WAKA KOTAHI
NZ TRANSPORT AGENCY

MEMO

To	Nicole Rosie, Chief Executive Brett Gliddon, Group General Manager, Transport Services Chris Bunny, Group General Manager, System Leadership
From	Vanessa Bates, Advisor, Cross Government Collaboration
CC	Cody Davidson, Manager, Cross Government Collaboration
Date	6 April 2023
Subject	Support material – Ministerial Inquiry into land uses associated with the mobilisation of woody debris (including forestry slash) and sediment.

Purpose

- This memo provides you with support material including background on key issues and speaking points for potential questions for your interview with the Panel in charge of the Ministerial Inquiry (the Inquiry) into land uses associated with the mobilisation of woody debris (including forestry slash) and sediment on 11 April 2023 in Tairāwhiti, Gisborne.
- The Panel members are Bill Bayfield, Matthew McCloy, and is chaired by Hon Hekia Parata. Dave Brash has also been a recent addition to the Inquiry and will be present at the interview.

Background

- The purpose of the Inquiry is to describe the history of land uses associated with the mobilisation of woody debris (including forestry slash) and sediment in the Tairāwhiti/Gisborne District and Wairoa District. The Inquiry is to make recommendations about the further work needed to address land use impacts of storms. Attached is the Terms of Reference for the Inquiry.
- Last week Sarah Downs and Jac Hankin attended an online meeting of the Panel. This was at the invitation of Ministry for the Environment officials, who contacted Sarah and Jac directly.
- Out of scope
- Out of scope
- Waka Kotahi requested a second opportunity to present to the Panel and this is taking place on 11 April 2023. The remainder of this memo provides information on resilience activities Waka Kotahi is undertaking, how Waka Kotahi takes land-use into account for our planning and investment activities, and what we do to mitigate the impacts of forestry activities on the network.

Waka Kotahi position on climate change and resilience

- Waka Kotahi recognises the need to take a planned and proactive approach to climate change adaptation. Climate adaptation will be an ongoing process of adjusting our responses and decision-making while supporting the wellbeing of our communities and businesses.
- We will need to build the resilience of existing infrastructure and systems to reduce vulnerability and ensure transport infrastructure is fit for a changing climate. This includes embedding adaptation into maintenance programmes, including renewal cycles.
- It will take time to build climate resilience into the land transport system, and the choices we make now have long-term consequences, especially as we are responsible for investing in, managing and operating inter-generational assets and systems. Climate change will also have the greatest impact on the most vulnerable people and isolated communities in Aotearoa.

Resilience activities undertaken by Waka Kotahi

- Waka Kotahi released a climate adaptation plan, Tiro Rangi, in December 2022 which outlines the foundational actions that will be undertaken by Waka Kotahi to set us on the path to a climate resilient land transport network.
- Tiro Rangi contains 21 priority actions arranged under six themes, including understanding the risks of climate change to Waka Kotahi, embedding adaption into investment decisions, ensuring we have robust evidence to underpin our climate adaptation work and embedding a Te Ao Māori worldview into our response.
- The development and implementation of Tiro Rangi is one of the critical actions of the National Adaptation Plan (NAP). Waka Kotahi and Te Manatū Waka Ministry of Transport will co-lead transport system actions in the NAP to ensure that our existing work programmes include climate adaptation. These actions are also reflected in the government's Emissions Reduction Plan (ERP).
- Waka Kotahi has also established a resilience framework which helps guide our priorities and provides the structure for a resulting resilience work programme.
- The resilience programme has a focus on creating robust assets, relocating assets, adding redundancy and alternatives to the system which are adaptive (including in partnership with other actors in the land transport system), becoming faster to repair and recover, maintaining and operating the system to minimise impacts, and enhancing information provision to users. The programme has identified and rated more than 380 risk locations across the country and is engaged with external entities researching resilience.
- Due to funding constraints and competing priorities, we are not able to provide the level of funding for proactive resilience improvements that the system ideally requires. For example, in this NLTP we have only been able to fund the business case phases of the most critical resilience risk locations.
- While it is preferable to maintain continuity of system availability, that is not always possible. Level of availability (or alternative) should relate to the criticality and classification of the asset or affected system.
- Increasingly, the land transport system will need substantial additional investment to increase the resilience of the network in the face of severe weather, as well as sea level rise. It is unclear at this stage what level of investment may be required for a climate resilient land transport system. However, the foundation actions in Tiro Rangi, particularly those that address our understanding of climate risk, will assist in developing a clearer picture.

