MINISTRY OF TRANSPORT
TE MANATŪ WAKA

Regulatory Impact Statement: Regulatory Relief to Reduce Fuel Consumption

Decision sought	Analysis produced for the purpose of informing Ministerial Oversight Group (MOG) decisions on regulatory relief options to reduce fuel consumption
Agency responsible	Ministry of Transport
Proposing Ministers	Minister of Transport
Date finalised	14 May 2026

Cabinet directed officials to explore a set of options for temporary regulatory relief to allow fuel users to reduce their fuel consumption, as part of the National Fuel Response Plan 2026 (the Plan). The proposals developed by the Ministry include:

- Proposal 1: allowing heavier payloads for heavy vehicles
- Proposal 2: relaxing access restrictions for overdimension vehicles, and
- Proposal 3: reducing open-road speed limits.

We also considered accelerating implementation of some permanent changes proposed in the Heavy Vehicle Productivity workstream of the Land Transport Rules Reform Programme as they were identified as being potentially complementary to Cabinet's fuel use reduction objective by reducing regulatory burden for a key industry. These proposals include:

- removing the requirement for a 50MAX permit
- removing the permit requirement for unladen high productivity motor vehicle (HPMV) rental vehicles repositioning between depots or to customers
- allowing Class 1 licence holders to drive heavier zero-emission light freight vehicles (including exempting from Transport Service Licence goods service licence requirements)
- allowing Class 2 licence holders to drive heavier electric buses.

Regulatory Impact Statements for the Heavy Vehicle Productivity changes are available on the Ministry of Transports website.

Summary: Problem definition and options

What is the policy problem?

The closure of the Strait of Hormuz has driven fuel prices higher and created a risk of diesel shortage. The Government has activated Phase One of the Plan, which focuses on price signals reducing demand. Higher phases of the Plan would see a step-change in government intervention in the economy with significant economic and social consequences and should be avoided for as long as possible. Regulatory relief and other demand-side measures at Phases One and Two aim to avoid (or delay) a move to higher phases.

Road freight runs almost entirely on diesel and demand is inelastic: operators cannot quickly switch fuel or mode. Current land transport rules limit the weight heavy vehicles can carry and restrict when and where oversized vehicles can travel. These rules protect roads and support road safety for road users, but in a fuel crisis they also prevent trucks from being more efficient by limiting the amount of freight that can be carried in a single trip or preventing operators from using a more fuel--efficient route.

Several Australian states (e.g., New South Wales[1] and South Australia[2]) have introduced measures to allow heavier payloads, longer vehicles, and expanded road network access for freight operators, though many of these are initiatives that were already planned prior to the fuel crisis (for objectives including sector productivity) that have been brought forward.

Motor vehicles are generally more fuel-efficient at a lower speed, such as 90 or 80km/h, when compared to higher speeds, such as at 110 or 100km/h.

What is the policy objective?

Cabinet directed officials to prepare advice on transport-related regulatory relief proposals. The policy objective was to reduce fuel consumption in line with a Phase Two response.[3] Changes must be targeted, timely, and temporary, and should not create immediate risks to health and safety.

What policy options have been considered, including any alternatives to regulation?

Officials assessed eight payload options, nine overdimension travel options and four speed-related options.

Payload options ranged from broad increases to general access vehicles through to targeted increases for specific permit classes (HPMV higher mass vehicles and 50MAX), with weight increases varying from modest (two tonnes/4%) to significant (up to 14 tonnes/30%). Overdimension options focused on relaxing weekend and public holiday travel time restrictions and expanding access to motorways and toll roads. Officials assessed two speed options (80km/h and 90km/h) and two implementation approaches (changing speed limits including posted signs or introducing a maximum travel speed for all vehicle types on open-roads without changing signs). No non-regulatory options were identified.

Officials have assessed options against three equally weighted criteria: how much fuel they save, their impact on infrastructure, and how quickly they can be implemented for a temporary period. For overdimension options, we have also assessed against effect on congestion. These criteria were chosen as they determine whether an option meets the policy objective, the cost and infrastructure constraints of the option, and the ability for the option to be implemented. Other potential criteria, such as productivity and cost savings, have been excluded as they do not relate to the policy objective. However, other potential criteria are being considered as part of the longer-term review of the Land Transport Rule: Vehicle Dimensions and Mass 2016.

For the speed limits proposal, the two speed options were assessed against fuel savings. The two implementation approaches were then assessed against four additional criteria: timeliness (how quickly the change can be brought into force), cost (how much it will cost to implement), enforceability (whether the approach can be effectively enforced), and clarity (whether the approach is clear to the public).

What consultation has been undertaken?

[1] www.transport.nsw.gov.au/system/files/media/documents/2026/heavy-vehicle-access-april-2026-fact-sheet.pdf

[2] www.premier.sa.gov.au/media-releases/news-items/fast-tracked-freight-reform-to-reduce-fuel-costs

[3] www.beehive.govt.nz/sites/default/files/2026-03/Fuel%20Response%20Plan%20factsheets.pdf

Officials held targeted consultation with freight industry representatives, Police, and Road Controlling Authorities (RCAs) in April 2026, with written follow-up.

For payload changes: there was broad support for modest increases. Stakeholders flagged risks to bridge capacity, enforcement resourcing, and that many vehicles are certified at their original permit weight — meaning re-certification may be needed before some operators can take up higher limits.

For overdimension changes: there was broad support with minimal concerns. Auckland Transport asked to work with NZ Transport Agency Waka Kotahi (NZTA) to confirm motorway routes before changes are finalised. Stakeholders noted operational efficiency gains but acknowledged the impact on total fuel consumption would be limited given the small size of this fleet.

For the speed limit changes: industry raised concerns about the impact of lower speeds on travel times and potential disruptions to scheduled passenger and freight services. Some heavy vehicle operators supported a reduction to 90km/h, to improve traffic flows. RCAs noted that the reduced speeds could have positive safety effects.

There has been no public consultation on the options presented in this Regulatory Impact Statement. These options were publicly announced on 27 April 2026 via a joint press release from the Minister for Regulation and the Minister of Transport[4] prior to the Ministry of Transport's initial analysis being completed.

Officials do not recommend progressing with the payload options or changes to overdimension travel time restrictions as part of the fuel response as the estimated costs significantly outweigh the estimated benefits. However, these options are being considered as part of the longer-term review of the Land Transport Rule: Vehicle Dimensions and Mass 2016 which aims to improve heavy vehicle productivity.

Officials can see fuel saving benefits from relaxing restrictions on overdimension access to Auckland motorways, and from progressing with the open-road speed limit reduction of 80km/h. **The preferred option in the Cabinet paper is not the same as the preferred option in the RIS. The Cabinet paper has overdimension proposals (access to motorways) activated at Phase Two of the Plan, and payload and speed limit proposals at Phase Four.**

Summary: Minister's preferred option in the Cabinet paper

Costs (Core information)

For changes to payloads, the primary cost is damage to the road network (i.e., pavements and bridges) falling on RCAs (NZTA for state highways, local councils for local roads). Infrastructure damage is estimated at $153 million for a six-month temporary change, though this is sensitive to a range of assumptions (see Limitations and Constraints on Analysis section below). Implementation costs (e.g. IT updates) have been assessed as low and can be absorbed within current NZTA resourcing. The cost to NZTA and other RCAs of completing bridge assessments is unknown, as is the cost of the consequential mitigation actions required to support bridge capacity. Additional funding will likely be required to meet these costs, particularly for local RCAs

[4] www.beehive.govt.nz/release/government-acts-regulatory-feedback-boost-fuel-resilience

– the mechanism for providing any funding has not yet been considered and the funding required has not been estimated.

For the overdimension changes, the primary costs are increased congestion. Allowing overdimension vehicles to travel throughout previously restricted areas risks adding to traffic volumes at times when roads are already under pressure. These costs could not be quantified due to limited data on overdimension journey volumes and routes but have been assessed as low given the small size of the overdimension fleet.

There are expected to be costs on road users from the speed limit proposals through increased travel time on long journeys. Increased travel time could impact the ability of heavy vehicle drivers to complete the same number of journeys within the maximum work time laws they operate within. These costs have not been quantified due to the uncertainty in travel behaviour at Phase Four. There may be additional work for NZTA and Police if infringement fees are challenged due to people following the posted speed limit sign (110km/h, 100km/h or 90km/h) rather than the maximum travel speed (80km/h) on certain roads. These costs have not been quantified due to uncertainty of travel behaviour in Phase Four and the compliance with the proposed change.

Benefits (Core information)

We have focused on fuel savings benefits, given the context of the Plan, though some of the proposals would also have other benefits.

The two payload changes are estimated to save up to 16.2 million litres of diesel over six months at full uptake — roughly 1.5 days of national supply, though this is sensitive to a range of assumptions (see Limitations and Constraints on Analysis section below). Benefits flow primarily to freight operators through lower fuel use, which may be passed on to customers through lower freight prices. We have not included productivity and staff labour costs in our analysis, for the reason above.

Overdimension benefits cannot be monetised due to limited data, but have been assessed as low given the size of the cohort to which the changes apply.

