Before Gisborne District Council Under In the matter the Resource Management Act 1991 (the RMA) of applications by Gisborne District Council for resource consents to modify a stopbank at Te Karaka

Statement of evidence Daniel Moran 88 Rangatira road ,Te karaka

Subject : R M consenting conditions sort Rangatira Bridge in relation property 88 Rangatira rd Te karaka in regards stopbank upgrade 21/09 /26 and other stake holder on road along with bridge beneficiary users

1 / Note for commissioners to make other bridge submitters and speakers for Kanakania bridge aware that they could co-sign the bridge conditions I've come up with ,as an endorsement for total bridge protection going forward for community members' life lines being maintained ,if they have no drafted conditions and agree and want to ?.

2/ The Core of Argument

Laying out a stark, mathematically sound risk that the Gisborne District Council (GDC) and NZTA Waka Kotahi must answer for: 2.1 ,2.2 ,2.3

- **2.1 The "Dam" Effect:** If the stopbank is raised by **2.5 meters**, and the river level rises above the bridge deck, the combination of the 1.9-meter beam depth and the 1.3-meter guard rail creates a **3.5-meter solid barrier**.
- **2.2 The Slash Trap:** During an over-design flood event, this barrier will act as a massive rake, catching forestry slash, worsening the backwater effect upstream, and placing immense structural load on a 60-year-old bridge.
- **2.3 The Policy Contradiction:** It is deeply frustrating that NZTA is willing to fund and support raising the state highway to match the new stopbank, yet they are not proactively addressing the vulnerability of the bridge structures themselves under the same project scope.

3/ I 'm suggesting , instead of treating the stopbank and the bridge as two separate issues, **the bridge raising should be integrated into the current Te Karaka Stopbank Upgrade resource consent project**. Utilizing NZTA's 65% replacement/upgrade funding pathway is exactly what standard asset management and the NZ Infrastructure Commission preach: protect and future-proof what we already have.

4/ Legally Binding Condition: Protection of Public Roading & Lifeline Infrastructure (Rangatira Road Bridge) plus Kanakania Bridge if residents want these conditions as part of the RC granting

Objective & Maintenance of Public Access

This condition applies specifically to the public roading bridge located on **Rangatira Road, Te Karaka**, which serves as the sole public legal access and civil defence evacuation lifeline for properties including **88 Rangatira Road** (the "Rangatira Road Public Bridge"). The Consent Holder (Gisborne District Council) acknowledges that the authorized stopbank retreat and consequential floodway re-alignment will deliberately impose an additional 2.5-metre hydrodynamic flood surcharge, increased water velocities, and severe debris-loading risks onto this public roading asset during design flood events. The Consent Holder shall be legally responsible for ensuring that this public lifeline is structurally upgraded to withstand the modified flood conditions.

Mandatory Public Infrastructure Structural Upgrade

Prior to the commencement of any physical earthworks or stopbank construction authorized under this consent, the Consent Holder's Rivers and Flood Control team shall coordinate with Council's Roading/Tairāwhiti Roads division to execute necessary structural and hydraulic upgrades to the Rangatira Road Public Bridge.

- **Design Standards:** The bridge must be retrofitted, reinforced, or rebuilt to ensure structural survival and stability against the hydrodynamic, buoyancy, and debris forces exerted by the additional 2.5-metre water level surcharge during the maximum design flood event.
- **Continuous Lifeline Function:** The upgrades must ensure that post-event, the bridge remains safe for public use, heavy emergency vehicles, and civil defence evacuation without prolonged structural closure.
- **Independent Certification:** Physical works on the stopbank upgrade scheme shall not commence until a Category 1 Chartered Professional Engineer (CPEng) certifies to the regulatory authority that the bridge upgrades have been fully completed to this standard.

Emergency Continuity of Access Plan

In the event that the public bridge on Rangatira Road is rendered unsafe, structural impaired, or blocked by debris during a flood event as a consequence of the 2.5-metre scheme surcharge, the Consent Holder (Gisborne District Council) shall, at its own cost, immediately provide alternative, compliant, all-weather vehicle access to 88 Rangatira

Road and any other isolated properties. This obligation shall remain active until the public bridge is repaired, cleared, and re-opened to regular legal traffic.