Current resilience activity in the Tairāwhiti and Wairoa region

- Ōpōtiki, Tairāwhiti and Wairoa's relative isolation means they rely primarily on the state highway network to connect communities and to get goods from farm gates and forests to markets. There are three state highways that feed into and through the area.
- Prior to Cyclone Gabrielle, the Tairāwhiti region has been in an ongoing recovery phase in the wake of seven other significant storms since June 2021. State Highway (SH) 2, S35 and the interconnected local road networks have a history of resilience issues.
- Tairāwhiti has some of the youngest geology in New Zealand and consequentially has weak subgrades and slopes resulting in a high rate of land movement, significantly impacting road formations. It is estimated that 26% of the land in Tairāwhiti is susceptible to severe soil erosion, making up a significant portion of the estimated 8% of land across New Zealand.
- In addition to recovery from the series of storm events, Waka Kotahi continues to invest in particularly vulnerable sections of State Highway 35. For example, the Tairawhiti Roading Package which is made up of NLTF and Provincial Growth Fund (PGF) funding is investing $13.5m in 20 resilience hot spots where repairs, stabilisation, or other improvements would improve resilience and route security of the highway. Significant PGF funding has also been invested in the local network to improve resilience of key routes.
- In response to the recent weather events, Waka Kotahi is currently working on the East Coast Strategic Business Case. This work collates previous business cases from the Tairāwhiti and Wairoa area to prioritise investment in a way that improves the resilience of the transport network. Previous business cases in the area include:
    - The Connecting Tairāwhiti PBC (July 2018) – developed a programme which sought to connect people to markets and improve access to social, tourist, and economic opportunities.

- The National Resilience PBC (June 2020) – an evidence base of the nationally extreme and major risks posed to the New Zealand land transport system
- Hawke's Bay Transport PBC (October 2020) – Identified investment priorities and interventions for the Hawke's Bay region for the next 10 years. The key problems included themes of vulnerable and aging infrastructure, limited transport choice, transport network deficiencies and a poor road safety record.

The role of land use through planning activities

- Waka Kotahi considers land use through our transport planning function, recognising that integrated planning between transport and land-use results in better outcomes. Integrated planning recognises that the location, scale, design and mix of land uses are major determinants of the demand for travel and the mode of transport people choose.
- We use the One Network Road Classification to categorise roads according to place and movement. Classifications include consideration of adjacent land-use, such as forestry.
- The place and movement function of the transport network influences our investment decisions, particularly through the business case approach which also shapes the design of the infrastructure provided. This ensures that the various components of the transport network meet their functional purpose and provide appropriate levels of service.
- Through our investment decisions we also consider risk to the road, including resilience risks such as rockfall, slips, flooding, and erosion risk.
- Waka Kotahi also supports an integrated planning approach by engaging with councils and landowners to help shape the right land use activities in the right place. To achieve this Waka Kotahi nationally inputs into Resource Management Act land use policy and plans. However, there is limited opportunity for Waka Kotahi input if activities are 'permitted' such as those activities permitted by National Environmental Standard (NES) for Plantation forestry'.

Effects of forestry activities on Waka Kotahi assets and measures we take to mitigate them

