Ministry of Transport: Aide Mémoire

To: Hon Phil Twyford, Minister of Transport
Cc: Hon Julie Anne Genter, Associate Minister of Transport
From: International Connections, Ministry of Transport
Date: 22 August 2019
Subject: Update on Drone Regulatory Work Programme - Engagement with Key Stakeholders
OC Number: OC190773

We will be engaging with key stakeholders over the next few months to test our early thinking

1. As you are aware, the Ministry is working closely with Civil Aviation Authority on the drone safety and regulatory work programme. Beginning next week, we are planning to engage with key stakeholders to test our early thinking on potential policy options, including rules updates, registration, operator competency, remote identification and geo-awareness/geofencing requirements.

2. The aim of the engagement is to inform our policy development through:
   - understanding how various stakeholders see the challenges and opportunities
   - testing our problem definition
   - testing our approach and early thinking on potential options
   - seeking ideas about what would work for New Zealand.

3. The stakeholders we are planning to engage with include drone user groups, industry groups, airlines, airports, training organisations and retailers. We intend to engage through a combination of in-person meetings and seeking written feedback, depending on the stakeholder.

4. We have developed a document to guide discussions, which is attached for your information. The approach we have taken is to set out the issues, how we see the benefits, costs and what we would need to work through, without taking any firm positions. We have taken this approach to promote open discussion and because we want people to know that their views have been heard, before we develop concrete policy proposals.

5. We are expecting to receive some robust feedback, from both those promoting tighter regulation of drones and those opposed to it. In preparing the engagement document, we have been aware that there is a possibility that anything we provide could attract commentary on social media or video-sharing channels (e.g. your 16 August 2019 letter in response to a prominent recreational aviation commentator on
the regulations and upcoming engagement has already been the subject of a YouTube clip on 18 August 2019).

6. We also briefed the NZ Airports Association on 21 August on the upcoming engagement and will engage with them again in more detail shortly.

**Progress on the drone work programme has been slower than anticipated**

7. In late February, we provided you with an indicative timeline for this work. At that time, we anticipated that we would be further ahead by this stage. Progress has been delayed for a range of reasons, including reallocation of resources at the Ministry and the CAA to work on other priority issues, notably the response to the 15 March 2019 Christchurch terrorist attack.

8. We have been working to secure additional resources for the drone regulatory work programme, following the unsuccessful Budget 2019 drones initiative. Cabinet agreed in July 2019 to reprioritise funding from the Ministry of Business, Innovation and Employment to the Ministry and CAA to support some of this work ($1 million per year for three years). The Ministry has recruitment underway for two new fixed-term positions from this funding.

9. We will provide a further update following stakeholder engagement.

**Contact:**  
Principal Adviser, International Connections

(withheld under s 9(2)(a))
Drone Safety and Regulation
Engagement with Key Stakeholders

The Government’s vision is to enable “a thriving, innovative and safe drone sector” in New Zealand. Our regulatory settings will need to keep up with developments so that we can maximise the social and economic benefits from the use of drones, while managing the associated risks. To do that, our regulatory system should be flexible, risk-based, proportionate, enforceable, and consistent with relevant international standards. We want to hear your thoughts on the best approach to achieving that.

Purpose

1. The Ministry of Transport and the Civil Aviation Authority (CAA) are reviewing New Zealand’s drone regulatory settings. We are considering potential measures to address current and emerging issues from the use of drones.

2. We would like to test our early thinking with stakeholders across the aviation sector and drone user groups to:
   - understand how various stakeholders see the challenges and opportunities, both now and for the future
   - test our problem definition
   - test our approach and early thinking on potential regulatory measures
   - seek ideas about what would work for New Zealand.

3. We have identified a range of possible regulatory options, as well considering what we can do outside regulation. These include:
   1) **Changing who and what the rules apply to**
   2) **Relaxing Part 101 requirements**, including considering alternatives to the consent provision, relaxing spotter/observer requirements and reviewing the distance drones can fly from aerodromes
   3) **Registration**
   4) **Operator competency**
   5) **Remote identification** – technology on drones that transmits data during flight
   6) **Geo-awareness/geo-fencing** – technology that informs the drone operator when entering, or stops it from entering, a designated site (e.g. airports, critical infrastructure)
   7) **Import and sales controls**
   8) **Offences and penalties**

4. This engagement is intended to inform our early thinking and policy development. We will undertake formal consultation on policy proposals at a later stage. The document contains a number of questions to guide feedback. We would also welcome any other feedback you may have. The full list of questions can be found at Annex 1.

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1 In this document we use drones as the common descriptor for all classes of unmanned or remotely piloted aircraft. This includes unmanned aircraft systems (UAS), unmanned aerial vehicles (UAVs) and Remotely Piloted Aircraft Systems (RPAS).
Policy Objectives

5. The current work focuses on examining what we need to do in the short- to medium-term to:
   - maintain appropriate standards of safety and security
   - enable innovation and development in the drone sector, while supporting the interests of the
     wider aviation sector
   - lay the early groundwork for future integration of drones into the transport system
   - increase public acceptance of drone use ("social licence"), through managing concerns relating
     to them.

Current drone settings

6. New Zealand’s Civil Aviation Rules for drones were updated in 2015.

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Current Drone Rules

RPA, UA, UAS, UAV

- Part 101
  - Applies to drones weighing less than 25kg that fully comply with the Part 101 rules
  - Usually applies to lower risk operations
  - Rules include:
    - flying only in daylight
    - flying only as far as you can see the drone with your eyes, or with an observer in some cases
    - not flying above 120m (400ft) in most cases
    - not flying within 4km of an aerodrome in most cases
    - obtaining an air traffic control clearance to fly in controlled airspace
    - gaining consent to fly over people and property

- Part 102
  - Applies to all drones weighing more than 25kg or that fly outside the Part 101 rules
  - Drone operators can apply for a Part 102 Operator Certificate to operate outside Part 101
  - Usually applies to higher risk operations
  - Flexible rule, enabling certification on a case-by-case basis where risks are appropriately mitigated
  - Can provide for Beyond Visual Line of Sight (BVLOS) operations and passenger-carrying drones if approved by CAA
  - Separate consent to fly over people and property not always required (expectations are set out on a case-by-case basis)

No distinction is made between commercial and recreational users.
7. Since the 2015 updates to the Civil Aviation Rules, we have seen:
   • a significant uptake of drones in New Zealand
   • rapid development of drone technology, meaning that they can do more (e.g. longer operating ranges and at a cheaper price)
   • an increase in complaints to the CAA and incursions into controlled airspace. Airways (New Zealand’s air traffic service provider) reports that on average there are two drone incursions into controlled airspace every week.
   • high-profile incidents involving drones in New Zealand and overseas, raising the profile of safety and security concerns.

8. This work focuses mostly, but not exclusively, on managing Part 101 drone operations. This is because the CAA engages directly with Part 102 operators, knows who they are and can tailor operational requirements for them through the Part 102 certification process.

Problem Definition

9. New Zealand’s Civil Aviation Rules relating to drones, if followed, provide for a safe aviation system. Internationally, our regime is considered progressive, particularly in terms of the risk-based and enabling approach to advanced operations. However, there is room for improvement. The problems set out below draw on:
   • almost four years’ experience since the rules were updated in 2015
   • CAA’s dataset and summary of results from its post-implementation survey on the rules, released in October 2017.
   • international developments, research and experience.

Compliance:
   • Drones operators often do not know the rules for safe flying or even that there are aviation rules that apply to them.
   • Many drone operators consider the Part 101 rules too difficult to understand.

Enforcement:
   • Effective enforcement can be a powerful deterrent for unsafe or illegal behaviour. However, authorities are often constrained in their ability to take appropriate action, because the nature of drones means it can be hard to identify operators. The absence of clear enforcement is often seen to be compromising the effectiveness of the rules and eroding social licence.

Proportionality:
   • People are more likely to comply with rules if they consider them to be fair and make sense. Some Part 101 requirements are seen as unjustified, disproportionate to the goal of maintaining safety and/or inhibiting the legitimate use of drones and growth of the sector.

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2 The total number of incidents reports to the CAA increased from 119 in 2015, to 506 in 2018. The majority of these (190 in 2018) relate to drones flying above people and property without their consent, followed by those operating in controlled airspace without clearance (67 in 2018) or within 4km of an aerodrome (60 in 2018).

3 Controlled airspace refers airspace from which Airways (New Zealand’s air navigation service provider) provides air traffic control.
System Sustainability:

- Drone technology and uses are developing whether we like it or not. Traditional airspace management systems are not adequate to manage the increase in number and complexity of drones entering the aviation system. If we do not lay the groundwork for future development, we risk falling behind international safety standards and creating barriers to innovation.
- We do not have accurate data on the number of drones operating or trends, which is important to inform policy development, planning and decision-making.
- Drone operators are not currently paying to support management of the aviation safety system from which they are benefitting and in which they are creating risks.

Questions:

i. What is working well at the moment? What is not working?
ii. Have we got the problem definition right?
iii. What are we missing?

Context and related work

Strategic vision

10. On 17 July 2019, the Minister of Transport released the Drone Integration Paper, “Taking Flight: an aviation system for the automated age”, which outlines a cross-government vision for the future of drone integration into the New Zealand aviation system and the wider transport sector. The paper identifies that creating an environment which facilitates integration will require a set of complementary building blocks including regulation, funding and investment, infrastructure and technology, research and development.

11. A number of government agencies have an interest in managing drones. The “UA Leadership Group”, which comprises senior representatives from the Ministry of Transport, CAA, the Ministry of Business, Innovation and Employment, and Airways oversees and provides strategic guidance for our cross-agency drone work.

Security and counter-drone work

12. The focus of the work we are engaging on is potential regulatory updates in the short- to medium-term. The regulatory options we are considering below are designed to capture most participants and to mitigate most of the risks they may cause, but they are unlikely to have an impact on those who are determined to cause harm.

13. In addition to the regulatory work set out in this document, the Ministry of Transport is working with the CAA to address security issues relating to drones, including protocols for managing drone incidents at airports and other sites, and counter-drone technology and application where drones present a clear threat.

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*Drone cost recovery for Part 102 operators is limited to directly chargeable certification (or other) services. No charges apply to Part 101 operators.*
Civil Aviation Bill

14. The Ministry of Transport is also working on a Civil Aviation Bill to replace the Civil Aviation Act 1990 and the Airport Authorities Act 1966. This is the first major review of the legislation since the enactment of the Civil Aviation Act. Public consultation on the Bill ran from 13 May 2019 to 22 July 2019 and included:
   - proposed amendments to the pilot-in-command provisions to allow for drones. The draft states that, in the absence of a pilot on board, the duties, powers and obligations of the pilot-in-command fall to the operator of the aircraft.
   - policy options relating to the ability to take action against drones being operated in contravention of civil aviation law, or in a way that may endanger people or property, including an option to expand powers for appropriate enforcement agencies.

Unmanned Traffic Management systems

15. The Ministry of Transport has also initiated a policy investigation into unmanned traffic management (UTM) systems as a potential solution for sustainable drone traffic management in New Zealand. This work aims to analyse UTM architectures and assess their suitability for New Zealand. The regulatory options discussed below are closely linked to this work, and we are considering them together.

Data

16. There are a number of gaps in our drone data, particularly around the number of drones operating in New Zealand. The CAA, the Ministry of Transport and the Ministry of Business, Innovation and Employment, are jointly commissioning updated research on drones in New Zealand, including data on:
   - the number and type of drones currently operating in New Zealand
   - knowledge of the rules
   - behaviour and attitudes of drone operators (including tourists) and the general public.

17. This research will inform our thinking on possible updates to drone regulatory settings. The research findings will be made public once available (likely to be later in the year).

Education

18. Education is one of the best ways to influence user behaviour and improve compliance and safety in the aviation system. International evidence shows the more the public know about drones, the better their perception, and level of comfort is with them in their lives and community. The CAA has led implementation of various education initiatives to boost education and outreach to drone operators and the wider public, as set out in Table 1.

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5 The recent Drone Benefit Study estimated there to be approximately 77,600 drones in New Zealand. Colmar Brunton’s 2017 survey RPAS Use in New Zealand estimated that 281,428 New Zealanders owned or had flown a drone, but did not break down the number of drones.

6 The UK Ministry for Transport report Drone use: dialogue conducted to understand public attitudes, 2016. The project report from the New Zealand CAA and Finland CAA Policy Exchange project also reflected this.
### Table 1

<table>
<thead>
<tr>
<th>Web-based</th>
<th><strong>FlyYourDrone.nz</strong> and digital campaign[^1]</th>
<th>• New web-based resources to promote drone safe operations, including a drone-specific website, digital content, and <a href="https://www.facebook.com">Facebook</a> and <a href="https://twitter.com">Twitter</a> accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point-of-sale</td>
<td><strong>Airshare.co.nz</strong> Managed by Airways</td>
<td>• Allows drone users to log requests with air traffic control to fly in controlled airspace. It also has information on the rules for flying a drone, tips for safe flying and a short quiz on the rules</td>
</tr>
<tr>
<td>Ongoing CAA activity</td>
<td><strong>CAE website</strong></td>
<td>• Resources that promote safe and responsible drone use, including relevant rules, and guidance material</td>
</tr>
<tr>
<td>Ongoing CAA activity</td>
<td><strong>Fly the Right Way brochure and Fly Safe packaging sticker</strong></td>
<td>• CAE-produced brochure and sticker for retailers that reinforces the drone rules and responsibilities and other online resources to support safe operations</td>
</tr>
<tr>
<td>Ongoing CAA activity</td>
<td><strong>Part 101 and 102 support and outreach, safety promotion and communication</strong></td>
<td>• Ongoing operational support to Part 101 and 102 drone users, certification, and outreach by the CAA's Unmanned Aircraft team at aviation events, Part 102 days, school initiatives, and other community and cross-agency engagement</td>
</tr>
<tr>
<td>Ongoing CAA activity</td>
<td></td>
<td>• Working with airports on new drone-specific signage near sensitive areas, and with Air New Zealand to provide drone-specific inflight videos</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Proactive media releases (e.g. at Christmas), articles in CAA's quarterly sector magazine Vector, and reactive media comment</td>
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</tbody>
</table>

[^1]: Many other comparable countries, including Australia, Europe, Canada, the United Kingdom and the United States, have similar standalone websites focused on drones.
19. This section sets out the range of options that are on the table, why we are considering them, what others are doing, and our initial thinking about them. Many of these measures are complementary and interdependent. Our initial assessment is that a package of measures is likely to be appropriate. This is a complex programme of work and it will take time to get it right.

20. The options set out below have been developed with the majority of drone operators in mind. We recognise that regulatory measures are not fail-safe, and are likely to have limited impact on operators that are negligent, reckless or deliberately intend harm. As described above (Context and related work – Security and counter-drone work), separate work is underway on managing risks from these operators.

21. Annex 2 summarises for reference the different measures jurisdictions with comparable aviation systems have implemented, or are in the process of implementing.

**Questions:**
As you work through the options below (1-8), we are interested in:

iv. **What priority you would give each of the measures?**
   - Does it make sense to introduce measures as a package?
   - Or are there measures we should introduce before others? If so, which ones?

v. What else should we be thinking about?

1. **Changing who and what the rules apply to**

22. Drones flown in New Zealand are subject to the Civil Aviation Rules, regardless of size or capability. The rules and the level of approval required to fly a drone are differentiated by weight, as set out in Table 2.

**Table 2: Current drone differentiation by weight**

<table>
<thead>
<tr>
<th>Weight of Drone</th>
<th>Approval required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15kg (and operating within Part 101 limits)</td>
<td>No approval required</td>
</tr>
<tr>
<td>15-25kg (and operating within Part 101 limits)</td>
<td>Must be inspected and the operation approved by a person or organisation approved by the Director (Currently the only approved association is Model Flying New Zealand)</td>
</tr>
<tr>
<td>25kg and over OR Operating outside Part 101 limits</td>
<td>Operation must be certified under Part 102</td>
</tr>
</tbody>
</table>

23. We are considering changes to how drones are categorised, to support a risk-based and proportionate approach. This will be particularly relevant if we opt to introduce new measures, particularly registration, operator competency, remote identification and geo-fencing requirements.
Excluding very low risk drones

24. We are not interested in regulating drones that represent negligible risk. We are considering introducing a minimum threshold for inclusion of drones in the rules. A key challenge would be to determine what that should be—particularly as the threshold for safety risk from drones might differ considerably from the threshold for privacy and nuisance concerns stemming from drones. 

25. Before 2015, model aircraft below 100 grams were not deemed aircraft and therefore the Civil Aviation Rules did not apply to them. Studies quantifying the safety risks of drones by weight and other characteristics (e.g. maximum speed, kinetic energy) are limited and remain disputed. Many jurisdictions have now set the minimum regulatory threshold for registration and other requirements at 250 grams, below which the risk is widely considered to be negligible (although the capability of drones at this weight is likely to increase in the future).

Differentiating within categories

26. It may also be appropriate to differentiate requirements within categories. Part 101 currently covers drones with a wide spectrum of capability and associated risks, with the same rules applying to all drones up to 15 kilograms (and some up to 25 kilograms). At the same time, there is benefit to keeping the rules as simple as possible. We are interested in ideas about what might work well in the New Zealand context.

Potential special authorisations

27. Model aircraft come under the Part 101 drone rules as a subset of ‘remotely piloted aircraft’. Model Flying New Zealand (MFNZ) is an ‘approved organisation’ under Part 101, which affords it some additional privileges (including the ability to approve drones 15-25 kilograms for flight without separate CAA approval, as set out above).

28. Drones operating under the auspices of model aircraft associations are likely to present limited risks to safety or other concerns—conversely, model aircraft associations make a significant contribution to educating recreational users on safe flying.

29. Some jurisdictions have included specific provisions for their civil aviation authorities to issue special authorisations for specified entities or zones, for which certain rules and requirements do not apply. For example, in consultation with its model aircraft clubs, Australia’s Civil Aviation Safety Authority has approved approximately 1,000 sites within which drones do not need to be registered when flown for recreational purposes within these sites.

30. In working through the possible measures, we will consider if it would be appropriate for the CAA to provide special authorisations. This could also extend to other entities that can prove that safety and other risks are effectively managed (e.g. local councils in designated areas, drone racing).

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*See for example When planes and drones collide, University of Dayton Research Institute, 2018; Small Remotely Piloted Aircraft Systems (drones) Mid-Air Collision Study, The Department for Transport, the Military Aviation Authority and British Airline Pilots’ Association, 2016.

*Countries that have set 250 grams as a lower threshold for registration include Australia, United States, United Kingdom, China and Brazil. Japan has set its threshold at 200 grams. The EU uses an approach that combines mass, kinetic energy and maximum speed, but effectively exempts most drones under 250 grams.
Questions:
   vi. What is the best way of determining the level of risk in the New Zealand context (e.g. weight/maximum speed/capacity/location/types of operation)?
   vii. Should we exclude very small/low-risk drones from the Civil Aviation Rules? If so, what should the threshold be?
   viii. What sort of differentiation would make sense?
   ix. How might special authorisations work?

2. Relaxing Part 101 requirements

31. This section sets outs additional rules updates we are considering, that have not been captured in the sections above. These are based on feedback received from CAA’s 2017 post-implementation survey on the rules and continued engagement with the sector and are intended to improve:

   - **compliance**, by updating rules that are seen as not risk-based or proportionate. We also intend to simplify the language in the rules to make them easier to understand and follow; and consolidate the relevant rules in one place as far as possible.  

   - **proportionality**, by reducing the regulatory burden on users where appropriate. We want to make the rules as flexible and permissible as possible, while not compromising safety or security. Introducing other requirements to increase operator responsibility, such as registration, competency testing, geo-awareness and remote identification, could underpin the ability to relax the rules in some areas.

2.a Relaxing or removing the consent provision

32. The most significant change we are considering is to the ‘consent provision’, which refers to the requirements for Part 101 operators to gain permission from people before flying over them, or in the case of property, from the person occupying or owning it. Many operators see the consent provision as impracticable, restrictive and unrealistic, leading to many to simply ignore it.

33. The consent provision was introduced as part of the Part 101 updates in 2015, to minimise the risk to people and property of an uncontrolled drone crashing. It is a unique imposition on drone operators; neither general nor commercial aviation operators are required to gain such permission – but other operational restrictions apply to them, the risk profile is different, and they fly at significantly different altitudes from most drones.

34. It is not clear that the consent provision is contributing to safety outcomes. However, it does act as a kind of proxy rule for managing privacy and nuisance concerns. This was not the intent of the rule and drone operators also need to comply with central and local government requirements relating to privacy and nuisance. However, complaints to the CAA about drones flying over people or property

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10 For example, feedback suggests some operators miss the requirement to not to operate in controlled airspace as it is not in the drone section of Part 101.

11 The consent provision also applies to Part 102 operators, but at a lower threshold, i.e. generally they must attempt to gain consent, rather than gain explicit consent. The requirements are determined on a case-by-case basis through the certification process.
without gaining consent have increased every year since 2015, and represent the CAA’s top complaint category about drones.\textsuperscript{12}

35. If we relax or remove the consent provision, we will likely need to replace it with another means of managing safety, as well as taking into account privacy and nuisance concerns. We would need to work on this with other government agencies, including the Ministry of Justice and New Zealand Police.

What do others do?

36. Instead of requiring explicit consent, other jurisdictions manage the risks to people and property by defining the distance a drone can operate from people and property, as set out in Table 3 below.

Table 3

<table>
<thead>
<tr>
<th></th>
<th>International approaches to safe distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Must keep the drone at least 30m away from other people and you must not fly over or above people. This could include at beaches, parks, events, or sport ovals where there is a game in progress.</td>
</tr>
<tr>
<td>United States</td>
<td>Must remain at least 25ft (approximately 7.6m) from individuals and vulnerable property, cannot fly over groups of people, public events, or stadiums.</td>
</tr>
<tr>
<td>Canada</td>
<td>For basic operations, users must maintain a minimum horizontal distance of 30m from bystanders, away from emergency operations and advertised events and avoid forest fires, outdoor concerts, and parades. An advanced operations certificate is required to fly within 30m of bystanders.</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Open Category (equivalent to Part 101) requirement differ by subcategory:</td>
</tr>
<tr>
<td></td>
<td>• A1 &lt;250g (low risk, toys): ‘Fly over people’, but not open-air assemblies</td>
</tr>
<tr>
<td></td>
<td>• A2 &lt;4kg: ‘Fly close to people’, i.e. minimum horizontal distance of 30m from uninvolved people, or 5m when “low speed mode” is selected</td>
</tr>
<tr>
<td></td>
<td>• A3 &lt;25kg: ‘Fly far from people’, only fly in areas clear of uninvolved people, minimum horizontal distance of 150m from residential, commercial, industrial or recreational areas, until further guidance received a minimum horizontal distance of 50m from all uninvolved people</td>
</tr>
<tr>
<td>Singapore</td>
<td>Drones cannot be flown over people or crowds and need to maintain ‘sufficient’ distance from people, property, and other aircraft.</td>
</tr>
</tbody>
</table>

\textsuperscript{12} 475 in total January 2015-May 2019, but this will include complaints that have been made about Part 102 operations, for which explicit consent is not required.
Questions:

x. How do you think the consent provision is working:
   - for safety?
   - for privacy and nuisance?

xi. Should we retain the consent provision?

xii. If we remove the consent provision, how could we manage safety, privacy and nuisance concerns? What could we replace it with?

37. We are also considering other updates, as set out below.

2.b Relaxing spotter/observer requirements for first person view (FPV) operations

38. FPV systems provide a video stream from a drone to an operator through a remote pilot station to extend their visual line of sight. This makes the operator feel as if they are on board the drone, extending their visual line of sight. The use of FPV systems is growing, particularly for activities such as rotorcross or drone racing in closed conditions. Part 101 specifies that you must be able to see an aircraft with your own eyes to ensure separation from other aircraft, or use a spotter/observer to do this. This applies to FPV because a person’s field of view is generally more restricted through the use of equipment than if they were maintaining natural visual line of sight. However, some operators consider this is often not justified, particularly in closed conditions, and it can be unnecessarily limiting.

39. There may be merit in relaxing this requirement in circumstances where there is no possible conflict with other aircraft, e.g. in forests or other areas of shielded operation,\(^\text{13}\) on the basis that removing the observer in these circumstances would present minimal risk.

2.c Reviewing distance restrictions around aerodromes

40. The Part 101 rules specify that you cannot fly a drone closer than four kilometres from any aerodrome, controlled or uncontrolled, except in some circumstances.\(^\text{14}\) A controlled aerodrome is one which has air traffic control services, provided by Airways.

41. The usage of uncontrolled aerodromes around New Zealand varies considerably, with some only used once or twice a week. Some operators have requested a reassessment of the distance around uncontrolled aerodromes, particularly where there are low levels of piloted aircraft activity, to increase available airspace and flexibility. We are considering if this as an option, but decisions would depend on the ability to establish a robust safety case.

42. We also consider there is a case for reassessing the distance around controlled aerodromes. Four kilometres is a useful standard, but it is not always justified from a safety perspective. Any changes to this rule would need to be based on appropriate evidence that any changes would not create new or heightened safety risks.

\(^{13}\) A shielded operation is where the drone remains within 100m of, and below the top of objects e.g. trees and buildings.

\(^{14}\) There are two ways to fly a drone within controlled airspace - one is to get clearance from Air Traffic Control and the other is to do a shielded operation outside the airfield boundary.
43. A key challenge would be in ensuring drone operators know where and when they can fly, particularly if standards differ across the country. However, geo-fencing requirements and improved education through operator competency testing, if adopted, could help manage those concerns.

<table>
<thead>
<tr>
<th>Questions:</th>
</tr>
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<tbody>
<tr>
<td>xiii. Do you agree that these are the areas we should focus on?</td>
</tr>
<tr>
<td>xiv. Do you have any specific comments on the proposals above?</td>
</tr>
<tr>
<td>xv. Have we missed anything?</td>
</tr>
</tbody>
</table>

3. Registration

44. New Zealand does not have a registration scheme for drones. Part 101 exempts drones from the registration requirements that apply to other (manned) aircraft. Similarly, the CAA holds a publicly-available list of Part 102 Unmanned Aircraft Operator Certificate Holders, but this does not constitute registration.