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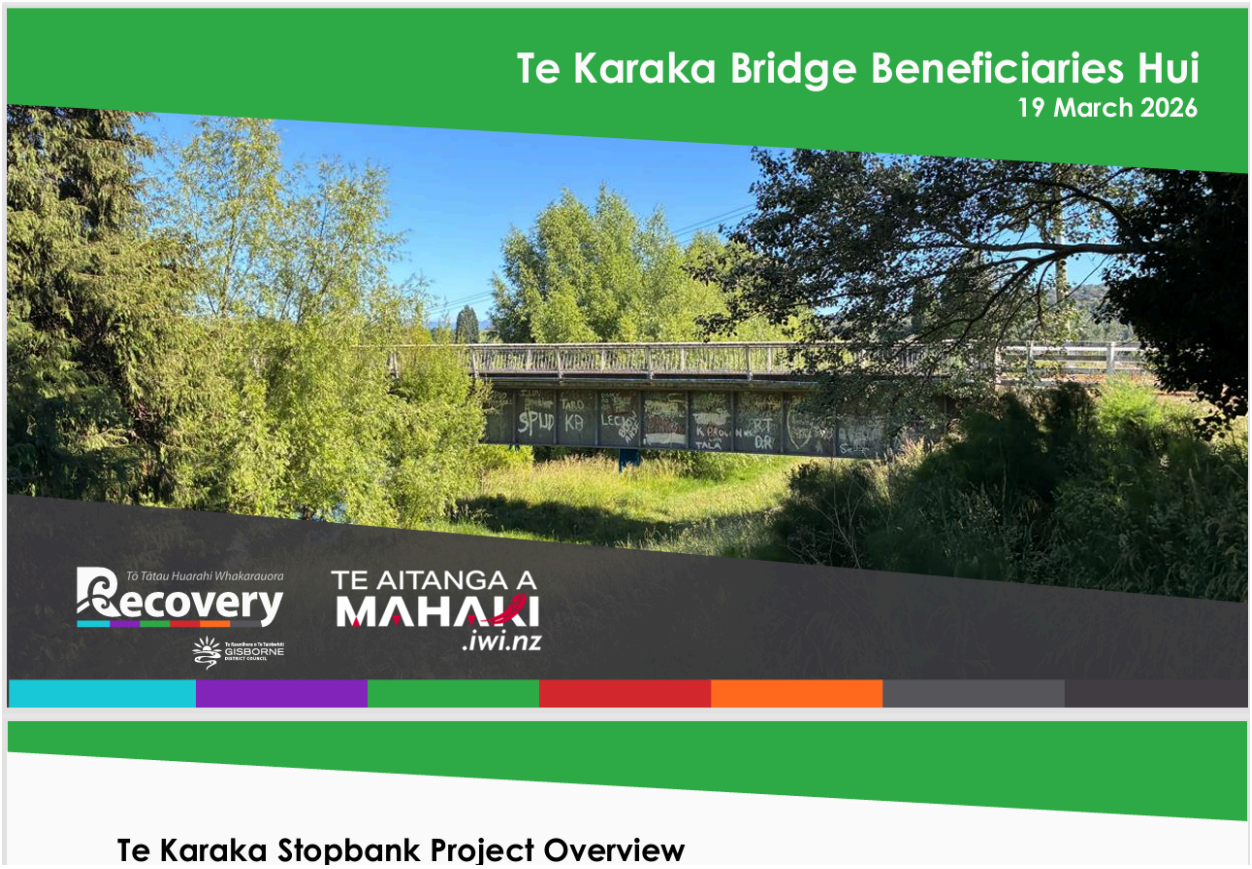
5 / Are there any other **public assets** along Rangatira Road that will be flooded by this extra 2.5 metres of water (such as **power poles, water mains, or telecommunication lines**) that we should write into this protection condition?

Perhaps power line but (firstlight) now horizon are only concerned about the Puha substation , but as you drive across the Rangatira bridge ,power lines appear to be at the top of the guard rail level (Electricity life line to TK)

I think we were the last people on the copper line so telecom is OK but worth checking with the road ,recently downers / chorus persuaded us to go 4g spark modem for telecom communications

Information used in making the summary above 1-5

As below

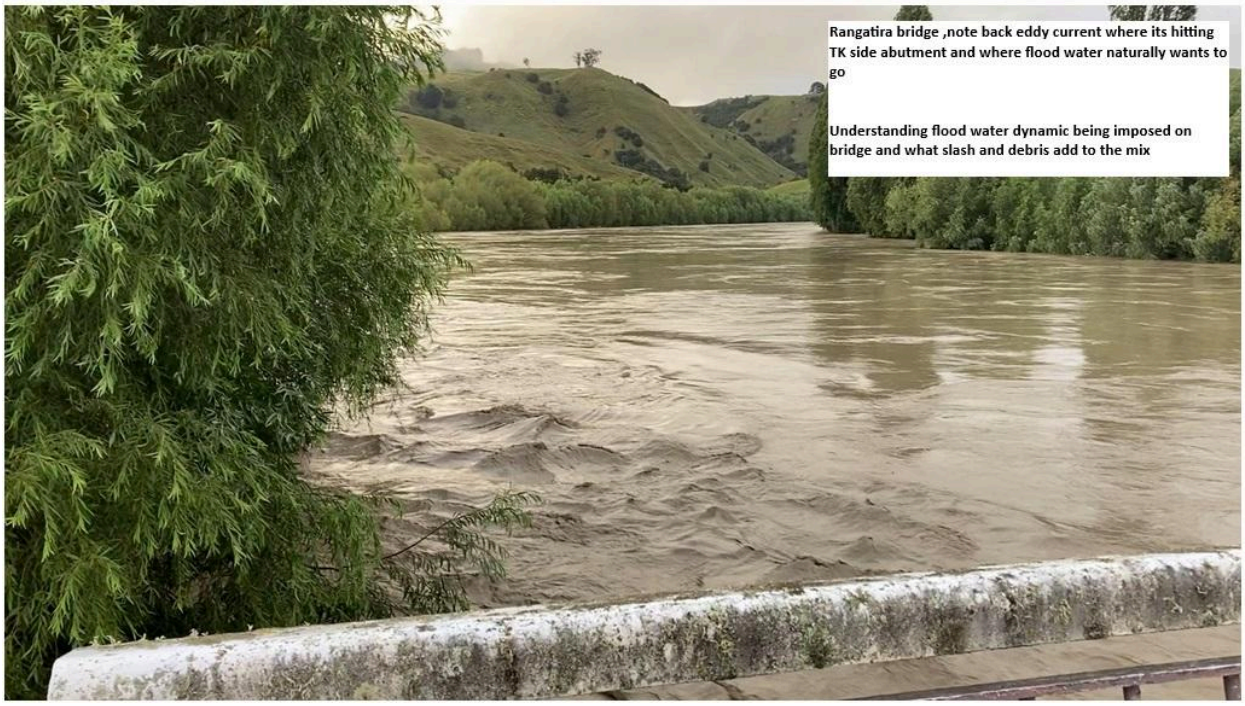


I object to being called a bridge beneficiary, we rate payers on the far side of the bridge are stakeholders as we rely on bridges for lifelines for business and income

Beneficiaries would use them for pleasure or discretionary use .Rangatira road residents have relied on this 60 year old life line now being ignored in a proposed stopbank upgrade plan