Initial modelling suggests fuel savings of 2.3 percent (34 million fewer litres used, equivalent to 4.2 days) for petrol and 2.9 percent for diesel (50 million fewer litres used, equivalent to 4.7 days) if speed limits were changed to 80km/h for a six-month period. We have not estimated the safety benefits of the preferred option. However, reducing speed limits would likely result in a reduction in the average speed on these roads. When the average speed decreases, the risk of fatal and serious crashes also decreases.

Balance of benefits and costs (Core information)

Does the RIS indicate that the benefits of the Minister's preferred option are likely to outweigh the costs?

Our high-level analysis suggests that benefits are unlikely to outweigh the costs for increases to heavy vehicle payloads given the current price of diesel. The benefits are only predicted to match the costs if the price of diesel increased over threefold. While some options are expected to deliver significant fuel reductions, the potential additional damage to the network is expected to significantly outweigh the benefits of these fuel reductions at Phase Two of the Plan, which is the basis for this assessment (see Limitations and Constraints on Analysis section below). At Phase Four, which is when the Government has decided to activate this proposal, the benefits are likely to be significantly different. For example, we expect the cost of diesel to be much higher and the need to conserve supply more pressing, but we also expect overall usage of fuel to be lower due to elevated prices. However, uncertainty about diesel prices and changes in driver

behaviour/freight task at that stage mean we cannot predict whether the monetised benefits would outweigh the costs at that stage.

For changes to access restrictions, the balance of benefits and costs is difficult to determine. Many of these benefits and costs cannot be quantified due to insufficient data on overdimension vehicles, journeys, and/or fuel consumption. Allowing access to Auckland motorways appears more likely to reduce fuel consumption than relaxing travel time restrictions, as allowing vehicles to take shorter, more direct routes with fewer intersections and stops would directly reduce the fuel needed to complete these journeys. These fuel savings could be material for the industry sector affected but are not expected to materially affect national diesel supply.

For the speed limits proposal, the benefit of the fuel savings and potential safety improvements are expected to outweigh the increased travel time. As the change for heavy vehicles is only a 10km/h reduction in the maximum travel speed, the increased travel time is not expected to be as great as for light vehicles.

Implementation

How will the proposal be implemented, who will implement it, and what are the risks?
Changes would be implemented through amendments to rules and regulations made by an Order in Council process on the recommendation of the Minister of Transport. Most changes are expected to be able to be ready to be activated from early July, but would only be triggered by a move to the relevant phase, and remain in effect while fuel response measures are needed.

For heavier payloads, NZTA and other RCAs will need to complete bridge assessments across both state highways and local roads to confirm the approved networks and any mitigations or exclusions before the changes can come into effect. Officials intend to undertake this assessment in phases, so a core network is available quickly, with the opportunity to expand over time as bridge assessments are completed. While the intent is to exclude vehicles that pose an unacceptable risk to bridge infrastructure, the residual risk cannot be fully eliminated. However, this risk currently exists where NZTA and RCAs hold responsibility for ongoing bridge monitoring. It could be partially mitigated through increased monitoring frequency, though this would carry additional cost. It may also be exacerbated by noncompliance, given the reduced safety margin, and we recommend that increased penalties for noncompliance be considered as a further mitigation measure.

For the speed limits proposal, the Ministerial Economic Security and Supply Chains Group has indicated a preferred approach of not changing speed limit signage. As such, this proposal will rely heavily on public messaging to be effective. We expect the Government and NZTA to lead on public messaging.

NZTA has signalled that initial implementation activities can be achieved with minimal impact and can be managed within current resourcing assuming these are temporary changes for a short time. RCAs may require additional funding for initial bridge assessments. Ongoing assessment and management of bridge capacity by NZTA and other RCAs will have resourcing implications and costs that would depend on how long the temporary measures were in place. While this would be a significant amount of work, the findings would also inform the longer-term review of the Land Transport Rule: Vehicle Dimensions and Mass 2016.

As non-compliance could be an issue, officials are working with Police and NZTA on a credible enforcement plan, including possible temporary increases to overloading penalties, given the shortage of weighbridges and the stronger financial incentive to overload at elevated fuel prices.

Limitations and Constraints on Analysis

These proposals were developed quickly, limiting our ability to consult widely or conduct detailed analysis. As a result, there are several risks:

- **Actual bridge capacity** – A high-level assessment of state highway bridge capacity was undertaken to support this analysis. Further work is required to confirm bridge capacity on both the state highway and local road networks. There is a risk that actual bridge capacity, particularly on local roads, cannot support the increased payloads. This could result in the proposal being implemented on a smaller network, or with lower additional weight allowances, than anticipated – resulting in smaller benefits. We have not assessed the proposals based on safety, as the intent is to limit the network in question to where bridge assessments indicate bridge capacity is sufficient; however, even with these assessments, there is a risk of bridge damage or bridge collapse, both of which would have significant safety and cost implications and would result in road closures. The increased payloads also mean the consequences of operators illegally surpassing their new permitted payload limits could me more severe.

- **Uptake of additional payload** – Operators' decisions on when and how to transport freight are influenced by a range of factors other than vehicle mass limits including demand, available vehicle combinations, and the price of inputs such as labour, fuel and Road User Charges (RUC). While industry have indicated the proposed increases would be taken up by them, uptake could be lower than indicated in this analysis.

- **Achievable fuel savings** – Our analysis assumes that the freight task is fixed and additional payload will lead to a corresponding decrease in trips taken – based on initial industry consultation. However, there is a risk that, in some cases/sectors, time saved in delivering the current freight task will be redirected into transporting additional freight, thereby negating fuel savings.

- **Damage to the network –** This analysis assumes an average rate of damage to the network for the increased payloads, which does not reflect the reality of the network where impact will depend on existing road quality and condition. Depending on what routes additional payloads travel, damage to the network may be higher or lower than indicated in this analysis.

- **Enforcement and compliance:** Because existing speed signs will not change, compliance with the lower speed limit may be lower than anticipated leading to less fuel savings or increased administrative costs where infringements are challenged. This risk can be managed through careful public communication.

We have assessed all the options for implementation at Phase Two of the Plan, as that was the initial direction from Ministers. Ministers subsequently chose to reserve most changes for activation at Phase Four, we have not had sufficient time to incorporate this decision into this analysis.

For the speed limits proposal, our estimates rely on theoretical vehicle operating and fuel consumption models rather than actual on-road fuel consumption, so they may not reflect real-world usage. Temporary changes in speed limits may result in lower compliance than permanent changes, so our estimates might be overstated.

I have read the Regulatory Impact Statement and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the preferred option.

Responsible Manager(s) signature:

Laura Bender
Acting Manager Regulatory Reform
14 May 2026

Quality Assurance Statement	
Reviewing Agency: Ministry of Transport	**QA rating:** Does not meet
Panel Comment: The panel considers the information and analysis summarised in this Regulatory Impact Statement does not meet the Quality Assurance criteria for the purpose of informing Cabinet decisions. The panel considers the proposals recommended do not align well with the policy objective of reducing fuel consumption and the costs outweigh the benefits. There are also gaps in data and knowledge and risks for non-compliance and enforcement. The version reviewed by the Ministry of Transport quality assurance panel did not include the changes to speed limits.	

Section 1: Diagnosing the policy problem

What is the context behind the policy problem and how is the status quo expected to develop?

New Zealand is vulnerable to international disruptions to fuel supply and distribution. Transport fuel (especially diesel and jet fuel) is imported as a finished product, and supply chains are "just-in-time" with limited storage. The closure of the Strait of Hormuz has driven spikes in fuel prices and poses the risk of fuel shortages. This has prompted a move onto New Zealand's National Fuel Response Plan 2026 (the Plan).

In Phase Two of the Plan, prices continue to do the heavy lifting. Price signals have reduced demand, but demand for diesel is highly inelastic, as it is an essential input for many industries, including road freight. At Phase Two, every effort must be made to avoid or delay the need for a move to Phase Three, which would involve a step-change in the level of government intervention in the economy and come with significant economic and social consequences.

Cabinet has directed government agencies to progress work on regulatory measures that could reduce fuel consumption. The Ministry of Transport has identified opportunities to allow fuel users to reduce their consumption, informed by existing policy work, targeted industry consultation, and the public (via the Ministry for Regulation's fuel response tipline).

Outside of the fuel response, the Government has committed to other changes for heavy vehicle regulation through the Land Transport Rules Reform programme. Changes include reducing unnecessary compliance costs through the Heavy Vehicle Productivity workstream and the longer-term review of the Land Transport Rule: Vehicle Dimensions and Mass 2016.

A background of the heavy vehicle environment is included in Annex 1 of this RIS.

What is the policy problem or opportunity?

Some regulatory requirements reduce heavy vehicle productivity and fuel efficiency to manage infrastructure and safety costs and risks as well as travel time. In the context of the current

disruption to fuel supply, changes to current requirements could be justified to prioritise more fuel efficiency.

Mass limits

The Vehicle Dimensions and Mass Rule 2016 sets general access limits that allow vehicles to use the entire road network (with rare restrictions such as for low bridge clearances or for weaker bridges). Most vehicles are allowed a gross vehicle mass (GVM) of 44 tonnes, which increases to 45 tonnes or 46 tonnes for longer vehicles with 7 and 8 axles respectively.