45. AirShare, a fully-owned subsidiary of Airways (New Zealand's air navigation service provider), offers a website and app that provides drone operators with relevant information on how to operate their drones safely in New Zealand. This is an optional and free service that enables drone operators to log flights and request access to controlled airspace.

46. A number of other jurisdictions have introduced or are planning to introduce compulsory registration schemes for drones, as part of a set of measures to maintain safety and security and facilitate drone integration. These are usually online, digital systems that identify and associate an operator with their drone/s using a unique registration number.

**What are the potential benefits of registration?**

47. If there is widespread uptake of a registration scheme in New Zealand, it would likely provide the following benefits:

- **compliance** with the rules, and therefore safety and security, by
  - increasing awareness of the rules and accountability among drone operators
  - enabling direct communication with operators and targeted education on safe flying and responsibilities. Registration is also recognised as a tool to raise public awareness of safety and security requirements
  - deterring users from breaching the rules through increased ability for authorities to take action if breached, noting operators that intend harm are not likely to register their drones

- **enforcement** of the rules, through improving the ability of authorities to identify drone users and take action against non-compliant operators (particularly when combined with remote identification)

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15 These requirements are set out in Civil Aviation Rule Part 47.

16 AirShare was launched as a collaboration between Airways, Callaghan Innovation, UAVNZ, and CAA to improve education for drone operators and the public. AirShare was incorporated as a subsidiary of Airways on 16 November 2018.
• **system sustainability**, by
  - supporting the safe integration of drones into the current transport system, by acting as a building block along with other measures such as remote identification
  - building accurate and reliable data on the number of drones/operators and trends to inform policy thinking and resourcing
  - helping build public acceptance of drones, through increasing operator accountability
  - ensuring drone operators are contributing to participate in the aviation system, from which they are benefitting and in which they are creating risks (if charges apply).

48. We consider that registration would have limited impact on its own. Rather, it is likely to deliver most benefits if combined with other measures, such as operator competency and remote identification requirements.

What are the likely costs and challenges of registration?

49. Developing, establishing and maintaining a registration system would also come with costs and challenges. These may include costs to the Government; and new costs and regulatory requirements for operators. We recognise that compulsory registration of drones would be a significant step and we need to be clear that the benefits justify the costs.

50. We are not in a position to determine the likely cost of a drone registration system for New Zealand at this stage, as it would depend on the type and design of the system. However, other jurisdictions have reported that the costs and resources required to implement drone registration are considerable, and that full cost recovery may not be possible from the outset.

51. According to the transport regulatory system funding principles, drone operators, as aviation participants, can be charged fees for the cost of services they receive (e.g. costs of running a register), and levies for their share of the costs of running a well-regulated civil aviation system, but a range of funding models are possible.

52. If we were to opt to introduce a registration system for New Zealand, we would need to work through the following considerations:

• **what a registration scheme should look like** (form), e.g. online, app-based system that associates drones/operators with unique registration number

• **who** should set up and manage a registration scheme

• **what** should be registered, e.g. the drone, the owner/operator under both Parts 101 and 102, or flight path

• **how to differentiate** requirements based on risk (e.g. subcategories), including the lower threshold for registration

• **when** registration should apply, e.g. before flying, at point of sale

• if registration should be **linked to operator competency testing** (i.e. as a prerequisite)

• **duration/validity** of the registration, e.g. one-off or renewal annually/less often

• the **cost structure**, including for registering multiple drones

• **how to identify** drone/operators with unique identification number, e.g. **physical marking** and/or **electronic identification**

• if there should be **minimum age requirement(s)**, and if so what they should be

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17 Significant costs are attributed to digitising systems for both unmanned and manned aircraft, which would likely be required to support a future aviation system.
• if **special authorisations** should apply (e.g. model aircraft clubs and associations)
• how registration would apply to **tourists/short-term visitors**
• if new **penalties** should apply for non-compliance (see section 7)
• any **transition period**, given the number of drones already in the system

What are others doing?

53. As set out in Annex 2, many other jurisdictions have introduced, or are in the process of introducing, requirements for drones above a certain weight (usually 250 grams) to be registered electronically before flying. Some jurisdictions also require operators to physically mark their drones with a unique identifier provided at registration, whereas others link identification to the manufacturer’s marking.

**Questions:**

- **xvi.** Do you see value in implementing a registration scheme for drones in New Zealand? Why/why not?
- **xvii.** Do you see any alternatives to registration that would achieve similar objectives?
- **xviii.** If we opt for a registration scheme:
  - what would you like to see? (form, cost, duration etc)
  - what should we avoid?
- **xix.** What impact would registration likely have on you?

4. **Operator competency**

54. We are considering the option of introducing compulsory basic competency testing requirements for Part 101 operators. This would effectively be a targeted education tool, to improve operators’ awareness of the airspace they are operating in, and understanding of the relevant rules and risks of flying a drone.

55. As set out above (see **Context and related work**), the CAA has implemented a range of initiatives to educate drone operators and the wider public. These initiatives are supported by other regulatory measures, including enforcement where appropriate. However, New Zealand’s experience mirrors that of other jurisdictions in that, despite significant investments in education and outreach, many operators continue to be unaware of the rules or do not understand the risks.18

56. Most drone operators are not traditional participants in the aviation system. Part 101 specifies that drone operators need to understand the airspace in which they are operating (e.g. understanding of aeronautical charts) and recommends users get formal training, but there are currently no formal testing requirements. Realistically, many Part 101 operators may not need advanced, in-depth aviation knowledge to operate a drone safely, but basic knowledge is required.

57. Testing for Part 101 operators would most likely take the form of an online or app-based test, covering the key rules relating to safe and responsible drone operations, that operators would have to pass before operating a drone. Any such testing would be designed to be user-friendly to maximise participation and accompanied by readily-accessible information on the rules. The testing

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18 **RPAS Use in New Zealand**, Colmar Brunton, August 2017 showed that three quarters of New Zealand operators and seven out of ten visitors said they had at least basic understanding of the rules. When asked about the twelve specific Part 101 rules between 22% and 44% of NZ users and between 19% and 52% of overseas users were unaware of each of the rules. The planned research will indicate the impact of current education and outreach activities.
requirements could be graduated according to any subcategories that we may introduce under Part 101.

58. Under Part 102, the CAA assesses the qualification and/or knowledge required for all personnel involved in an operation, based on the nature and scope of the operation. This includes knowledge of both general aviation and drone-specific regulatory requirements. Part 102 operators generally comply with the rules and we are not considering changing how this operates at this stage.

59. A number of Part 141 aviation training organisations deliver drone courses and training to operators, including to help them meet Part 102 training requirements.

What are the potential benefits of competency testing?

60. A basic testing requirement would be designed to improve compliance with the rules and deliver safety benefits, by requiring operators to demonstrate their understanding of how to fly safely before operating a drone. For operators, a well-designed system would offer a quick and easy means of finding the information they need to fly safely.

What are the likely costs and challenges of competency testing?

61. Developing, establishing and maintaining operator competency testing would come with upfront costs to the Government. It would also introduce new conditions for operators, as well as potential new costs.

62. Operator competency would likely go hand-in-hand with registration. If we opt to introduce operator competency testing, we would need to work through similar considerations, including:

- what would operator competency testing look like (form), e.g. online, multiple choice, and certification
- what areas it would cover, e.g. safety, security, privacy
- who should set up and manage operator competency testing
- who should be required to complete competency testing (every operator, or person responsible), recognising that more people will fly drones than own drones
- when should the test be taken, including how it would link to registration
- if and how to differentiate requirements (e.g. based on any subcategories)
- duration/validity of operator competency testing
- if costs should apply
- if there should be minimum age requirements(s), and if so what they should be
- if special authorisations should apply (e.g. model aircraft clubs and associations)
- how testing requirements would apply to tourists/short-term visitors
- if new penalties should apply for non-compliance (see item 7)

What are others doing?

63. As set out in Annex 2, many relevant jurisdictions have implemented or plan to implement basic competency testing requirements alongside or as a prerequisite for registration. For low-risk operations, this is usually in the form of a short online quiz or set of questions.
Questions:

xx. Do you see value in having an operator competency testing requirement for drone operators? Why/why not?
xxi. What else could we do to improve education and drone operator behaviour (both regulatory and non-regulatory measures)?
xxii. If we opt for introducing operator competency testing:
   - what would you like to see?
   - what should we avoid?
xxiii. What impact would operator competency testing likely have on you?

5. Remote identification

64. Remote identification, or e-identification, refers to technology that sends out drone identification information during a flight, without needing physical access to the drone. It can provide information in real-time about:
   - flight characteristics (location, altitude, speed, direction)
   - drone/operator identification (e.g. serial number, registration number or other unique identifier, make and model)
   - location of the operator (base location).

65. This section focuses on the ability for drones to be identified electronically. Some manufacturers are also equipping drones with receivers that enable operators to “see” nearby aircraft and avoid them.¹⁹

66. Remote identification technology is still developing, but systems are already available ranging from simple beacons and transponders to more sophisticated systems using the mobile network. Industry is leading the development of the technology and most large manufacturers already include some form of remote identification capability in their drones.

What are the potential benefits of remote identification?

67. The primary benefits of introducing remote identification capability requirements in New Zealand would be to improve:

   - safety and security, by improving the ability for authorities to take enforcement action. Remote identification can allow authorities to determine in real-time whether an operator has the clearances to fly a drone in a particular location and, through the flight characteristics, help assess the relative risk(s) of the operation. It can also identify the location of the operator, to enable authorities to take action if a drone is causing safety or security concerns.

   - compliance with the rules, by encouraging operator responsibility and accountability. We recognise that some operators may deliberately attempt to override the technology, so it is unlikely to be a fail-safe solution. In some cases, however, remote identification is fully integrated and the drone cannot be flown without it.²⁰ A lack of remote identification may also help identify deliberate threats to safety or security.

¹⁹ DJI, which dominates the New Zealand market, has committed to installing ADS-B transceivers on all drones weighing more than 250 grams from 2020.

²⁰ For example, DJI has indicated it is fitting all drones above a certain capacity with remote sensing technology, and that drones fitted with the technology cannot fly without it.
• **System Sustainability**, by allowing air traffic control systems to see drones flying in controlled and uncontrolled airspace, to help avoid mid-air collisions. Remote identification can also help distinguish drones from other objects, such as birds, therefore avoiding unnecessary disruptions for all users of airspace. Remote identification capability would be a key building block to enable more advanced drone operations and facilitate drone integration; and help lay the groundwork for a future aviation system (including a possible UTM system).

• **Proportionality**. Technological tools such as remote identification, which improve the ability to track and trace drones, may underpin the ability to relax some of the current rules.

68. Remote identification is likely to be most effective when combined with registration, and vice versa.

**What are the likely costs and challenges of remote identification?**

69. The costs for operators would mainly depend on the requirements imposed on manufacturers (or people making custom drones) to equip drones with the appropriate technology, including the effect on drone weight and battery life. As the technology advances and becomes more widely available, the costs are likely to come down.

70. For the Government, the main costs would be in setting up the systems and infrastructure to access the identification information remotely and make use of it.

71. If we opt to introduce remote identification requirements, we will need to work through the following considerations:

• **Interaction** between remote identification requirements and other measures, such as registration

• the **Threshold** (e.g. weight) for requiring remote identification

• where remote identification requirements should apply, i.e. only for drones operating in controlled airspace/everywhere.

• **Standards** for remote identification technology. Adopting an international standard or aligning with key jurisdictions would make it easier for visitors wishing to fly their drones in New Zealand, as well as for New Zealanders wishing to fly their drones overseas

• **Interaction and Interoperability** with other forms of electronic conspicuity, including ADS-B. 21 Full interoperability of electronic identification systems will likely be required to achieve the maximum benefits from a future aviation system, but in the shorter term, a balance will be required between visibility of aircraft and not creating congestion in electronic detection systems

• **Privacy and Security** considerations, including who should have access to the information (e.g. Police, CAA, other operators) and how to secure and store data to protect operators’ privacy

• any **Transition Period**, including requirements for existing or custom drones

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21 New Zealand is introducing ADS-B (Automatic Dependent Surveillance-Broadcast) to replace the existing aviation surveillance system. This will require all traditional aircraft flying in controlled airspace to be fitted with ADS-B transmitters to transmit their flight information to air traffic controllers and other aircraft and deliver a number of safety benefits.
What are others doing?

72. As set out in Annex 2, a number of similar jurisdictions have signalled they will be moving to introduce remote identification requirements, but are waiting for technology and standards to develop.

73. The European Union regulations require all drones above 250 grams to be equipped with remote identification equipment that enables the following information to be available in real time during the whole flight: unique serial number, geographical position, height above the take-off point and associated data and time, geographical position of take-off point. The UK is matching these requirements. The United States Federal Aviation Administration (FAA) is expected to release a proposed rule on remote identification for public comment in September 2019.

74. The FAA is leading work to come up with a US standard for remote identification. ASTM International, an international standard body, is managing this work, with significant input from industry experts. Most jurisdictions that have signalled they will introduce mandatory remote identification are expected to adopt this or a similar standard.22

Questions:

xxiv. Do you see value in introducing remote identification requirements for drone users?

Why/why not?

xxv. If we opt for introducing remote identification requirements:

- what would you like to see? (e.g. type, transitional arrangements, privacy considerations)
- what should we avoid?

xxvi. What impact would remote identification requirements likely have on you?

6. Geo-awareness/geo-fencing

75. Geo-awareness is a system that uses virtual barriers to detect and restrict drones from flying into designated zones, i.e. sites that have been "geo-fenced", or above specific heights, e.g. 120 meters. It is based on satellite navigation networks, such as GPS, and works by informing the operator when their drone is entering a prohibited zone, or automatically stopping the drone from entering it.

76. Geo-fencing is a key technological tool to protect high-risk or sensitive areas, such as aerodromes, other critical infrastructure, prisons, conservation land and other crowded places, as well as major events.

77. There is considerable investment internationally, led by industry, in developing this technology. Some manufacturers have pre-empted regulatory change and voluntarily equipped their drones with geo-fencing software.23

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22 The ICAO Unmanned Aircraft Systems Advisory Group (UAS-AG) is developing a recommendation to not support ADS-B out as the standard for drone remote identification, because of congestion for air traffic control systems.

23 For example, DJI uses GPS receivers on its drones to disable its drones from flying in designated areas. Its drones also come with automatic altitude limits.
What are the potential benefits of geo-awareness?

78. The key benefits of introducing geo-awareness requirements would be to improve:

- **Enforcement** - geo-fencing is a tool to help enforce the rules and reduce the risk of accidents and incidents involving other aircraft, people and property in high-risk areas; as well as to help address security risks for sensitive sites.

- **Compliance** - for operators, geo-fencing is a tool to help understand where they are allowed to fly and prevent unintentional breaches. The introduction of geo-fencing could also enable easier access to airspace and reduce insurance premiums, i.e. through adding an additional layer of protection about where drones can and cannot fly.

- **System sustainability** - along with remote identification, geo-fencing can be seen as a building block technology for future drone integration. As technology evolves, it is likely to support operations beyond visual line of sight (BVLOS) and be a key component of UTM systems.

What are the likely costs and challenges of geo-awareness?

79. The main costs of geo-awareness would be associated with the requirement for drones to be equipped with the appropriate technology (software). As with remote identification, as the technology advances and becomes more widely available, the costs are likely to decrease.

80. Geo-fencing technology is not fail-safe and the drone operator is ultimately responsible for flying away from restricted zones. Manufacturers have indicated that geo-fencing cannot be guaranteed in all conditions – it requires several elements that may be missing, damaged or interfered with during a flight. As with remote identification, some operators may deliberately override it. However, ifgeo-fencing requirements are in place, it will help authorities to clearly identify threats (i.e. if someone is flying where they clearly should not be) and take appropriate response action.

81. If we opt to introduce geo-awareness requirements, we would need to work through the following considerations:

- **Who could determine zones** for geo-fencing (e.g. CAA, Police, national security agencies, local authorities etc)
- **How it would work**, including developing and maintaining a database with up-to-date location information on geo-fenced areas and any other infrastructure requirements
- **How to ensure manufacturers** have accurate and up-to-date data, and that their drones comply with any obligations
- **How to ensure operators** keep their drones updated (e.g. auto-download requirements)
- **How to manage any safety risks** associated with drones being diverted from a geo-fenced area
- **How to manage special authorisations** for operators cleared to fly into a designated zone (i.e. under Part 102 and including in emergency situations)
- **How it would apply to existing or custom drones**, including any transition period.

What are others doing?

82. Although there is strong interest in geo-fencing and geo-awareness as a tool, we are not aware of any jurisdictions that have introduced geo-awareness requirements to date. The EU has indicated it will introduce geo-fencing requirements as a key part of its U-Space (UTM) system, but these are not yet in place.
Questions:

xxvii. Do you see value in introducing geo-awareness requirements for drone users? Why/why not?
xxviii. If we opt for introducing geo-awareness requirements:
  - what would you like to see?
  - what should we avoid?
xxix. What impact would geo-awareness requirements likely have on you?

7. Import and sales controls

83. Some stakeholders have recommended that Government introduces controls on the sale and import of drones, as a way of enforcing product standards for drones.

84. Many drones are small, readily available from overseas vendors and appeal to some members of the public as novelty-type items. As with import controls for high-powered lasers, import controls for drones are likely to be costly and impractical to enforce. Intercepting non-compliant drones would be difficult, as it would either require border agencies to independently test imports to determine whether they exceed product standards (a resource-intensive approach that border agencies are not equipped to perform), or rely on product markings as an accurate representation of capability.

85. For these reasons, we do not consider that introducing these types of controls is a viable option at this stage. The Australian Government has taken a similar position.

86. New Zealand is also unlikely to have the ability of some other jurisdictions to influence manufacturing standards and impose separate requirements on manufacturers on its own. Instead, New Zealand is likely to be a standard “taker” in this regard.

87. Internationally, the EU is one of the leaders in developing product standards for drones in close collaboration with manufacturers, importers and distributors. Importers and manufacturers will be required to ensure drones available in the EU market are designed and manufactured in compliance with EU requirements. For example, manufacturers of remote identification equipment are required to ensure each drone comes with a unique serial number that complies with the appropriate EU standard. Any drone sold in the EU for use in its “open category” (equivalent to Part 103) must be marked with a product standard marking (CO-C4), which is used to both indicate compliance with EU standards and also to link consumers to information about the flight rules that apply to their drone.24

88. We will continue to watch international developments and assess what might be appropriate for New Zealand.

Questions:

xxx. Do you think we should be doing more to control the import and sale of drones? If so, why and how

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24 This is comparable to the EU’s “CE” (Conformité Européenne) marking scheme for products sold in the European Economic Area, that show compliance with EU safety, health and environmental protections requirements.
8. Offences and penalties

89. A range of offences and penalties apply to drones operated in careless or intentionally harmful manner in New Zealand. Aviation safety is typically regulated and administered by the CAA, along with other aviation-specific legislation, such as the Civil Aviation Act 1990. The key offences and penalties relevant to drones are set out in Table 4 below.

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Offence</th>
<th>Maximum available fine and/or penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimes Act 1961</td>
<td>Endangering transport (with intent to cause danger to persons or property or with reckless disregard for safety)</td>
<td>Individuals face a maximum prison term of 14 years.</td>
</tr>
<tr>
<td>Summary Offences Act 1981</td>
<td>Acts endangering safety</td>
<td>Individuals face either a maximum prison term of 3 months or a maximum fine of $2,000</td>
</tr>
<tr>
<td>Civil Aviation Act 1990</td>
<td>Operating aircraft in a careless manner</td>
<td>Individuals face a maximum fine of $7,000.</td>
</tr>
<tr>
<td>Civil Aviation (Offences) Regulations 2006</td>
<td>Person must not operate unmanned aircraft without taking all practicable steps to minimise hazards to other aircraft, persons or property</td>
<td>Individuals are subject to an infringement fee of $2,000. Upon conviction, the maximum fine is $5,000.</td>
</tr>
</tbody>
</table>

90. In addition to aviation-specific legislation, the obnoxious use of drones is subject to offences and penalties set out in general law (e.g. prohibiting trespass onto private property or making intimate recordings). For example, under certain circumstances, filming people with a drone could count as making an intimate visual recording under the Crimes Act 1961. Making, possessing or distributing such recordings are all offences punishable by prison terms of up to three years. The Civil Aviation Act 1990 (Section 97) also deals with nuisance, trespass and responsibility for damage.

91. As discussed above, the nature of drones means it is currently difficult to apply these offences in practice, primarily due to the difficulty in identifying drone operators. The threshold for prosecutions is also relatively high and in most cases might not make sense for relatively minor drone offences.

92. If we introduce new regulatory measures, including those set out above, we would likely need to introduce corresponding offences and penalties, as is usually the case with aviation rule changes. The Ministry of Transport also has a separate project underway to align penalties and offences across the transport system, to improve the coherence and comparability of fines and fees.

93. One option we are considering is introducing low-level fines for less serious drone-related offences, similar to minor traffic or parking offences. The United Kingdom has recently proposed a suite of new powers to improve the ability for police to enforce the rules against misuse of drones. This includes introducing fixed penalty notices (spot fines) for less serious drone offences, capped at £100 (approximately NZ$185).
Questions:

xxx. Do you think the current offences and penalties regime is working well? Why/why not?
xxxii. How could the offences and penalties regime be improved?
xxxiii. Should we consider introducing spot fines to respond to less serious drone offences? Why/why not?
Annex 1: List of questions

Problem definition

i. What is working well at the moment? What is not working?
ii. Have we got the problem definition right?
iii. What are we missing?

Options

iv. What priority would you give each of the measures?
   - Does it make sense to introduce measures as a package?
   - Or are there measures we should introduce before others? If so, which ones?
v. What else should we be thinking about?

1) Changing who and what the rules apply to

vi. What is the best way of determining the level of risk in the New Zealand context? (e.g. weight/maximum speed/capacity/location/types of operation)?
vii. Should we exclude very small/low-risk drones from the Civil Aviation Rules? If so, what should the threshold be?
viii. What sort of differentiation would make sense?
ix. How might special authorisations work?

2) Relaxing Part 101 requirements

Consent provision

x. How do you think the consent provision is working?
   - for safety
   - for privacy and nuisance?
xi. Should we retain the consent provision?

xii. If we remove the consent provision, how could we manage safety, privacy and nuisance concerns? What could we replace it with?

Other rule changes

xiii. Do you agree that these are the areas we should focus on?
xiv. Do you have any specific comments on the proposals above?
xv. Have we missed anything?

3) Registration

xvi. Do you see value in implementing a registration scheme for drones in New Zealand? Why/why not?
xvii. Do you see any alternatives to registration that would achieve similar objectives?
xviii. If we opt for a registration scheme:
   - what would you like to see? (form, cost, duration etc)
   - what should we avoid?
xix. What impact would registration likely have on you?
4) **Operator competency**

   xx. Do you see value in having an operator competency testing requirement for drone operators? Why/why not?
   xxi. What else could we do to improve education and drone operator behaviour (both regulatory and non-regulatory measures)?
   xxii. If we opt for introducing operator competency testing:
         - what would you like to see?
         - what should we avoid?
   xxiii. What impact would operator competency testing likely have on you?

5) **Remote identification**

   xxiv. Do you see value in introducing remote identification requirements for drone users? Why/why not?
   xxv. If we opt for introducing remote identification requirements:
         - what would you like to see? (e.g. type, transitional arrangements, privacy considerations)
         - what should we avoid?
   xxvi. What impact would remote identification requirements likely have on you?

6) **Geo-awareness/geo-fencing**

   xxvii. Do you see value in introducing geo-awareness requirements for drone users? Why/why not?
   xxviii. If we opt for introducing geo-awareness requirements:
           - what would you like to see?
           - what should we avoid?
   xxix. What impact would geo-awareness requirements likely have on you?

7) **Import and sale controls**

   xxx. Do you think we should be doing more to control the import and sale of drones? If so, why and how?

8) **Offences and Penalties**

   xxxi. Do you think the current offences and penalties regime is working well? Why/why not?
   xxxii. How could the offences and penalties regime be improved?
   xxxiii. Should we consider introducing spot fines to respond to less serious drone offences? Why/why not?
Annex 2: What others are doing

Internationally drone rules and regulations are changing rapidly. The information in this table is based on best efforts to collate the information available at the time of writing (August 2019).

<table>
<thead>
<tr>
<th>Region</th>
<th>Registration</th>
<th>Identification</th>
<th>Physical and electronic ID</th>
<th>Minimum age</th>
<th>Visitors</th>
<th>Special authorizations</th>
<th>Penalties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australia</strong> (Civil Aviation Safety Authority (CASA))</td>
<td>Online registration and accreditation online, in process to be introduced in December 2019.</td>
<td>Accreditation certificate required for all recreational drone operators and all commercial drones.</td>
<td>Unique manufacturer's marking (e.g., serial number, registration number, or similar); linked to drone at registration; or if not available a unique identifier can be added.</td>
<td>Unspecified: requirements vary widely.</td>
<td>fly as operator under 16 years of age must be supervised by an adult (over 18 years).</td>
<td>Model aircraft association members operating at CASA-approved airfields (Foodota)</td>
<td>Not yet specified (could include fines and 'domestic' style points)</td>
</tr>
<tr>
<td><strong>United States</strong> (Federal Aviation Administration (FAA))</td>
<td>Online or paper-based registration system in place since 2015.</td>
<td>Remote pilot certificate (Part 107) for drones over 25kg.</td>
<td>Remote pilot certificate (Part 107) for drones over 25kg.</td>
<td>16 years of age.</td>
<td>fly as operator under 16 years of age must be supervised by an adult (over 18 years).</td>
<td>Model aircraft association members operating at CASA-approved airfields (Foodota)</td>
<td>General penalties: fine up to $20,000.</td>
</tr>
<tr>
<td><strong>Canada</strong> (Transport Canada)</td>
<td>New rules published in January 2019.</td>
<td>Basic Flight Certificate required for basic operations (in uncontrolled airspace, more than 30 km from border, and not over occupants).</td>
<td>Basic Flight Certificate required for basic operations (in uncontrolled airspace, more than 30 km from border, and not over occupants).</td>
<td>Operators must hold FAA-issued Extended registration certificate.</td>
<td>fly as operator under 16 years of age must be supervised by an adult (over 18 years).</td>
<td>Model aircraft association members operating at CASA-approved airfields (Foodota)</td>
<td>General penalties: fine up to $50,000.</td>
</tr>
<tr>
<td><strong>United Kingdom</strong> (Civil Aviation Authority (CAA))</td>
<td>EU regulations apply from 3 July 2020, pending in relation to online registration and pilot competency systems. UK CAA will review and implement any changes by April 2021.</td>
<td>Online safety test (details to come).</td>
<td>Online safety test (details to come).</td>
<td>Not yet specified.</td>
<td>Not yet specified.</td>
<td>Model aircraft association members operating at CASA-approved airfields (Foodota)</td>
<td>General penalties: fine up to $50,000.</td>
</tr>
</tbody>
</table>

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The separate process is based on the ICAO requirement that an aircraft can only be registered in one country.