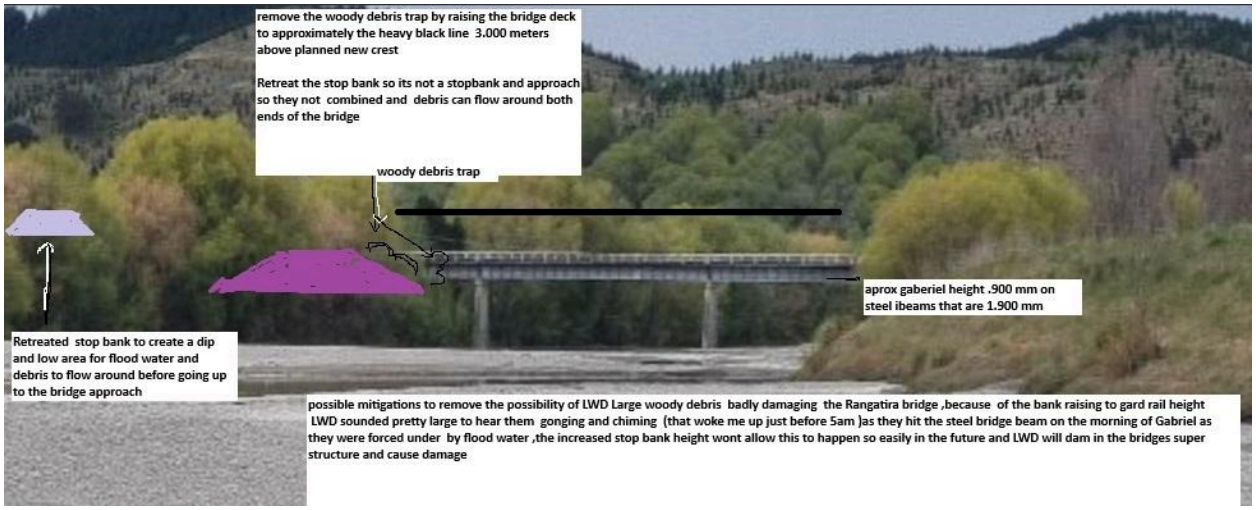
I like to sleep soundly in flood events ,as there's no way to control them , but if this stopbank is raised ,a good night's sleep won't be as easy, wondering if our life line will be there in the morning will become an ongoing concern

Gabriel had me waking to a gonging noise that morning near 5am of LWD large woody debris /slash hitting Rangatira bridge beams ringing out into the early morning darkness. You don't know what's happening out there ! how the village folk are fearing ?

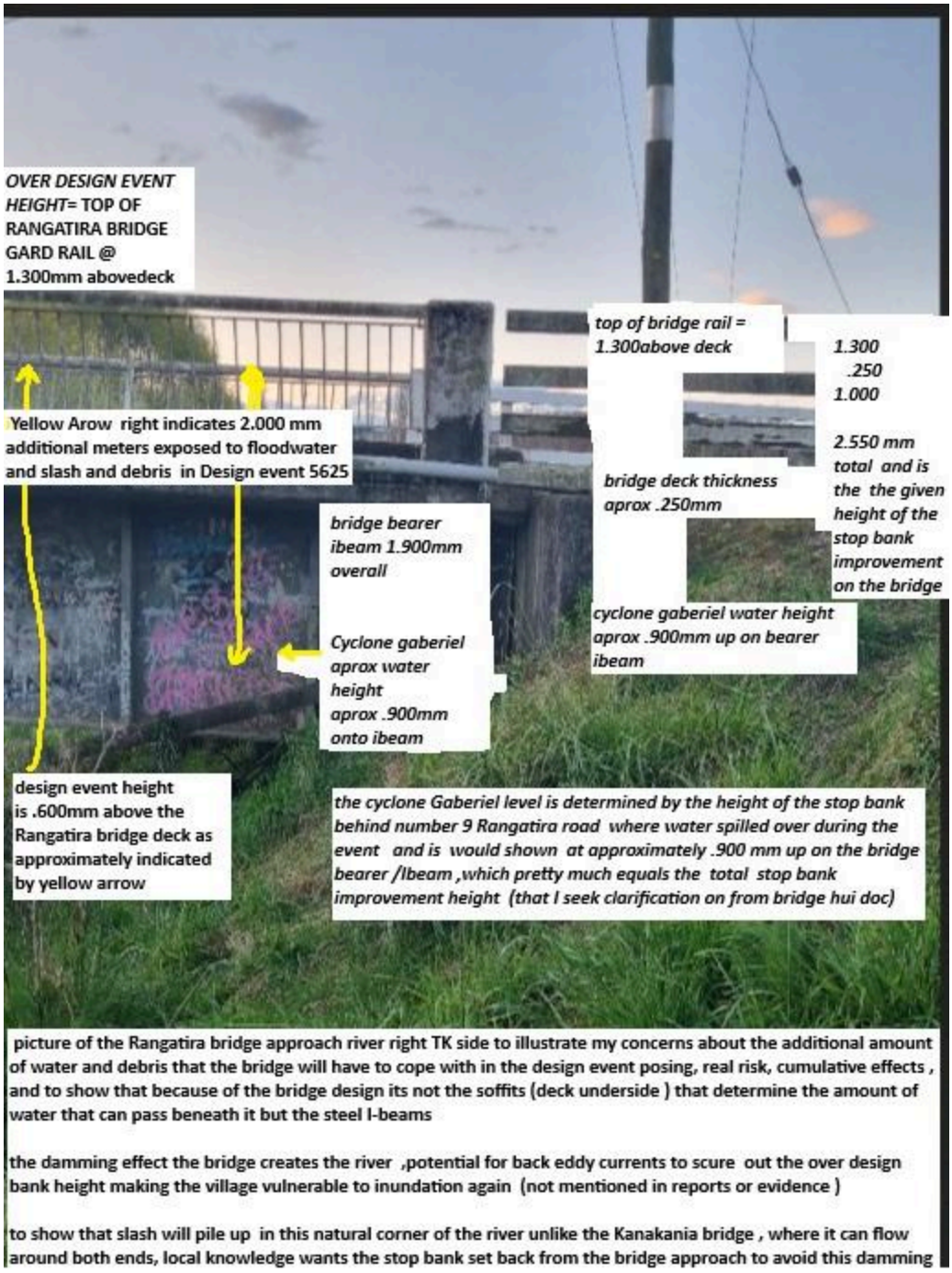


A 2.5 meter stop bank increase with potentially more height increase to come as the river bead level agridates and rises ,puts river levels over the top of the bridge guard rail in the for-ground at 1.3 meters above the deck the deck level below the deck is 1.900mm of beam