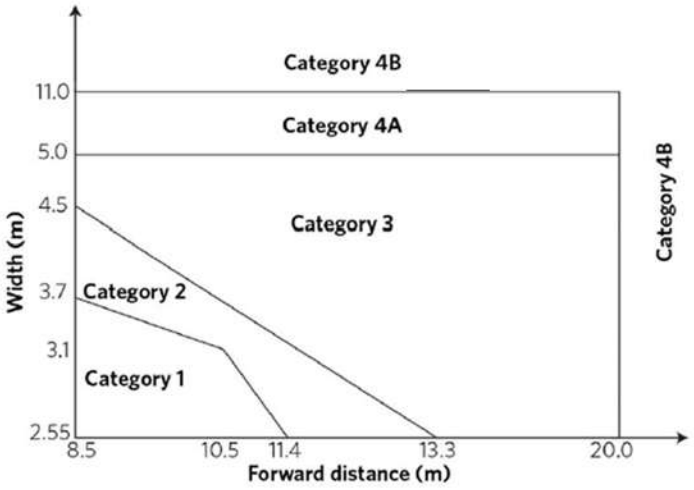
The rule also allows vehicles to exceed these general access limits if they are permitted to do so by NZTA and/or other RCAs. This includes HPMVs which typically have combinations with 8 or more axles and can be permitted to travel with a GVM of up to 62 tonnes. HPMV permits can be issued for 50MAX vehicles and higher mass vehicles. Permits restrict which routes on the national road network that operators can travel on (50MAX permits allow for greater access to the road network than HPMV higher mass permits). Further detail on mass limits is included in Annex 1 of this RIS.

Travel time and access restrictions

Overdimension vehicles are vehicles other than HPMVs or vehicles operating on a road construction zone that exceed the maximum dimensions allowed for standard vehicles. To be considered overdimension, a load must be indivisible.[5]

Overdimension vehicles and loads are categorised into either Category 1, 2, 3, or 4. The Category depends on the extent to which a vehicle exceeds standard width, forward distance, length, and front or rear overhang dimensions. Each Category is larger than the previous one, requiring more road space to manoeuvre on the network, and some categories have sub-classifications with slightly different dimension requirements. Categories are summarised in Figure 1 below:

Figure 1. Overdimension Category based on width and forward distance[6]



A vehicle with an overdimension permit must, when available, use a designated overdimension route to ensure it can safely fit on the road. Overdimension routes have been identified by RCAs in

[5] Indivisible load means a load that cannot reasonably (without disproportionate effort, expense or risk of damage to the load) have its size reduced or be divided into two or more sections for road transport

[6] www.nzta.govt.nz/commercial-driving/permits/overweight-permits/types-of-overdimension-vehicles-and-loads

consultation with the road transport industry, engineers and planners. Schedule 8 of the VDAM rule restricts overdimension vehicles from using Auckland motorways and toll roads, except where specifically authorised to do so.

Overdimension vehicles have previously been authorised to travel on two of the three toll roads in New Zealand, but they are currently still prohibited from using SH29 Takitimu Drive toll road, which could provide a more direct and fuel-efficient route for overdimension vehicles travelling to and from the Port of Tauranga and other regional destinations.

Overdimension vehicles that exceed 3.1m in width or 4.3m in height are currently prohibited from using Auckland motorways, except for some sections of the motorway network that are specifically permitted. The heavy vehicles industry has identified several currently restricted sections of the Auckland motorway network could allow them to make more direct and efficient trips across the Auckland region. These sections are:

- SH20A Kirkbride Road to The Landing,
- SH16 St Luke's Interchange to the western end of the motorway,
- SH18 from Albany Highway to SH1 Interchange,
- SH1/SH18 Interchange to Dairy Flat Highway, and
- SH1 from the Drury Interchange to the southern end of the Motorway.

Allowing these vehicles to use more sections of these roads could reduce fuel consumption. For many of these sections, the current route for operators is on local roads, which may be less efficient and increase the amount of traffic management required.

Overdimension vehicles are also prohibited from travelling at certain times of day on weekdays and weekends, and during public holiday periods. Industry has highlighted that current travel time restrictions prohibit travel during time periods with low levels of congestion. These restrictions may also require them to split one movement into multiple trips or use a less efficient route, which limits their efficiency. This can increase fuel consumption by adding extra kilometres and repeated start-stop, idling, and escort movements (where required). This effect is multiplied because some overdimension movements must be accompanied by load pilot vehicles to manage traffic and ensure safety.

Speed limit reductions

For the speed limits proposal, motor vehicles are generally more fuel-efficient at 90 or 80km/h compared to at 110 or 100km/h. Current speed limits represent a balance between travel time and other factors like fuel efficiency and safety, which could be reconsidered in the context of a fuel shortage.

What objectives are sought in relation to the policy problem?

The objective of the changes is to reduce fuel consumption in line with a Phase Two response in the Plan.

What consultation has been undertaken?

Ministry and NZTA officials undertook targeted consultation with industry representatives, Police, Maritime New Zealand and RCAs on a range of potential changes to reduce fuel consumption (a full list of consulted industry representatives and RCAs is provided in Annex 2). As we were requested to

provide advice in a short timeframe, this occurred over a two-day period and included an opportunity for stakeholders to provide written feedback following a presentation by officials. Time constraints limited the amount of detail stakeholders were able to provide.

Section 2: Assessing options to address the policy problem

What criteria will be used to compare options to the status quo?

It is important that any changes are effective at reducing fuel consumption and can be implemented relatively quickly. However, it is likely that increasing payloads would increase wear on the road network and the risk of damage. Therefore, all heavy vehicle options are considered against the criteria of:

- Fuel reduction: the degree to which the change allows industry to reduce its fuel consumption
- Infrastructure: whether the change is possible within constraints of the road network (particularly bridge capacity) and/or what additional damage is experienced by the network
- Implementation: whether the change can be implemented quickly.

For the proposal to relax time and access restrictions, an additional criterion is included:

- Congestion: impact on congestion.

For the speed limits proposal, the options of reducing open-road speed limits are assessed against the fuel savings. The two implementation approaches for either option were assessed against the following criteria:

- Timeliness – how quickly can the change be brought into force?
- Cost – how much will the change cost to implement?
- Enforceability – is the approach enforceable?
- Clarity – is the approach clear to the public?

While safety is not an explicit criterion, we have discounted options where technical experts advise the additional safety risk is unacceptable based on the Government's direction that regulatory relief measures should not create immediate risks to health and safety or other relevant concerns.

What scope will options be considered within?

Cabinet directed officials to explore a set of options for regulatory relief. These options were informed by existing policy work already underway, industry input, and the public via the Ministry for Regulation's fuel response tipline.

This Regulatory Impact Statement focuses on the three proposals we have identified as most likely to deliver on the fuel use reduction objective:

- Proposal 1: Allowing heavier payloads for heavy vehicles
- Proposal 2: Relaxing travel time and access restrictions for overdimension vehicles
- Proposal 3: Reducing speed limits

Other changes were considered but were discounted. These are summarised in Table 1 below.

Table 1. Summary of discounted changes

Proposal	Reason for discounting
Enabling fuel-saving vehicle parts or features	Only a small portion of the fleet already has access to the relevant parts or features. For those that don't, investing in new equipment for a temporary measure is unlikely to make commercial sense.
Priority lane access for heavy vehicles	The extent of any fuel-saving benefits depends on congestion rates. Further, this proposal presents safety risks for cyclists, motorcyclists, and other special vehicle lane users.
Temporarily allowing longer trailer lengths and HPMV configurations on approved routes.	This would benefit a very small cohort. Significant research and testing would be required to configure specialist combinations and select appropriate routes. These factors would be considerable barriers to implementation.

What options are being considered for heavier payloads (Proposal 1)?

We developed a range of options by considering changes for specific freight movements (e.g., fuel) and considering different networks and routes. We also considered other jurisdictions fuel crisis responses, particularly Australia. These options are summarised in Table 2 below.

None of the options included are expected to have material negative effects on safety, subject to NZTA and other RCAs identifying and implementing the necessary mitigations to manage bridge capacity and identifying high-risk bridges to be excluded from the routes available to vehicles with heavier payloads. This is because:

- **Current weight thresholds are focused primarily on mitigating damage to pavements not safety** and are set much lower than is necessary from a safety perspective. For example, manufacturer GVM is typically much higher than what is currently allowed for through New Zealand regulations.
- **Core safety requirements are not being changed**. This includes dimension requirements and speed limits.
- **Most safety requirements are linked to a vehicle's GVM** (e.g., static roll threshold) and will therefore be updated through changes to the VDAM rule or as part of implementation. However, increased loads may slightly affect the stability and handling control for some vehicles.

There is a risk that, even with bridge mitigation measures being put in place, significant bridge damage or bridge collapse will occur, which would have significant cost and safety implications and would result in road closures. This risk exists already but is exacerbated by any increase to weight limits, particularly if operators choose to illegally overload their vehicles further beyond the temporary increases to weight limits.

Any negative safety effects would be at least partially offset by reduced exposure from fewer trips. There may be a small cohort of vehicles that will be restricted in their ability to take up the high mass limits because of these existing safety restrictions.

