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Reference: Te Karaka Stopbank – Aquatic Ecology Review

1 *Introduction*

Gisborne District Council (GDC) has applied for resource consent to upgrade flood defence infrastructure along the Waipaoa River in the vicinity of Te Karaka. This involves earthworks associated with the construction and upgrade of approximately 4.2 km of flood banks. The application has been publicly notified and submissions on the proposed activity have now closed.

Align Limited, on behalf of the consenting authority, has requested that Stantec review aspects of the consent application relating to effects on freshwater ecosystems. Specifically, Align Limited has asked “*does the Ecological Impact Assessment adequately address freshwater ecological effects?*” It is noted that Stantec was not involved in reviewing the ecological efficacy of the application prior to the notification stage of the consenting process. Furthermore, we have not been asked to review effects on terrestrial ecology.

The scope of this assessment also includes reviewing information contained in relevant submissions including:

- *Submission 6 (Jenny Moran)*
- *Submission 76 (Coates Family Trust)*
- *Submission 80 (McLanachan)*
- *Submission 81 (Pine Hollow Family Trust)*

Reference: Te Karaka Stopbank Flood aspects

This memorandum summarises the adequacy of the application's Ecological Impact Assessment¹ and addresses, in a general sense, matters raised in submissions pertaining to aquatic ecology. It also considers draft consent conditions outlined in the Strategy document².

2 Ecological matters

2.1 Fish surveys

The applicant ecologists utilised eDNA methodology to obtain presence/absence information of the fish community within the Waipaoa River. Methodology is not provided for this assessment, including the number of replicates used, or where the sample(s) were taken. In addition, the report does not utilise the New Zealand Freshwater Fish Database (NZFFD) to obtain information, which would be expected for an assessment at this scale.

In general, there is a lack of clarity in the application regarding the data obtained and used for the assessment. This provides some uncertainty when assessing potential effects on freshwater ecosystems, particularly for smaller streams within the proposed flood banks footprint (see below).

2.2 Culverts and streambed works

The report does not provide information pertaining to the fish community within the Eastern Stream (Unnamed Watercourse). This is where a culvert is proposed to be installed. There is also a lack of commentary on whether there are any impacts to native freshwater fish that may be within the vicinity of this installation, or mitigation methods for addressing any potential effects of installation. It is our opinion that the activity would require some sort of management action to avoid potential effects on resident or migrating fish populations.

The applicant acknowledges the culvert design guidance set out in the Resource Management (National Environmental Standards for Freshwater; NES-F) Regulations 2020 Section 70(2). Proposed consent conditions require detailed designs and a management plan to be drafted after consent is granted. In addition to the proposed culvert and fish passage conditions, we recommend that the following requirements be added to the consent:

- A suitably qualified freshwater ecologist shall be required to review the culvert design to ensure that it is fit for purpose (i.e. to maintain and facilitate fish passage).
- A Culvert Monitoring and Maintenance Plan (or similar) be prepared and submitted to the Regulatory Manager at Gisborne District Council.

¹ SLR Consulting New Zealand Limited. (2026). *Ecological Impact Assessment – Te Karaka Flood Scheme Upgrade*. Prepared for Te Kaunihere o Te Tairāwhiti – Gisbourne District Council. Project No. 880.016774.00001. Version 1.5.

² *Strategy* (2026). *Proposed Consent Conditions – S92 RMA Response Track Changes Version*.

Reference: Te Karaka Stopbank Flood aspects

- The detailed design shall follow the design advice outlined in Section 70(2) of the NES-F.

The above requirements will help address the fish passage requirements of the NES-F. If these requirements cannot be met, then some form of fish passage monitoring is recommended to ensure the culvert structures are providing adequate and ongoing fish passage.

2.3 River processes and freshwater values

In general, the increased setback of the proposed flood banks is likely to provide more room for the Waipaoa River to function more naturally as a dynamic braided river system. In regard to water extraction effects associated with dust management, we consider the Ecological Impact Assessment has provided an adequate assessment of the potential aquatic ecology effects.

2.4 Adequacy of information

The report has not provided any details on the freshwater values associated with any activities proposed to occur within other watercourses other than the Waipaoa River. This has created uncertainty for understanding the impacts of any activities associated with these streams (e.g., culvert installations) and further information is needed to address this shortfall in assessment.

As noted above, no information regarding fish populations for smaller streams has been provided. Furthermore, there are no methods outline for proposed instream works, or details on whether vegetation clearance or any other activities may be required to facilitate works. An assessment that outlines the locations of any culverts and/or floodgate structures is required, as well as a robust assessment of freshwater values and an adequate assessment of effects is needed to address the information gap.

3 Summary

Overall, the Ecological Impact Assessment has some fundamental gaps in information.

It is considered that the proposed flood protection enhancement works can likely be undertaken in a manner that avoids (or at least mitigates) impacts on freshwater ecosystems. In particular, the increased setback of the flood banks should provide more room for the Waipaoa River to function more naturally as a braided river system, and well-considered management plans should ensure that construction effects are avoided or minimised.

However, there remains uncertainty around what values are present in smaller stream systems in the vicinity of the proposed flood banks, and what management methods will actually be employed as part of proposed management plans. This information is generally expected within an Ecological Impact Assessment for an activity of this scale and significance.

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Yours sincerely

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