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Page 25 of 25
<table>
<thead>
<tr>
<th>Registration</th>
<th>Compliance Failure</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member States must implement a digital national registration scheme by 1 July 2020 according to the requirements set out in the 16</td>
<td>Member States to determine</td>
<td>Member States to determine</td>
</tr>
<tr>
<td>EU uses a combination of methods: flight data, threat analysis, and risk management.</td>
<td>EU Member States must be in place by 1 July 2020.</td>
<td>EU Member States must be in place by 1 July 2020.</td>
</tr>
<tr>
<td>Drones above 500g or flying beyond visual line of sight (BVLOS) are required to register, in addition to the registration requirement.</td>
<td>Remote identification mandatory for all classes of drones above 150g, regardless of whether or not they are being operated by a certified pilot.</td>
<td>Remote identification mandatory for all classes of drones above 150g, regardless of whether or not they are being operated by a certified pilot.</td>
</tr>
<tr>
<td>No current requirements.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reporting framework for the Government Policy Statement on Land Transport

<table>
<thead>
<tr>
<th>Reason for this briefing</th>
<th>GPS 2018 included draft reporting measures to be further refined. We now have a final set of reporting measures and are seeking your sign-off. This briefing also sets out our approach to reporting on them publicly.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action required</td>
<td>Sign-off the GPS 2018 reporting measures and note that we will develop online reporting.</td>
</tr>
<tr>
<td>Deadline</td>
<td>16 August 2019.</td>
</tr>
<tr>
<td>Reason for deadline</td>
<td>We would prefer to have your sign-off by 16 August 2019 as getting your steer soon will allow us to progress collating and analysing the necessary data in time for publication in early 2020.</td>
</tr>
</tbody>
</table>

Contact for telephone discussion (if required)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>First contact</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Senior Adviser, DSEE</td>
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MINISTER’S COMMENTS:

Date: 2 August 2019  Briefing number: OC190486

Attention: Hon Phil Twyford (Minister of Transport)  Security level: In Confidence

CC: Hon Julie Anne Genter (Associate Minister of Transport)

Minister of Transport’s office actions

☐ Noted  ☐ Seen  ☐ Approved

☐ Needs change  ☐ Referred to

☐ Withdrawn  ☐ Not seen by Minister  ☐ Overtaken by events
Purpose

1. This briefing outlines the Ministry’s planned approach to reporting on results for the land transport sector as set out in GPS 2018. This briefing provides you with information on:

   1.1. the current approach to monitoring and evaluation
   1.2. public commitments made on monitoring and evaluation
   1.3. engagement undertaken to refine measures
   1.4. final reporting measures for your sign-off
   1.5. limitations of what reporting measures can and cannot show
   1.6. how we propose to report on GPS 2018
   1.7. planned improvements to monitoring GPS delivery.

There is currently no report on collective progress against overall delivery of GPS objectives

2. The Government Policy Statement on Land Transport (GPS) outlines the Government’s priorities for land transport investment over the next 10 years. The NZ Transport Agency (NZTA) works with local government to give effect to the GPS through the National Land Transport Programme (NLTP), while the Ministry maintains oversight of GPS implementation.

3. Currently there is no holistic way to see how GPSs are being implemented and whether the aims they set out are being achieved. We have historically relied on NZTA quarterly and annual reports on NLTP delivery. Triennially this reporting looks back over the three years of the NLTP.

4. The existing NZTA reports outline NZTA’s progress towards strategic goals, priorities (e.g. safety), planned and actual spending in activity classes, and organisational capability and health. It relies on NZTA’s interpretation of the GPS and only provides NZTA’s own view of progress against implementation. It also covers continuous programmes that keep the transport system operating that remain largely unchanged as GPSs change.

5. This reporting is useful but not specific to the changes we expect as a result of the GPS.

6. You receive additional information on progress against GPS direction through:

   6.1. ad hoc briefings from the Ministry on individual areas as policy develops and through the Ministry’s Crown monitoring function
   6.2. dedicated reporting on particular programmes, e.g. Auckland Transport Alignment Project
   6.3. one-off reviews when gathering evidence during GPS development

GPS 2018 said monitoring and evaluation was important

7. You have sought more transparency on how investment decisions in the system are giving effect to the direction you set in the GPS.
8. Reporting is important to determine if the Government's transport priorities, objectives and results are being achieved, and to ensure New Zealanders can be confident that the government is investing in transport efficiently and effectively. It is also necessary in order to continually improve the GPS and the transport investment appraisal system to achieve effective transport outcomes. GPS 2018 included draft reporting measures that would provide investment decision-makers (Ministers, Ministry, NZTA) with information to help inform future GPS investments.

9. Accountability and transparency are key drivers. You and the public are the primary audiences but local government and transport user groups may also be interested in the reporting findings.

10. Action by NZTA alone will not automatically result in achieving the strategic direction of the GPS. This requires all parts of the transport system to work together to achieve the outcomes, including transport users. GPS monitoring and evaluation will attempt to look at this wider picture.

The Ministry must introduce GPS reporting over the term of GPS 2018

11. GPS 2018 identified the Ministry as responsible for monitoring and evaluation of the GPS. We have been progressing work on how we will report on the GPS results and hope to be ready to publish the first report in early 2020. We recommend that you:

11.1. Agree to the final measures so that we can begin collecting and analysing the data

11.2. Note our intended way of reporting on the measures as we begin design of the reporting framework and templates

We refined the draft measures published in GPS 2018 and they are ready for your sign-off

12. GPS 2018 included draft measures against each of the short-term results to report on progress of the investment strategy of GPS 2018. Over the last year we have refined the draft measures, including working with NZTA and other agencies around new data sources. The final measures are a mix of short to medium (3-6+ years) term and long-term (10+ years) measures. They are designed to be read as a set as many of the changes sought by GPS will be achieved by solutions that take years to plan and implement.

13. Some measures that we would ideally include do not exist, for example there is no single measure of accessibility. Some of the finalised measures are proxies or aspirational measures that are not yet possible to report on as the necessary data is not available. Where we have identified research needs, they have been incorporated into the Transport Evidence Base Strategy and associated programmes of work to address these gaps.

14. We engaged internal and external stakeholders on what data is available/feasible, and what measures would be useful to the sector and most closely capture what the Government is trying to measure. This included engaging with the relevant data holders (ACC, Ministry of Health, Ministry of Housing and Urban Development, NZ Police, Te Araroa Trust, Stats NZ and NZTA). We also sought feedback from local councils during our regional roadshows and worked closely with the Treasury on value for money measures.

15. The Ministry and NZTA's extended leadership team have now agreed a set of 82 measures to report on progress of GPS 2018, although only 50 measures will be reported on in the first year. Additional measures will be reported on as and when they become available, noting that 18 of the proposed measures still require significant work and it is not yet known when they will be available.
<table>
<thead>
<tr>
<th>Reporting year</th>
<th>2018/19</th>
<th>2019/20</th>
<th>2020/21</th>
<th>Require significant work</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of measures</td>
<td>50</td>
<td>62 (50 from previous year + 12 new)</td>
<td>64 (62 from previous year + 2 new)</td>
<td>18</td>
<td>82</td>
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16. The measures are attached for your approval. They include:

16.1. input measures – primarily focussing on money spent, these measures will also provide context around how much money was spent to bring about outputs.

16.2. output measures – including measures from NZTA output class reporting, e.g. number of passengers using urban public transport services.

16.3. outcome measures – reflect the future transport system you would like to see.

17. Outcome measures track change that we ultimately want to see in the system. However, they will be affected by external factors and it will take years to see noticeable (measurable) change. Any change will be the cumulative result of many GPSs, long-term planning, investment, building, policy, regulation and behavioural change, both within and outside the transport system.

18. The measures will provide a basis to support a step change in the NZTA and local government focus and performance, which will filter into the wider transport system. The NZTA is already starting to incorporate the measures into its benefits management framework, which will see, over time, investment proposals developed to support progress against the GPS measures. The NZTA is also starting to embed a more robust reporting system to track benefits realisation at a portfolio level. This is work in progress.

**Reporting of this nature is difficult:**

19. GPS 2018 strategic direction is underpinned by a desire to see a change in outcomes, which, as discussed above, are difficult to report on. It is also difficult to attribute outcomes to specific GPSs, due to the lag time in reporting measures annually, their primary purpose will be transparency. The Ministry is strengthening monitoring and developing further interventions to more immediately inform investment decision making (paragraphs 25-35).

20. Nonetheless, this is the first time we have undertaken such reporting and it sets the groundwork to move the system to one predicated on evidence-based decision making, where implementation bodies are held to account. It sends a signal that we are committed to achieving the direction of GPSs over their ten-year investment window. The focus on reporting may also drive behaviours within the system, encouraging visibility of how investment decisions match government direction. Over time, it should also give us a set of trends that could signal where interventions are needed in NZTA e.g. if trends go against our expected trajectory.

21. It will take a long time to become a system that does this well and there are few international examples of governments that have achieved this. Norway provides the best example, and this involved the establishment of a whole unit dedicated to benefits realisation. Paragraphs 28-30 discuss how we will strengthen benefits realisation in the NZTA.

**We will produce web-based reporting, updated annually**

22. We will produce web-based reporting against the measures for 2018/19 to be published in early 2020. This will include graphs and tables where appropriate, and links to existing...
interactive dashboards available online (both Ministry dashboards and those of the data owners e.g. Ministry of Health). We will indicate the desired trend. For some measures this will be obvious (e.g. road deaths to decrease), whilst others are provided for context and may not have a desired trend (e.g. use of specialised services). For measures based on existing data, previous trends may also be reported.

23. This is the first year that GPS 2018 was in force. However, as GPS 2018 recognised, some of the effects from earlier land transport investments made under previous versions of the GPS will be captured in reporting under GPS 2018. This recognises there is a significant lag in the effects of transport investments.

24. Data will be updated annually, where available (some measures are collected less frequently) and have caveats alongside for people to understand the content. Commentary in year one will describe the desired trends and actions taken by government with the aim of achieving progress. In subsequent years we will move into more mature commentary.

25. You will receive advice on how outcomes for GPS 2021 will be measured. The reporting measures we use will depend on the strategic direction you set but if the direction remains broadly similar it will allow us to be consistent and use the same measures as GPS 2018.

We are planning wider changes to how we monitor delivery and outcomes

We will work with NZTA to improve the links to the GPS in their existing NLTP reporting

26. The NZTA must report annually on the National Land Transport Fund (NLTF). Legislation requires it to cover:

26.1. income and expenditure from NLTF for three years (covering NLTP period)

26.2. statement on the financial position of the NLTF and explanation of how the NLTF has been managed

26.3. statement of commitments

26.4. statement of performance for each activity class

26.5. explanation of how funding of activities under the NLTP has contributed to achievement of any outcomes, objectives or impacts in the GPS

27. We are working with NZTA to strengthen this. For example there is little mention of the GPS in the NLTP annual report. It should be used to frame the report as the NLTF should be giving effect to the GPS. The report also provides the percentage of spend that has contributed to particular outcomes. This could be strengthened, especially with the introduction of GPS 2018 reporting measures, to more clearly show progress against the GPS.

Through our Crown monitoring work we are seeking improvements to monitoring and evaluation within NZTA

28. Project-level monitoring, reporting, evaluation and learning are required over the lifespan of a project and investment programme to see whether the promised outcomes that led to an investment being approved, have been realised. This would be expected of an organisation with a strong portfolio management and benefits realisation approach. The NZTA’s recent Investor Confidence Rating assessment identified portfolio management as a weakness. Benefits realisation is currently only undertaken by NZTA on a handful of projects each year. The Ministry’s ongoing monitoring programme is further examining these issues.
29. Working with the Treasury, we are intending to undertake more focused monitoring to understand how the land transport investment system is performing. This work will include specifically looking at how effective the NZTA Board is in overseeing the performance of the NZTA’s major investment and capital programmes. The assessment will look at the extent to which NZTA adopts a comprehensive lifecycle approach to investment, with a particular focus on the following capability areas:

29.1. portfolio, programme and project management approach

29.2. investment-decision making processes

29.3. performance, progress and risk reporting

29.4. benefits realisation approach, including whether lessons are learned from this and fed back into future investment decisions.

30. We have already undertaken a procurement monitoring assessment, which has led to some recommendations in this space.

**We are developing a portfolio view - a big picture view of investment, revenue and performance**

31. We have a project underway to look at the whole transport portfolio so that we can take more strategic and long-term choices across investment and revenue (OC181187 refers) and allow you to see how interventions add up to reach desired outcomes.

32. This would provide more straightforward long-term options for building and maintaining the transport system. It is also a necessary tool for ensuring mode neutrality – as it will let governments compare investments based on outcomes-over-life. The outputs may provide options for change to practices within the NZTA or system reform. We will brief you on this work later in the year.

**We will work closely with NZTA as they translate the next GPS into their NLTP**

33. The separation of the Ministry setting strategic direction in the GPS, and NZTA implementing it through the NLTP means they, as the expert delivery body, are able to determine the projects and programmes that best give effect to the desired direction without jeopardising the integrity of the network to serve its core purpose as an efficient, effective and safe system. However, this separation has also meant, in previous years, that GPS implementation relies on NZTA’s interpretation of the direction. GPS 2018 was particularly challenging for them to navigate due to its wide scope and the directional change it represented for the system.

34. The Ministry will work closely with NZTA to make sure that GPS 2021 is clear on the changes it expects NZTA to make in the transport system, in order to achieve outcomes. We will also look for Crown monitoring to play a greater role in the development of the NLTP to ensure alignment with the GPS. We will set the expectation that the NZTA should work closely with the Ministry once GPS 2021 is published to check their understanding of the intention of the GPS as they develop the NLTP to give effect to GPS 2021. The Ministry will look to take a more expansive assurance role throughout the implementation of the NLTP to make sure that the GPS is being given effect to.

35. There is a Joint Ministry of Transport-NZTA programme to review the Investment Decision Making Framework that NZTA uses to assess which projects to invest in. Through this we are setting stronger expectations around monitoring benefits realisation, which needs to be routine. The new framework should be in place in time to apply it to GPS 2021.
36. We are also planning to conduct two specific “deep dive” GPS evaluations, the first of which focusses on value for money and is currently being scoped.

**Transport Outcomes Framework (TOF) demonstrates a wider system move towards monitoring**

37. Reporting for the GPS measures and TOF indicators will be designed in parallel. You have received a briefing on the indicators and reporting for the Transport Outcomes Framework alongside this briefing (OC190563 refers).

38. The TOF is intended to give direction to the transport sector to ensure decisions reflect the Government’s goals for transport. The TOF indicators will illustrate trends and movement in the transport sector over time, and can be used to track the ongoing progress of the transport sector against the five outcomes and their contribution to wellbeing and liveability.

39. GPS reporting largely aligns with the TOF but the GPS reporting measures are more granular than the TOF indicators and report on specific changes expected in the short term, medium term and long term. The GPS measures focus specifically on land transport, while the TOF indicators also include other modes (e.g. maritime and aviation). We are working closely with the transport Crown entities to embed the TOF into their strategic direction and performance frameworks.

**Next steps**

40. GPS reporting will rely on data from multiple agencies across government and we are currently working with the relevant agencies to access and collate the necessary data. We will also design the online reporting framework.

41. We expect to receive data in October 2019. Following this we can refine the narrative that will accompany the data.

42. We will update you via the Weekly Report at key milestones, and provide the draft GPS report for sign-off ahead of publication early next year. Depending on data availability, publication may coincide with the engagement period for GPS 2021 and mean that the sector will be able to see that the promise to report on GPS 2018 has been achieved.

**Recommendations**

43. The recommendations are that you:

(a) **sign-off of the attached final GPS 2018 reporting measures**

(b) **note that we will develop an online reporting framework**

Helen White  
Manager Investment

Tim Herbert  
Manager Domain Strategy, Economics and Evaluation

**MINISTER’S SIGNATURE:**

**DATE:**
Meeting with Nick Leggett, Road Transport Forum

<table>
<thead>
<tr>
<th>Reason for this briefing</th>
<th>You are meeting Nick Leggett, Chief Executive of the Road Transport Forum (RTF). This briefing provides you with information to support your meeting.</th>
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<tbody>
<tr>
<td>Action required</td>
<td>Familiarise yourself with the key messages in Appendix One addressing discussion topics likely to be raised by Mr Leggett.</td>
</tr>
<tr>
<td>Deadline</td>
<td>Monday 2 September 2019.</td>
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<tr>
<td>Reason for deadline</td>
<td>You are meeting Mr Leggett on Monday 2 September 2019.</td>
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Contact for telephone discussion (if required)

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Helen White</td>
<td>Manager, Investment</td>
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<tr>
<td>Bryn Gandy</td>
<td>Deputy Chief Executive, Strategy and Investment</td>
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MINISTER'S COMMENTS: Withheld under Section 9(2)(a) of the Official Information Act: 1982

Date: 22 August 2019

Briefing number: OC190786

Attention: Hon Phil Twyford
Minister of Transport

Security level: In-confidence

Minister of Transport’s office actions

☐ Noted
☐ Seen
☐ Approved
☐ Needs change
☐ Referred to
☐ Overtaken by events
☐ Withdrawn
☐ Not seen by Minister
Mr Leggett is likely to raise a number of key issues with you at the meeting

1. Minister Gen:er met with Road Transport Forum (RTF) representatives, including Mr Leggett, in July 2019. At their meeting, they discussed a perceived lack of data on trucks, concerns around the level of investment in roads, and their support for roadside drug testing.

2. The RTF has raised a number of issues in the public lately, which we expect Mr Leggett to also raise with you at this meeting. These issues cover:

   2.1. the RTF’s views on the Road to Zero strategy consultation document, including the consultation process

   2.2. the Business Advisory Council’s (BAC) recommendation for the National Land Transport Fund (NLTF) to take on debt to fund large-scale road projects.

3. Key messages addressing these issues are provided in Appendix One.

Background information on the RTF

4. The RTF represents the commercial road freight industry in New Zealand. It was created as a national body in 1997 to promote and advance the interest of the road transport industry and its member road transport operators. Its members include Road Transport Association New Zealand, National Road Carriers and New Zealand Trucking Association.

The RTF has signalled concerns with the Road to Zero strategy consultation document

The consultation process

5. Mr Leggett met with Ministry Officials recently and noted that:

   5.1. the compulsory online survey tool used for the consultation process will not allow for the adequate reflection of the views of larger member organisations such as the RTF

   5.2. there is more to finding long-term, effective solutions than ‘agree/disagree’ statements

   5.3. survey forms are “easily skewed by interest groups who get online and fill out hundreds of surveys”.

Ministry comment

- While we used an online tool, it was not a compulsory survey or form. Submitters could choose to answer any or all questions, and could choose to provide a written submission (of any type) as an attachment.

- The tool supported collation, and allowed us to ask key legal questions (e.g. permission to release information under the OIA) and collect key demographic and organisational data. All submissions through the tool have been read and analysed, and we are able to see if they are from individuals, or represent organisations. We received over 1300 submissions and a summary of submission is currently under development.
The RTF considers that the Strategy is confusing

6. In parallel with providing a submission on the Road to Zero strategy consultation document, the RTF issued a press release (attached as Appendix Two). It states that "there is a passion to make roads safer, but ... there is both a reluctance to spend money on new roads and road surfaces".

7. Overall, the RTF does not consider that Road to Zero adequately accounts for the role of driver behaviour and roads in creating a safe system. While the RTF agrees that the roading network needs improvement, it considers that adding longitudinal median barriers and acoustic edge treatments do not compare to investing in more foundational road design improvements. The RTF believes that often it is better to invest in new roads than aftermarket treatments. The RTF has also expressed concern that funding for more median barriers will be at the expense of less road maintenance.

8. The RTF questioned the fit of Road to Zero with the Government’s plan to decriminalise cannabis use. The RTF notes that drugged drivers are responsible for a high number of accidents and that a ‘more relaxed attitude’ to drug use could send the wrong message to road users. The RTF supports a full road-side drug impairment initiative, including road-side testing followed by evidential testing.

9. It also claimed that the Government has already signalled intention to move in the policy direction as outlined in the discussion document, while consultation in still underway. For example, it claims Ministers have already made pre-emptive announcements, including about installing more median barriers, roundabouts and cycling infrastructure.

Ministry comment

- The Government Policy Statement on Land Transport (GPS) 2018 identified safety as a key strategic priority. GPS 2018 saw a shift from building more roads to targeted investments at roads and roadsides that will have the greatest impact on reducing deaths and serious injuries.

- New Zealand adopted the Safe System approach for Safer Journeys (the current road safety strategy for 2010-2020). Safer Journeys includes a focus on safer roads and roadsides (which acknowledges the importance of safety improvements such as roundabouts, cycle lanes and median barriers). These Government’s announcements are therefore entirely consistent with the current strategy, and are also in line with the current GPS which elevated road safety to one of two key strategic priorities.

The RTF has concerns around the use and presentation of data and evidence in the Strategy

10. The RTF believes that the Road to Zero strategy consultation document presented crash data in an incoherent way, at least from the heavy vehicle users’ perspective. The RTF considers that there is a lack of detail around the statistical evidence, including a lack of granularity around car and truck involved accidents such as who was at fault and specific event characteristics. Instead, the RTF contends that the consultation document relies on "presenting an emotive text-based analysis of the severity of safety issues" to support the Strategy’s policy aspirations.
11. The RTF claims that while the vagueness of data may appear to the wider public, it does not properly equip professional road users to comment on the Strategy. The RTF also noted that crash liability data is difficult find on the Ministry’s website and is out of date, and that the discussion document provides no direct link to the information used. The RTF contends that “this fragmented approach allows, or enables, coarse statistical data to be used to amplify the tone of the document and support the preferred policy solutions”.

Ministry comment

- The data presented in Road to Zero consultation document is drawn directly from the crash reporting that the Ministry carries out. We do not consider that the consultation document misrepresent any of the underlying trends seen in the reporting of the crash statistics.

- We publish the Annual Crash Statistics by December each year for the preceding year (for example the current 2017 statistics were published in December 2018 and we will publish 2018 statistics in December 2019). This lag in the reporting time exists for a number of reasons:
  - Crash reports come directly from the Police, there is a need therefore to properly collate and assess injury data via hospital and other healthcare data (some injuries are not recorded by the Police and later present at hospital, injury categorised as serious by a police office may sometimes be minor when dealt with by a medical professional).
  - In the event of a fatality there is in some cases is a need to exclude that death from the road statistics due to medical event or suicide, these records are updated officially once a Coroner’s ruling has been made.

- It is therefore not accurate to say that the statistics are not up to date or that they are coarse. While the official statistics reporting may lag, provisional road fatality data is updated daily and reported through our website.

- We work towards making the statistical data available and accessible to all New Zealanders and not just subject matter experts such as the RTF. In striking that balance there may well be more that we can improve upon, and we appreciate specific feedback that the RTF might have.

The RTF is supportive of the NLTF taking on more debt

12. In October 2018, the Prime Minister established the BAC, consisting of a number of leaders across the business community, to provide high-level advice on policies that directly affect business, and build closer relationships between government and business.

13. On 25 June 2019, the BAC wrote to the Prime Minister on infrastructure development in New Zealand. The BAC noted that New Zealand is at an “infrastructure crisis point” and that adequate and fit-for-purpose infrastructure underpins the Government’s well-being objectives.
14. The BAC developed a list of immediate actions and longer-term solutions, which it considers will contribute to addressing the infrastructure challenges in New Zealand. One of the recommendations put forward was “the NLTF rules need to be amended to allow for the raising of debt in order to fund long-term and strategic programmes of work”. The BAC considers that the present form of the NLTF (i.e. PayGo approach) prevents debt financing and discourages meaningful private investment. The BAC suggested that “a philosophical shift is required in our national approach to infrastructure concerning the use of public-private-partnerships”, and that the Government should consider whether there is any greater social benefit in the state owning certain assets.

15. The RTF is supportive of the BAC’s recommendation for the NLTF to take on more debt and has expressed this opinion publicly. The RTF has also claimed that the Government is not responding to the BAC’s advice to alleviate the infrastructure deficit in New Zealand, specifically debt-funding the 12 re-evaluated state highway projects.

Ministry comment
- Subject to the Ministers of Finance and Transport approval, the New Zealand Transport Agency (NZTA) has the ability (using the NLTF) to raise debt through the use of loans and financing arrangements such as a private-public-partnership. For example, Transmission Gully has a funding commitment of $3.3 billion over 25 years while Puhoi to Warkworth has commitment of $2.2 billion.
- A number of programmes currently under consideration (e.g. Auckland Light Rail and mass transit for Let’s Get Wellington Moving) may significantly increase the proportion of debt in the NLTF. While the NLTF may be considered a fund of significant size, its capacity to facilitate debt is somewhat limited by a high proportion of expenditure that is deemed to be ‘core spending’ (i.e. expenditure necessary to maintain the current levels of service).
- The Infrastructure Transactions Unit, working together with the Treasury and us, has established a Working Group to identify suitable transportation projects of scale for investment, with an initial focus on the Auckland area. As part of this work, the Working Group will assess projects’ suitability for alternative financing models and potential for projects to raise project-specific revenue.