Table 2. Summary of options to increase heavier payloads

Option	Description	Route restrictions	Additional details	Rationale for option
1	Increase general access mass limits by a small amount (capped at +1T) based on length.	50MAX network.	General access axle loading limits would increase to allow for greater gross mass. These vehicles typically carry packaged goods (e.g. supermarket), refrigerated goods, produce/fresh food, containers, livestock.	Allows a moderate cohort (up to ~20% of the freight task) to increase payloads on routes with confirmed bridge capacity.
2.1	Increase mass limits for HPMV higher mass permitted vehicles by 4% (~2T) (capped at 62T).	HPMV approved routes (excluding/restricting access to <100 higher risk state highway bridges[7]).	Maximum axle masses for HPMV permitted vehicles would increase to allow for greater gross mass. Operators would be required to purchase RUC for the higher mass where relevant. These vehicles typically carry logs, bulk dairy, aggregate/construction materials, and heavy bulk commodities.	Allows nearly all HPMV permitted vehicles to moderately increase payloads on routes with confirmed bridge capacity.
2.2	Increase mass limits for HPMV higher mass permitted vehicles up to 58T.	HPMV approved routes (excluding >27% higher risk state highway bridges.		Allows nearly all HPMV permitted vehicles to significantly increase payloads on routes with confirmed bridge capacity.
2.3	Increase mass limits for HPMV higher mass permitted vehicles up to 54T.	HPMV approved routes (excluding >21% higher risk state highway bridges).		Allows a moderate amount of HPMV permitted vehicles (~25%) to moderately increase payloads on routes with confirmed bridge capacity.
3.1	Increase mass limits for 50MAX permitted vehicles up to 55T.	50MAX network (excluding ~6% of higher risk state highway bridges[5]).	Maximum axle masses for HPMV permitted vehicles would increase to allow for greater gross mass. Operators would be required to purchase RUC for the higher mass where relevant. These vehicles typically carry milk, logs, bulk agricultural goods, and general freight.	Allows all 50MAX permitted vehicles to significantly increase payloads on routes with confirmed bridge capacity. 50MAX permitted vehicles allow operators to carry increased payloads on parts of the network that, while economically important, are unable to carry other HPMVs due to bridge capacity constraints.
3.2	Increase mass limits for 50MAX permitted vehicles up to 52T.	50MAX network (excluding some higher risk state highway bridges expected to be less than the ~6% for Option 3.1[5]).		
4	Increase mass limits for fuel tankers by 10%.	50MAX network.	Axle masses for fuel tankers would increase to allow for greater gross mass.	Allows all fuel tankers (~350) to increase the volume of fuel carried by taking advantage of spare capacity that allows for thermal expansion. Supports ongoing fuel supply.
5	Increase general access limits for vehicles carrying specified commodities.	Restricted to routes between specific origins and destinations.	-	Allows an important cohort to increase the efficiency of their freight movements given they typically avoid urban areas.
6	Increase general access limits to 62T.	Tightly restricted to key networks/routes.	-	Allows all vehicles to significantly increase payloads in networks/on routes with confirmed bridge capacity.
7	Increase general access limits for low and zero emission heavy vehicles.	50MAX network.	-	Allows very fuel-efficient, electric, and hydrogen fuel cell vehicles to increase their payloads, reducing demand for diesel.
8	Allow specific, non-standard vehicle combinations to carry increased loads.	NZTA and/or local RCA permitted routes on a case-by-case basis.	Operators would be required to apply for a permit for NZTA and/or local RCAs.	Allows vehicles carrying non-freight overdimension loads to also carry general freight to improve freight sector efficiency.

[7] Higher risk state highway bridges are bridges which have been assessed as being unable to accommodate vehicles with higher payloads.

How do the changes to heavier payloads compare to status quo?

The assessment of these options was based on input from a range of sources, including NZTA Structures Management Consultants (for bridges) and heavy vehicle technical experts. Fuel savings were modelled using RUC licence and Motor Vehicle Registry data and the Ministry of Transport cost allocation model for loading factors. All fuel savings are modelled based on changes being in place for six months and represent an estimated maximum on the potential savings. The assessment of the options for heavier payloads at Phase Two against the status quo is presented in Table 3. A summary of how the costs and benefits were estimated is provided in Annex 3.

Table 3. Assessment of the options for heavier payloads

Option	Fuel reduction	Infrastructure	Implementation
Status Quo	n/a	n/a	n/a
1(general access +1T)	0 Minimal decrease in fuel usage as this option provides vehicles responsible for about 20% of the freight task with only a small increase in at most one tonne or about 2% for a 44-tonne vehicle. Many of these vehicles are also restricted by volume rather than by weight further limiting uptake of additional allowable payload.	- Some additional damage to the network both to pavements and bridges/bridge components primarily due to these vehicles having less axles and shorter axle spacing.	- Changes are relatively minor and apply to a network that is established and well understood. Ongoing mitigation measures, such as increase bridge inspections and additional bridge restrictions, would be required. No changes required to permits as this applies to vehicles operating under general access.
2.1 (increase HPMV +4%)	++ Fuel savings are estimated at up to 5.6 million litres for a six-month change (equivalent to 0.5 days' worth of diesel) based on 100 percent uptake of the new payload allowance. Material decrease in fuel usage as this option provides nearly all HPMV higher mass permitted vehicles with a moderate increase in payload of 2 tonnes or 4 percent.	- Some additional damage to the network both to pavements and bridges/bridge components due to heavier axle loads. Some state highway bridges (<100) have been initially assessed as unable to carry the additional load or requiring additional restrictions. Initial estimates indicate a six-month change could lead to an additional $40 million worth of damage to the road network.	- Changes required to existing permits and further work with RCAs to develop an approved network. Ongoing mitigation measures, such as increase bridge inspections and additional bridge restrictions, would be required. Changes required to existing permits.
2.2 (increase HPMV to 58T)	++ Initial modelling indicated that the fuel savings from this option were in the order of millions of litres in line with the level of fuel savings described above for Option 2.1.	-- Significant damage expected to the network, particularly to bridges, due to heavier axle loads. At least 27% of state highway bridges assessed as unable to carry the additional load.	-- Changes are significant with a considerable amount of assessment needed to develop an approved network based on bridge capacity. Ongoing mitigation measures, such as increase bridge inspections and additional bridge restrictions, would be required. Changes required to existing permits.
2.3 (increase HPMV to 54T)	++ Initial modelling indicated that the fuel savings from this option were in the order of millions of litres in line with the level of fuel savings described above for Option 2.1.	-- Significant damage expected to the network, particularly to bridges, due to heavier axle loads. At least 21% of state highway bridges assessed as unable to carry the additional load.	-- Changes are significant with a considerable amount of assessment needed to develop an approved network based on bridge capacity. Ongoing mitigation measures, such as increase bridge inspections and additional bridge restrictions, would be required. Changes required to existing permits.
3.1 (increase 50MAX +10%)	++ Fuel savings are estimated at up to 10.6 million litres for a six-month change (equivalent to 1.0 days' worth of diesel) based on 100% uptake of the new payload allowance. This material decrease in fuel usage is a result of this option providing all 50MAX permitted vehicles with a significant increase in payload of 5 tonnes or 10%.	- Some additional damage to the network both to pavements and bridges/bridge components due to heavier axle loads. Some state highway bridges (~6%) have been initially assessed as unable to carry the additional load. Initial estimates indicate a six-month change could lead to an additional $113 million worth of damage to the road network.	- Changes required to existing permits and further work with RCAs to develop an approved network. Ongoing mitigation measures, such as increase bridge inspections and additional bridge restrictions, would be required. Changes required to existing permits.

3.2 (increase 50MAX +4%)	++ Fuel savings are estimated at up to 5.3 million litres for a six-month change (equivalent to 0.5 days' worth of diesel) based on 100% uptake of the new payload allowance. This material decrease in fuel usage is a result of this option providing all 50MAX permitted vehicles with a moderate increase in payload of 2 tonnes or 4%.	- Some additional damage to the network both to pavements and bridges/bridge components due to heavier axle loads. Some state highway bridges may be assessed as unable to carry the additional load, but we would expect this to be less than under Option 3.1.	- Changes required to existing permits and further work with RCAs to develop an approved network. Ongoing mitigation measures, such as increase bridge inspections and additional bridge restrictions, would be required. Changes required to existing permits.
4 (increase fuel tanker mass +10%)	0 Minimal decreases in fuel expected as the increased payload applies to a limited number of vehicles (approximately 350). There may be a benefit of supporting supply capacity, but this would be constrained by restrictions on the movement of dangerous goods.	0 Some additional damage to the network expected but minimal overall given number of vehicles involved.	- Additional work would be required to determine how to operationalise this increase as transport regulations and systems currently do not separately identify fuel tankers.
5 (increase mass for commodities)	+ Some fuel savings expected as this option could provide a material number of vehicles with an increase in payload of the order of 5-10%.	- Some additional damage to the network expected both to pavements and bridges/bridge components due to heavier axle loads.	-- Likely to require a considerable amount of assessment to develop an approved network or routes based on bridge capacity. Ongoing mitigation measures, such as increase bridge inspections and additional bridge restrictions, would be required. Changes are likely required to some existing permits. Further work would be needed to determine how to operationalise this increase, as transport regulations and systems currently do not distinguish loads based on what commodity they are carrying.
6 (increase general access to 62T)	+ Some fuel savings expected based on the size of the increase and the large cohort to which it would apply, but any decreased in fuel would be limited by uptake based on whether meaningful routes could be developed.	-- Significant damage expected to the network, with many bridges unable to carry the additional load. It is likely that bridge restrictions would severely reduce the number of useful routes that could be developed.	-- Likely to require a considerable amount of assessment to develop an approved network or routes based on bridge capacity.
7 (increase general access for low/zero-emission)	0 Although this option incentivises using zero-emission vehicles, only minimal decreases in fuel use are expected as the cohort is small.[8]	0 Some additional damage to the network expected but minimal overall given number of vehicles involved.	0 Changes are relatively minor and cohort is identifiable and well-understood.
8 (allow non-standard configurations to carry general freight)	0 Minimal decreases in fuel expected as there is already some flexibility for these vehicles to carry divisible loads and the cohort is small and likely less fuel-efficient for transporting the most common types of freight.	0 Some additional damage to the network expected but minimal overall given number of vehicles involved.	- Requires additional resourcing to process permit requests.