- Forestry activities have a significant impact on Waka Kotahi assets and activities, from logging trucks using direct state highway access, and state highway network, to slash and/or sedimentation which may block culverts and damaging transport infrastructure downstream from locations where forestry activity occurs.
- There have been problems with slash and debris being washed onto roads and/or blocking culverts, which can cause surface flooding on the roads and stormwater flow issues. Surface flooding degrades the structure of the road, increasing the rate of renewals required. Slash is often washed downhill and can lead to redirection of streams and rivers and slope instability.
- Waka Kotahi experience significant underslips related to forestry slash and sedimentation which, as demonstrated by the most recent storm event, involve complicated, expensive, and time-consuming repairs, and often require full road closures.
- The biggest effect forestry slash has on Waka Kotahi assets is on the bridges on the state highway network.
    - During flood events, debris rafts can form against bridge structures. In areas with high forestry activity, a large component of these rafts is forestry slash. The debris rafts can force river water down and outwards scouring the foundations of the bridge. Debris rafts and floodwaters combined also apply increased lateral load to a bridge. The combined actions of increased scour and lateral loads can cause failure of a pier/bridge.
    - The debris rafts against the bridge can also raise the level of the river causing it to overflow the bank and wash out the approaches to the bridge, increasing the amount of time needed to re-establish the route.
    - To mitigate these effects, our current bridge design contains provisions for upstream forestry land use. These include an increase in the freeboard (allowance between bridge and water level) to the 100 year flood level (0.6m to 1.2m), and designing bridges to withstand a standard debris raft against the piers.
    - Of note is that a bridge design life is nominally 100 years and land use can change over the life of the bridge. For example, climate change effects were introduced to bridge design in 2005. There are many

older bridges across the network that were previously designed to lower standards and are therefore more susceptible to the combination of debris, flooding and scour.

- Waka Kotahi proactively monitor debris build up at bridges (including forestry slash) as part of regular maintenance in an effort to limit the lateral load bridges on the network are exposed to.

Options to pursue costs resulting from the impact of forestry slash

- Our current focus is on urgent work to restore our state highways and provide transport access to cut off communities. This has involved working with forestry companies in certain locations to help restore temporary access.
- Concurrently, Waka Kotahi are progressing urgent work to plan the design, funding and legislative/regulatory framework for the medium and long term remedial action.
- Because significant public funds will be involved in implementing both the short and long term remedial response, Waka Kotahi will consider at an appropriate point whether we can recover any of the sums we have spent, or will need to spend, from any third parties which cause or contributed to damage of our assets.
- If we decide that a recovery action against third parties will be successful and worthwhile, we would discuss this with Regional and District Councils, other infrastructure providers, iwi and other key stakeholders. This discussion would look at all recovery options, if appropriate, as well as steps we can take to mitigate the risk of future damage to our assets in future weather events.
- Intel from the Department of Internal Affairs is that as far as they know, no other local or central government agency is currently looking at recovery options however this may become more of a priority as focus moves away from the immediate recovery in the coming months.
- The Gisborne District Council has previously found litigation against the forestry industry successful and therefore they are likely to pursue this option again.

Backpocket material

s 9(2)(h)

Network updates

- Based on the line of questioning from the Panel when they met with Sarah and Jac, the Panel may ask questions about the state of the network and plans for rebuilding.
- The latest public communication about progress is available here: https://createsend.com/t/t-A13C7019237EAC1A2540EF23F30FEDED
- There has been interest in the timeframe for the rebuild of the Hikuwai Bridge on SH35, following claims by members of the public that it will take three years to rebuild. Advice provided to the Minister this week outlined that the Bailey bridge is anticipated to be completed mid-May and that we are still working with a design

consultant on a permanent bridge and so have not set timeframe (we would unofficially estimate 12 months) but will confirm a timeframe at a later date.

Terms of Reference for a Ministerial Inquiry into land uses associated with the mobilisation of woody debris (including forestry slash) and sediment in Tairāwhiti/Gisborne District and Wairoa District

Purpose of Inquiry

1 The purpose of the Inquiry is to describe the history of land uses associated with the mobilisation of woody debris (including forestry slash) and sediment in the Tairāwhiti/Gisborne District and Wairoa District, and to make recommendations about the further work needed to address land use impacts of storms.

Context

2 Following the devastation caused by Cyclone Bola in 1988, tens of thousands of hectares of trees were planted on highly erodible land in Tairāwhiti/Gisborne with the intention of stabilising slopes.

3 Several other storm events over the last decade have resulted in substantial damage to land, forests, housing, infrastructure, and fisheries.

4 Those storm events include Cyclones Gita (in 2018), Hale (January 2023), and Gabrielle (February 2023), in addition to other more localised events.