Thats nearly a 3.5 meter high dam extending the width of the Rangatira bridge when in full over design flood



The picture above demonstrates how much more the bridge is exposed to LWD /slash being hung up on it if the stopbank is increased



picture of the Rangatira bridge approach river right TK side to illustrate my concerns about the additional amount of water and debris that the bridge will have to cope with in the design event posing, real risk, cumulative effects , and to show that because of the bridge design its not the soffits (deck underside) that determine the amount of water that can pass beneath it but the steel I-beams

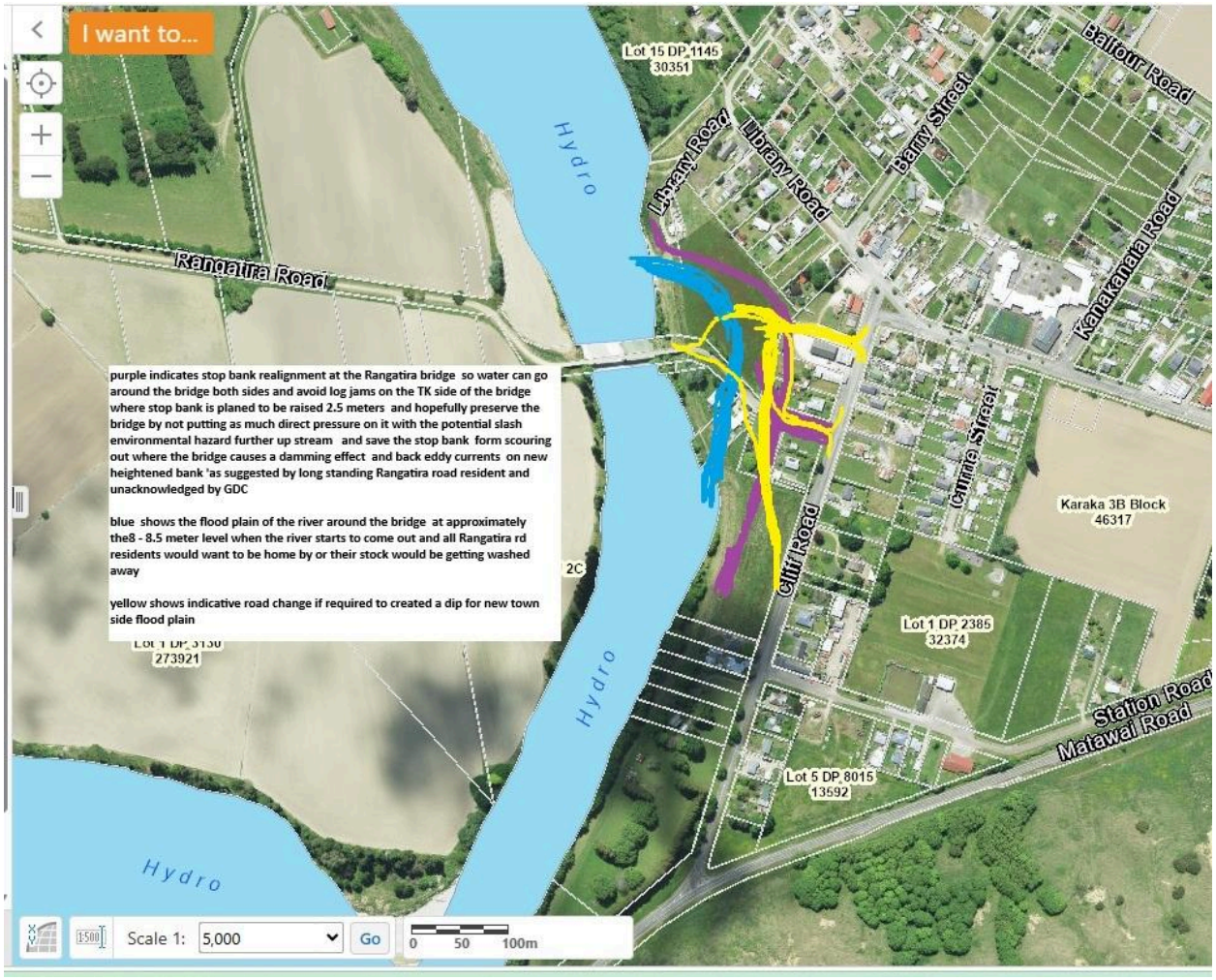
the damming effect the bridge creates the river ,potential for back eddy currents to scure out the over design bank height making the village vulnerable to inundation again (not mentioned in reports or evidence)

to show that slash will pile up in this natural corner of the river unlike the Kanakania bridge , where it can flow around both ends, local knowledge wants the stop bank set back from the bridge approach to avoid this damming

No NZTA submission opposing the application on the basis of jeopardizing the bridges did I read ,but they happy to raise the water against them with road raising that they are in support of

, According to evidence (Joss /cox gdc) NZTA have the funding roll for 65 percent of replacement bridges if you can get it in the long run , why not plan for thing now NZTA and take a look at securing the bridges not risk them ,

listen to the NZ infrastructure commissioner when he spoke on TV a while ago , look after and protect what we got please .