Key for qualitative judgements:

++	much better than doing nothing/the status quo/counterfactual
+	better than doing nothing/the status quo/counterfactual
0	about the same as doing nothing/the status quo/counterfactual
-	worse than doing nothing/the status quo/counterfactual
--	much worse than doing nothing/the status quo/counterfactual

[8] 278 zero emission heavy goods vehicles in 2024 (~0.16% of fleet) (~57% <10T GVM)

What consultation has been undertaken on heavier payloads

There was broad support for some form of mass increase across industry and RCAs. More modest increases were preferred as they are less stressful on infrastructure and more achievable at pace. Several submitters considered larger proposed increases as overly ambitious, with bridges and culverts identified as a binding constraint. Concerns were also raised about whether ferry and port infrastructure could safely accommodate heavier axle loads. Pavement wear was flagged as a significant cost for RCAs.

Police saw options to increase general access limits as higher risk than permitted vehicle options, because general access vehicles are not subject to modern braking requirements (anti-lock braking systems/electronic braking systems).

One submitter noted operational challenges from increasing mass limits for permitted vehicles. Many permitted 50MAX and HPMV vehicles were certified based on their original permit weight rather than full manufacturer GVM/gross combination mass (GCM). Some of the fleet may therefore require re-certification before accessing higher limits, which could limit the ability for operators of those vehicles to implement changes quickly.

Submitters also raised concerns about enforcement, noting a shortage of weighbridges and safe stopping locations. A credible enforcement plan would be important to ensure the changes are enforced, especially as incentives for non-compliance may increase with rising fuel costs.

Differentiating mass increases based on commodity was seen as vulnerable to exploitation, with COVID-19 cited as a precedent.

Most promising heavier payload options

The most promising options for reducing fuel use are Option 2.1 and Option 3.1 as these options are expected to deliver fuel savings. However, these fuel savings would also result in significant damage to the network and there would be implementation costs and challenges.

If further analysis of bridge capacity, particularly on local roads, identifies significant restrictions on the size of the network available for 50MAX vehicles for Option 3.1, the maximum payload increase could be reduced to 4% (i.e. 52 tonnes for 50MAX vehicles as per Option 3.2) as this aligns with the increase proposed for Option 2.1.

These options would include a requirement for operators to report to NZTA and other RCAs on the use of the additional payload allowance. This would support monitoring the implementation and ongoing effects of the changes as well as inform a longer-term review of requirements in the Land Transport Rule: Vehicle Dimensions and Mass 2016.

Current settings for RUC would remain in place for these options. This means that in some cases operators that take up part or all of the additional payload allowance would be required to purchase RUC at a higher rate as they move into a heavier Type H bracket. This would support partially cost recovering the expected increase in damage to the network.

With the increase in payloads, it is important that operators are not overloading vehicles as this would put bridge capacity further at risk. Given this non-compliance risk, increased penalties were considered to strengthen the deterrence for overloading, but could not be investigated in the time available.

Discounted options

While larger increases to payloads could theoretically lead to greater fuel savings, initial bridge assessment indicates that a significant number of bridges would be unable to carry the additional load without significant damage to bridge components. The restrictions necessary to protect the network would likely limit uptake of heavier payloads and therefore potential fuel savings. This is particularly relevant when considering the local road component of a journey, e.g., first and last mile movements.

More targeted increases for specific vehicle types (low/zero-emission) or types of payloads (fuel, other commodities) are unlikely to deliver material fuel savings. These options are also more complex to implement as they require targeting increases to currently undefined cohorts and/or the development of bespoke routes or networks.

What changes to overdimension travel time and access restrictions (Proposal 2) are being considered?

Options in this group aim to improve fuel efficiency by allowing operators to transport overdimension loads during periods of low traffic congestion, and to use sections of motorways and toll roads that provide more direct routes with fewer stops than urban streets. To the extent that these proposals improve operational efficiency, they may also produce some marginal fuel savings. These options are presented below in Table 4.

Table 4. Options for relaxing overdimension travel time and access restrictions

Option	Description	Rationale
0	Status quo / do nothing	N/A
1	Remove 7am-9am and 4pm-6pm Monday to Friday travel time restrictions for Category 1 and 2 vehicles in city areas	Officials initially investigated whether relaxing travel time restrictions for overdimension vehicles could potentially reduce fuel consumption by giving operators greater flexibility to transport loads at different times of day, supporting more efficient fleet utilisation and allowing more travel to take place when traffic levels are low. Several options were based on proposals previously submitted by industry, which had not yet been assessed.
2	Remove the 10am-1pm Saturday and Sunday travel time restrictions for Category 1 and 2 vehicles in city areas	
3	Remove the 4pm-7pm Saturday and Sunday travel time restrictions for Category 1 and 2 vehicles in city areas	
4	Remove the 10am-1pm and 4pm-7pm Saturday and Sunday travel time restrictions for Category 1 and 2 vehicles outside city areas	
5	Reduce the Sunday travel time restrictions for Category 3 vehicles from 12pm-10.30pm to 12pm-9pm (in city areas) and from 6pm-10.30pm to 6pm-9pm (outside city areas) [note: no change to restricted hours on Sunday mornings]	
6	Remove the additional time restrictions on Category 2 and 3 vehicles the day before a public holiday falling on a Sunday or a Monday	

Option	Description	Rationale
7	Allow Category 2 and 3 vehicles to travel between 9pm to midnight on Monday public holidays (currently no travel is allowed at any time on a Monday public holiday)	
8	Allow overdimension vehicles to travel on SH29 Takitimu Drive toll road	Officials initially considered that allowing overdimension loads to be transported via toll roads and Auckland motorways (instead of local roads) could potentially reduce fuel consumption by allowing operators to take shorter, more direct routes, with fewer stops at intersections. Officials investigated a selection of routes recommended by industry as having the greatest potentially to improve fuel efficiency and reduce fuel consumption.
9	Allow overdimension vehicles to travel on additional Auckland motorway sections: • SH20 from Kirkbride Road to the Landing • SH16 from St Luke's Interchange to the western end of the motorway • SH18 from Albany Highway to SH1 Interchange • SH1 from Drury Interchange to southern end of motorway • SH1/SH18 Interchange to Dairy Flat Highway	

How do changes to overdimension travel time and access restrictions compare to the status quo/counterfactual?

The assessment of these options was based on TomTom congestion data (for selected city areas), NZTA congestion data (for state highways), and advice from NZTA subject matter experts and industry stakeholders. Due to a lack of specific data on overdimension journey volumes or fuel consumption, the costs and benefits of these options cannot be modelled in detail. The options are summarised in Table 5.

Key for qualitative judgements:

++ much better than doing nothing/the status quo/counterfactual
+ better than doing nothing/the status quo/counterfactual
0 about the same as doing nothing/the status quo/counterfactual
- worse than doing nothing/the status quo/counterfactual
- - much worse than doing nothing/the status quo/counterfactual

Table 5. Options for Proposal 2 – Temporarily relaxing travel time and access restrictions for overdimension vehicles