Other matters
16. In February 2019, the NZTA initiated a number of changes on how it regulates heavy vehicles. As part of this work, the NZTA is reviewing the Operator Rating System (ORS).

17. The ORS is a system that aims to improve the safety of heavy vehicles on our roads. It is one of many tools that the NZTA and Police use to identify high-risk operators for further investigation or auditing. The NZTA has advised that the ORS will be put on hold while the review is underway.

18. In a recent meeting with Ministry Officials, Mr Leggett noted that the RTF is strongly supportive of the NZTA taking a more risk-based approach in regulating heavy vehicles. He also noted that the RTF is working together with the NZTA on the review with the aim of bringing the ORS back in place.
Next steps

19. You are scheduled to speak at the RTF Conference on Tuesday 24 September 2019 where you will have the opportunity to present the Government’s future direction for transport. However, you may wish to use this meeting to seek suggestions on key topics that RTF members would like to hear you speak on.

Recommendation

20. We recommend that you note the key messages in Appendix One addressing the issues highlighted above, prior to your meeting with Mr Leggett.

Helen White
Manager Investment

MINISTER’S SIGNATURE:

DATE:
Appendix one – key messages

Road to Zero

Consultation process

- The Government received over 1300 substantive submissions through the online tool. The online tool was not a compulsory online survey – it was a data collection portal where submitters could choose to answer all or any questions, or attach a document if they preferred.

- It also contained key questions that the Ministry needed answered, such as acknowledging the OIA and providing some demographic and organisational information.

- The Ministry does not only adopt a quantitative approach to analysing submissions and it recognises that submissions do come from large organisations, and have identified those as part of the analysis process.

- The RTF participated in the two strategy workstreams, prior to the consultation process. The Ministry has also talked to a large number of organisations, road safety experts across the country and internationally.

- The final strategy and action plan will be released before the end of the year. A summary of submissions will also be publicly released.

RTF claims around pre-emptive announcements

- It is important to remember New Zealand adopted the Safe System approach for Safer Journeys (the current road safety strategy for 2010-2020) almost 10 years ago. Safer Journeys includes a focus on safer roads and roadsides (which acknowledges the importance of safety improvements such as roundabouts, cycle lanes and median barriers).

- Government’s announcements on investing in infrastructure safety treatments are therefore entirely consistent with the current strategy, and are also in line with the current GPS 2018 which elevated road safety to a key strategic priorities.

RTF concerns around lack of investment in roading

- The Government Policy Statement on Land Transport (GPS) 2018 identified safety as a key strategic priority. GPS 2018 saw a shift from building more roads to targeted investments at roads and roadsides that will have the greatest impact on reducing deaths and serious injuries.

- Evidence indicate that rumble strips alone could potentially reduce crash numbers by around 29 percent and fatal run-off-road crashes by up to 42 percent.

- Median barriers also contribute to safety outcome and evidence suggests that they could potentially reduce the severity of crashes and likelihood of death.

- For example, prior to NZTA installing median barriers on Centennial Highway, seven people had died on that stretch of road in the previous five years. Since then, approximately 2-4 vehicles have hit that median barrier every month for the past 10 years, yet no one has lost their life since it was installed.
**Driver training**

- Improving skill and behaviour, and educating through promotion activities is important, and the Ministry is looking at the best actions to incorporate this into the first action plan.

- It is important to note that it only plays a small role in reducing risk. Based on international evidence from the OECD International Transport Forum, even if every road user obeyed the road rules all the time, New Zealand would still have more than 180 deaths on the road each year.

- Even well-trained drivers can make a mistake. Other system changes – such as better road infrastructure, safer vehicles and effective enforcement – are potentially more effective at reducing road trauma.

**Crash data**

- It is not accurate to describe the consultation document as amplifying Ministry data to progress any particular policy. It is also not accurate to say that the statistics are not up to date or that they are coarse. While the official statistics reporting may lags, provisional road fatality data is updated daily and reported through the Ministry’s website.

- The Ministry of Transport and NZTA have a huge amount of data. If there is any information that the RTF is unable to locate, it is more than welcome to request it from the Ministry. Alternatively, if RTF would like to undertake its own analysis, base crash data is available through the Open Data initiative on the NZTA and data.gov websites.

- The Ministry and the NZTA, with the help of Worksafe and Police are also working on an analytical project to determine and identify crashes where the journey was being undertaken for work purposes. Ministry Officials hope to be in a position to share those findings by the end of 2019.

**The use of debt in the National Land Transport Fund**

- Subject to the Ministers of Finance and Transport approval, the NZTA has the ability (using the NLTF) to raise debt through the use of loans and financing arrangement such as a private-public partnership.

- The NLTF is currently servicing approximately $5.5 billion of debt, with expected payments of around $2.7 billion over the next 10 years.

- The NLTF’s capacity to facilitate debt is limited by the proportion of expenditure required to maintain current levels of service in the land transport system. [Redacted]

  Withheld under Section 9(2)(g)(i) of the Official Information Act 1982

- As part of GPS 2021 development, I expect to receive advice on the use of financing tools and how to prudently manage the risks and benefits of financing.
Work in progress to support the development of infrastructure in New Zealand

- I am advised that there is currently healthy market interest in both financing and delivering infrastructure projects.
- The ITU, working together with the Treasury and the Ministry of Transport, has established a Working Group to:
  - identify suitable transportation projects of scale for investment with an initial focus on the Auckland area
  - evaluate the identified projects and their suitability for alternative financing models and the potential for project-specific funding
  - report back to Ministers on:
    - which projects could be accelerated through the use of alternative financing and funding models, while not displacing other higher priority projects; and
    - The potential for these projects to raise project-specific revenue, and any resulting funding gap.
- The first Working Group meeting was held on 13 August 2019 and included representatives from the NZTA, Auckland Transport, and the Ministry of Housing and Urban Development.
- The Working Group’s initial focus will be on:
  - Penlink
  - Mill Road
  - selected projects from the Supporting Growth Programme in Auckland
  - re-evaluated state highway projects, in particular the East-West link road.
- The ITU has engaged PWC who has provided advice to Auckland Transport on financing and funding options for Penlink to support this process.
Ministry of Transport: Aide Memoire

To: Hon Phil Twyford, Minister of Transport
From: Brent Johnston, Manager, Mobility and Safety
Date: 8 August 2019
Subject: Living wage for public transport bus drivers
OC Number: OC190768

Purpose of this aide memoire

1. On 24 July 2019, you attended a meeting of the Ministerial Oversight Group on State Sector Employment Relations (MOGSSER) to discuss the [REDACTED].

2. You intend to reconvene with MOGSSER Ministers, to continue this discussion. For the purposes of this meeting, The Treasury has been invited to prepare a report on the potential flow-on impacts for other sectors of establishing a living wage for bus drivers.

Key messages

- The Government has committed to building a 21st century transport system that reduces congestion, improves safety, reduces carbon emissions, and provides greater choice.

- Safe and efficient bus public transport is key to achieving this. Nearly three quarters of public transport journeys are made by bus.

- There are systemic issues in the public transport bus sector that threaten its sustainability. These include a driver shortage, workforce development and training and compliance with the Worktime and Logbooks Rule.

- The immediate issue to be addressed is the driver shortage, which is causing the cancellation of a significant number of services daily and is threatening the integrity of the public transport system.

- [REDACTED] is the first step in a suite of measures needed to address the systemic issues in the industry.

Mechanism for implementing a living wage – a tripartite approach

3. [REDACTED]. The Rest and Meal Breaks Steering Group, established under a Memorandum of Understanding (MOU) to mitigate the impacts of new rest and meal...
break provisions in employment relations legislation, is the ideal mechanism for this. The MOU already includes a commitment by Government to investigate a living wage for **public transport bus drivers.*** withheld under s 9(2)(f)(iv)

4. **withheld under s 9(2)(f)(iv)**

5. **withheld under s 9(2)(f)(iv)**

6. **withheld under s 9(2)(f)(iv)**

7. **withheld under s 9(2)(f)(iv)**

8. **withheld under s 9(2)(f)(iv)**

9. Research commissioned by the Ministry of Transport indicates that the majority of drivers outside the main centres (Auckland, Wellington and Christchurch) earn less than the living wage with drivers in Hamilton, Napier and Dunedin all earning $18.25 per hour. The living wage is currently $21.15.
11. The wide variation in the estimated costs is due to uncertainty about the proportion of drivers on a starting wage rate versus a top rate at operators in Auckland, Wellington and Christchurch.
Background notes:

16. In Wellington, around 60 more drivers are needed to manage current schedules. In Auckland bus operators have advised approximately 200 more drivers are required.

17. Concerns about wages and conditions have led to industrial disputes such as the current industrial action over wages in the Waikato region.

18. Research commissioned by the Ministry of Transport demonstrates that the implementation of the Public Transport Operating Model has improved competition, which has reduced service costs, but some bus drivers have weakened wages and conditions as a result.

19. While driver training, rostering, hours of work and fatigue are also contentious issues for bus drivers, wages have been identified by unions and bus operators as the most critical lever for developing capacity in the sector and mitigating the scope of industrial action in the industry.

Contact:
Brent Johnston, Manager, Mobility and Safety
Phone: 022 066 4401
Review of the Public Transport Operating Model

<table>
<thead>
<tr>
<th>Reason for this briefing</th>
<th>This briefing outlines the proposed scope and timing of the review of the Public Transport Operating Model (PTOM).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action required</td>
<td>Confirm you are comfortable with the proposed scope and timing of the review of PTOM.</td>
</tr>
<tr>
<td></td>
<td>Indicate if you wish to discuss the scope and timing of the review with officials.</td>
</tr>
<tr>
<td>Reason for deadline</td>
<td>To allow the request for proposals to be released on Monday 26 August 2019.</td>
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**MINISTER'S COMMENTS:** withheld under s 9(2)(a)

**Contact for telephone discussion (if required):**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>First contact</th>
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<tbody>
<tr>
<td>Brent Johnston</td>
<td>Manager, Mobility and Safety</td>
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<tr>
<td></td>
<td>Senior Policy Adviser, Mobility and Safety</td>
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</tbody>
</table>

**Date:** 26 August 2019

**Attention:**
- Hon Phil Twyford, Minister of Transport
- Hon Julie Anne Genter, Associate Minister of Transport

**Security level:** In-confidence

Minister of Transport’s office actions
- Noted
- Seen
- Approved
- Needs change
- Referred to
- Overtaken by events
Purpose of report

1. This briefing outlines the proposed scope and timing of the review of PTOM. We are seeking your agreement to the proposed scope and timing of the review.

2. The scope and timing of the review, inclusive of any amendments agreed with you, will inform a Request for Proposals that the Ministry will then place on the New Zealand Government Electronic Tenders Service (GETS).

Executive summary

3. The Ministry is undertaking a review of PTOM during 2019/20 to assess whether PTOM achieved the original objectives and whether it remains fit for purpose to contribute to the Government's desired outcomes from the transport sector. We propose to structure this review in two stages:

3.1. an impact evaluation contracted to an external provider

3.2. an in-house legislative and policy review.

4. We plan to complete the evaluation between October 2019 (following the appointment of a provider) and July 2020. Based on this timescale, the policy and legislative review will be completed between February 2020 and September 2020.

5. We propose that the impact evaluation is structured into four workstreams, as follows:

5.1. regional public transport planning – such as integration of ticketing and services and network changes

5.2. public transport service procurement – such as the impact on bus driver wages and conditions, and the impact on competition for contracts and contract prices

5.3. management of PTOM contracts – such as the impact on service performance from key performance indicators (KPIs) and penalties and incentives

5.4. exemptions for commercial services and other exclusions – such as the impact on service integration and the affordability of fares.

6. As part of the impact evaluation, we will ask suppliers to identify opportunities to improve the outcomes from PTOM that can be implemented in the short-term.

7. The legislative and policy review will be informed by the impact evaluation, and will focus on:

7.1. the extent to which the legislative and policy framework contributed to the outcomes identified in the evaluation

7.2. whether PTOM:

7.2.1. has achieved the original policy intent

7.2.2. supports your objectives of value for money, productivity, workforce stability, and optimal procurement

7.2.3. can support the Government's wider priorities.
8. Subject to your feedback on the proposed scope and timing of the review, we will issue a Request for Proposals to potential suppliers for the impact evaluation on Monday 26 August 2019.

9. The final scope and timing of work may be subject to further change as we engage with potential external suppliers. We will liaise with you and your office should any significant changes to scope and timing need to be considered, prior to entering into a contract.

Background to PTOM

10. In 2013, the government of the day introduced a new framework for the provision of urban bus and ferry services, known as PTOM. At the time it was developed, PTOM was designed to contribute to the government’s goal for public transport, which was to grow patronage with less reliance on subsidy. It was developed with two overarching objectives:

   10.1. to grow the commerciality of public transport services and create incentives for services to become fully commercial

   10.2. to grow confidence that services are priced efficiently and there is access to public transport markets for competitors.

11. PTOM was implemented through a mix of regulatory and operational policy tools used to plan, procure and deliver public transport services. The legislative components of the model were established through the Land Transport Management Amendment Act 2013.

12. With the exception of Canterbury, PTOM has been implemented across all parts of the public transport system in New Zealand.

The need for a review of PTOM

13. As part of good policy practice, the Ministry has discussed with you the need for an evaluation of PTOM. An evaluation is necessary both to assess whether PTOM achieved the original objectives and whether it remains fit for purpose in contributing to the Government’s desired outcomes from the transport sector.

14. In May this year, you announced the review of PTOM. The Ministry has included this as part of our 2019/20 work programme.

15. In addition, there have been a number of specific matters that have arisen over the past 18 months that need to be considered as part of a broader review. These include the following:

   15.1. You have expressed concern that PTOM has enabled or driven a ‘race to the bottom’ and may be contributing to public transport delivery being unsustainable at a time when the Government is trying to increase public transport use. More specifically, you have expressed concern about the impact of PTOM on bus driver wages and conditions and about the disruptive impact of tendering and network redesigns on service delivery and performance.

   15.2. There have been recent concerns in the media and from stakeholders about the Fullers ferry service to Waiheke Island, and the impact of the current regulatory exemptions for commercial public transport services. You are writing to Auckland Transport and Fullers to advise that these matters will be considered as part of the review of PTOM.
15.3. The Transport and Industrial Relations Committee has discussed the role of PTOM, in contributing to problems with Wellington's bus network. The Committee has also discussed elements of implementation, for example contract management, and the extent this enables and is being used as an effective lever to maintain and improve public transport service performance.

16. Each of these elements has been incorporated in the proposed scope of the review, which is discussed below. The remainder of the briefing is structured in two parts. Part one outlines the review structure and timing, and part two outlines the proposed scope of the review.

Part One: Review structure and timing

17. We propose that the PTOM review be structured in two stages. The first stage will be an evaluation of the impacts of PTOM, including how councils have implemented it. The outcomes of the evaluation will feed into a second stage policy and legislative review.

18. We are commissioning an external provider to complete the impact evaluation. We have completed a Registration of Interest process for the Impact Evaluation with potential suppliers, and have had 20 responses. We have shortlisted nine based on our assessment of their capacity and capability to complete the work, and subject to your feedback on the proposed scope, we will issue a Request for Proposals to the short-listed suppliers.

19. At this stage, we intend to complete the legislative and policy review in-house.

20. We expect the impact evaluation to be completed by mid-2020 and the legislative and policy review to be completed by the end of September 2020. The expected timing of milestones for the Impact Evaluation and Legislative and Policy Review are set out in Table 1 and Table 2.

Table 1: Milestones and timing for impact evaluation

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timing</th>
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<tbody>
<tr>
<td>Release Registration of Interest on GETS</td>
<td>15 July 2019</td>
</tr>
<tr>
<td>Release Request for Proposals on GETS</td>
<td>26 August 2019</td>
</tr>
<tr>
<td>Anticipated contract start date</td>
<td>Mid October 2019</td>
</tr>
<tr>
<td>Briefing outlining agreed scope and approach chosen</td>
<td>November 2019</td>
</tr>
<tr>
<td>Draft report</td>
<td>End April 2020</td>
</tr>
<tr>
<td>Final report</td>
<td>End June 2020</td>
</tr>
<tr>
<td>Briefing to the Minister outlining evaluation findings</td>
<td>July 2020</td>
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Table 2: Milestones and timing of legislative and policy review

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timing</th>
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<tbody>
<tr>
<td>Commence legislative and policy review</td>
<td>February 2020</td>
</tr>
<tr>
<td>Draft legislative and policy review report</td>
<td>End June 2020</td>
</tr>
<tr>
<td>Test draft legislative and policy review report findings with key stakeholders</td>
<td>July 2020</td>
</tr>
<tr>
<td>Briefing with draft review report</td>
<td>Early August 2020</td>
</tr>
<tr>
<td>Final legislative and policy review report</td>
<td>End September 2020</td>
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</table>
Part Two: Proposed scope of the review

**Impact evaluation scope**

21. We propose that the impact evaluation will be split into four workstreams, covering key aspects of how PTOM has been delivered. The methodology and scope of each workstream will be subject to proposals from external providers.

22. As a whole, the evaluation is expected to address the following questions:

   22.1. How well has PTOM achieved its intended outcomes, including to:

          22.1.1. grow the commerciality of public transport services and create incentives for services to become fully commercial?

          22.1.2. ensure services are priced efficiently and there is access to public transport markets for competitors?

   22.2. How has the introduction of PTOM impacted on service provision, service users, and service providers, including employees?

   22.3. How could the PTOM framework and/or implementation be improved?

23. As part of identifying improvements, we will ask the preferred supplier or suppliers to identify non-legislative mechanisms to improve outcomes from PTOM that can be implemented in the short-term.

24. The following sections outline our plans for the four workstreams in further detail.

**Workstream One: Impacts of regional public transport planning**

25. The introduction of PTOM gave councils the ability to design and integrate public transport networks. PTOM also allowed councils to set fares and provide integrated ticketing. Under PTOM, the key mechanism to achieve these outcomes is through regional public transport plans (RPTPs).

26. This workstream will include assessing the impact of:

   26.1. new network designs, such as the hub and spoke models adopted in Auckland and Wellington

   26.2. fare setting by councils

   26.3. integration of public transport services, including integration of bus, train, and ferry services

   26.4. integrated ticketing, including the AT HOP card in Auckland and any other ticketing systems adopted in other regions.

27. In addition, this workstream will also consider the extent to which user needs have been met by regional public transport planning and public transport systems.
Workstream Two: Impacts of public transport service procurement

28. Under PTOM, all public transport services must be contracted to councils, unless they are exempt\(^1\) or excluded\(^2\) services. In Auckland and Wellington, contracts were awarded through a mix of competitive tendering and direct negotiation with incumbent operators. In other regions, all contracts were awarded through competitive tendering.

29. This workstream will assess the impacts of tendering and benchmarked negotiation of public transport contracts. This will include the impacts on:
   
   29.1. contract prices -- a common measure of contract price is the price per service kilometre
   
   29.2. the level of competition for service contracts -- for example, the number of bids received for each unit that was tendered by a council
   
   29.3. the financial viability of service contracts held by public transport operators -- for example, this could consider whether the prices obtained under PTOM contracts are sustainable and deliver a reasonable profit margin for operators
   
   29.4. wages and conditions, and health and safety of those employed in providing public transport services
   
   29.5. the structure of the public transport industry -- for example, the number of operators involved in providing public transit services and their respective market shares.

30. This workstream will also assess the impact of procurement under PTOM on asset ownership arrangements -- including the ownership of vehicles and depots.

31. As you are aware, in 2016 the Ministry commissioned research into the impact of PTOM on bus driver wages and conditions. A second stage of the research, which aimed to deliver more detailed analysis of the impacts, could not be completed because our supplier, Allen & Clarke, was unable to obtain the necessary information to complete the research.

32. As part of Workstream Two, we will engage with the industry to determine if and how we can evaluate the impact of PTOM on driver wages and conditions, with the level of granularity you previously requested.

Workstream Three: Management of PTOM contracts

33. Councils and public transport operators have agreed to contracts that provide for the ongoing management of public transport services. Contracts set the obligations of both operators and councils, and cover aspects such as management of service performance, processes when there has been ongoing poor performance and the timetable change process. The provisions in service contracts, and the application and management of these provisions, can have a substantial impact on the outcomes from public transport networks.

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\(^1\) Exempt services include inter-regional public transport services and public transport services that are operated on a commercial basis without subsidy.

\(^2\) Excluded services include Ministry of Education contracted or funded school bus services, tour and charter bus services, and public transport services not operated to a schedule.
34. This workstream will evaluate the outcomes from the management of PTOM contracts, including:

34.1. service performance – (for example, the impact of key performance indicators, penalties, and incentives on service performance measures such as punctuality and reliability)

34.2. customer satisfaction with public transport services

34.3. aggregate level of penalties or incentive payments to bus operators

34.4. the relationship between public transport operators and council.

Workstream Four: Exemptions for commercial services and other exclusions

35. When PTOM was introduced, public transport services that were operated on a commercial basis, without government subsidy, were made exempt. These exemptions meant the services have not been contracted to councils, and have operated outside the PTOM framework.

36. Exemptions for commercial services were established because bringing them under PTOM would not increase their commerciality. In the absence of a PTOM contract the operator of an exempt service would not have exclusive rights to operate the service and the route would be open to competition.

37. As you are aware, Waiheke Island residents have raised concerns about the impact of the exemption for the Fullers ferry service to Waiheke. You have asked officials to consider the impact of exemptions, including the exemption for the Waiheke ferry service, as part of the review of PTOM.

38. In addition to the exemptions, certain public transport services were excluded from PTOM, including services not operated to a schedule.

39. This workstream will consider the impact of exemptions for commercial services and the impact of other exclusions. This would include the commercially operated airport bus services in Wellington and Auckland and commercially operated ferry services such as the Waiheke Island and Devonport ferries. The workstream will consider impacts such as the:

39.1. ability to, and whether it is desirable to, integrate services and ticketing, and provide a consistent network

39.2. level of service and service performance provided commercially

39.3. cost to government and ratepayers

39.4. fares charged by commercial operators and the affordability for users

39.5. ability to operate public transport services using alternative business models, (such as on-demand or demand responsive public transport services).

---

3 Excluding any SuperGold card subsidies.
Policy and legislative review scope

40. The policy and legislative review will be informed by the outputs of the impact evaluation, and will focus on:
   
   40.1. how the PTOM framework contributed to the outcomes identified by the evaluation
   
   40.2. whether PTOM:
      
      40.2.1. has achieved the policy intent, with particular focus on the two key objectives (see paragraph 9 above)
      
      40.2.2. supports your desired outcomes of value for money, productivity, workforce stability, and optimal procurement
      
      40.2.3. can support progressing the Government's priorities for public transport and wider priorities.

41. The aspects of the policy and legislative framework for review are:
   
   41.1. the legislative framework in the Land Transport Management Act 2003 (including the exemption for commercial services)
   
   41.2. the NZ Transport Agency Procurement Manual
   
   41.3. 20·3 Guidelines for preparing regional public transport plans.

Consultation on the proposed scope and timing of the review

42. In developing this scope, the Ministry has sought input from:
   
   42.1. Barry Kidd, Chief Executive of the Bus and Coach Association
   
   42.2. Greg Campbell, Chief Executive of Greater Wellington Regional Council
   
   42.3. Richard Wegstaff, President of the New Zealand Council of Trade Unions

43. We have also had informal engagement with officials from Auckland Transport.

44. As the detailed design of the review is developed, we expect to confirm opportunities for these and other stakeholders to contribute as the work progresses.

Risks

45. The scope of the impact evaluation is broad, and the analysis required is likely to be relatively complex. Completing the evaluation will also be reliant on cooperation and input from key industry stakeholders, including operators, councils, unions, and the NZTA. As a result, we anticipate our proposed approach to the impact evaluation may be subject to:
   
   45.1. data limitations -- whether stakeholders provide the required data to inform the evaluation
   
   45.2. adjustments to timing -- whether prospective providers can undertake the required analysis within the proposed timeframe, which may also be impacted by the timeliness of the data provided

Page 8 of 9
46.3. cost implications – whether prospective providers are able to deliver the project within the proposed budget.

46. As a result, the scope and timing of the impact evaluation may be subject to change following engagement with prospective suppliers. We will liaise with you and your office should any significant changes to scope and timing need to be considered, prior to entering into a contract.

Next steps

47. The Ministry has short-listed nine potential suppliers to tender for the impact evaluation stage of the PTOM review.

48. Subject to your feedback, we will issue a Request for Proposals to these suppliers on Monday 26 August 2019 based on the scope set out in this briefing.

Recommendations

49. The recommendations are that you:

(a) agree the proposed scope and timing of the review of the Public Transport Operating Model (PTOM) Yes/No

(b) note that, subject to your agreement, officials will issue a Request for Proposals based on the proposed scope and timing of the review outlined in this paper

(c) indicate if you wish to discuss the scope and timing of the review of PTOM Yes/No with officials.

[Signature]

Brent Johnston,
Manager, Mobility and Safety

MINISTER’S SIGNATURE:

DATE:
RELEASED UNDER THE OFFICIAL INFORMATION ACT
# Auckland Ferry Services

**Reason for this briefing:** To provide you with a response to Auckland Transport and Fullers360 following recent calls to bring the exempt Fullers ferry service between Auckland and Waiheke Island under the public transport operating model.

**Action required:** Sign the attached letter to Shane Ellison, Chief Executive Officer of Auckland Transport, and Mike Horne, Chief Executive of Fullers360.

