likely to stop rising as a result of rising seas"* explains why the adaptation area boundaries are different for each adaptation area and the reason why they go further inland in some areas and less in others.

Q2: Won't groundwater levels be expected to rise with SLR, storm surge, and more intense and more frequent heavy rainfall events? And do so until the point that SLR and its back pressure on terrestrial groundwaters begin to overwhelm, inundate, and further elevate coastal groundwater levels?

Evidence confirms that inundation, (coastal flooding), within these defined adaptation areas, will rise with SLR during a storm tide event. Jacobs completed an inundation assessment (often referred to as the [Jacobs Report](#)) for Takutai Kāpiti, which identified areas that are potentially vulnerable to inundation during a storm tide event and found that there is a 1% chance of this occurring in any year – this is often referred to as '1% Annual Exceedance Probability (AEP)'. These areas have been mapped and can be seen on the following page of our website [here](#).

Q3: And didn't KCDC claim (Kris Pervan on 29/3/23 in response to a LGOMIA that Council initiated, but attributed to me) that "the intent of the [Takutai Project] newsletter was to highlight that although groundwater is outside the CAP's remit, they are very aware of the interconnectedness of water issues in our District"?

For completeness, I confirm that our response to you under OIR ref: 2223-499 on 29/03/2023 noted that *'although groundwater is outside the CAP's remit, they are very aware of the interconnectedness of water issues in our district'*.

Q4: And yet the SLR work by Jacobs, that CAP relies upon, and which falls within CAP's remit, has involved Jacobs employing "complex hydrological models"?

Jacob's inundation assessment uses a 'bathtub' approach to identify areas that are likely susceptible to coastal flooding at different levels of sea level rise in an extreme storm event. The 'bathtub' approach does not allow for additional effects of fluvial (high flow in rivers) or pluvial (rainfall) elements. This is something that is being covered separately by our Infrastructure team, along with Greater Wellington Regional Council (GWRC), as part of updating the flood modelling for the district. In our OIR response ref: 2223-499, it was noted that groundwater (which is not a result of sea level rise) is outside of the CAP's remit. However, inundation within the adaptation areas is within the CAP's remit, and this is something that they are covering as part of their work.

Q5: Don't 'system problems' arising from "the interconnectedness of water issues" demand 'system assessment', 'system conclusions' and 'system solutions'?

Please refer to the response to Q6, below.

Q6: So isn't a remit that only focuses just on SLR a nonsense, if only because KCDC have themselves commissioned work on terrestrial hydrology to make sense of the interplay between SLR and its affects on coastal groundwaters?!?!?

The remit for CAP was agreed through the Co-Design Working Group for Takutai Kāpiti that consisted of representatives from our Tiriti Partners, Greater Wellington Regional Council, Coastal Ratepayers United, North Ōtaki Beach Residents Group, Waikanae Estuary Care Group, and Kāpiti Coast District Council staff. The output of this project is community feedback and support on coastal adaptation options over the short, medium and long-term.

The Jacobs inundation assessment is intended to provide an evidence base that shapes a small set of potential coastal erosion scenarios which will support the CAP to decide their recommended coastal adaptation options.

Other work is in-track to create a more cohesive picture of the interconnectedness of water issues, and the systemic response that will be required. Jacobs inundation assessment, alongside other relevant evidence such as flood-modelling, will inform a more systems-focused discussion in due course.

Q7: Any drainage inefficiencies are surely a consequence, just like our persistent flooding, of our District Council's unmitigated failure to monitor and maintain a critical part of the Waikanae stormwater system, over an extended period of time - isn't it?

This question has been referred to the Group Manager of Infrastructure Services, Sean Mallon, who is responsible for the Waikanae stormwater system. You will receive a separate response.

Thank you for your ongoing interest in Takutai Kāpiti.

Kind regards

A handwritten signature in black ink, appearing to read 'Kris Pervan', with a stylized, cursive script.

Kris Pervan

Group Manager Strategy and Growth

Te Kaiwhakahaere Roopu Rautaki, Te Tipuna me te Whakaoranga