Option	Description	Impact on congestion[9]	Fuel reduction	Infrastructure	Implementation
0	Status quo / do nothing	0	0	0	0
1	Remove 7am-9am and 4pm-6pm Monday to Friday travel time restrictions for Category 1 and 2 vehicles in city areas	- May worsen 'rush hour' congestion by allowing oversized loads to be transported during weekday peak-time commuter traffic.	- Insufficient data to model fuel consumption. May marginally increase fuel consumption (for some journeys) due to potential increase in congestion.	0 This option does not increase road wear – it simply changes when movements can occur.	0 Minor changes required to guidance and enforcement approach.
2	Remove the 10am-1pm Saturday and Sunday travel time restrictions for Category 1 and 2 vehicles in city areas	- May worsen weekend congestion by allowing oversized loads to be transported during the busiest hours of weekend traffic.	- Insufficient data to model fuel consumption. May marginally increase fuel consumption(for some journeys) due to potential increase in congestion.	0 This option does not increase road wear – it simply changes when movements can occur.	0 Minor changes required to guidance and enforcement approach.
3	Remove the 4pm-7pm Saturday and Sunday travel time restrictions for Category 1 and 2 vehicles in city areas	0 Congestion benefits likely to be limited. Operators have existing rights to travel at less-congested times of day when traffic volumes are likely to be lower.	0 Insufficient data to model fuel consumption. Fuel savings (if any) for operators are unclear due to existing rights to travel outside these hours when traffic volumes are likely to be lower. Fuel savings (if any) at a national level likely to be negligible due to small number of affected vehicles.	0 This option does not increase road wear – it simply changes when movements can occur.	0 Minor changes required to guidance and enforcement approach.
4	Remove the 10am-1pm and 4pm-7pm Saturday and Sunday travel time restrictions for Category 1 and 2 vehicles outside city areas	0 Unable to model due to lack of data on congestion outside city areas. Traffic data for cities and state highway network indicates that these hours may be busier than existing off-peak allowances.	0 Insufficient data to model fuel consumption. Fuel savings (if any) for operators are unclear due to existing rights to travel outside these hours when traffic volumes are likely to be even lower. Fuel savings (if any) at a national level likely to be negligible due to small number of affected vehicles.	0 This option does not increase road wear – it simply changes when movements can occur.	0 Minor changes required to guidance and enforcement approach.
5	Reduce the Sunday travel time restrictions for Category 3 vehicles from 12pm-10.30pm to 12pm-9pm (in city areas) and from 6pm-10.30pm to 6pm-9pm (outside city areas) *[note: no change to travel time restrictions on Sunday mornings]*	0 May marginally reduce congestion by allowing more overdimension journeys to be completed during late night hours. Net congestion benefits are likely to be very small / negligible at a national scale due to small number of affected vehicles.	0 Insufficient data to model fuel consumption. Fuel savings (if any) for operators are unclear due to existing rights to travel after 10.30pm when traffic levels are likely to be even lower. Fuel savings (if any) at a national level likely to be negligible due to small number of affected vehicles.	0 This option does not increase road wear – it simply changes when movements can occur. In the time available, we have not been able to assess the potential impact on late-night road maintenance works.	0 Minor changes required to guidance and enforcement approach.
6	Remove the additional time restrictions on Category 2 and 3 vehicles the day before a public holiday falling on a Sunday or a Monday	0 Congestion benefits likely to be limited. Operators have existing rights to travel at less-congested times of day when traffic volumes are likely to be lower. Weekend public holiday traffic levels have not been specifically assessed due to lack of data.	0 Insufficient data to model fuel consumption. Fuel savings (if any) for operators are unclear. Net fuel savings (if any) at a national level likely to be negligible due to small number of affected vehicles.	0 This option does not increase road wear – it simply changes when movements can occur.	0 Minor changes required to guidance and enforcement approach.
7	Allow Category 2 and 3 vehicles to travel between 9pm to midnight on Monday public holidays (currently no travel is allowed at any time on a Monday public holiday)	0 Congestion impacts unclear. Monday public holiday traffic levels have not been specifically assessed due to lack of data.	0 Insufficient data to model fuel consumption. Fuel savings (if any) for operators are unclear due to existing rights to travel after midnight when traffic levels are likely to be lower. Net fuel savings are expected to be negligible at a national scale due to small number of vehicles affected.	0 This option does not increase road wear – it simply changes when movements can occur.	0 Minor changes required to guidance and enforcement approach.
8	Allow overdimension vehicles to travel on SH29 Takitimu Drive toll road	+ May marginally reduce local congestion by diverting some overdimension loads from city streets onto a more direct toll road. Net congestion benefits are likely to be negligible at a national scale due to small number of affected vehicles.	+ Insufficient data to model fuel consumption. Some marginal fuel savings are expected for operators due to shorter routes with fewer stop-start intersections. Net fuel savings are expected to be negligible at a national scale due to small number of vehicles and small number of routes affected.	-- NZTA's engineering assessment has confirmed that overdimension vehicles cannot be safely accommodated on this road in 2026 due to ongoing construction works.	0 Minor changes required to guidance and enforcement approach.
9	Allow overdimension vehicles to travel on additional Auckland motorway sections	+ May marginally reduce local congestion by diverting some overdimension vehicles from city streets and intersections onto more direct motorway routes. Net congestion benefits are likely to be very small / negligible at a national scale due to small number of affected vehicles.	+ Insufficient data to model fuel consumption. Some marginal fuel savings are expected for operators due to shorter routes with fewer stop-start intersections. Net fuel savings are expected to be negligible at a national scale due to small number of vehicles and small number of route kilometres assumed to be affected.	0 NZTA's engineering assessment has confirmed that overdimension vehicles up to 4.5m wide can be accommodated on these routes, subject to route-specific height limits in Annex 5	0 Minor changes required to guidance and enforcement approach.

[9] Congestion impact assessments in this RIS are based on TomTom travel time data for selected New Zealand cities and on NZTA congestion data for state highways.

What consultation has been undertaken on relaxing overdimension travel time and access restrictions

This proposal received broad support, with minimal concerns identified. RCAs noted they already approve travel time exemptions for Category 1 and 2 vehicles and had no concerns with increased weekend or public holiday travel on a temporary basis. Submitters also noted that motorways could be safer for most overdimension movements, as oncoming traffic is separated by medians (provided the load does not overhang the median barrier).

Auckland Transport noted that route assessments would be needed for specific motorway sections and expressed a desire to work with NZTA to assess the proposed routes before any changes are confirmed. Submitters highlighted operational efficiency gains from this proposal but considered that effects on fuel consumption would be limited as these vehicles are a small part of the vehicle fleet.

Most promising options for relaxing overdimension travel time and access restrictions

The most promising options for relaxing time and access restrictions are presented below in Table 6:

Table 6. Most viable options for Proposal 2 – Temporarily relaxing travel time and access restrictions for overdimension vehicles

Option	Description	Reason for viability
5	Reduce the Sunday travel time restrictions for Category 3 vehicles from 12pm-10.30pm to 12pm-9pm (in city areas) and from 6pm-10.30pm to 6pm-9pm (outside city areas) *[note: no change to travel time restrictions on Sunday mornings]*	This option could potentially give operators greater flexibility to carry out journeys during relatively low-traffic hours, potentially saving fuel from avoided congestion. However, the fuel savings from this minor change are likely to be negligible at a national level and cannot be quantified. In the time available, officials have been unable to assess the potential impact on late-night road maintenance scheduling. This proposal could be considered as part of future work to modernise the regulatory framework for heavy vehicles.
9	Allow overdimension vehicles to travel on additional Auckland motorway sections: • SH20 from Kirkbride Road to the Landing • SH16 from St Luke's Interchange to the western end of the motorway • SH18 from Albany Highway to SH1 Interchange • SH1 from Drury Interchange to southern end of motorway • SH1/SH18 Interchange to Dairy Flat Highway.	May marginally reduce fuel consumption by allowing operators to use direct routes with fewer stops. NZTA has confirmed that these routes could support some overdimension vehicles up to the dimensions set out in Annex 5.

We have discounted options that we consider may, on balance, pose a risk of marginally increasing fuel consumption, which are summarised in Table 7 below. In the absence of quantified costs and benefits, the options assessment process has necessarily involved a degree of judgement about fuel use risks arising from different congestion levels at different times of day. We have taken a precautionary approach, recommending changes only where the best available data indicates that changes may plausibly result in lower fuel consumption than status quo.

We note that there may be other benefits that have not been assessed in this Regulatory Impact Statement (such as impacts on operational productivity, compliance costs, and/or regulatory modernisation). Proposals discounted as part of the fuel response may still be considered as part of wider work to improve the regulatory framework for heavy vehicles.

Table 7. Discounted options for Proposal 2 – Temporarily relaxing travel time and access restrictions for overdimension vehicles

Option	Description	Reason for discounting
0	Status quo/do nothing.	Doing nothing would not reduce fuel consumption.
1	Allow overdimension vehicles to travel during weekday peak times.	Allowing overdimension loads to be transported during peak-time urban congestion may result in marginally higher fuel consumption.
2	Allow Category 1 and 2 vehicles to travel between 10am-1pm (in city areas).	
3	Remove the 4pm-7pm Saturday and Sunday travel time restrictions for Category 1 and 2 vehicles in city areas.	Insufficient data that these options would directly reduce fuel consumption relative to status quo operating hours. These restrictions cover hours that are likely to be marginally more congested than existing allowances, meaning that these proposals could marginally increase fuel consumption. *Note: there may be other benefits (e.g. regulatory modernisation and heavy vehicle productivity) that are outside the scope of the fuel response work.*
4	Remove the 10am-1pm and 4pm-7pm Saturday and Sunday travel time restrictions for Category 1 and 2 vehicles outside city areas.	
6	Remove the additional time restrictions on Category 2 and 3 vehicles the day before a public holiday falling on a Sunday or a Monday.	
7	Allow Category 2 and 3 vehicles to travel between 9pm to midnight on Monday public holidays (currently no travel is allowed at any time on a Monday public holiday).	

8	Allow overdimension vehicles to travel on SH29 Takitimu Drive toll road.	NZTA's engineering assessment has confirmed that overdimension vehicles cannot be accommodated on this road due to ongoing construction works.