5 Damage has been exacerbated by large volumes of woody debris (including forestry slash) and sediment in many places including Tolaga Bay and the Waiapu catchment, and the Wairoa area. Sadly, consequences have included the loss of life of a child in the sea at Gisborne, which is subject to a Coronial Inquiry.

6 Members of the community (Mana Taiao Tairāwhiti) have gathered approximately 10,600 signatories (as of 21 February 2023) on a petition calling for the issues to be better addressed.

7 Other non-governmental organisations, including the Environmental Defence Society (EDS), Eastland Forest Council and Federated Farmers, have asked central government to undertake an Inquiry, as has the Gisborne District Council (GDC).

8 GDC is investigating the origins and causes of the woody debris and sediment found in the recent events. Te Uru Rākau – New Zealand Forest Service is supporting GDC with its investigation in an information sharing role.

9 The local Councils and central government agree more needs to be done.

10 There are existing work programmes at national and local levels that will impact on the longer-term management of land uses resulting in the mobilisation of woody debris and sediment in the Tairāwhiti/Gisborne and Wairoa District:

10.1 In November 2022, the Ministry for the Environment, the Ministry for Primary Industries and Te Uru Rākau – New Zealand Forest Service consulted on changes to the National Environmental Standards for Plantation Forestry (NES-PF). Officials are currently working through submissions with further advice to Ministers due later this year. The proposal features changes to slash provisions.

10.2 GDC has commenced a review of the Tairāwhiti Resource Management Plan – its regional policy statement, regional plan, coastal plan, and district plan. The plan review provides an opportunity for GDC and its community

to consider longer term land use changes to manage the effects of climate change and plantation forestry in the region, and achieve other environmental outcomes.

11 Wairoa District has many of the same factors as Tairāwhiti/Gisborne, which place it at risk in severe weather events including woody debris and sediment issues. Wairoa District has areas of significantly erodible landscapes, and community concerns about land use activities.

Scope of Inquiry

12 The scope of the Inquiry is specific to land uses associated with the mobilisation of woody debris (including forestry slash) and sediment in the Tairāwhiti/Gisborne District and Wairoa District. The Inquiry is to:

12.3 Report on:

12.3.1 The history of land uses pre and post Cyclone Bola in 1988

12.3.2 Patterns in storm damage to:

12.3.2.1 people

12.3.2.2 livestock

12.3.2.3 housing

12.3.2.4 infrastructure

12.3.2.5 land

12.3.2.6 forests

12.3.2.7 rivers

12.3.2.8 estuaries

12.3.2.9 nearby sea and fisheries

12.3.3 A description of the economic drivers of current land use practices and economic constraints on alternatives

12.3.4 Afforestation and harvesting practices, including:

12.3.4.1 differences and changes in practice, and their effects

12.3.4.2 exotic and indigenous species

12.3.4.3 production and permanent forests

12.3.5 A timeline of regulatory changes to the relevant Resource Management Act 1991 (RMA) plans, and national direction

12.3.6 A summary of local and central government work programmes currently addressing forestry impacts

12.3.7 Make recommendations to improve land use outcomes including preliminary advice as to:

12.3.7.1 changes needed to land use management including, but not limited to, afforestation and harvesting practices

12.3.7.2 changes needed to regulatory settings including, but not limited to, plan rules and national direction under the RMA (or its replacement).

Methodology

13 The Inquiry:

13.1 Must allow written submissions from anyone, and may set a date by which they are to be provided

13.2 May otherwise engage with the community, including the Councils and Iwi, as the Inquiry sees fit.

Term and report of Inquiry

14 The Inquiry will begin forthwith.

15 The Inquiry must provide its report to the Minister for the Environment and the Minister of Forestry by 30 April 2023. So as to enable the completion of the report within that period, 30-50 pages is envisaged (together with any appendices if necessary).

16 The Inquiry may recommend that further work be done on issues it addresses or identifies.

Composition of Inquiry panel

17 The Inquiry will be undertaken by a panel of three independent persons.

Cost and support

18 The cost of remuneration of the Inquiry members and administrative support will be covered by the Ministry for the Environment and Ministry for Primary Industries, who will ensure that those and other departments cooperate with the Inquiry.