**Deadline:** At your earliest convenience

**Reason for deadline:** NA

### Contact for telephone discussion (If required)

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<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>First contact</th>
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<tbody>
<tr>
<td>Brent Johnston</td>
<td>Manager, Mobility and Safety</td>
<td></td>
<td></td>
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<tr>
<td>Karl Simpson</td>
<td>Policy Director</td>
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**MINISTER'S COMMENTS:** withheld under s 9(2)(a)

**Date:** 23 August 2019

**Briefing number:** OC190810

**Attention:** Hon Phil Twyford, Minister of Transport

**Security level:** In Confidence

**Minister of Transport's office actions**

- [ ] Noted
- [ ] Seen
- [ ] Approved
- [ ] Needs change
- [ ] Referred to
- [ ] Withdrawn
- [ ] Not seen by Minister
- [ ] Overtaken by events
Purpose of report

1. To provide you with a response to Auckland Transport (AT) and Fullers360 (Fullers) following recent calls to bring the exempt Fullers ferry service between Auckland and Waiheke Island under the Public Transport Operating Model (PTOM).

Background

2. Some Waiheke Island residents have been unhappy with the Fullers ferry service for several years, creating a series of petitions and generating regular media attention to issues raised by residents. These concerns have generally related to:
   - fares and the cost of travelling between central Auckland and Waiheke Island
   - perceived excessive profit making by Fullers, which has been enabled by an ineffective monopoly
   - service levels, including complaints about inconsistent vessel sizes and the seasonal reduction in service frequency
   - relative priority of visitors vs residents – during the summer months the majority of ferry users are visitors

3. Most recently, there has been significant media attention about the operation of the Waiheke ferry by Fullers, following service disruptions in May 2019. This included a petition being launched to bring the Fullers ferry services to Waiheke Island and Devonport under PTOM.

4. You received a letter dated 6 June 2019 from Rodger Murphy, Acting Chief Executive, AT. The letter included a request that the NZ Transport Agency commence a process to transition the Waiheke Island and Devonport ferry services from their current exempt service status to become contracted services under PTOM. You received correspondence supporting this proposed course of action from Phil Goff, Auckland Mayor and two councillors, and from Hon Nikki Kaye, MP for Auckland Central. You also received a range of ministerial correspondence making similar calls.

Summary of progress and next steps

5. Over the course of June and July 2019, you and Ministry of Transport officials have met separately with representatives of AT and Fullers to discuss the concerns raised and to consider options for improvement.

6. On 6 August 2019, Ministry officials met with you to discuss these options. You confirmed that your preferred course of action was to write to AT and Fullers outlining that you expected them to work collaboratively to address service delivery issues, and to develop options for improvement. You also wanted to confirm that you have directed Ministry officials to consider the impact of exemptions from PTOM as part of the full review of PTOM, which you announced in May this year.

7. This approach fits with the timing for AT considering its long-term, strategic plans for ferry services in the region. It also recognises that it is appropriate in the interim for the parties to work together to address some of the service delivery concerns.

8. Consistent with this approach, we have prepared the attached letter to AT and Fullers for your consideration (Attachment 1 refers).
Recommendations

9. I recommend that you:

(a) **sign** the attached letter to Shane Ellison, Chief Executive of Auckland Transport and Mike Horne, Chief Executive of Fullers360

(b) note that Ministry of Transport officials will continue to liaise directly with Auckland Transport and Fullers360 regarding their input into the review of the public transport operating model

Brent Johnston
Manager, Mobility and Safety

**MINISTER'S SIGNATURE:**

**DATE:**
Dear Shane and Mike,

Thank you both for the opportunity to meet with you and your respective teams on 17 and 26 July 2019 about ferry services between downtown Auckland, Waiheke Island and Devonport. I found both meetings positive and informative about the important role ferry services will continue to play as part of Auckland’s transport network, for both locals and visitors alike.

As you are aware, our Government is committed to building a 21st century mode neutral transport system that reduces congestion, improves safety, reduces carbon emissions, and provides greater choice.

Public transport has a key role to play in achieving this, particularly in growing cities such as Auckland. I am interested in exploring every opportunity to get more people using our buses, trains and ferries.

I was pleased to hear that both Auckland Transport and Fullers share similar aspirations for improving and growing the role of ferry services in and around Auckland. I was encouraged by the steps being taken to provide greater transparency regarding performance data, including that Auckland Transport is getting access to Fullers’ performance data. I was also pleased to hear about Fuller’s investment in new ferries in Auckland and to better understand Auckland Transport’s future plans for ferries.

I believe there’s further opportunity for you to work together to address the concerns of Waiheke Island residents and improve network performance and service levels for ferry users. It is my very strong expectation that Fullers and Auckland Transport work together collaboratively to progress these initiatives and to resolve pain points. It is not acceptable that Auckland ferry users do not have a reliable service. These pain points include integration of services and branding, fare integration, service levels, berthing space for ferries, and landside infrastructure, including improved amenities for queuing passengers on the wharf and waterfront. Having discussed this with both of you, I believe a lot of these issues can be solved directly and quickly, without waiting for policy change relating to the exemption.
As discussed, in May this year I announced a review of the public transport operating model put in place by the previous Government. The review will assess whether the model has achieved its original intent and whether it remains fit-for-purpose to contribute to our Government’s transport outcomes. I have directed the Ministry of Transport to include within the scope of the review the role of exemptions for commercial services, such as the Waiheke and Devonport ferries, and the impact of other exclusions. The Ministry has advised me that removing the exemptions on current services outside of this review (as has been suggested by some interested parties) will take up to a year to complete on its own.

While the finer detail of the review is still being finalised, I expect it will consider the impact of exemptions on the:

- ability to integrate services and ticketing, and provide a consistent network
- level of service and service performance provided commercially
- cost to Government and ratepayers
- fares charged by commercial operators and affordability for users
- ability to operate public transport services using alternative business models (such as on-demand or demand responsive public transport services)
- relationship between public transport services and tourism focussed services.

I expect the review to be completed before the end of 2020. The Ministry is currently in the process of procuring an external supplier to undertake an evaluation as the first part of the review. This will progress alongside in-house policy and legislative work. I encourage you to contribute to this work as it progresses.

In the interim, I would welcome periodic updates from you as you work together to achieve improved transport outcomes for ferry users.

Yours sincerely

[Signature]
Hon Phil Twyford
Minister of Transport

Copy to:
Phil Goff, Mayor of Auckland
Chris Darby, Councillor
Nikki Kaye, Member for Auckland Central
Gwynn Compton request for advice previously withheld from a Lets Get Wellington Moving briefing

Reason for this briefing: This briefing proposes a response to a request by Gwynn Compton, Mayoral Candidate for Kapiti Coast District Council.

Action required: Consider the proposed response to Mr Compton’s request, and sign the attached letter.

Deadline: 5 September 2019

Reason for deadline: A response is due with Mr Compton by 5 September 2019.

Contact for telephone discussion (if required)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>First contact</th>
</tr>
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<tbody>
<tr>
<td>Erin Wynne</td>
<td>Director, Rail Transformation</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 29 August 2019

Briefing number: OC190771

Attention: Hon Phil Twyford

Security level: In-confidence

Minister of Transport’s office actions

☐ Noted  ☐ Seen  ☐ Approved

☐ Needs change  ☐ Referred to

☐ Withdrawn  ☐ Not seen by Minister  ☐ Overtaken by events
Purpose of report

1. The purpose of this briefing is to provide you with a response to a request for information under the Official Information Act 1982 (the Act) by Gwynn Compton, Mayoral Candidate, Kapiti Coast District Council.

The request

2. On 8 August 2019, Mr Compton submitted a request to your office seeking:

   “In the document OC190220: Advice on investments in the Wellington Region, dated 8 March 2019, point 10 on page 3 of this (below table 1) says: ‘We have removed the rail projects that were included in our earlier advice to you. GWRC have advised that these are longer term aspirations that are not yet formed as projects. Investment is unlikely to occur until the third decade or later.’

   Under the Official Information Act I’d like to request that earlier advice provided to your office as referred to by Greater Wellington Regional Council in that point, specifically where it relates to rail projects in the lower North Island.”

3. The earlier advice referred to by Mr Compton relates to information previously withheld, under section 9(2)(b)(ii) of the Act, from the Let’s Get Wellington Moving briefing entitled Implications for delivering Let’s Get Wellington Moving, 20 February 2019 (OC190121 refers).

4. From his mayoral candidate website, we are aware that Mr Compton is interested in extending electrified commuter rail to Otaki.

Proposed response

5. The advice previously withheld from the proactively released document OC190121 was:

   Withheld under section 9(2)(b)(ii)
   of the Official
   Information Act
   1982

6. We consider that this advice should continue to be withheld under section 9(2)(b)(ii) of the Act to protect future commercial negotiations.
Recommendations

7. We recommend that you:

(a) approve the proposed response to the request
(b) sign the attached response letter to Mr Compton.

Yes / No

Erin Wynne
Director, Rail Transformation

MINISTER'S SIGNATURE:

DATE:
Options to support coastal shipping and report back on EY externalities modelling

<table>
<thead>
<tr>
<th>Reason for this briefing</th>
<th>To provide you with options to support coastal shipping. We have also received externalities modelling work from EY with interim results provided.</th>
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<tbody>
<tr>
<td>Action required</td>
<td>Discuss with officials the options to advance coastal shipping. Note the interim results of the EY externalities modelling.</td>
</tr>
<tr>
<td>Deadline</td>
<td>N/A</td>
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</table>

Contact for telephone discussion (if required)

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<tr>
<td>Erin Wynne</td>
<td>Director, Rail Transformation</td>
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<td></td>
<td>Adviser, Rail &amp; Freight</td>
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MINISTER'S COMMENTS:

[Redacted]

Date: 9 August 2019  Briefing number: OC190637

Attention: Hon Phil Twyford  Security level: In-confidence

Minister of Transport's office actions

- [ ] Noted
- [ ] Seen
- [ ] Approved
- [ ] Needs change
- [ ] Referred to
- [ ] Withdrawn
- [ ] Not seen by Minister
- [ ] Overtaken by events
Purpose

1. This briefing provides advice on your options to support the coastal shipping sector within a mode neutral transport system. The briefing includes advice on:
   - The overall rationale for supporting coastal shipping in a mode neutral freight system
   - A set of options that we recommend progressing to enhance the role coastal shipping plays in the freight transport system
   - An overview of the interim Ernst & Young (EY) externality benefits of coastal shipping modelling results, which have informed our recommendations.

Executive summary

2. New Zealand’s coastal shipping sector fulfils a critical role in New Zealand’s freight system. It is part of a set of natural freight markets, primarily geared towards transporting large, heavy cargoes such as petroleum products, cement and aggregate.

3. You have clearly outlined a number of objectives you want to achieve in the transport sector, including a strong focus on a mode neutral freight system. A mode neutral freight system requires a better understanding of the externalities of different modes, and for these to be taken into account when decisions are made by users, or in relation to investment and policy development.

4. From our discussions with you, we understand you have some supporting objectives for coastal shipping that sit alongside this broader objective for mode neutrality:
   - Supporting coastal shipping to become a more attractive and accessible choice for freight users, ensuring that the sector remains responsive to the needs of customers and continues to provide an efficient, sustainable and safe service
   - Ensuring that initiatives are enduring by partnering with industry to understand the challenges coastal shipping faces, and to work with it to address these challenges.

5. Together, these objectives seek both to embed mode neutrality, allowing coastal shipping to operate on a level playing field and to enhance the sustainability and competitiveness of the domestic sector. These objectives are complementary, and lend themselves to different types of options both within the core transport system and across other parts of Government.

6. EY have now reported its interim modelling results on externalities to the Ministry which will increase our understanding of how coastal shipping can support these objectives. Their work shows coastal shipping provides [S] in externality benefits per annum.

7. The data on coastal shipping and Pacifica Shipping introducing a larger container vessel suggests there is potential for growth, especially as domestic containerised movements continue to increase. With the re-emergence of warehousing post Kaikōura, greater use of freight hubs for consolidation, and the projected growth in containerised freight, coastal shipping may become increasingly attractive given its lower operating costs.

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1 Pacifica Shipping announced on 6 August 2019 that they are replacing their current 1,100 TEU vessel with a new 1,700 TEU vessel in response to growing demand. The new vessel is expected to commence operations in September 2019. Their press release is attached.
8. This potential for growth is reinforced by what we have heard from the sector. Operators, freight forwarders and advocacy groups agree that the sector could grow with the support of a stronger partnership between Government and industry. The domestic sector is relatively small, but their insights have played a large influence in the development of the options presented to you.

9. We are also cognisant of the imminent report-back from the Upper North Island Supply Chain Strategy Working Group. We are starting to consider what impacts their recommendations might have on the coastal shipping sector and the options presented. You may want to discuss with the Working Group the impact of their recommended approach concerning coastal shipping and rail.

10. This is a complex and diffuse sector, which involves shipping lines, ports, the rail system and domestic and international businesses. There is a natural set of challenges to increasing the use of coastal shipping, including the growing consumer demand for next-day delivery, the need for business users to change their supply chain arrangements and the current, largely niche, focus of most of the coastal shipping fleet. Influencing change is achievable, but the effects may take some time to materialise in full. In this context, we believe a package of options offers you the best opportunity for enhancing the role that coastal shipping plays in the freight transport system.

11. With this in mind, we propose that you consider a package of interrelated options, which could offer you the best opportunity for enhancing the role that coastal shipping plays in the freight transport system:

Withheld under section 9(2)(I)(iv) of the Official Information Act 1982

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EY externalities modelling of coastal shipping

13. To inform our understanding of the scale of benefits that support for the sector could bring, the Ministry engaged EY to undertake modelling of externalities associated with coastal shipping.

14. The approach taken to this modelling work has been very similar to that used in the Value of Rail analysis, basing externality values on conceptual impacts on the road network if coastal shipping freight volumes were to be shifted to road. The three externality benefits include:
   • time saving/congestion relief benefits
   • emissions reductions benefits
   • safety benefits.

15. We also discussed with EY the possibility of capturing the resilience benefits of the coastal shipping sector, given the critical role that coastal shipping played following the Kaikoura earthquake in keeping supply chains open. EY advised that it would not be feasible to accurately quantify this benefit within the parameters of this modelling exercise, but our view is that it can be recognised as a benefit in a qualitative sense.

**Headline observations on EY modelling**

16. EY has presented its interim results to the Ministry, which show a demonstrable value to road users in the form of reduced negative externalities. The majority of the benefits are in the form of reduced travel times/congestion relief for all road users. Safety and environmental benefits represent approximately

17. Using coastal shipping freight data from the 2019 update to the National Freight Demand Study, EY have calculated that current coastal shipping freight volumes provide annual benefits of

18. This totals approximately\(^2\) in externality benefits per annum.

19. Coastal shipping growth scenarios of +8.6 percent and +20 percent\(^3\) on current volumes were included in the model, resulting in annual net externality benefits of and respectively.

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\(^2\) Benefits do not add exactly due to rounding.

\(^3\) 8.6 percent growth scenario aligns with MoT modelling for expected coastal shipping volumes in the next ten years.
Key EY modelling design assumption

20. The Cook Strait ferries were not included in the analysis, given they are considered an extension of the road and rail networks. Since there is no road comparator for this movement of freight (there is no land transport connection where a reasonable calculation on the impact can be made), it was not included.

21. International shipments (imports and exports) are also not included in the model, as they are not considered coastal shipping movements.

Next steps with EY modelling

22. We are meeting with several key stakeholders within the sector on Wednesday 14 August to gather feedback and views on this work. We have already received interest from the New Zealand Shipping Gazette as a result of a Ministry of Transport presentation which briefly mentioned this work at the Freight Futures Conference in June 2019.

23. We will provide your office with the finalised EY work and a covering note following our meeting with the sector stakeholders.

Related work to EY modelling.

24. Related to the EY work is the revision of the Surface Transport Costs and Charges Study being developed by the Ministry. The original 2005 study identified the costs imposed by road and rail users, and the payments they made for using each mode. The revised study will look at the cost of providing the infrastructure asset, costs to existing users such as congestion and accidents, and external costs such as environmental costs. Unlike the 2005 study, coastal shipping will be included in the analysis.

25. This new study will provide input to a wide variety of policy analysis to support the vision of the Transport Outcomes Framework, particularly its guiding principle of mode neutrality.

Other data and evidence on coastal shipping and supply chains

26. Efficient freight flows are critical to New Zealand’s productivity, economic strength and competitiveness. The freight transport system allows New Zealand’s businesses to get their goods to market both domestically and internationally.

27. While freight growth is an important enabler of a growing economy, the freight system generates a number of negative externalities, the costs of which are not all fully captured or accounted for by users. These include negative impacts on road safety, emissions and the amenity of our towns and cities. More information can be found in Appendix 3.

28. While slower and offering less service frequency than road and rail, coastal shipping is more efficient and cost effective for carrying non-time sensitive heavy bulk freight. The National Freight Demand Study reports that coastal shipping transports three groups of goods:

- Petroleum (31 percent of national freight task)
- Limestone, cement and fertiliser (10 percent of national freight task)
- Retail manufacturing (containers) (2 percent of national freight task).
29. Table 1 shows the freight carried by each mode of transport. While coastal shipping carries a low amount of freight relative to rail and road transport, the amount of tonne-kilometres it transports is similar to rail. This reflects the long distances that freight travels on ship and the nature of the cargo it transports.

Table 1: Modal share of the freight task

<table>
<thead>
<tr>
<th>Mode</th>
<th>Tonnes Million tonnes</th>
<th>Percent of total</th>
<th>Tonne-kilometres Billion tonne-kms</th>
<th>Percent of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>16.1</td>
<td>7%</td>
<td>4.2</td>
<td>16%</td>
</tr>
<tr>
<td>Coastal shipping</td>
<td>4.3</td>
<td>2%</td>
<td>3.6</td>
<td>14%</td>
</tr>
<tr>
<td>Road transport</td>
<td>215.6</td>
<td>91%</td>
<td>18.6</td>
<td>70%</td>
</tr>
<tr>
<td>Total</td>
<td>236.0</td>
<td>100%</td>
<td>26.3</td>
<td>100%</td>
</tr>
</tbody>
</table>

30. Table 2 and Graph 1 below help demonstrate the value that coastal shipping plays in taking trucks off the road, and in reducing emissions. An increased uptake of coastal shipping could therefore help increase these benefits further.

Table 2: Effectiveness of coastal shipping in moving bulky commodities

<table>
<thead>
<tr>
<th>Typical NZ coastal ship</th>
<th>Number of trucks required to carry the same tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil tanker</td>
<td>1,358</td>
</tr>
<tr>
<td>Container ship</td>
<td>382</td>
</tr>
<tr>
<td>Cement ship</td>
<td>312</td>
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</table>

31. Table 2 displays the emissions profile of different modes for transporting freight. Shipping is currently much more energy efficient per tonne-kilometre compared with other transport modes, particularly road.

Graph 1: Grams of CO₂ per tonne-kilometre by mode

32. The emissions data shows that there is genuine merit in exploring ways to advance coastal shipping. However, it is crucial to recognise that rail and coastal shipping serve a natural set
of markets, such as transporting bulk and containerised goods over long distances, at a lower cost to users when compared to road freight.

33. Decisions by customers on the attractiveness of coastal shipping as a preferred mode are made on the nature of their freight, the level of service including timeliness, and cost. Given this, it is challenging for coastal shipping to compete as an alternative to road freight.

Opportunities and barriers for growth in coastal shipping

34. There are a number of key trends that offer opportunities for growth, along with some key barriers:

- **Freight volume data.** The Transport Outlook indicates the total freight task across all modes could grow from 237 million to 366 million tonnes in 2042. The data suggests that coastal freight volumes will experience a natural growth from 4 million tonnes per annum to 6 million tonnes even if coastal shipping’s proportion of the freight task were to remain constant. In practice, however, the composition of the coastal freight market means that this will not necessarily be the case.

- **Trend towards larger ships visiting fewer ports.** Almost half of international container throughput now moves on ships of 4,000 TEU or more. Since late 2016, Maersk and Hamburg Süd have introduced regular services between Tauranga and selected international ports using ships of 7,500 TEU and over. Deep-water ports are proving to be valuable in the supply chain as a result (Tauranga for example). There is potential for domestic container shipping to grow if international shipping services continue to reduce and visit fewer ports. This would require transhipment between direct-call ports and other ports for freight that is not time-sensitive and for empty container repositioning.

- **Potential growth in new categories for coastal shipping – retail and manufacturing (containers).** The total number of coastal containers shipped, including repositioned empty containers, is around 520,000 per annum. This has been increasing since 2012. These coastal freight movements, which consist of retail and manufacturing cargo, comprise only 2 percent of the national total for such goods, compared with 10 percent carried by rail and 88 percent by road. There is likely potential for coastal shipping growth in this area, given that the economics of rail and coastal shipping are not dissimilar. This growth segment may be particularly suitable for Pacifica Shipping and the international operators, as they offer regular services for a range of goods. This is demonstrated by Pacifica Shipping acquiring a new 1,700 TEU vessel to replace the current 1,100 TEU vessel, the *Spirit of Canterbury*.

- **Coastal shipping’s ability to secure additional volumes is not guaranteed.** This is because most coastal shipping operations in New Zealand exist to serve specific firms that produce specific commodities. For example, Holcim and Golden Bay Cement operate their own ships to distribute their own products. Growth in these shipping operations would be entirely dependent on growth in demand for these companies’ goods.

- **Shipments of petroleum products from Marsden Point are expected to grow relatively slowly.** Petroleum products account for almost 60 percent of coastal shipping tonnage. This flattening of growth will become especially prominent as we

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4 Twenty-foot Equivalent Unit (TEU) is a unit of measure for containerised cargo - 20 feet long, 8 feet wide and 8 feet high.

5 For example, it was 307,000 in 2012. Data from the Ministry’s Freight Information Gathering System.
progressively move away from petroleum dependence in the production and transportation of goods.

- **Meeting consumer demand for next day and same-day delivery.** Competition in the freight market continues to drive an increasing emphasis on speed, even when the nature of the freight may not require it. Coastal shipping inherently struggles to accommodate this trend.

35. We see coastal shipping as part of the wider freight system, and the ability to enhance the performance of coastal shipping will require optimisations in ports, inter-modal connectivity and the rail and road networks. This will inevitably require optimisations to be made within the wider system, which is where the GFS becomes relevant, as it will increasingly allow a systematic approach.

**Coastal shipping operators in New Zealand**

36. There are seven domestic coastal shipping operators. Under current legislation, both international and domestic operators can provide coastal shipping services. International transit ships² carry around 15 percent of New Zealand’s coastal shipping trade, or around 80 percent of container trade. The remainder is carried by New Zealand operators:

- **Coastal Bulk Shipping** operates a small bulk vessel that carries bulk cargo such as wheat, dolomite, gravel and fertiliser.
- **Golden Bay Cement** operates one bulk carrier that distributes cement from Northport to five New Zealand ports.
- **Holcim** operates one bulk carrier that distributes cement to ports around New Zealand.
- **Silver Fern Shipping** operates two tankers that distribute oil products from Marsden Point to ports around New Zealand.
- **Pacifica Shipping** operates one ship, the Spirit of Canterbury, on a weekly containerised service carrying containerised freight between key ports in the North and South Islands, and has arrangements in place to use transit ships to offer increased service frequency. Pacifica Shipping is the only current operator that competes with international transit ships for containerised cargo.
- **Interislander (KiwiRail)** operates three ferries between Wellington and Picton carrying passengers, cars, heavy vehicles and. One of their vessels is the Aratere, that provides for roll-on, roll-off rail wagons.
- **Strait Shipping (Bluebridge)** operates two roll-on, roll-off ferries between Wellington and Picton carrying passengers, cars, and heavy vehicles.

**Options to advance coastal shipping**

37. To achieve your objectives for both mode shift and to enhance the sustainability of the domestic sector, some key principles should underpin your decision-making, and to help manage the trade-offs. It will be important to strike the right balance between and other levers to meet the different outcomes you seek.

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² A foreign ship that is passing through NZ waters while on a continuous journey from a foreign port to another foreign port, and is stopping in New Zealand to load or unload international cargo.
38. Some principles could include:

- Taking account of any impacts on the efficiency of the system
- Taking account of impacts on other parts of the system, for example, rail so that investments are complementary and reduce distortions
- Taking a long term view, recognising that change is likely to occur over the longer term given the nature of the coastal shipping sector and its supply chains
- Encouraging innovation and responsiveness to customer needs – this is critical if coastal shipping is to increase mode share
- Encouraging market-led initiatives, led by the sector in consultation with their partners (including ports, rail and customers). This is important for the long-term sustainability of interventions.

39. In this context, our recommended options to support coastal shipping should not be pursued in isolation, but as a package to both embed mode neutrality and enhance the competitiveness of the sector. These will need to be informed by involving the sector, who can inform and provide support to any decisions the Government chooses to progress.
Recommendations

The recommendations are that you:

(a) note the interim results of the EY externalities modelling exercise

(e) discuss this paper with officials: Yes / No

Erin Wynne
Director, Rail Transformation

MINISTER’S SIGNATURE:

DATE:
Appendix 1: Lessons from GPS 2009

87. The final version of GPS 2009, which was the GPS completed by the previous Labour-led Government (but never came into effect) included consideration of coastal shipping and subsidies for the sector.

88. The targets set in GPS 2009 were to increase coastal shipping’s share of inter-regional freight from 15 percent tonne-kilometres to at least 30 percent tonne-kilometres by 2040. This recognised that coastal shipping was a more energy efficient form of transport compared to road and would reduce the level of demand for the use of roads.

89. This target was going to be supported by the Sea Change Strategy 2008 and funded via two activity classes:

- **Domestic sea freight development activity class** would have supported the development of new or improved coastal shipping freight services and related infrastructure. This was proposed to have an allocation of $30 million over three years.

- **Rail and sea freight activity class** would have provided short-term operational subsidies to support mode shift to rail or coastal shipping. This was proposed to have an allocation of $5 million over three years. It is unclear where in the supply chain this would have been directed.