What options for reducing speed limits (Proposal 3) are being considered?

Options in this group aim to improve fuel efficiency by reducing the speed at which vehicles travel on open-roads, as motor vehicles are generally more fuel-efficient at lower speeds. Two speed options were considered and are assessed against their potential fuel savings. Two implementation approaches were also considered and are assessed against timeliness, cost, enforceability, and clarity to the public. These options are presented in Table 8 below.

Table 8. Options for reducing speed limits

Option	Description	Rationale
0	**Status quo / do nothing**	N/A
1	Reduce open-road speed limits to 90km/h	Motor vehicles are typically more fuel-efficient at lower open-road speeds.
2	Reduce open-road speed limits to 80km/h	
3	Change speed limit signage	Posted speed limit signs on State highways are updated to reflect the new lower limit. This approach supports compliance (drivers follow signs) and enables standard enforcement by Police and speed cameras but requires physical sign changes estimated to cost $1.50 –$2.25 million and takes longer to implement.
4	Introduce a maximum travel speed (no speed limit signage change)	A rule change sets a maximum travel speed for all vehicles regardless of posted signs or speeds in the National Speed Limit Register. Existing signs remain in place, enabling faster and lower-cost rollout and an easier return to normal when Phase Four ends. Relies on public communications to achieve compliance; enforcement is more complex where posted signs show a higher limit.

How do changes to speed limits compare to the status quo/counterfactual?

The assessment of these options was based on vehicle fuel consumption modelling at different speeds, and advice from NZTA subject matter experts and industry stakeholders. Further information on how fuel savings were calculated is available in Annex 4.

Table 9. Options for Proposal 3 – Reducing speed limits

Option	Fuel savings	Timeliness	Cost	Enforceability	Clarity
Status quo	0	0	0	0	0
1 Reduce open-road speed limits to 90km/h	+ Initial modelling suggests fuel savings of 1.4 percent (20 million fewer litres used, equivalent to 2.5 days) for petrol and 0.8 percent for diesel (14 million fewer litres used, equivalent to 1.3 days) if speed limits were changed to 90km/h for a six-month period.	*Not applicable*			
2 Reduce open-road speed limits to 80km/h	++ Initial modelling suggests fuel savings of 2.3 percent (34 million fewer litres used, equivalent to 4.2 days) for petrol and 2.9 percent for diesel (50 million fewer litres used, equivalent to 4.7 days) if speed limits were changed to 80km/h for a six-month period.				
3 Change speed limit signage	*Not applicable*	-- This approach would require changes to the speed limit signage on State highways. Timing is uncertain, as it is dependent on whether new signs are put up or if heavy-duty reflective stickers are used. Timing is also dependent on contractor availability, but NZTA has estimated it could take weeks rather than months to implement.	- The cost of signage is estimated to be $1 million (approx. $200 x 5,000 signs), but could be lower (approx. $250,000) if heavy-duty reflective stickers are used over existing signs (but these are less durable and easier to vandalise). Installation costs are estimated to be an additional $1.25 million.	0 Changes to speed limit signage would enable the lower speed limits to be enforced the same as the status quo as drivers would continue to follow speed limit signage. Heavy vehicles would follow speed limit signage up to the 90km/h maximum travel speed currently in place for heavy vehicles.	0 Changes to signage would help ensure road users are aware of the speed limit
4 Introduce a maximum travel speed (no speed limit signage change)		0 This option could be implemented through a Rule change and complemented with public messaging. The Rule would provide that, irrespective of what speed is recorded in the National Speed Limits Register and indicated on speed limit signs, the maximum speed for both light and heavy vehicles is 80 or 90km/h (depending on which option is progressed).	0 This is a low-cost approach as it would not require changes to signage, and could be rolled out quickly with supporting public messaging.	- NZ Police and NZTA advise that enforcement (including speed camera enforcement) relies on posted speed limit signs reflecting the legal limit. If signs are not changed, enforcing a lower maximum travel speed on roads with higher posted limits could create additional work for NZTA and Police.	- This approach would require comprehensive communications to inform drivers of the change and reinforce it while they are on the road. We expect lower compliance due to the behavioural shift required (drivers would need to follow the maximum travel speed rather than the posted speed limit). Leaving posted speed limit signs unchanged is likely to create confusion and could undermine compliance.

What consultation has been undertaken on reducing speed limits?

Officials held targeted consultation with freight industry representatives, NZ Police, and NZTA in April 2026. Changing speed limits received broad support from road controlling authorities. It was not supported by the heavy vehicle industry due to the effect on work-time limits and the effect on scheduling for both freight and passenger transport.

Most promising option for reducing speed limits

The most promising options for reducing speed limits are options 2 and 4, as together they deliver the greatest fuel savings while enabling a faster and cheaper implementation and unwinding.

What package of options across Proposals 1, 2 and 3 is likely to best address the problem, meet the policy objective, and deliver the highest net benefits?

Drawing from the assessment conducted, we have identified a package of changes that we consider are the most promising ways of reducing fuel consumption, manage wear and damage to the road network, and could be implemented quickly:

- Increasing mass limits for HPMV higher mass permitted vehicles by 4%
- Increasing mass limits for 50MAX permitted vehicles up to 55 tonnes
- Relaxing access restrictions for Auckland motorways for overdimension vehicles
- Reducing open-road speed limits to 80km/h through a maximum travel speed.

Is the Minister's preferred option in the Cabinet paper the same as the agency's preferred option in the RIS?

No. We do not recommend progressing with any of the payload or overdimension options as the estimated costs are expected to significantly outweigh the estimated benefits. From a fuel savings perspective, we recommend setting a maximum speed limit of 80km/h.

What are the marginal costs and benefits of the preferred option in the Cabinet paper?

The marginal costs and benefits are presented in Table 11 below.

Table 11. Marginal costs and benefits of the preferred option.

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
RCAs (including NZTA)	Implementation costs including bridge assessment, communications, and changes to systems (all proposals)	Unknown - Bridge assessments are likely to require additional funding. Other implementation costs can be met within existing funding.	Medium – Implementation approach has been developed at pace.
	Ongoing monitoring and risk mitigation measures (heavier payload proposals)	Unknown	-
	Additional network maintenance including road and bridge repairs (heavier payload proposals)	$153 million for a six-month change	Low – Damage to the network could vary considerably based on uptake of heavier payloads and where vehicles with heavier payloads travel on the network (due to variability in the quality and condition of the network).
	Additional workload if more people challenge speeding infringements	Low	Low – we do not know what the compliance levels will be or what overall impact broader measures (for example price increases) would have on travel patterns.
Heavy vehicle industry	Additional RUC (heavier payload proposals)	Medium	Medium – RUC costs are dependent on uptake.
	Increased travel time	Medium	Low – based on NZTA research report 582 we would expect travel times to increase for people travelling on roads with current speed limits of 110, 100 or 90km/h. The impact on travel time per journey would be dictated by how much of the same journey is currently spent travelling above 80km/h.
Road users and local residents	Increased congestion and traffic noise (access proposal)	Low	Medium – Small cohort so size of effect likely to be low.
	Road safety (heavier payload proposals)	Low	Medium – Increased loads may slightly affect the stability and handling control for some vehicles. Any negative safety effects would be at least partially offset by reduced exposure from fewer heavy vehicle trips.
	Increased travel time	Medium	Refer to rationale above.
Total monetised costs		$153 million for a six-month change	-
Non-monetised costs		Medium/Unknown	-
Additional benefits of the preferred option compared to taking no action			
RCAs (including NZTA)	Additional RUC (heavier payload proposals)	Medium	Medium – RUC revenue is dependent on uptake.
Heavy vehicle industry	Reduction in fuel use (heavier payload and access proposals)	16 million litres of diesel for a six-month change	Medium – Reduction in fuel use is dependent on uptake.
Fuel Users	Reduction in fuel use (heavier payload and access proposals)	34 million litres of petrol for a six-month change 50 million litres of diesel for a six-month change	
Wider society	Improved road safety outcomes	Medium	Medium – Reductions in speed limits are expected to result in reductions in travel speeds. Where travel speeds decrease the risk of serious and fatal crashes also decreases.
Total monetised benefits		-	-
Total non-monetised benefits		Medium	-

Section 3: Delivering an option

How will the proposal be implemented?

These changes would be made through rule changes by an Order in Council process, on the Minister of Transport's recommendation. Officials would progress this rule change as quickly as possible. Any changes would be triggered to come into effect by a change to the relevant Phase of the Plan and would be in effect while fuel response measures are needed.

Proposal 1: Heavier payloads

Initial implementation

An initial bridge assessment for the state highway network has been undertaken by NZTA and its Structures Management Consultants to inform this analysis. A more comprehensive assessment of bridges across both state highways and local roads will be commenced before the changes are implemented, which will likely require additional funding for RCAs. Assessment of port infrastructure and ship capacity (e.g. linkspan connecting ships to port) will also be required.

There is a risk that this will not be completed by the time New Zealand shifts to Phase Four of the Plan. This risk would be mitigated by continuing current practice of allowing decisions on approved networks to be made by NZTA and other RCAs.