Perhaps the bridges could be raised during the stopbank project under the same resource consent by just replacing the piles and piers and craning the existing beams and deck onto new higher structures able to take new loads , potentially could cut costs by ⅓ to ½ of getting bridges to correct heights to future proof the infrastructure life span

Any new or upgraded bridge would have to be built exceedingly high as the stopbank plan with its 4 meter wide crest allows for a potential additional 2-3 meters of design increase depending on what's chosen I would have at a guess

A five plus meter extension would have the Rangatira bridge looking like a mini viaduct running out into a flood plain

Bridge risk real = slash/debris dams and cumulative effects there of

I should think it was the slash that came down stream on the morning of Gabriel after being hung up on the bridge below that woke me up around 5am in the morning 14/2/23 as it hit the steel beams under the Rangatira bridge deck ,the gonging sound, sounded like the bells of a great cathedral ringing out maybe no one else heard it as the people of TK were fleeing for their lives to the hills

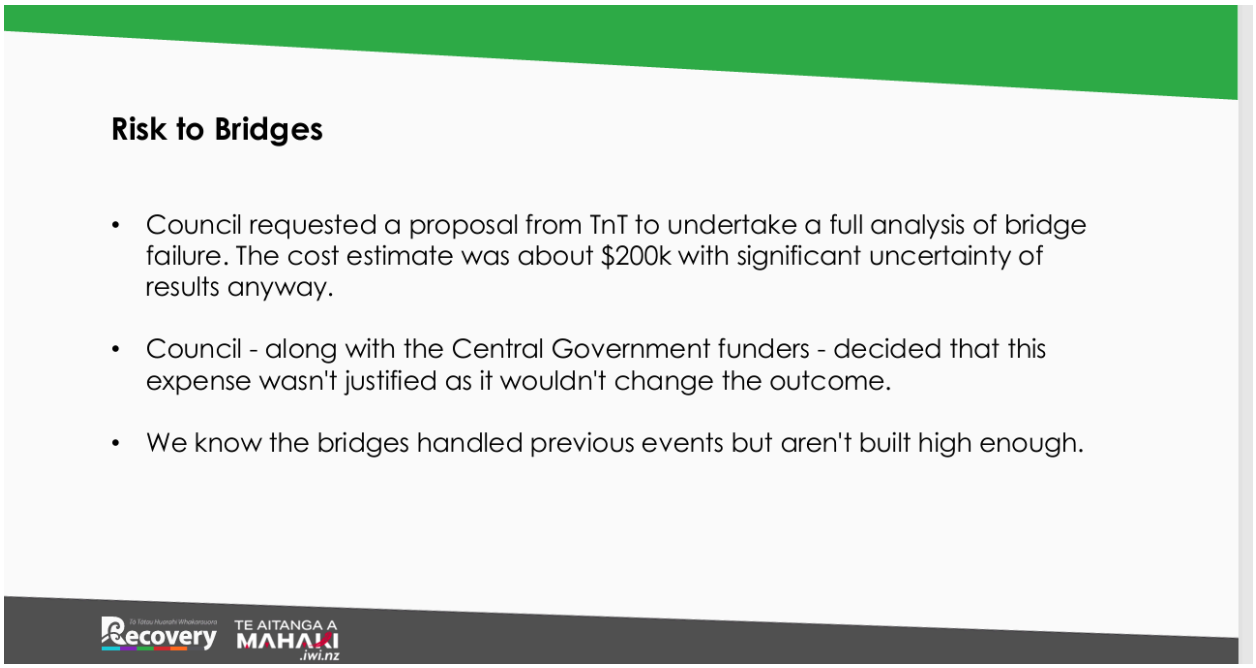
GDC can't tell me woody debris including whole striped bear 15 year pine trees with root balls intact on the bottom ,won't be a problem for the Rangatira bridge in floods to come ?

The old Mangatai Access Bridge across Waipaoa River was washed away during cyclone Gabrielle. Photo: Supplied / Not-For-Syndication

GDC claim in evidence there was no woody debris coming past the bridge when their video evidence was shot and provided to them ,it would be good to understand the time this video evidence was taken and how far flood waters had receded ?

on the bridge in the dark at approx 5am with an night vision camera before the sun rises at aprox 6.30 am at the Gabriel time of year would have been the time to get debris footage I suggest

I should think if someone was game enough to go out on the bridge before flood waters started to drop and no more debris were being picked up by the river then they are risk takers and is that what GDC likes people to do ? taking risks I like to know the time the video footage was taken



GDC lifelines manager With respect to the Mangatai Access Bridge, while property acquisitions formed part of the response in that case, the circumstances surrounding Mangatai Bridge were unique and any decisions made there do not create a precedent for future situations. Any response to a future bridge loss event would need to be assessed on its own merits, considering the specific circumstances at the time, including feasibility, affordability, funding availability, risk, and cost-benefit considerations.
Im thinking GDC is happy to gamble with the Rangatira bridge offer solutions on the fly ,as pictured below which demonstrate very little respect for the power of the Waipoa river in flood at the Mangatai bridge

What's one to think and do if you rely on a bridge for a life line going forward , especially on a low volume road like Rangatira, without a solid life line plan going forward .

Has animal welfare even been considered in the plan scenario , large farms and even the very small have to move livestock quickly after flood events when river flats are taken out of production ,how do you get them across swollen rivers with no life workable line plan ?

The Kanakanaia columns will require strengthening if the increased risk from the additional imposed loads is to be mitigated. A full assessment would likely conclude that strengthening of the columns would be required to withstand the existing design flood load to meet modern standards also.

Although the Rangatira pier wall has sufficient flexural capacity, the pile foundations have not been assessed. Given the blade wall pier's high in-plane stiffness and capacity, significant lateral demands will be transferred to the piles, and pile capacity is considered the most likely critical element for the Rangatira Piers. A full assessment is required to confirm this.

As discussed above, the capacity assessment undertaken is limited to a single failure mode of one element (flexural capacity of one of the piers elements) under a single design flood load. Detailed assessment of the bridges was not undertaken, and accordingly, we cannot exclude if either bridge requires strengthening for either the substructure or superstructure. Accordingly, we also cannot currently confirm the extent or likely costs of these strengthening works.