90. The *domestic sea freight development activity class* largely existed to support the goals outlined within the Sea Change Strategy 2008. As noted in previous advice (OC05390 refers), many of the actions within this strategy were not progressed beyond 2009. The PGF has fulfilled some of the functions that this activity class would have provided.

91. The *rail and sea freight activity class* appears to be similar to what the UK has in place under its Mode Shift Revenue Scheme and Waterborne Freight Grant programmes. We are in contact with the UK to discuss their experience with the scheme and whether it has been successful.

92. **Sea Change 2008 also** proposed to establish a Seafreight Development Unit within the Ministry of Transport, which would have had strategic oversight of coastal shipping funding, amongst other roles.

*Withheld under section 9(2)(f)(iv) of the Official Information Act 1982*
101. We note that the Te Araroa proposal was rejected by RED Ministers on 26 June 2019.

Fees and levies revised by Maritime NZ (MNZ)

102. The NZSF has raised its views at a meeting with the Ministry in June regarding the revised maritime fees and levy, which came into effect on 1 July 2019, following consultation with the sector. It acknowledges the need for a competent regulator but believes the government should increase its funding for MNZ, and that levies should reflect actual risk and should be based on utilisation of MNZ services.

103. As a result of changes to MNZ fees and the maritime levy, most domestic operators will pay less in fees for MNZ activities (for example, routine audits will have no fee, and seafarer certificates will cost less), but will pay a higher annual maritime levy. The higher levy payment is required to ensure that MNZ as regulator can do its job efficiently over the next six years, meet business cost pressures and replace fee revenue. The net effect for an operator will depend on the details of each operation.

104. The domestic sector will continue to pay around 10 percent of total maritime levies, with the balance being paid by foreign shipping. Some NZSF members will pay more in levies, for example, the levy on Pacifica Shipping’s container ships increases from $34,570 to $76,610, while the levy for Interisland Line’s three vessels drops in total from $695,350 to $557,750.
Appendix 2: Feedback and suggestions received by the sector

Engagement with the coastal shipping sector to date

93. We have periodically updated you over the last 18 months with feedback received from the coastal shipping sector (OC05390 and OC05481 refer). Their insights have been useful for the Ministry to better understand the range of issues that the sector faces. Some of the feedback and suggestions we have received from the sector include:

- The application of the Emissions Trading Scheme (ETS)
- Goods and Services Tax (GST) on coastal shipping
- Development of a Roll On, Roll Off (RORO) facility at the Napier Port
- Utilising beaches to barge logs to ports, diverting logs from road/rail. It has been suggested by the NZSF that Northland and the East Cape may be suitable locations for this type of operation
- The revised fees and levies that apply to coastal shipping operators and across the maritime sector.

94. Many of these issues have been considered and reported to you in the past. This appendix will only report new information.

Development of a RoRo facility at Napier Port

95. From a resilience perspective, the development of a RoRo facility at Napier would likely assist the execution of planning for the emergency supply chain after a major earthquake in Wellington. This has been looked at in the Wellington Earthquake National Initial Response Plan. The commercial incentives for a RoRo facility at Napier Port are unclear and have not been considered by the Ministry. This would be something for the Port shareholders to consider, their input being even more relevant now that the port is partially privatising.

96. The Ministry is not actively considering this proposal.

Utilising beaches to barge logs to ports

97. [Redacted text]

98. [Redacted text]

99. For context, logs are not a high value export, worth around $400 - $450 per tonne (similar to coal on a tonnage basis). If the transport cost of logs is high, it can make exporting them uneconomic, especially given how far New Zealand is from international markets.

100. It is typically cheaper to transport logs by ship rather than by land transport. For this reason, it makes sense to get logs to a ship as directly as possible from the point where they are harvested. Introducing barging would increase handling in the supply chain, as the logs would need to be transferred from truck to barge to ship rather than from truck to ship as happens now.
Appendix 3: How coastal shipping can support the Transport Outcomes

- **Environment** – New Zealand’s transport emissions have risen more than any other emissions source since 1990, with road vehicles being the primary driver of this. Mode shift to both rail and coastal shipping could greatly reduce New Zealand’s transport emissions profile and support the Government’s Zero Carbon initiative.

- **Health and Safety** – The movement of freight should not result in the loss of life or cause serious injury. A reduction in heavy vehicle numbers would therefore play an important role in improving the safety of those travelling on the road. In urban areas particularly, freight traffic has a disproportionate impact on health, given the exposure to noise, vibration and pollution, which can all cause health problems.

- **Inclusive access** – Ensuring that an efficient and timely coastal shipping sector can operate provides genuine options to cargo owners who would otherwise favour road freight. Creating an environment where more sustainable modes of freight transport can operate will be crucial to realising the Government’s objectives for transport.

- **Economic prosperity** – Efficient and effective freight is vital to addressing New Zealand’s productivity challenge. However, factors such as road congestion, decreasing truck drivers and access to infrastructure are impacting the efficiencies of the overall freight network which supports broader economic outcomes. Coastal shipping has the potential to grow and help reverse this trend, but any effort to support the sector should not come at the cost of the national economy.

- **Resilience** – Coastal shipping offers flexibility and an alternative mode of transport when land-based infrastructure is damaged by natural events. Port infrastructure like land-based transport infrastructure can be vulnerable to damage from natural events which could have significant impacts on freight movement. The number of ports in New Zealand has mitigated these risks to date.
Ministry of Transport: Aide Memoire

To: Hon Phil Twyford
From: [Redacted]
Date: 22 August 2019
Subject: Summary of the South Island Freight Study, June 2019
OC Number: OC190790

Purpose

1. This aide memoire summarises the key findings from the Steatuec study South Island Freight Study: Identification of the Opportunity for Mode Shift and Preparation of a Mode Shift Implementation Plan (the study).

2. The study was commissioned by Environment Canterbury (ECan) and the South Island Regional Transport Committees (RTC) through the South Island RTC Chairs Group (the Group).

South Island Regional Transport Committee Chairs Group

3. The Group was established in 2016 for the purpose of significantly improving transport outcomes in the South Island through collaboration and integration. Committee members include Councillor Terry Sloan of the Marlborough District Council as Chair, and Councillor Andrew Robb of the West Coast Regional Council as Deputy Chair.

4. The Chairs of all South Island Regional Transport Committees are members of the Group, and Environment Canterbury is currently the Secretariat.

5. Members councils include: Nelson City Council, Tasman District Council, The West Coast Regional Council, Marlborough District Council, Otago Regional Council Environment Southland, and Environment Canterbury. The New Zealand Transport Agency (NZTA) is also a member of the Group.

6. The Group’s initial focus has been on:
   - developing an approach to collaborating
   - developing a common front end for South Island Regional Land Transport Plans
   - providing input into the Government Policy Statement on land transport 2018 (the GPS)
   - sharing resources and knowledge.
The Group’s focus is mode neutrality

7. As part of this work, the Group is looking at the potential gains that can be achieved through developing and utilising a South Island-wide model of freight and tourism flows.

8. The Group is also focused on advocating for the ability to fund innovative and resilient multi-modal solutions to transport issues. The Group considers that central government needs to support multi-modal transport outcomes by removing financial incentives for local government that focus exclusively on road transport solutions.

9. It also considers that there is a need to bring road and rail into a common organisational model and to institute a workable transport funding system that enables modal substitutions to be made when such substitutions would lead to more efficient transport outcomes.

10. It believes that the availability of effective transport alternatives is a core component of a resilient, multi-modal transport system.

South Island Freight Study

11. The Group commissioned the report entitled South Island Freight Study: Identification of the Opportunities for Mode Shift and Preparation of a Mode Shift Implementation Plan (the study) to provide:
   - identification and evaluation of the beneficial mode splits for freight in the South Island
   - an action plan/s to facilitate movement towards a recommended mode split/s.

12. The authors of the study also consulted widely with stakeholders involved in the transportation sector in the South Island, with the goal of:
   - identifying and confirming South Island freight supply chain issues/problems
   - undertaking case studies
   - agreeing an action plan

13. The authors interviewed key supply chain stakeholders including producers, transporters (road, rail, coastal shipping) and ports. They also met with infrastructure owners.

The Ministry of Transport was involved in the provision of data and reviewed the report

14. The Ministry of Transport (the Ministry) was involved in the provision of data (largely from existing published sources) and ensuring that the analysis contained in the report, undertaken by external contractors, was consistent with the Ministry’s assumptions for future freight demand and road user charges.

15. A comprehensive review of the report was undertaken by the Ministry to ensure that the key inputs for forecast freight demand and commodity groups were based on the Ministry’s National Freight Demand Study and Transport Outlook projections.

16. A key piece of analysis, examining road wear, was checked for consistency with the calculations used in the Ministry’s Cost Allocation Model for setting Road User Charges.
17. The report also made reference to the 2005 Surface Transport Costs and Charges study that was commissioned by the Ministry. A replacement study is being undertaken by the Ministry with interim results planned for early 2020 and full results in December 2020.

18. While the report provides estimates for highly localised unmet costs of road wear from heavy trucks, these estimates are well within the margin of variability for local road condition and actual truck loading. These costs are recovered at a national level, with variability within road networks. More detailed data on road conditions and actual truck travel are required to make localised estimates.

Findings from the study

19. The study identified and evaluated beneficial mode splits for freight in the South Island. It concluded that there are substantial opportunities to achieve more beneficial mode splits. The study also developed an action plan to facilitate movement towards a more beneficial mode split.

20. The study concludes that:

- there is considerable freight growth forecast in the South Island reflecting economic and population growth and increasing production of a number of agricultural and mineral products
- if this freight is moved by road even at current modal split levels, it will create pressures on transport infrastructure and on the broader community
- there are externalities involved in the movement of freight that are currently unrecongnised in freight pricing. Those for road are very much larger than those for rail. These were quantified in the research
- transfer to rail would bring extrenalities benefits in terms of access, safety and environmental impact, but intervention is needed to internalise them or compensate for them (for example by funding particular interventions)
- there are a number of opportunities (demonstrated with case studies) that could increase freight haulage by rail, possibly by substantial amounts, and these opportunities could be readily extended beyond the specific case studies considered by the research project
- there are some very significant barriers and constraints to be overcome, including rolling stock capacity and rail reliability
- new technology can help deal with the adverse impacts of freight growth within cities, but again, intervention may be necessary.

21. The study also concluded that three are substantial opportunities to achieve more beneficial mode split by facilitating the movement of freight by rail, either by transferring this from road or providing opportunities for new development which would be rail served.

22. The study also noted that on a tonne-km basis, the externality costs associated with road are much higher than those associated with rail and coastal shipping movements. It estimated that the average cost associated with road transport was six times as high as those for rail and 12 times as high as those for coastal shipping.

23. It also notes, however, that these differences in the level of externality are tempered by the typical need for road transport collection and delivery within the urban area to support movements for which rail or coastal shipping provides the line haul.
24. It also noted that this may be an issue for coastal shipping, since ports are by definition almost always at the fringe of the urban area and involve relatively long road movements, whereas rail intermodal terminals may be more centrally located and thus reduce the length of road collection and delivery services.

Insights from shipping stakeholders interviewed for the study

25. As part of the study, the consultants also ran a series of interviews with key stakeholders involved in South Island shipping and transportation. Interviewees included producers, transporters, and ports. The key issues identified from these interviews were:

- There is a shortage of rail capacity in the South Island to meet demand.
- There is a need for a long-term planning/funding horizon for rail.
- Concerns about the reliability of rail services – possibly linked with shortages of capacity.
- Rail users typically want more, although some exceptions: where unreliability of rail is discouraging rail demand.
- Firms generally looking for environmentally sustainable solutions (including safety) but only if these achieved at little or no cost.
- Transporters seeking to eliminate waste – i.e. maximising two-way haulage.
- Little enthusiasm for paying more for environmentally good solutions in their own right.

Comment from NZTA

26. The NZTA has provided comment on the study. The NZTA considers it a good initial study, however, it also believed that there were some weaknesses. It notes that the study summarizes the differences in externalities between rail and road principally but does so in a complicated way and not applied consistently.

27. It noted that it would be useful to take this further and identify the locations and functions of the nodes and links in that work, including inter-modal freight hubs, and place it within a national context.

28. The NZTA does not consider this report will develop into a business case for investment.

Links with the Future of Rail review and Budget 2019 rail investment

29. The Ministry notes the findings from the study and insights from the stakeholder engagement. Given the Budget 2019 investment in rail and the associated $300 million in PGF funding allocated to rail related initiatives, these conclusions are consistent with the general direction signalled in Budget 2019.

30. For example, the study identified rolling stock capacity and rail reliability as significant barriers and constraints to be overcome. A proportion of the $375 million investment from Budget 2019 for new wagens and locomotives and the $331 million in investment in track and other supporting infrastructure will be spent within the South Island to support freight demand.
31. We also note the report is consistent with the Government's goals of mode neutrality and balancing investment decisions between road and rail. This is consistent with the Future of Rail policy work, which is working to integrate road and rail investment decisions.

32. The Ministry will work with KiwiRail and the NZTA on any implications for the Future of Rail work stemming from this report. We will also consider it in light of the Ministry's wider freight and coastal shipping work programme.

33. We have also shared a copy of this aide memoire and the study with the secretariat of the Upper North Island Supply Chain Strategy.

Contact:

Withheld under section 9(2)(a) of the Official Information Act 1982

RELEASED UNDER THE
OFFICIAL INFORMATION ACT
Ministry of Transport: Aide Memoire

To: Hon Grant Robertson (Minister of Finance)
    Hon Phil Twyford (Minister of Transport)

From: Shelley Tucker, Manager Resilience and Security, Ministry of Transport

Date: 28 August 2019

Subject: South Island Transport Corridors (SITC) reinstatement project
        Oversight Group's (OSG) Quarterly Report (1 April – 30 June 2019)

OC Number: OC190691

Purpose of this aide memoire

1. To provide you with a copy of the SITC OSG’s quarterly report for the period 1 April 2019 to 30 June 2019.

South Island Transport Corridors Reinstatement Oversight Group

2. The OSG was established in May 2017 to provide assurance to Joint Ministers that the SITC reinstatement project is on track to be delivered on time and to budget, and that delivery choices are being made consistent with Cabinet’s intentions. The OSG is required to report to you quarterly under its Terms of Reference.

3. The attached quarterly report covers the period 1 April 2019 to 30 June 2019. This is the ninth quarterly report to Joint Ministers.

Next steps

4. The next quarterly report will be provided to you in November 2019, and will cover the 1 July 2019 to 30 September 2019 quarter.

Contact:
Shelley Tucker, Manager, Resilience and Security
Phone: 021 241 3948
South Island Transport Corridors Reinstatement Oversight Group
1 April 2019 – 30 June 2019 Quarterly Report
(No.9)

To: Hon Grant Robertson (Minister of Finance)
    Hon Phil Twyford (Minister of Transport)

From: Brian Wood
       Chair, South Island Transport Corridors Reinstatement Oversight Group

Date: 28 August 2019

Subject: Reinstatement of the South Island Transport Corridors

Purpose of this report

1. This is the ninth quarterly report to Joint Ministers from the Oversight Group (OSG) for the South Island Transport Corridors (SITC) reinstatement project. This report covers the period 1 April 2019 to 30 June 2019.

2. This report summarises progress to date and considers the key risks, issues and highlights for the quarter.

Executive summary:

3. The North Canterbury Transport Infrastructure Reinstatement (NCTIR) alliance continues to perform well. The planned Crown works are forecast to be completed within the available funding envelopes.

4. The key milestones this quarter include the appointment of a new project director, and the continued development of what is referred to as the TOC2 variation. TOC2 will extend the life of the project to late-2020 and enable the project alliance to use savings achieved from within the project to progress a number of previously deferred resilience works.

5. [Withheld under section 9(2)(f)(iv) of the OIA]

6. Three public safety incidents during this quarter, and three worker injuries, have renewed the OSG’s focus on health and safety outcomes. Overall, the project team is managing these well, but the OSG will continue to monitor workplace safety.
7. The total spend to date is $1,034 million. This equates to 84 percent of the Crown funded SITC reinstatement project budget.

8. The next quarterly report will be provided to Joint Ministers in November 2019, and will cover the period 1 July 2019 to 30 September 2019.

**Status of the SITC Reinstatement Project – Milestones**

9. TOC1 works are expected to be completed by the end of September 2019. This represents a slight delay from the original expectation that these works would be completed by mid-2019. This delay has been caused by several factors, including severe weather, scheduling difficulties, and procurement of suitable rock for scheduled revetment\(^1\) work.

10. Timeline creep is being monitored by several parties including the OSG to ensure TOC1 will be delivered within the funding envelopes available. However, this delay is not currently seen as a significant deviation in the life of the project, particularly as the planned TOC2 variation is expected to extend the life of the Crown funded works to late-2020.

11. The total spend to date is $1,034 million, which equates to 84 percent of the overall Crown funded SITC reinstatement project budget of $1.23 billion.

12. The full list of current project milestones is attached as Appendix One.

13. Project milestones have not yet been updated to reflect the TOC2 variation. The TOC2 variation of planned works will extend the life of the project to late-2020 and enable the project alliance to use savings achieved from within the project to progress a number of previously deferred resilience works. Joint Ministers were most recently updated on this process via the last OSG quarterly report (OC190406 refers).

**Physical works update**

14. Key TOC1 works completed this quarter include rock fall shelters at rail tunnels 13 and 14, and slope works at Ōhau Point.

15. The NCTIR alliance is experiencing ongoing issues sourcing suitable rock for the scheduled revetments. This is now being managed by the NCTIR alliance using standard procurement procedures. The project owners consider that this will not create significant delays in the SITC reinstatement project’s delivery.

**Network outages and public safety**

16. As at 30 June 2019, the average network delays were 22 minutes for road and 77 minutes for rail. The road delay has decreased from 26 minutes last quarter, while the rail delay has increased from 31 minutes last quarter. Rail delays have increased for several reasons, including the flow-on effects of prioritising works across the wider rail network (including KiwiRail operational business as usual, not limited to the MNL), and repairs needed after the derailment mentioned below.

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\(^1\) Revetments are sloped structures that are positioned along the coastline to absorb the impact of incoming water, preventing erosion.

\(^2\) This is also being monitored by the Project Alliance Board (PAB) and the SITC reinstatement project’s independent auditor, Bond CM.
17. On 22 May 2019, a derailment caused the rail network to close for two days. The cause of this derailment is under investigation. Nobody was injured in the derailment, however the event caused damage to the network, requiring remediation and causing disruption to the network.

18. The high level of rail delays is undesirable but KiwiRail has advised the OSC that freight customer expectations are still able to be met and that actual rail performance is not being significantly impacted. From 20 June 2019, work began on tamping the tracks at sites subject to speed restrictions (i.e. adjusting the rail line and level). As sites are tamped, rail delays will reduce.

19. A series of minor rockfall incidents along SH1 that affected members of the travelling public are being monitored closely by the NZTA:

   a) A rockfall event on 12 April 2019 caused damage to a vehicle and minor injury to one of the vehicle’s occupants. Following this event, the road was closed for 24 hours to enable a full inspection of the site and remedial work. Upon inspection, it was found that the rockfall protection system at the site had performed as designed, with 99% of the rockfall being contained. However, a few rocks were able to bounce over the rock wall and mesh, due to the build-up of rocks which had created a ledge behind the protection system.

   b) On 15 May 2019, a golf ball-sized rock hit a vehicle at another site. The driver was unharmmed, and the vehicle was damaged but remained driveable. The NZTA has directed a geotechnical assessment of the site, especially to examine why this event occurred at this particular location, which has already had resilience works completed to prevent such incidents.

   c) On 29 May 2019, a rock hit a vehicle’s windscreen. The driver of the vehicle suffered minor abrasions and the road was closed for 19.5 hours due to the heightened risk of further rockfall in the poor weather conditions at the time. The NZTA has directed a geotechnical assessment of the location.

20. The OSG awaits the results of the pending geotechnical assessments, with updates to be provided via the project owners in due course. The OSG will continue to monitor resilience levels along the SITC, and Joint Ministers will be updated on the progress of the geotechnical assessments at the end of the next quarter.

Health, safety and personnel update

21. In April 2019, the PAB appointed Tony Gallagher of Fulton Hogan to be the new Project Director. Mr Gallagher formally commenced this role on 3 June 2019, and started with a strong focus on completing TOC1 works and finalising TOC2.

22. At the close of the last quarter, the project had reached five consecutive injury-free months. In this reporting period, however, three on-site injuries occurred.

23. The downturn in safety statistics is being managed by the project team via frequent reinforcement in the form of constructive messaging at “toolbox meetings”. The team also plans to re-run a safety campaign across the worksites.
24. In May and June 2019, the project implemented its Winter Safety Workplan. This involves the special issue of supplementary warm winter clothing to all site workers, and reminder briefings on working in cold weather.

25. Mental health awareness continues to be a focus for the project. A visit from Mike King was scheduled for July 2019 (post quarter) as part of an effort to promote the focus on mental health awareness.

Project and partner awards

26. On 28 May 2019, the project won the collaboration category at the Safeguard Awards (the New Zealand Workplace Health and Safety Awards).

27. On 19 June 2019, one of the key suppliers for the project, Integrated Safety Ltd, won the TrackSafe Foundation Safety Leadership award for leadership of track access safety on the Main North Line (MNL).

Independent audit update

28. The OSG has been receiving summary reports from the independent auditor, Bond CM, alongside monthly updates from KiwiRail and the NZTA. The OSG is pleased to see issues being raised by Bond CM are being subsequently managed by the PAB. The OSG is satisfied at this time that points raised will not have a significant effect on the project delivery.

29. Monthly updates on matters raised by the independent auditor will continue to be monitored. This includes Bond CM’s monitoring of programme and cashflow trends over coming months to identify and address any programme delays, and to implement mitigations if necessary.

30. Bond CM was also involved in providing assurance on the TOC2 variation proposal during this quarter. The OSG relied on this assurance when making its decision to endorse the TOC2 proposal (discussed below under ‘Post-quarter update – TOC2’).

31. Withheld under 9(2)(j) of the OIA

Project costs

Overall budget

32. Over the quarter, the project tracked within the appropriations set for 2018/2019.

33. The revised life to date budget for the project is $1,230 million, with an actual spend of $1,035 million. The revised life to date budget for SH1 is $715 million, with an actual spend of $639 million. The revised life to date budget for MNL is $515 million, with an actual spend of $396 million. Spend against the life to date budget is reflected in Table 1 below. The budget was reset as part of the TOC process agreed in June
2018. The life to date under spend is reflective of buying gains and value engineering solutions delivered compared with the cost assumed at the time of setting the TOC.

Life to date spend against life to date budget (as at 30 June 2019)

<table>
<thead>
<tr>
<th></th>
<th>Life to date budget $m</th>
<th>Actual spend to date $m</th>
<th>Variance $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH1</td>
<td>715</td>
<td>639</td>
<td>76</td>
</tr>
<tr>
<td>MNL</td>
<td>515</td>
<td>396</td>
<td>119</td>
</tr>
<tr>
<td>Total</td>
<td>1,230</td>
<td>1,035</td>
<td>195</td>
</tr>
</tbody>
</table>

**Funding for MNL.**

34. Figures for the MNL current appropriations, spend to date and forecasted budget as at 30 June 2019 are included in the tables below. All funding for the MNL is capital expenditure only.

**Appropriations**

<table>
<thead>
<tr>
<th></th>
<th>2016/17 $m</th>
<th>2017/18 $m</th>
<th>2018/19 $m</th>
<th>2019/20 $m</th>
<th>Total $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crown Appropriation</td>
<td>70</td>
<td>140</td>
<td>205</td>
<td>-</td>
<td>415</td>
</tr>
<tr>
<td>Insurance payment</td>
<td>100</td>
<td>-</td>
<td>-</td>
<td>-100</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>170</td>
<td>140</td>
<td>205</td>
<td>-100</td>
<td>515</td>
</tr>
</tbody>
</table>

**Spend to date**

<table>
<thead>
<tr>
<th></th>
<th>2016/17 $m</th>
<th>2017/18 $m</th>
<th>2018/19 $m</th>
<th>Total $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available funding</td>
<td>170</td>
<td>140</td>
<td>205</td>
<td>515</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>74</td>
<td>195</td>
<td>127</td>
<td>396</td>
</tr>
<tr>
<td>Unspent funding</td>
<td>96</td>
<td>(55)</td>
<td>78</td>
<td>119</td>
</tr>
</tbody>
</table>

**Forecast**

35. The table below shows the latest forecast as at 30 June 2019:

<table>
<thead>
<tr>
<th></th>
<th>2016/17 $m</th>
<th>2017/18 $m</th>
<th>2018/19 $m</th>
<th>2019/2020/21 $m</th>
<th>Total $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital expenditure</td>
<td>74</td>
<td>195</td>
<td>127</td>
<td>103</td>
<td>16</td>
</tr>
<tr>
<td>Current funding</td>
<td>74</td>
<td>195</td>
<td>127</td>
<td>103</td>
<td>16</td>
</tr>
</tbody>
</table>

**Post-quarter update on MNL funding**

36. Through the year-end and audit process, the Ministry, KiwiRail, Treasury and Audit NZ have agreed the $120 million should be recognised as a liability for the Crown at 30 June 2019, and therefore an expense against the MNL appropriation. This is because Shareholding Ministers had signed an agreement to subscribe for shares and the related share subscription funds have not yet been paid to KiwiRail.
37. **Insurance**

38. KiwiRail continues to progress the Kaikōura EQ Insurance Claim with its insurers.

39. During this quarter, KiwiRail received an additional insurance payment of $20 million. This brings the total received to date to $145 million.

40. A fifth submission was placed with insurers in May 2019 based on costs through to 31 December 2018.

41. a) 

   Withheld under section 9(2)(f)(iv) of the OIA

   b) 

   Withheld under section 9(2)(b)(ii) of the OIA

42. The status quo expectation is for insurance proceeds received above and beyond the $100 million factored into the MNL appropriation (as shown in the table at paragraph 48) to be returned to the Crown. At the close of the 1 April 2019 - 30 June 2019 quarter, this equates to $45 million.

