

15/06/26

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Kia ora Mujahid

CANTERBURY REGIONAL COUNCIL (CRC) RESPONSE UNDER SECTION 67 OF THE FAST-TRACK APPROVALS ACT 2024

Thank you for the Section 67 further information request from the Panel/ Minute 9, dated 12 June 2026, for the State highway 1 North Canterbury- Woodend Bypass Project (Belfast to Pegasus) application by NZTA under the Fast-track Approvals Act 2024.

The Minute directed CRC to provide further information in relation to the climate change provisions in the stormwater and flood models for the project.

The requested information is provided in Attachment 1.

CRC trusts this satisfies the Section 67 information request but if you have any further questions please don't hesitate to get in touch.

Ngā mihi,

A handwritten signature in black ink, appearing to read 'Joanne Mitten', is written in a cursive style.

Joanne Mitten
Principal Consents Planner

ATTACHMENT 1: INFORMATION REQUESTED BY THE PANEL

Request:

Minute 9 dated 12 June 2026 (copy attached), item 3(a) states:

“The Panel requests further comment from both the Applicant and CRC stormwater experts on whether alternative representative concentration pathways (RCP) scenarios should be considered and why, and the likely effect of alternative scenarios on the flooding assessment. For clarity, the Panel is not anticipating re-running of flood models but rather a qualitative, written opinion on the expected effects”

Response:

- Item 2 of Minute 9 quotes from a paper that RCP8.5 is now implausible. The next paragraph in that paper begins with the sentence “Plausibility is a subjective judgment.”
- The Intergovernmental Panel on Climate Change (IPCC) is the international body tasked with assessing the science of climate change. The IPCC is currently in the Seventh Assessment Cycle. Reports from this are not expected to be issued until 2029.
- Earth Sciences New Zealand’s (formerly NIWA) climate scientists use IPCC’s global models to carry out analysis and develop climate change projections specific to New Zealand. This information is used by Ministry of Environment (MfE) to provide advice to government and local government on climate change.
- Earth Sciences New Zealand provide extreme rainfall data for various return periods and event durations, for a range of climate change scenarios and time horizons, via the High Intensity Rainfall Design System (HIRDS) online tool.
- Using rainfall data from HIRDS assuming RCP8.5 to understand potential flood risk and test potential long-term performance of infrastructure is industry practice in New Zealand, and consistent with current MfE advice.
- If a different change scenario was adopted for the design (e.g. RCP 6.0) but with the same time horizon, then this would likely reduce the HIRDS rainfall depths and intensities for given return period and duration event. However, the uncertainty margins as reported in HIRDS would also need to be considered.
- The flood model used in the design includes a number of parameters and assumptions, with rainfall being one of these. We note that our previous advice provided comments on shortcomings of the existing modelling and recommended peer review of the model.
- A reduction in rainfall intensity (or depth) would likely reduce runoff, however it is difficult to provide a qualitative assessment of how this would change the flood risk at the site.
- For wide relatively flat areas, such as this project, a large change in rainfall is generally required to cause a significant change in flood level. This suggests that RCP 6.0 would not lead to a significant change in flood levels for the project. However, this would need to be tested in the model.

- If any further modelling was to be carried out, the model should first be updated to address the issues raised in our previous advice, including being independently peer reviewed.
- This response does not alter any of the technical advice provided in our earlier memo.