This report has been prepared for the exclusive use of our client Gisborne District Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that our client will submit this report as part of an application for resource consent and that Gisborne District Council as the consenting authority will use this report for the purpose of assessing that application.

Yours sincerely

Oz Ben-Ezra
Principal structural engineer

Damian Velluppillai
Project Director

14-Sept-26
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Bridge emergency response

What's the plan ,where is the WSP report , not in evidence , just some lines on a map by someone more talented with paint than me.has any one walked the terrain the link to the NE of Te karaka demonstrates a total lack of judgment and local knowledge

The GDC response on the Waipoa ,at Te kowhai road, below demonstrates their understanding of a rivers water power by creating dams ,whether it be by slash/debris or causeways that limit flood channel flow

Temporary Modular Bridges

- Short span bailey bridges can be installed in as little as 2 weeks
- NZTA temporary bridge stock is stored in Hastings
- Hikuwai No.1 took 4 months after the event
- Rangatira & Kanakaia both have multiple spans which could be more complex depending on the failure
- Many failures could occur in an event of this size leading to prioritisation for bridge stock. Kanakanaia is a high priority under NZTA Cost Benefit requirements

The temporary causeway on Te Kowhai Rd at Whatatutu in rural Gisborne has been washed away, less than a month after it opened. Photo: Supplied / Not-For-Syndication

Prefer us on Google

A $200,000 temporary causeway in rural Gisborne that opened less than a month ago has been washed away, cutting off one resident from the rest of the world.

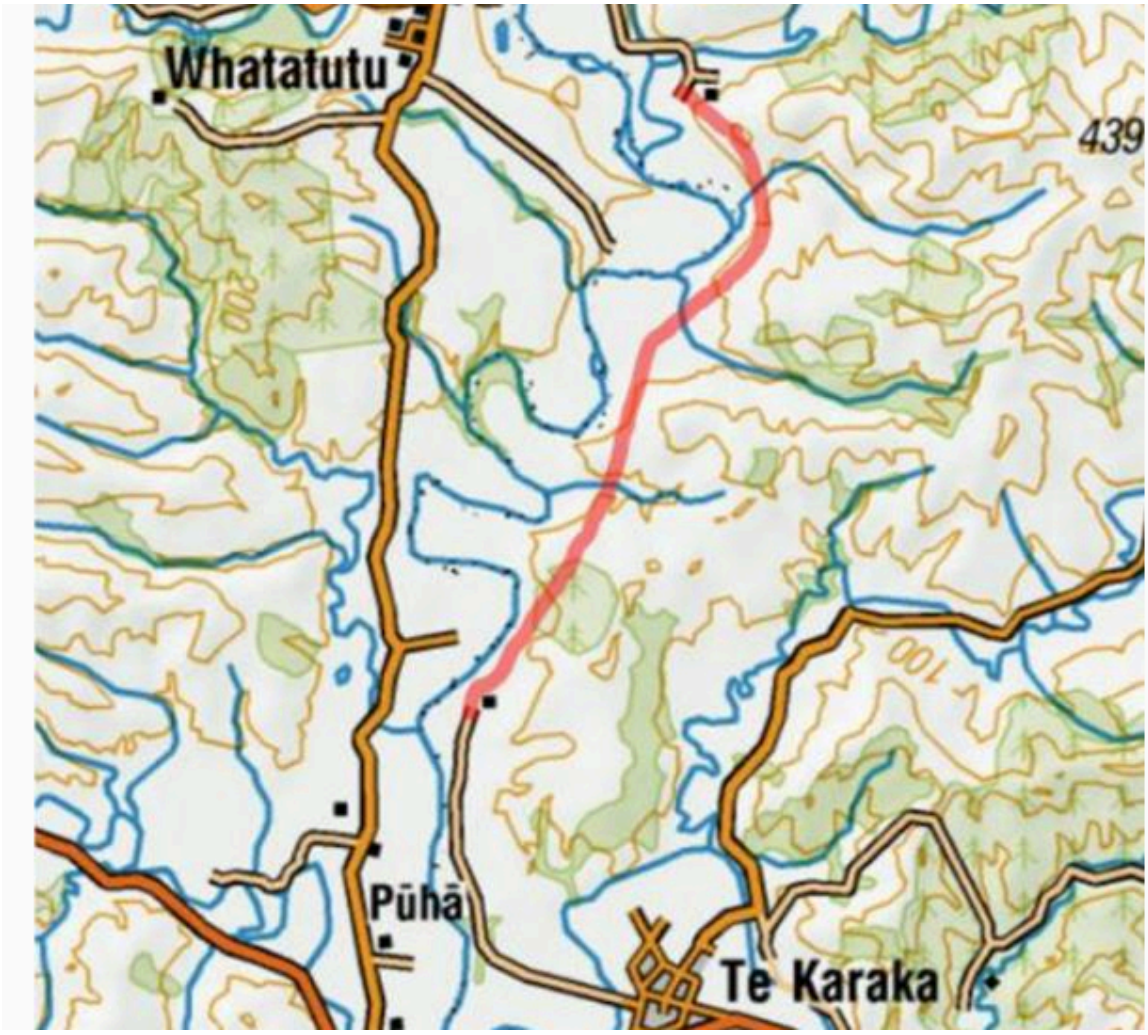
Rangatira			0.06m	At deck level	0.83m above deck	0.83m
Kanakanaia			0.30m	0.7m over deck	1.5m over deck	0.67m

Mitigation & Response

- WSP were engaged to investigate alternative access options, emergency response and potential structural mitigations

Access

- Three alternative road routes were identified.
- Between them, this allowed for four possible access points to Rangatira Road & Kanakanai Road.
- Time estimates for emergency road construction ranged from 2-4 weeks.