43. Any approach other than this status quo position will require Cabinet approval and consideration of the implications for other priorities in Vote Transport.

**Funding for SH1**

44. Figures for SH1 current appropriations, spend to date and forecasted budget as at 30 June 2019 are included in the tables below.

**Appropriations**

<table>
<thead>
<tr>
<th></th>
<th>2016/17 $m</th>
<th>2017/18 $m</th>
<th>2018/19 $m</th>
<th>2019/20 $m</th>
<th>2020/21* $m</th>
<th>Total $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriation</td>
<td>69</td>
<td>433</td>
<td>159</td>
<td>30</td>
<td>-</td>
<td>691</td>
</tr>
<tr>
<td>Over expenditure</td>
<td>24</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>93</strong></td>
<td><strong>433</strong></td>
<td><strong>159</strong></td>
<td><strong>30</strong></td>
<td><strong>-</strong></td>
<td><strong>745</strong></td>
</tr>
</tbody>
</table>

*Appropriation for 2020/21 is $0.12 million
Operating/capital breakdown

<table>
<thead>
<tr>
<th></th>
<th>2016/17 $m</th>
<th>2017/18 $m</th>
<th>2018/19 $m</th>
<th>2019/20 $m</th>
<th>2020/21 $m</th>
<th>Total $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital funding</td>
<td>20</td>
<td>350</td>
<td>126</td>
<td>21</td>
<td>-</td>
<td>517</td>
</tr>
<tr>
<td>Operating fund</td>
<td>73</td>
<td>83</td>
<td>33</td>
<td>9</td>
<td>-</td>
<td>198</td>
</tr>
<tr>
<td>Current fundi</td>
<td>93</td>
<td>433</td>
<td>159</td>
<td>30</td>
<td>-</td>
<td>715</td>
</tr>
</tbody>
</table>

*Operating and capital breakdown for 2020/21 appropriation is made up of $0.08 million (Capital) and $0.04 million (Opex)*

Spend to date

45. Spend for the financial year ending 30 June 2019 is within the funding allocated:

<table>
<thead>
<tr>
<th></th>
<th>2016/17 $m</th>
<th>2017/18 $m</th>
<th>2018/19 $m</th>
<th>Total $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital funding</td>
<td>20</td>
<td>350</td>
<td>71</td>
<td>436</td>
</tr>
<tr>
<td>Operating fund</td>
<td>73</td>
<td>83</td>
<td>42</td>
<td>203</td>
</tr>
<tr>
<td>Current fundi</td>
<td>93</td>
<td>433</td>
<td>113</td>
<td>639</td>
</tr>
</tbody>
</table>

Forecast

46. The table below shows the latest forecast as at 30 June 2019:

<table>
<thead>
<tr>
<th></th>
<th>2016/17 $m</th>
<th>2017/18 $m</th>
<th>2018/19 $m</th>
<th>2019/20 $m</th>
<th>2020/21 $m</th>
<th>Total $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital expens</td>
<td>20</td>
<td>350</td>
<td>66</td>
<td>22</td>
<td>20</td>
<td>478</td>
</tr>
<tr>
<td>Operating expens</td>
<td>73</td>
<td>83</td>
<td>47</td>
<td>34</td>
<td>237</td>
<td></td>
</tr>
<tr>
<td>Current fundi</td>
<td>93</td>
<td>433</td>
<td>113</td>
<td>56</td>
<td>20</td>
<td>715</td>
</tr>
</tbody>
</table>

Withheld under section 9(2)(f)(iv) of the OIA

Post-quarter update – TOC2

47. On 5 July 2019, the OSG gave preliminary endorsement to the TOC2 variation proposal. Upon receiving further information, this endorsement was finalised on 1 August 2019. TOC2 works will extend the project to mid to late 2020.

48. The TOC2 priority works are affordable within the SH1 and MNL budget envelopes, with no current requirement to transfer Crown funds between the NZTA and KiwiRail appropriations.

49. The NZTA and KiwiRail have advised the OSG that they expect to manage the project budget and use any future unconsumed Crown funds to fund further deferred works up to the limit of the funding envelope.
51. The TOC2 works are now proposed for reintroduction due to a combination of factors:

a) They are priority works in regards to reinstating pre-earthquake resilience levels along the SITC.

b) These works fit within the available funding envelopes.

52. A full list of works included in the TOC2 scope is attached at Appendix Two for your reference. A map displaying the location of these works is shown at Appendix Three.
Forward look to the 1 July 2019 – 30 September 2019 quarter

60. Key SITC reinstatement project priorities for the next quarter include:
   a) Finalising TOC2 and getting further works underway.
   b) Completing the works outlined in TOC1.
   c) Review of project resourcing and offload of excess capacity.

Operational forward look (highlights)

61. Key works to be delivered in the next quarter include:
   a) Commencement of rock fall shelter construction at rail Tunnel 11 (work to continue through to 2020).
   b) Continuation of Bridge 115B catch basin and bridge extension works at Half Noon Bay (work to continue through to the end of 2019).
   c) Commencement of work on 5 of 8 bridges along the NLTP-funded Inland Road (Route 70) section of the corridors (work currently programmed to finish in mid 2020).

Next steps and report

62. The next quarterly report will be provided to you in November 2019, and will cover the 1 July 2019 to 30 September 2019 quarter.

Brian Wood
Chair, Oversight Group

Attachments:
Appendix One: Key project milestones as at 30 June 2019
Appendix Two: Works included in TOC2 scope
Appendix Three: Map showing locations of TOC2 works
Appendix Four: Works excluded from TOC2 scope
## Appendix One: Key project milestones as at 30 June 2019

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Baseline</th>
<th>Forecast/Actual</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rail open at reduced LOS</td>
<td>31 Aug 2017</td>
<td>15-Sep 2017</td>
<td>Complete</td>
</tr>
<tr>
<td>Road open at reduced LOS</td>
<td>15 Dec 2017</td>
<td>15 Dec 2017</td>
<td>Complete</td>
</tr>
<tr>
<td>Road open 24/7</td>
<td>31 Mar 2018</td>
<td>30 Apr 2018</td>
<td>Complete</td>
</tr>
<tr>
<td>Recovery works – substantially complete</td>
<td>30 Apr 2018</td>
<td>31 Dec 2019</td>
<td>Some projects within the additional works package will extend past the end of FY19.</td>
</tr>
<tr>
<td>Implement TOC</td>
<td>1 Jul 2018</td>
<td>1 Jul 2018</td>
<td>Complete</td>
</tr>
<tr>
<td>Freight service increase and</td>
<td>1 Oct 2018</td>
<td>9 Oct 2018</td>
<td>Complete</td>
</tr>
<tr>
<td>Rail open 24/7</td>
<td>30 Oct 2018</td>
<td>1 Dec 2018</td>
<td>Complete</td>
</tr>
<tr>
<td>Passenger train service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinstatement Project completion</td>
<td>30 May 2019</td>
<td>30 Sep 2020</td>
<td>Per indicated programme – extended to include progressing of the TOC2 works package</td>
</tr>
<tr>
<td><strong>Inland Road Route 70 (NLTF)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Projects</td>
<td>29 May 2018</td>
<td>31 Dec 2019</td>
<td>Funding secured for bridge and culvert repair/replacement. To be constructed over 2019.</td>
</tr>
<tr>
<td>Alternate Route - key milestones</td>
<td>15 Dec 2017</td>
<td>15 Dec 2017</td>
<td>Complete</td>
</tr>
<tr>
<td><strong>Kalköura South milestones</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rail opening at reduced LOS</td>
<td>31 Aug 2017</td>
<td>15-Sep 2017</td>
<td>Complete</td>
</tr>
<tr>
<td>Oaro to Kalköura</td>
<td>15 Dec 2017</td>
<td>15 Dec 2017</td>
<td>Complete</td>
</tr>
<tr>
<td>Pamassus to Oaro</td>
<td>15 Nov 2017</td>
<td>15 Dec 2017</td>
<td>Complete</td>
</tr>
<tr>
<td><strong>Kalköura North milestones</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rail at reduced LOS</td>
<td>31 Aug 2017</td>
<td>15-Sep 2017</td>
<td>Complete</td>
</tr>
<tr>
<td>Earthworks</td>
<td>27 Sep 2017</td>
<td>15 Dec 2017</td>
<td>Complete</td>
</tr>
<tr>
<td>Slip 1 realignment</td>
<td>20 Sep 2017</td>
<td>15 Dec 2017</td>
<td>Complete</td>
</tr>
<tr>
<td>Slip 6 &amp; 7 realignment (Chau Point)</td>
<td>4 Dec 2017</td>
<td>30 May 2019</td>
<td>Complete</td>
</tr>
<tr>
<td>Slip 9 (Waipapa) realignment</td>
<td>31 Mar 2018</td>
<td>31 Mar 2019</td>
<td>Complete</td>
</tr>
<tr>
<td><strong>Kalköura Marina</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completion</td>
<td>1 Nov 2017</td>
<td>10 Nov 2017</td>
<td>Complete</td>
</tr>
<tr>
<td>SH1 improvement work package</td>
<td>20 Dec 2018</td>
<td>31 Dec 2020</td>
<td>Delayed to prioritise core recovery</td>
</tr>
<tr>
<td>Programme completion and “Wrap up”</td>
<td>31 Mar 2020</td>
<td>Mid-2020</td>
<td>Extended and yet to be confirmed. TOC additional works programme</td>
</tr>
<tr>
<td>Model/Project</td>
<td>Crown funded works in scope of TOC2</td>
<td>Direct costs (Crown funded portion of works only) total</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Road and rail</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half Moon Bay - Tunnel 19 South Rock Fall Shelter, Project 200203</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will construct a 40m long precast reinforced concrete rock fall shelter at the south portal of Tunnel 19 at Half Moon Bay. The Half Moon Bay area has been assessed as likely to have sliprockslides in future to a degree that the target resilience level of service (LOS) will not be achieved. The Tunnel 19 rock fall shelter will locate surf from future sliprockslides at this location. In conjunction with the Bridge 11 rock fall site at this location, improvements described below will improve the resilience LOS for rail in the Half Moon Bay area to the target level. If these projects were not carried out the resilience LOS would not be achieved.</td>
<td>2,271,526</td>
<td>2,271,526</td>
<td>2,271,526</td>
</tr>
<tr>
<td>Half Moon Bay - BR 11S8 Bear's catch basin and bridge extension, Project 202202</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will install and improve the upstream debris catch basins at this location on both roads to reduce the capacity of the existing downstream SH1 debris bridge. This project has been assessed as likely to have debris flow in future to a degree that the target resilience level of service (LOS) will not be achieved. The works at Bridge 11S8 will provide greater capacity for future debris flow materials to pass under road and rail, and to accumulate clear of road and rail for later removal. In conjunction with the Tunnel 19 rock fall shelter described above this will improve the resilience LOS for rail in the Half Moon Bay area to the target level. If these projects were not carried out the resilience LOS would not be achieved.</td>
<td>3,527,818</td>
<td>3,527,818</td>
<td>3,527,818</td>
</tr>
<tr>
<td>Tunnel 11 South Portal Rock Fall Shelter, Project 202203</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will construct a 40m long precast reinforced concrete rock fall shelter at the south portal of Tunnel 11. This location has been assessed as likely to have sliprockslides in future to a degree that the target resilience level of service (LOS) will not be achieved. The tunnel 11 rock fall shelter will locate surf from future sliprockslides at this location and will improve the resilience LOS for rail to the target level. The rock fall shelter will enable the existing structure to remain in use for ongoing maintenance and clearance of debris material from the face of the structure at this location. If this project was not carried out the resilience LOS would not be achieved. NCTR has previously built rock fall shelters at tunnels 13 &amp; 14, and similar structures exist at other locations on the MNL near to the 2018 event.</td>
<td>279,763</td>
<td>279,763</td>
<td>279,763</td>
</tr>
<tr>
<td>MNL 17.3km debris flow (Rozzi Morn Stream), Project 700010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will design and construct debris flow mitigation measures at this location to provide greater capacity to manage future debris flow materials. If this location has been assessed as likely to have debris flows in future to a degree that the target resilience level of service (LOS) will not be achieved. The works at Jacob's ladder A will provide greater capacity for future debris flow materials to pass under rail and road, and to accumulate clear of road for later removal. This will improve the resilience LOS for rail at this location to the target level if this project was not carried out the resilience LOS would not be achieved.</td>
<td>4,543,072</td>
<td>4,543,072</td>
<td>4,543,072</td>
</tr>
<tr>
<td>Jacob's Ladder A debris flow improvements, Project 700006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will build a debris basin upstream of the road and rail, a tunnel to direct the debris flow material into the basin, and a 4 x 4 x m road concrete box culvert under the road and rail. This location has been assessed as likely to have debris flows in future to a degree that the target resilience level of service (LOS) will not be achieved. The works at Jacob's Ladder A will provide greater capacity for future debris flow materials to pass under rail and road, and to accumulate clear of road for later removal. This will improve the resilience LOS for rail at this location to the target level if this project was not carried out the resilience LOS would not be achieved.</td>
<td>276,396</td>
<td>276,396</td>
<td>276,396</td>
</tr>
<tr>
<td>Mounsey Creek debris flow improvements, Project 700009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will construct debris pros, rock groynes, and rock scour protection at Mounsey's Creek. This location has been assessed as likely to have debris flows in future to a degree that the target resilience level of service (LOS) will not be achieved. The works at Mounsey's Creek and Fernale improved control at the debris flow material channeling and limit the channel width for rail and road. This will improve the resilience LOS for rail at this location to the target level. If this project was not carried out the resilience LOS would not be achieved.</td>
<td>569,951</td>
<td>569,951</td>
<td>569,951</td>
</tr>
<tr>
<td>Slip 20A monitoring, Project 230177</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will install remote monitoring equipment at the top of slip 20A to allow slope monitoring and to be monitored in real time. If slip material comes down the transport corridor this will allow works to proceed safely to clear the material and remove the transport corridor. By providing real time information the monitoring equipment will enable improved response to remove the corridor by using the real time data to carry out this work safely. The works at Mounsey's Creek and Fernale will improve the monitoring safety for the workers. This will improve the resilience LOS for rail at this location to the target level if this project was not carried out the resilience LOS would not be achieved.</td>
<td>177,582</td>
<td>177,582</td>
<td>177,582</td>
</tr>
<tr>
<td>Road and rail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bond Valley Road Realignment, Project 202203</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will realign SH1 to remove an out of context 50kmph curve, significantly improving road safety at this location where would otherwise be a road accident black spot, and creating a more effective road alignment. The SH1 realignment will provide space for the road to be realigned to correct deficiencies in the current temporary realignment, to increase rail line speed, and to move road away from the slope improving resilience. This will improve the resilience LOS for rail at this location if this project was not carried out the resilience LOS would not be achieved.</td>
<td>2,293,436</td>
<td>2,293,436</td>
<td>2,293,436</td>
</tr>
<tr>
<td>Jacob's Ladder B. Project 700674</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will build a debris catch basin and structure protection, a road and rail structure protection. This project will be monitored to intercept debris material into the basin, a course debris basin downstream of the catch basin to catch large material likely to block the structure, and install an additional overflow culvert. This location has been assessed as likely to have debris flows in future to a degree that the target resilience level of service (LOS) will not be achieved. The works at Jacob's Ladder B will provide greater capacity for future debris flow materials to pass under rail and road, and to accumulate clear of road for later removal. This will improve the resilience LOS for rail at this location if this project was not carried out the resilience LOS would not be achieved.</td>
<td>176,881</td>
<td>176,881</td>
<td>176,881</td>
</tr>
<tr>
<td>Clarence River Bridge - strengthening remaining piers 202205</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will reinforce SH1 to remove an out of context 50kmph curve, significantly improving road safety at this location which would otherwise be a road accident black spot, and creating a more effective road alignment. The SH1 realignment will provide space for the road to be realigned to correct deficiencies in the current temporary realignment, to increase rail line speed, and to move road away from the slope improving resilience. This will improve the resilience LOS for rail at this location if this project was not carried out the resilience LOS would not be achieved.</td>
<td>4,566,371</td>
<td>4,566,371</td>
<td>4,566,371</td>
</tr>
<tr>
<td>Road and rail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hawkeswood Culvert #1 - repair and replacement 202203</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will reinforce and repair SH1 to remove an out of context 50kmph curve, significantly improving road safety at this location which would otherwise be a road accident black spot, and creating a more effective road alignment. The SH1 realignment will provide space for the road to be realigned to correct deficiencies in the current temporary realignment, to increase rail line speed, and to move road away from the slope improving resilience. This will improve the resilience LOS for rail at this location if this project was not carried out the resilience LOS would not be achieved.</td>
<td>610,672</td>
<td>610,672</td>
<td>610,672</td>
</tr>
<tr>
<td><strong>Rail</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half Moon Bay - Tunnel 19 South Rock Fall Shelter, Project 200203</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This project will construct a 40m long precast reinforced concrete rock fall shelter at the south portal of Tunnel 19 at Half Moon Bay. The Half Moon Bay area has been assessed as likely to have sliprockslides in future to a degree that the target resilience level of service (LOS) will not be achieved. The Tunnel 19 rock fall shelter will locate surf from future sliprockslides at this location. In conjunction with the Bridge 11 rock fall site at this location, improvements described below will improve the resilience LOS for rail in the Half Moon Bay area to the target level. If these projects were not carried out the resilience LOS would not be achieved.</td>
<td>5,719,377</td>
<td>5,719,377</td>
<td>5,719,377</td>
</tr>
</tbody>
</table>
## NLT funded works in scope of TOC2

<table>
<thead>
<tr>
<th>Mode</th>
<th>Project</th>
<th>NZTA</th>
<th>KRW/PAL</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road</td>
<td>SH1 Improvements North Safety Improvements 300394</td>
<td>471,820</td>
<td>-</td>
<td>471,820</td>
</tr>
<tr>
<td>Road</td>
<td>Teal Duchess north and central 300116, 300316</td>
<td>5,472,814</td>
<td>-</td>
<td>5,472,814</td>
</tr>
<tr>
<td>Road</td>
<td>Hunsdon Gaita – 700008</td>
<td>2,684,014</td>
<td>-</td>
<td>2,684,014</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Waihi Br 200111</td>
<td>1,941,640</td>
<td>-</td>
<td>1,941,640</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Lower Mason Br 200114</td>
<td>939,019</td>
<td>-</td>
<td>939,019</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Inland road rotalling wall repairs 200219</td>
<td>517,543</td>
<td>-</td>
<td>517,543</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Kukura Br 200166</td>
<td>1,079,087</td>
<td>-</td>
<td>1,079,087</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Lottery Br 200118</td>
<td>270,223</td>
<td>-</td>
<td>270,223</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Upper Mason Br 200118</td>
<td>401,667</td>
<td>-</td>
<td>401,667</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Wandle Br 200112</td>
<td>241,416</td>
<td>-</td>
<td>241,416</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Lusia's over slip 200165</td>
<td>2,260,726</td>
<td>-</td>
<td>2,260,726</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Work package 13 - repairs to 6 bridges &amp; 3 culverts 200166</td>
<td>2,254,059</td>
<td>-</td>
<td>2,254,059</td>
</tr>
<tr>
<td>Road</td>
<td>Inland route - Crib Creek Br 200117</td>
<td>903,925</td>
<td>-</td>
<td>903,925</td>
</tr>
<tr>
<td>Road</td>
<td>Concrete Component repair to retain Level of service. Including crackling, spalling, shear key, linkages and approach repairs</td>
<td>1,101,163</td>
<td>-</td>
<td>1,101,163</td>
</tr>
</tbody>
</table>

### Direct costs (NLTfunded portion of works only) total

|  | 20,539,120 | - | 20,539,120 |

### Summary of TOC2 costs

<table>
<thead>
<tr>
<th>Description</th>
<th>NZTA</th>
<th>KRW/PAL</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crown funded portion of TOC2 works - Direct costs</td>
<td>11,054,149</td>
<td>22,433,196</td>
<td>33,467,345</td>
</tr>
<tr>
<td>NLT funded portion of TOC2 works - Direct costs</td>
<td>20,539,120</td>
<td>-</td>
<td>20,539,120</td>
</tr>
<tr>
<td>TOC2 (Crown + NLT funded works) total direct costs</td>
<td>31,593,269</td>
<td>22,433,196</td>
<td>54,026,465</td>
</tr>
<tr>
<td>TOC2 Indirect indirect costs</td>
<td>24,805,225</td>
<td>-</td>
<td>24,805,225</td>
</tr>
</tbody>
</table>

### TOC2 total cost (including indirect costs)

|  | 79,831,895 | - | 79,831,895 |
Update on the ‘Green Freight’ project

Reason for this briefing
In October 2018, we briefed you on a project we were scoping to explore the potential of alternative ‘green’ fuels (including electricity, hydrogen and biofuels) to reduce greenhouse gas emissions from road freight in New Zealand [OC180962 refers]. This briefing provides you with an update on the ‘Green Freight’ project, and our proposed next steps.

We have also attached a background paper we have developed that outlines the opportunities and challenges associated with each alternative fuel. We are intending to use this paper as an engagement tool with stakeholders, and are seeking your permission to release it publicly.

Action required
Indicate if you would like to discuss the background paper.
Agree we can share the background paper with stakeholders.

Deadline
Not applicable

Reason for deadline
Not applicable

Contact for telephone discussion (if required)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>First contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richard Cross</td>
<td>Manager, Strategic Policy and Innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Principal Adviser, Strategic Policy and Innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adviser, Strategic Policy and Innovation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 30 August 2019

Attention: Hon Phil Twyford (Minister of Transport)
CC: Julie Anne Genter (Associate Minister of Transport)

Security level: In-confidence

Minister of Transport’s office actions

☐ Noted  ☐ Seen  ☐ Approved

☐ Needs change  ☐ Referred to  ☐ Overtaken by events

☐ Withdrew  ☐ Not seen by Minister  ☐
Purpose of this briefing

1. This briefing provides you with an update on our progress on the ‘Green Freight’ project and outlines our next steps, including undertaking further stakeholder engagement and drafting a strategic working paper.

2. We have also attached a background paper to this briefing on the opportunities and challenges associated with transitioning the road freight industry in New Zealand to alternative fuels. We are seeking your permission to share this paper with stakeholders to support our next round of engagement.

Background on the Green Freight project

3. In October 2018, we briefed you on our intention to develop a ‘Green Freight’ working paper that explores the potential of alternative ‘green’ fuels (and energy sources) to reduce greenhouse gas (GHG) emissions from road freight in New Zealand [OC180952 refers]. This work will help inform the Government’s strategic approach to reducing GHG emissions from road freight in New Zealand. It fits within a wider programme of work across the Ministry of Transport to reduce GHG emissions from the transport sector.

4. Road freight accounts for approximately 24 percent of New Zealand’s transport GHG emissions. Shifting road freight to rail and coastal shipping can have some impact on GHG emissions. The Ministry is actively exploring all options to shift road freight to rail and coastal shipping. However, freight will still need to be transported by trucks to rail hubs and ports, and it is usually much quicker to move goods, including perishable items, by road compared to rail or sea. As such, it is likely a large proportion of freight will continue to be moved by road.

5. Efficiency improvements to reduce fuel consumption (such as driver training, coordinated logistics and fuel efficient practices), are also valuable contributors to reducing GHG emissions from road freight, but will only get us so far.

6. To have a significant impact on GHG emissions from road freight, we need to consider transitioning the road freight industry to alternative fuels, including electricity, hydrogen and biofuels. It is acknowledged that there are a number of mechanisms to reduce GHG emissions from road freight, but this is an emerging area we need to better understand to help shape Government and industry responses. It has also been signalled internationally as the area that has the greatest potential to reduce emissions from road freight.

7. This project addresses the gap in our knowledge around the opportunities and challenges associated with each alternative fuel, and seeks to understand where New Zealand can get the greatest benefits from each fuel type, particularly around reducing GHG emissions.

8. You recently asked the Ministry to provide advice on decarbonising the public transport fleet. While this project focusses on heavy trucks involved in the road freight sector, there are similar challenges across all heavy vehicles (including buses) when considering alternative fuel types. This work will help inform that advice.

The Productivity Commission recommends that we investigate emission reducing technologies for heavy vehicles

9. On 3 August 2019, Minister Shaw released the Government’s Climate Action Plan in response to the Productivity Commission’s Low Emissions Economy Report. The Government has agreed with, or agreed to investigate, the majority of the report’s recommendations.
10. Recommendation 12.8 of the Productivity Commission's report suggests that the Ministry of Transport and the Energy Efficiency Conservation Authority (EECA) should investigate the suitability of specific emissions-reducing technologies for regulating heavy vehicles in New Zealand.

11. The Green Freight project helps to address this recommendation by investigating how New Zealand could best use alternative fuels to reduce GHG emissions from road freight.

**We have undertaken a literature review and preliminary engagement with stakeholders**

12. We have undertaken a review of international and New Zealand literature on alternative fuels. This literature includes work undertaken by international organisations (e.g. International Transport Forum, International Energy Agency), Government agencies (e.g. Ministry for the Environment, New Zealand Productivity Commission), industry bodies (e.g. Sustainable Business Council), consultancies (e.g. Concept Consulting), and research institutes (e.g. Scion, National Energy Research Institute).

13. In addition, we have undertaken some preliminary engagement with stakeholders from across the freight and energy sectors (including Z Energy and Hiring Energy). This has helped us to better understand the current approaches being taken by these sectors to reduce GHG emissions.

14. This initial work has been time consuming due to the technical complexities of each fuel type and volume of literature available on this topic. This has resulted in longer than expected timeframes to develop an understanding of the key opportunities and challenges in using alternative fuels across the road freight industry.

**We have developed a background paper to inform our discussions with stakeholders**

15. Our early engagements with stakeholders identified variable levels of knowledge around the opportunities and challenges of different alternative fuel types. This was limiting the depth of discussion around which options could provide viable solutions for road freight reliant industries and freight operators alike.