Whatatutu
439
Pūhā
Te Karaka

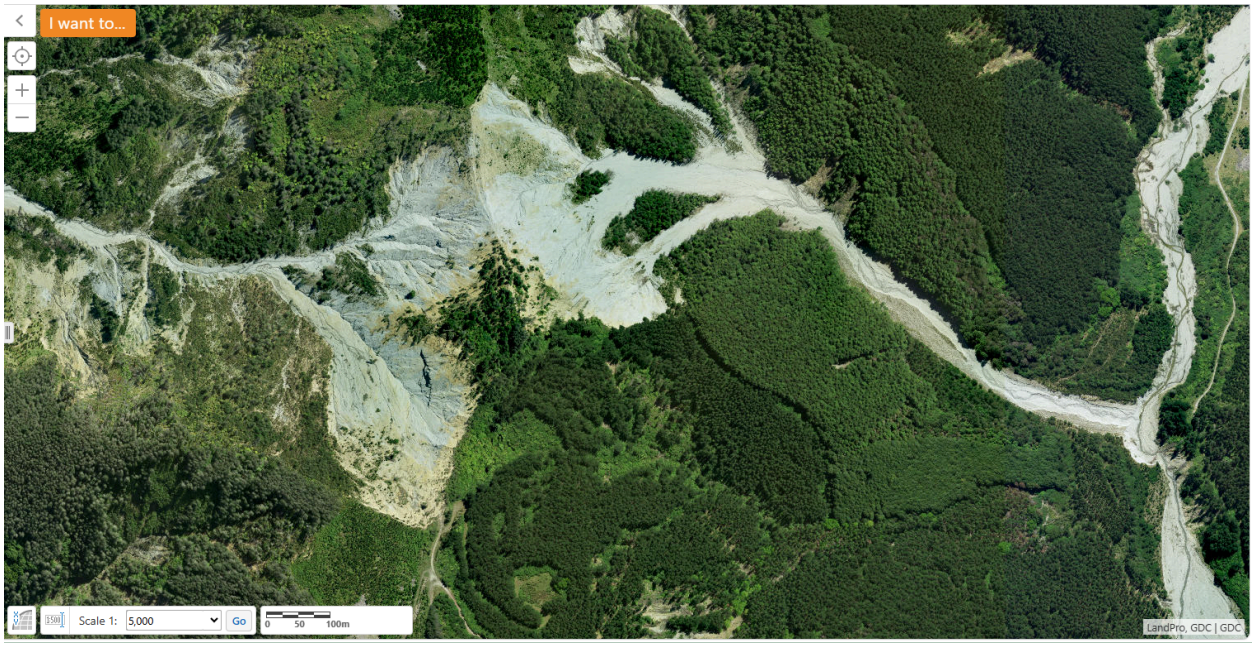

I want to...
Scale 1: 2,000
Go
0
30
60m
LandPro, GDC | GDC

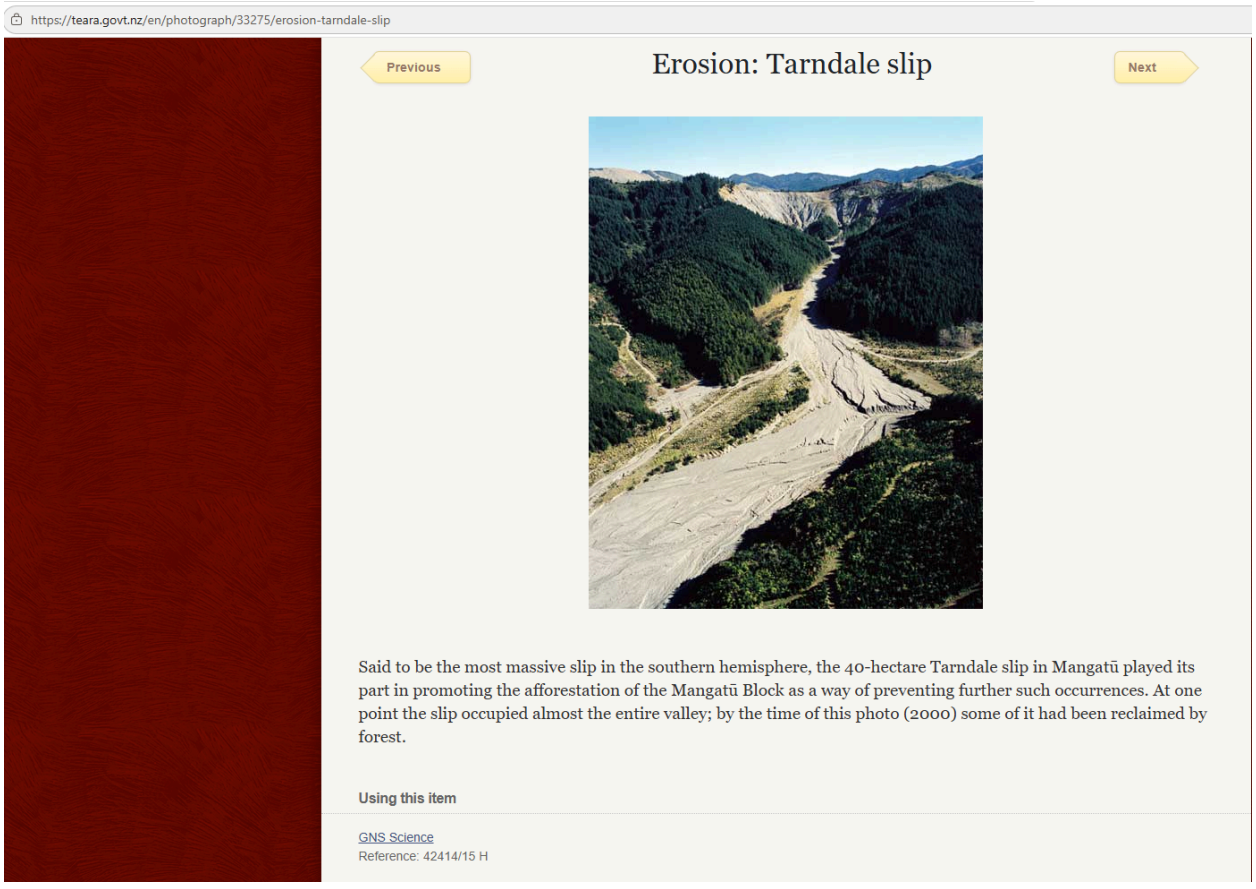
Figure 1 – indicative route between structures