16. Some companies and industries have identified a pathway to reduce GHG emissions from their heavy truck fleets, and are working to understand which fuels to pursue, and how to transition to them. Most are still trying to understand how the GHG emission targets recently set in the Zero Carbon Bill translate into changing the way they operate. Many are utilising Government funding mechanisms to support their transition, but some do not know where to begin.

17. We have developed a background paper based on our literature review and preliminary engagement with the road freight and energy sectors. This background paper (attached to this briefing) will help to inform our discussions with stakeholders around alternative fuels. It outlines the opportunities and challenges associated with each alternative fuel, and how these are being addressed to support the transition and uptake of alternative fuels.

18. We have received substantial interest and feedback on the background paper from EECA, the Ministry of Business, Innovation and Employment, the New Zealand Transport Agency and the National Energy Research Institute. We have incorporated much of this feedback into this paper, but some of the technical questions require further investigation, and will be addressed in the subsequent working paper. The background paper may also be too long, and we may include a more comprehensive executive summary highlighting our key points.

19. We are seeking your permission to share the background paper with stakeholders when we meet with them between September and November 2019. We plan to engage with the majority of stakeholders on an individual basis. However, we may also run a series of
workshops to work through the barriers they are facing, and identify where Government can play a role.

The background paper has highlighted several themes that we need to explore further

20. Alternative fuels provide a significant opportunity to reduce GHG emissions from road freight. However, their impact on GHG emissions will vary depending on how they are produced and their level of uptake. We need to understand the full life-cycle of each alternative fuel to ensure that we are making a fair comparison of their potential to reduce GHG emissions.

21. There are also co-benefits from reducing GHG emissions from road freight, including reducing air pollution in New Zealand’s urban environments and supporting regional economic development. We need to think further about how the Government could make the most of the co-benefits that come from a transition to alternative fuels.

22. There are also several challenges facing each alternative fuel if New Zealand is to realise their benefits. At this point in time, no single alternative fuel is developed enough to provide a clear choice for all road freight activity.

23. We need to understand the barriers facing the uptake of alternative fuels in New Zealand to identify where they can have the greatest impact on GHG emissions over the next 30 years. This includes barriers such as upfront costs, long lead times, and the development of supporting infrastructure. Engaging with stakeholders is critical for developing our understanding of these barriers in the New Zealand context.

There are some risks with undertaking this engagement

24. There is a risk that the background paper could be mistaken for Government policy, and our engagement with stakeholders could create an expectation that the Government will undertake work to support the uptake of alternative fuels.

25. We will manage these risks by clearly stating in the background paper that it is not Government policy, and by clarifying with stakeholders that this engagement will inform our advice to Government, but support and investment is not guaranteed.

Next steps in the project

26. With your agreement, we will begin using the background paper as an engagement tool with key stakeholders in September 2019. This will help us to discuss the barriers stakeholders are facing, and the opportunities for Government to support their uptake of alternative fuels. An initial list of these stakeholders has been provided in Appendix 1.

27. Input from these discussions will be used to inform the development of a strategic working paper. We aim to have a draft of the working paper completed by December 2019, which we will test with you before publishing in early 2020. The working paper is not intended to provide specific policy recommendations. Rather, it is intended to provide insights that could inform future policy development.
Recommendations

28. We recommend that you:
   
   28.1. **note** the contents of this briefing  
   28.2. **indicate** if you would like to discuss the background paper  
   28.3. **agree** we can share the background paper with stakeholders

Richard Cross  
Manager, Strategic Policy and Innovation

**MINISTER'S SIGNATURE:**

**DATE:**
Appendix 1. Proposed Stakeholder Engagement List

**Government**
- Auckland Transport
- Callaghan Innovation
- Energy Efficiency & Conservation Authority
- Ministry for the Environment
- Ministry of Business, Employment and Innovation
- New Zealand Transport Agency
- Productivity Commission

**Research Institutes**
- Canterbury University
- CRL Energy
- Hot Limo Labs
- Licella
- National Energy Research Institute
- NIWA
- Scion
- University of Auckland

**Industry**
- Air New Zealand
- Anchor Ethanol
- Auckland Airport
- BPO Limited
- CODA
- Countdown
- DB Breweries
- Evo Energy Technologies
- Federated Farmers
- Fletcher Group
- Fonterra
- Freightways
- Fullers Group Ltd
- Greenlane Biogas
- Gulf New Zealand
- Hilton Haulage
- Hiringa Energy
- Hitachi Zosen Innovia Australia
- Humes
- KiwiRail
- Lion Nathan
- Lyttelton Port Company Ltd
- Mainfreight
- Mondiale
- Napier Port
- NetLogix
- New Zealand Post
- OfficeMax
- Pioneer Energy
- Ports of Auckland Ltd
- Ravensdown
- Scania
- Silver Fern Farms
- Tainui Group Holdings Ruakura
- Tauranga Port
- The Warehouse
- TIL Logistics
- TOLL
- Waste Management NZ
- Z Energy

**Industry bodies**
- Bioenergy Association of New Zealand
- Road Transport Forum
- Sustainable Business Council

**Consultants**
- Concept Consulting
- Retyna Consulting Ltd
- thinkstep
Association of Consulting Engineers New Zealand Annual Conference - Briefing and speech

<table>
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<tr>
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<td>Graduate Adviser, Urban Development and Environment</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 05/08/2019  Briefing number: OC190748
Attention: Hon Phil Twyford  Minister of Transport  Security level: In-Confidence

Minister of Transport’s office actions

- [ ] Noted  - [ ] Seen  - [ ] Approved
- [ ] Needs change  - [ ] Referred to
- [ ] Withdrawn  - [ ] Not seen by Minister  - [ ] Overtaken by events
Purpose

1. You are speaking at the annual conference of the Association of Consulting Engineers New Zealand Inc. (ACENZ) on Thursday 7 August 2019, from 9:20am – 9:45am.

2. This briefing provides background information and speech notes to support your attendance at the conference. The Ministry of Housing and Urban Development and the New Zealand Transport Agency have provided material for the speech.

Background on ACENZ and the conference

3. The ACENZ is a firm based membership association that represents consulting and engineering professionals throughout New Zealand. Paul Evans is the CEO, appointed in March 2019.

4. The conference is being held from 7-9 August 2019.

5. The conference theme, “Emerging from your shell: Discover your value” is about growth, positive change and going things differently to add value. The conference includes a range of speakers and transformational leaders challenging the industry to think differently.

6. You spoke to ACENZ in 2018 and outlined shifts in the priorities of the GPS and ATAP investment, as well as issues relating to Kiwibuild.

Audience and media

7. 130 people are expected to attend.

8. No media will be in attendance.

Your speech

9. You have been asked to speak for 15 minutes, followed by a 10 minute Q&A.

10. You have been requested to arrive at the venue by 8:45am.

11. You have been requested to speak on the following four transport and housing topics:

   • The government’s future infrastructure and actions, more particularly in the areas of transport and urban development.

   • How the government is ensuring transport and infrastructure are complementary, particularly in the context of climate change and housing affordability.

   • How developers ensure there are transport choices available to residents, particularly around integrated public transport and active modes, as we intensify or open greenfield sites.

   • How the government intends to streamline the process to ensure that land development can occur more swiftly and affordably.

12. Speech notes are attached in Appendix 1. Potential questions and answers are in Appendix 2.
14. As you are aware the Ministry is currently progressing work to assess the NZTA and NZ Infra proposals. We have discussed with your Office the timing for an announcement: confirming the next steps for light rail in Auckland, including the process and timing for assessing the NZTA and NZ Infra proposals.

15. The announcement would be after your speech to ACENZ. This is because timing is contingent on NZ Infra’s review of the Requirements Response Document and confirmation they intend to proceed with their proposal. The Ministry will be briefing the CEO, Paul Evans, once the announcement is made.

Recommendation

16. We recommend that you note the contents of this briefing and speech notes prior to attending the event.

Glen-Marie Burns
Manager, Urban Development and Environment

MINISTER’S SIGNATURE:

DATE:

Appendix 1: Speech Notes
Association of Consulting Engineers New Zealand - Annual Conference

Speech for: Hon Phil Twyford - Minister of Transport.

Date: Thursday 8 August 2019, 9:20am - 9:45am.

Occasion: The ACENZ Conference is an opportunity for engineers, planners and urban designers to come together and discuss the changes and challenges they face.

The theme of this year’s conference is “Emerge from your shell: Discover your value”. It is all about growth, positive change and doing things differently to add value.

Audience: Around 130 people are expected to attend. The audience will include members of the consulting engineering profession and related professional services in the natural and built environment. There will be no media in attendance.

Location: Chateau on the Park, Doubletree by Hilton Hotel, Christchurch.

Overview: You have been asked to speak for 15 minutes addressing:

- The government’s future infrastructure and actions, more particularly in the areas of transport and urban development.

- How the government is ensuring transport and urban development are complementary, particularly in the context of climate change and housing affordability.

- How developers ensure there are transport choices available to residents, particularly around integrated public transport and active modes as we intensify or open greenfield sites.

- How the government intend to streamline the process to ensure that land development can occur more swiftly and affordably.

The speech will be followed by a 10 minute Q+A session.
Introduction

- Kia ora koutou, and thank you for the opportunity to speak to you this morning.

- I would like to acknowledge mana whenua, ngā iwi whānui nō Te Whenua o Te Potiki-Tautahi.

- Manaaki whenua, manaaki tangata, haere whakamua. Caring for the land and the people provides for the future. And it is that responsibility that brings us together today.

- Before I begin, I would like to thank you all for being here today. It’s a real pleasure to talk to so many people working to make our cities more active, safer and sustainable.

- Good planning and a holistic approach to urban design can really enhance the quality and character of the places where we live, work and play, and defines how we experience life on a daily basis.

- Our urban areas are more than streets, roads, parks and buildings – they are the heart of our towns and cities, with the transport system acting as arteries, to connect the system as a whole and allowing it to grow and flourish.

- This Government shares your vision to create vibrant, friendly streets that are magnets for social and commercial activity. Collaborating with good communication and coordinated actions from all decision-makers: central government, local government, professionals and developers, is critical to the delivery of this vision.

The Government’s Vision: Integrated Transport & Urban Development

- This Government is taking a new approach to how we invest in infrastructure to support growth in our towns and cities.

- For too long we have focused on individual projects and schemes, failing to recognise the complex integrated systems that make up our cities and regions.

- We must move away from the 1950s mono-modal approach to transport, instead adopting principles of design which appreciates the intricate relationship between transportation and urban growth.

- We need an integrated approach to transport and urban development built on strong partnerships between central and local government.

- Transport is critical to shape urban form and lead economic development. Cities with efficient transport systems are more productive and provide greater opportunities for its residents.
• By integrating multi-modal transport systems with innovative urban design we will improve the liveability and productivity of our cities, expanding economic potential by enhancing access to businesses and jobs.

• We will also need to focus on unlocking urban development potential alongside our transit networks.

• Coordinating the design of transport and urban development will help make affordable housing in outer areas more viable through effective transport access.

The importance of partnership

• Partnership between central and local government is key.

Auckland Transport Alignment Project

• This Government has partnered with Auckland Council to deliver the biggest civil infrastructure programme in New Zealand’s history through the Auckland Transport Alignment Project, providing an overall investment of $28 billion over 10 years.

• ATAP is a game-changer for Auckland commuters and the first-step in allowing Auckland to move freely. We will create a congestion-free rapid transit network and boost other alternatives to driving to help free up the roads, enable growth, and improve safety for drivers and others.

• ATAP is focused on accelerating the development of Auckland’s rapid transit network in order to unlock housing and urban development opportunities.

City Rail Link

• The City Rail Link Project is one of several large scale projects to deliver substantial improvements to the growth and vitality of Auckland.

• The City Rail Link will provide the equivalent of 16 extra lanes of traffic into the city centre during peak times. Additionally, the number of people who will now be able to travel to Auckland’s CBD within 30 minutes will double.

• Improved accessibility to the city centre is key to Auckland’s economic growth. By 2041, the city centre will account for 30 per cent of the Auckland region’s GDP.
Auckland-Hamilton Corridor

- The Hamilton to Auckland Corridor connects two of New Zealand's fastest growing cities. With the right investment the Corridor can support growth to meet increasing demand.

- The Government is working as part of a Crown-Council-Iwi partnership, focussed on identifying the housing, employment, social, environmental and infrastructure priorities and opportunities between Hamilton and Auckland over the next 30 years.

- In considering the role that transport can play in the Corridor, we are developing a business case for how fast passenger rail connections between the two cities could help meet the Corridor's full potential and support growth.

- There is an acknowledgement by partners that innovative and joined-up thinking, new ways of working together and new planning, funding and financing mechanisms will support fast and effective delivery on agreed outcomes.

Let's Get Wellington Moving

- Let's Get Wellington Moving is working in partnership with regional and city government to develop a multi-modal transport system that will move more people, goods and services reliably with fewer vehicles.

- LGWM's objective is to deliver a resilient, greener transport system that enhances the liveability of Wellington.

Reforming the planning system

- This Government is looking at ways we can make our urban markets perform better by making room for growth, making sure growth pays for itself and using transport investment to drive more efficient, affordable and liveable urban forms.

- The Urban Growth Agenda (UGA) is a package of work the Government is undertaking to make some of the changes necessary to make these key shifts.

National Policy Statement on Urban Development

- The proposed National Policy Statement on Urban Development (NPS-UD) is one component of bringing the UGA to life.
• The NPS-UD provides national direction under the Resource Management Act (RMA) to help local authorities make good decisions about making room for growth, both up and out, in suitable areas.

• The NPS-UD is intended to enable growth by requiring councils to provide development capacity to meet the diverse demands of communities, address unnecessary regulatory constraints, and encourage quality urban environments.

• The aim is to encourage more effective urban growth, particularly close to high quality public transport and walking and cycling facilities.

• As a result, the NPS-UD will provide certainty for developers and community members to understand the future growth in our cities and the consequential changes to communities and neighbourhoods over time.

• There will be a sector consultation held on the proposed NPS-UD. Once that has been completed and if Ministerial and Cabinet approval is given, the proposed NPS-UD is likely to take effect during the first quarter of 2020.

Resource Management System Review

• You will also be aware of the Government’s plan to comprehensively overhaul the resource management system. While not the sole cause of the housing crisis, planning rules are partly to blame. Restrictive planning rules are also curbing good urban design outcomes and there has been too little spatial planning around growing urban populations.

• The review needs to address urban development, environmental bottom lines, and effective – but not overly complex – participation, including by Maori.

• The aim is to produce a proposal for resource management reform by mid-2020. This will include drafting for key sections of the new Act.

Infrastructure funding and financing

• Our infrastructure funding and financing system is broken. Some of our high growth councils which provide most bulk infrastructure have tapped out their balance sheets.

• Our aim is to put in place a new system of funding and financing the infrastructure for urban growth that is responsive to demand.

• We want to ensure that the costs of growth are properly allocated. So, they fall on the beneficiaries of development.
• We are drawing on our experience at Milldale, where through a partnership between Crown Infrastructure Partners and Auckland Council, an alternative financing model enabled the delivery of infrastructure to support the building of 9,000 homes.

• The Milldale project was the proof of concept and we are now looking to evolve the model further as it has some limitations because it relies on a contractual negotiation with the landowner.

• I will have more to say about this as thinking evolves around the model over the coming year.

Kāinga Ora – a better tool for large scale urban projects

• Cities need to be more liveable and resilient and there needs to be an increase in the kinds of homes that people both need and can afford. A step change is needed to address these challenges, rather than a continuation of business as usual.

• The Government is establishing Kāinga Ora – Homes and Communities to be a Crown agency capable of leading and coordinating integrated urban development that provides a mix of public, affordable and market housing.

• Kāinga Ora will be the primary delivery vehicle for the Government’s build programme, including being a significant provider of public housing.

• Kāinga Ora is a system intervention designed to work in partnership to deliver housing and urban development that fill the gaps that are not being provided for by the private sector, and to smooth the boom and bust cycles in the construction and developer markets.

• Kāinga Ora will work with and through others to support industry transformation and leverage private sector capacity, capability and investment – particularly when delivering affordable and market-priced housing.

• It will provide a catalyst for the private sector to be more responsive and innovative in its thinking across the housing and urban development system. It will support others to grow by de-risking opportunities and helping to remove obstacles to development, such as coordinating infrastructure provision and land amalgamation.

• Later this year, an Urban Development Bill will be introduced that will enable Kāinga Ora to undertake complex development projects of all sizes with greater coordination, certainty and speed.
What this means for the industry

- If we are successful in redesigning our cities it will not be because of Ministers at the top. It will be driven by the passion and skill of those who deliver it on the ground.

- Achieving this sort of change will require working in partnership, and taking a much wider view of how we develop and invest in our cities, towns and communities.

- We, the Government and private sector, will need to work collaboratively to be able to respond to our ever changing society – changing attitudes to where and how people live, work, play and socialise.

- Forums like this one are a great tool for sharing our knowledge and co-creating the future we want to see.

I’m excited by the changes we can make for our communities, and I look forward to working with you to make them happen.
Appendix 2 : Q&As

National Policy Statement on Urban Development

Q: What is the government’s appetite for using public private partnerships?
A: Two projects have already been progressed using public private partnerships:
  - Transmission Gully and Puhoi to Warkworth.
  - We continue to consider other possible projects where using private sector skills, experiences and innovation can help to achieve the government’s outcomes.

Q: What is the NPS-UD trying to do?
A: New elements in the proposed NPS-UD include directing councils’ planning decisions to:
  - Support quality urban environments
  - Recognise the benefits of urban development and the needs of all current and future communities
  - Strengthen long-term, strategic (spatial) planning
  - Address a number of barriers to Māori involvement both in council processes and reflect Māori values and interests in urban planning decisions
  - Direct more intensive development, particularly around centres and transport networks.

Future challenges

Q: What are some of the key changes in transport facing our cities?
A: We believe the three big changes confronting the transport sector to be:
  - First, the electrification of the vehicle fleet - including cars, buses, delivery vehicles, bikes, and scooters - to reduce our carbon footprint.
  - Second, the transition to a GPS and satellite based transport pricing system that will:
    - Replace fuel excise duty as the primary revenue source for our transport system
    - Allow demand management that will smooth off congestion peaks; and
    - Efficiently capture the true costs of each different transport mode relative to each other.
  - The third big change is how new technologies and business models can help in retrofitting our towns and cities away from the car-dependent model of development we’ve inherited.

Kāinga Ora

Q: What kind of projects will be undertaken by Kāinga Ora?
A: Kāinga Ora will focus on what are called ‘Specified Development Projects’. These will be the types of projects that would struggle to progress under the current development regime. They are complex projects that are often constrained by a lack of coordination and integration.
The value in the specified development process is that it brings together processes that are currently spread across different legislation and agencies. These processes usually run sequentially rather than concurrently. All have their own appeal rights providing numerous opportunities for re-litigation, potentially affecting development timeliness and certainty.

The specified development project process will mean that projects can go through multiple processes in tandem so they are applied in a joined-up way. This will mean that all the planning, infrastructure and funding will be sorted up front allowing for a more streamlined process and so speeding up delivery.

Q: What powers will Kāinga Ora have?

A: To support the specified development project process, the Urban Development Bill will provide a tool-box of existing powers that help to enable development. These powers include:

- using shortened planning and consenting processes
- constructing and changing infrastructure
- funding infrastructure and other developments activities
- bringing together parcels of land for development
- reconfiguring reserves for better use

Currently, these powers sit across five different pieces of legislation. The Urban Development Bill will improve the effectiveness and value of these existing powers by enabling their simultaneous and coordinated use through the specified development project process.
# Resource Management Act Review - Letter to the Minister for the Environment

<table>
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<td>Sign the attached letter.</td>
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<td>Deadline</td>
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<td>Principal Adviser</td>
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**MINISTER’S COMMENTS**

Withheld under section 9(2)(a) of the Official Information Act 1983

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**Minister of Transport’s office actions**

- [ ] Noted
- [ ] Seen
- [ ] Approved
- [ ] Needs change
- [ ] Referred to
- [ ] Withdrawn
- [ ] Not seen by Minister
- [ ] Overtaken by events
Comment

1. On 1 July 2019 Cabinet invited you to write to Minister Parker identifying any specific issues relevant to your transport portfolio that fall within the scope of the Resource Management Act Review, to enable them to be considered as part of the review process [ENV-19-MIN-0036 refers].

2. We have prepared the attached draft letter for your consideration. We have worked officials from the New Zealand Transport Agency, KiwiRail, the Civil Aviation Authority and Maritime New Zealand. We have shared this draft letter with MHUD officials and MFE officials are aware of the content.

3. The letter is due to Minister Parker by 31 August.

Recommendations

4. We recommend that you sign the attached letter.

Glen-Marie Burns
Manager, Urban Development and Environment

MINISTER’S SIGNATURE:

DATE:
Dear David

I am writing to you in response to the Cabinet’s invitation to identify any specific issues relevant to my transport portfolio that fall within the scope of the Resource Management Act Review, to enable them to be considered as part of the review process.

For this portfolio, there are a number of key issues that warrant particular consideration in the Resource Management Act Review, including the Act’s clarity of purpose, provision for spatial planning, network designations and development approval processes.

**Purpose and decision criteria**

Any new legislation needs to establish a distinct set of principles for safeguarding environmental bottom lines, addressing development impacts on wellbeing, and stewardship of the public estate, as recommended by the Productivity Commission in its 2017 report Better Urban Planning. Specifically:

- Clear environmental bottom lines are needed to safeguard ecosystems that might otherwise be irreversibly impacted by development (e.g. river ecology and bush habitats).

- The impact of public and private development on shared assets (common goods) needs to be regulated to ensure that these shared assets are maintained (e.g. road safety and capacity, and local character and amenity).

- Stewardship of the public estate (public goods) is needed to enable sound management and development of these assets (e.g. roads, cycleways, railways, airspace, and coastal marine areas).

The environmental protection function and the development control function need to be dealt with through separate decision criteria. In assessing development proposals, the benefits of transport infrastructure need to be recognised and balanced in considering any adverse impacts. The criteria should reveal relevant impacts across the four wellbeings – environmental, social, cultural and economic.

**Forward planning**

The plan making process should recognise the value of long-term spatial plans that provide an integrated view of transport, land use and environmental protection at a regional level. Specifically:

- Spatial plans should take a system-wide approach to the transport networks needed to support growth (e.g. transit-oriented development and new growth areas). There is currently only limited recognition of this integration in Regional Policy Statements.

- Spatial plans are needed to safeguard the operation of existing networks, identify the scale of land use change, enable timely delivery of essential infrastructure to unlock new development
opportunities and address reverse sensitivity issues. This would help ensure the costs of unlocking growth are known and planned for from an early stage. Current practice is uneven.

- The approach to spatial planning should enable a long-term strategic view that is capable of enduring at the national, regional and local levels. The approach needs to be cascaded into realistic structure and precinct plans, with underpinning funding commitments. Currently spatial plans and RMA plans are developed under different decision criteria and levels of independent review.

- Plans should also enable a systematic approach to improving the resilience of the transport system to extreme natural events, including those related to climate change.

Transport infrastructure providers should be able to plan for the provision and development of transport infrastructure through a designation-like process that enables them to plan ahead in the medium to long term. Designations should apply consistently to all of the forward plans that apply to the land, subject to the designation. Investment that falls within scope needs to include linear transport networks (e.g. roads, cycleways and railways), transport interchanges (e.g. ports, airports, stations, park and rides) and the associated public realm (e.g. streetscape and amenities).

The designation-like process should:

- Be undertaken at a regional level to reflect the national and regional significance of securing current and future network capacity. Designations currently tend to be treated as applications for specific projects with local impacts.

- Provide for concept designations to secure an alignment. Designations are currently limited to five years by default.

- Include all forms of publicly owned transport infrastructure. Ports currently cannot designate.

- Apply consistently to land and water areas. Designations currently cannot extend over the sea.

Development approval.

New designations, as with other plan changes, should be determined through a single hearing by independent decision makers informed by public participation. Specifically:

- A single hearing for all transport infrastructure projects that warrant independent review is favoured as this would save time and cost without materially impacting on the quality of decision making. Only very large transport projects are currently determined through a single stage hearing process.

- Parties that are affected more than the public generally should continue to be able to submit on infrastructure projects. This is needed to ensure that decision makers are well informed about the impacts of transport infrastructure proposals.

- Continued provision for independent review of new designations is essential in view of the potential for these public works to disproportionately impact on a few people. In these circumstances electoral accountability alone does not provide sufficient safeguards.

- An independent review mechanism, along the lines of the United Kingdom Planning Inspectorate, is favoured. This is an independent review that is inquisitorial rather than adversarial, less formal, and just as expert as existing review mechanisms.
Once a designation is in place subsequent development would be controlled by the terms of the designation, as with any other form of zoning. The designation would specify which forms of development are permitted as of right, as a controlled activity, or a controlled activity subject to public notification and further independent review.

**Asset stewardship**

These is an opportunity to improve consistency in the way we manage the public estate. We need to be clear about the difference between environmental protection, development control and stewardship of public assets.

We currently have a coherent system for owning, providing and investing in the transport system. Similar levels of clarity in the management of water and coastal marine assets would be helpful.

A coherent approach to the coast is of particular concern as climate change responses are likely to involve increased transport intervention across the coastal margin. Examples of current coastal issues include:

- Ports have a right to occupy the coastal waters used to berth ships which expires at a nominal date in 2026. There is no clear reason for this time restriction on port operations.

- Airports can control adjacent land uses that put aircraft or neighbours at risk, but have no similar control over the use of adjacent coastal waters. There is no clear reason for this inconsistent approach to airport safety and security.

**Next steps**

I understand that transport officials are working closely with the Ministry for the Environment to ensure that these transport issues are addressed in the course of the current review. I have asked them to focus particularly on assisting with advice on the clarity of purpose, spatial planning and the designations processes, which are vital to the integration of transport and land use policy.

Yours sincerely

Phil Twyford
Minister of Transport