NE of Te karaka emergency response route WSP not practical in my and neighbours view

Bridge failure only a matter of time IMHO ,lets hope it doesn't ever happen

Erosion = Agridation = eventual bridge loss ,Tarndale has expanded so much that when we drove across to view it 12 -14 years ago that part of the road is gorne and you could actually see the remnants of a tar seal out inthe middle of the now bear ridge between the two river vallies is now well gorn





Photos below is an examples of woody debris and forestry slash ,still on the river bank and 88 rangatira road, the first example is from the winter flood following Gaberiel

Second example is the remnants of a Gaberiel burn heap at the river bend below the bridge , this consisted of whole pine trees 14 to 20 meters long with intact root balls , base/stump widths of 300mm plus that appear to be were washed out of upstream gullies as they were standing

These whole pines that maintain their length as they progress down the river systems are a concern to me when they get hung up in the super structures of bridges a little bit different to the normally cut to length forestry slash

Above Example of larger piece of forestry slash following Gabriel still in a drain at 88 Rangatira

Below Slash /debries coming down kanakaniaha stream early jan 2026 (3 january 2026)

My understanding is GDC is taking a wait and see approach when it comes to maintaining life lines and more is required in the way of conditions for this stop bank raising to go ahead

Bridge raising -replacement ,a retreated stopbank at the Rangatira are my first options

other options could include

Mandatory Structural & Debris Interception Controls

- **Upstream Debris Catchments / Deflectors:** Order the applicant (Gisborne District Council) to design and install heavy-duty debris catcher piles or floating boom deflectors upstream of the Rangatira Bridge to catch woody biomass before it hits the bridge piers.
- GDC had one but it broke in Gabriel being the Mangati access bridge

Strict Operational Trigger Levels & Response Protocols

- **On-Site Heavy Machinery Mandate:** Impose a condition requiring a designated heavy excavator (with an appropriate grapple attachment) to be stationed at or near the Rangatira Bridge during any high-flow trigger event to actively clear slash as it arrives.

3. Comprehensive Hydrodynamic & Consequential Modeling

- **Peer-Reviewed Velocity Modeling:** Request an order for the council to update and peer-review its hydraulic modeling specifically to demonstrate how the new stopbank alignment impacts flow velocity and log trajectory directly around the Rangatira Bridge piers and now the superstructure well above the bridge

Financial & Access Protections for "Bridge Beneficiaries"

Bonding or Dedicated Maintenance Fund: Ask for a condition requiring a ring-fenced, long-term operational budget explicitly allocated for Rangatira Bridge debris monitoring and clearing, ensuring "bridge beneficiaries" are not left stranded or financially liable.

- **Emergency Access Contingencies:** Order the implementation of an emergency response plan that details how landowners cut off by debris accumulation will be supported or safely evacuated if the bridge becomes compromised.
  - Effective alternative emergency access routes plans in place , in case of bridge loss becomes real

1. Hydraulic Modeling & Water Level Discrepancies

- **Consequential Flood Assessment Errors:** Use the Council's *Consequential Flood Assessment* to highlight how much the upgraded stopbank raises localized water levels at the bridges.

- **The "Bottleneck" Effect:** The council has noted that the Kanakanaia Bridge naturally slows down downstream water flow. Present evidence showing that making the upstream stopbank more robust will intentionally worsen the backup of water right at these two bridges.

2. Lifeline Access and Landowner Isolation Risks

- **Trigger Points for Isolation:** Submit evidence showing the exact river levels at which vehicle access is cut off. For instance, when water levels at Kanakanaia Bridge reach **8.5 meters**, State Highway 2 to Gisborne is cut off—long before the stopbank itself breaches.
- **Duration of Entrapment:** Provide historical data or testimony on how long landowners remain trapped when these bridges flood. Increased water levels from the new stopbank mean the bridges will flood *sooner* and remain submerged *longer*.
- **Emergency Management Limitations:** Present evidence regarding the lack of alternative escape routes if these two bridges are compromised, proving that the proposal increases the vulnerability of the rural community outside the scheme.

3. Structural Vulnerability & Debris Accumulation

- **Age and Structural Design Limits:** Present public records regarding the construction date, design load, and piling depths of the Kanakanaia and Rangatira bridges. Older stopbanks and bridges often have unknown engineering limitations under extreme modern stress.
- **Woody Debris Catchment:** Provide photographic evidence or local testimony from Cyclone Gabrielle showing how severe forestry slash and woody debris accumulate against these specific bridge structures. Higher water levels increase the likelihood of massive debris dams, which exert immense lateral force on the bridges and can cause catastrophic failure.

4. Financial & Property Valuation Impacts

- **Decreased Land Value:** If your property relies entirely on these bridges, submit independent property valuations showing how a documented increase in flood risk/isolation time diminishes your land's economic viability and resale value.
- **Cost of Damage Mitigation:** Present quotes or estimates for what it would cost to raise your own access tracks, fences, or private infrastructure to cope with the Council's projected water level increases outside the stopbank.

5. Inadequate Mitigation under the RMA

- **Section 5 & 7 of the Resource Management Act (RMA):** Argue that while the project protects 200 township properties, it fails to promote sustainable management by shifting the risk and directly compromising the safety and "life-supporting capacity" of the bridge stakeholders .

- **Lack of Binding Mitigation Agreements:** Present evidence if the Council has failed to offer legally binding, funded solutions (such as commitments to structurally raise the bridges, upgrade the approach roads, or compensate for physical damage) before seeking consent approval.