Other than bridge assessments, NZTA has confirmed that the most viable options would be able to be implemented with minimal impact and can be managed within current resourcing as outlined in Table 12 below:

Table 12. Implementation impacts for heavier payloads

IT	Permitting	Guidance	Communications
Changes to Commercial Vehicle Safety Centres screening can be completed within two weeks.	Minimal impact assuming NZTA will not be re-issuing permits for HPMV higher mass.	NZTA will work with Police to agree enforcement parameters.	NZTA will work with the Ministry of Transport to manage communications with stakeholders, including industry, RCAs and Police (for enforcement of new limits).

Ongoing mitigation measures

Once the changes have been implemented and at least a core network approved, there will be ongoing mitigation measures required for the duration of the changes, particularly with respect to bridges. Bridge assessment is likely to identify a range of mitigations that would need to be implemented to support bridge capacity. This includes activities such as more frequent bridge inspections and traffic management, which would all likely require additional funding for NZTA and other RCAs. If funding was not provided for these mitigation measures there is a risk that NZTA and other RCAs would only allow vehicles with heavier payloads to travel on a smaller subset of the HPMV and 50MAX networks than expected, reducing the benefits of the proposals.

Proposal 2: Travel time and access restrictions for overdimension vehicles

NZTA has confirmed that the most viable options would be able to be implemented with minimal impact and can be managed within current resourcing. The initial implementation impacts are presented in Table 13 below.

Table 13. Implementation impacts for travel time and access restrictions

IT	Permitting	Guidance	Communications
Minimal/no impact.	NZTA will work with Police to agree enforcement parameters.		NZTA will work with the Ministry of Transport to manage communications with stakeholders, including industry, RCAs and Police (for enforcement of new limits). Planning is underway.

Proposal 3: Reducing speed limits

NZTA has confirmed that this proposal would be able to be implemented with minimal impact and can be managed within current resourcing. The initial implementation impacts are presented in Table 14 below.

Table 14. Implementation impacts for reducing speed limits

IT	Permitting	Guidance	Communications
Minimal/no impact.	No changes to posted speed limit signs are required.	NZTA will work with NZ Police to agree enforcement parameters, including how speed camera enforcement will be handled where posted signs show a higher limit than the 80km/h maximum travel speed.	NZTA will work with the Ministry of Transport to manage communications with the public, industry, and Police ahead of Phase Four activation. Clear public messaging will be critical to achieving compliance given existing signs will not change.

How will the proposal be monitored, evaluated, and reviewed?

Proposal 1 and 2: Allowing heavier payloads and relaxing restricted overdimension routes

RCAs regularly monitor the condition of the network and will be able to identify where the changes are suspected of having unanticipated effects on the network. It is expected that the NZTA and other RCAs will be able to adjust the approved networks and/or introduce restrictions to manage unanticipated effects. If NZTA and other RCAs do not have this flexibility there is a risk that they would only allow vehicles with heavier payloads to travel on a smaller subset of the HPMV and 50MAX networks than expected, reducing the benefits of the proposals.

The changes include a requirement for industry to provide NZTA and other RCAs with information on how the additional payload is used. This information alongside other regularly collected data (e.g. Road User Charges, congestion etc.) would be used to inform the broader review of the Land Transport Rules: Vehicle Dimensions and Mass 2016. This review is currently being undertaken by the Ministry of Transport and NZTA. Initial advice to the Minister on policy options is due in mid-2026.

Proposal 3: Speed limit changes

NZ Police and NZTA will monitor compliance through existing speed enforcement activity, with speed camera data and infringement notice volumes providing early indication of whether public communications have been effective.

Annex 1 – Background

The heavy vehicle fleet is key to completing the freight task

The heavy vehicle fleet is a small proportion of the total number of vehicles on the road. In 2024, there were about 4.7 million licensed vehicles in New Zealand. Of these, 174,787 are heavy vehicles (mass exceeding 3,500kg), primarily trucks. This is forecast to increase to over 190,000 by 2055.[10]

In 2017/18, New Zealand's freight task was 278.7 million tonnes or 30.1 billion tonne-kilometres. Road freight carried nearly 93% of the total tonnage and made up around 75% of the tonne-kilometres.

Every year, heavy trucks travel about three billion kilometres, with heavy trailers completing about 1.4 billion kilometres. One-third of these kilometres are generated through urban freight and customer deliveries, by two-thirds of the truck fleet, predominantly 2-axle trucks. The remaining two-thirds of kilometres travelled is by larger vehicles that service rural regions. Almost all of this travel uses diesel.

Many vehicles exceed standard mass limits

Vehicles that fall within standard mass limits can be referred to as 'general access' vehicles. However, these limits are out of date, meaning many common vehicles must operate as permitted vehicles. HPMVs exceed the standard mass limits of 44 or 46 tonnes. Vehicles that have an eligible design can carry both divisible and indivisible loads on an HPMV Higher Mass permits.

50MAX vehicles are a common type of HPMV. Vehicles that conform to 50MAX pro-forma designs and do not exceed a weight of 50 tonnes can operate on 50MAX HPMV permits. The requirements for these vehicles are summarised in Table 15 below.

Table 15. Summary of requirements for general access vehicles and HPMVs

	General access	50MAX	HPMV Higher Mass
Maximum gross combination mass	44–46 tonne (configuration-dependent)	50 tonnes	62 tonnes (route-dependent)
Cohort size	Unknown (general access covers heavy goods vehicles 3.5-46 tonne)	~3,500[11]	~4,200[17]
Permit	No	Yes	Yes
Network	Everywhere, with occasional restrictions, for example, height restrictions for vehicles	Can travel on near-national 50MAX network	Travel restricted to specific approved routes only

[10] Vehicle Fleet Model (May 2024), https://www.transport.govt.nz/statistics-and-insights/vehicle-fleet-model

[11] There is overlap in the 50MAX and HPMV Higher Mass cohorts – the total size of the combined cohort is approximately 6,100 vehicles. These numbers differ to the numbers used to calculate the benefits as they were calculated using permit data for 2025, which differs from RUC licence data for the last 6 months of 2024. Both datasets have different timings based on when operators need to buy the different types of licences.

	travelling under low bridges.		
Typical use	Packaged goods/supermarket Refrigerated goods Produce/fresh food Shipping containers Livestock	Milk collection Logs (regional haul) Bulk agricultural General freight	Logs (primary haul) Aggregate/ construction Heavy bulk commodities

Heavy vehicles cause wear on the road network

Heavy vehicles cause wear on the road network. The costs of maintaining these roads is typically covered by Road User Charges (RUC). The level of these is based on the truck weight and the distance travelled. This revenue is dedicated to the Government's National Land Transport Fund (NLTF) for allocation by NZTA.

The road network is made up of state highways and local roads

NZTA is the RCA for New Zealand's 11,000 km of state highways. About 232 km of the state highway network is motorways, mostly in Auckland. The network also includes around 4,200 bridges and large culverts, which is a significant constraint on heavy vehicle travel, to minimise the risk of damage from their heavier weight.

New Zealand has around 83,000 km of local roads. Implementation of changes on local road networks can be more complicated as these are managed by various local road controlling authorities (RCAs).

Road wear can depend on the type of road

About 61% of the local road network is sealed, which is more resistant to road wear than the remaining 39% of roads that are unsealed.

100% of the state highway network is sealed. The majority has a chipseal surface (a layer of bitumen covered by stone chip). In areas with more traffic, the state highway network has an asphaltic surface (stones mixed with bitumen) which is more resistant to wear than chipseal.

Increases to weight limits to reduce fuel consumption are likely to increase wear on the road. Bitumen is made from petroleum. Any increased need for road maintenance and repairs would increase future demand for petroleum. NZTA advises that the price of bitumen has been increasing at a similar rate as the price of fuel, which increases the costs of road maintenance and repairs.

Annex 2 – Consulted industry representatives and RCAs

Industry representatives:

- Bus and Coach Association
- Carr & Haslam
- Crane Association of New Zealand
- Federated Farmers
- Fonterra
- Foodstuffs
- Fulton Hogan
- Fruehauf NZ Limited
- Ia Ara Aotearoa Transporting New Zealand
- KiwiRail
- Mainfreight New Zealand
- National Road Carriers
- New Zealand Heavy Haulage Association
- New Zealand Primary Connect+
- New Zealand Trucking Association
- Rural Contractors New Zealand
- StraitNZ
- Transport Specifications Limited
- Woolworths NZ

Road Controlling Authorities:

- Auckland Transport
- Hamilton City Council
- Tauranga City Council
- Southland District Council
- Stratford District Council
- Tasman District Council
- Timaru District Council

Annex 3 – How the heavier payloads costs and benefits were estimated

Calculating benefits (fewer trips and reducing fuel consumption)

RUC licence data shows the configuration and weight band of each vehicle and can be used as a proxy for how much distance they travel.

2024 RUC licence data was used to estimate the number of vehicles that could increase their payloads, and by how much, for each proposal. For example, a 50MAX combination vehicle with a RUC licence for up to 50 tonnes is assumed to increase its gross vehicle mass to 55 tonnes.

We also used the 2024 RUC licence data to estimate the size of the freight task using payloads and distances. Combining the estimated freight task and expected increase in payloads enabled us to calculate the expected reduction in vehicle kilometres travelled because of fewer but heavier trips. This calculation assumes that the freight task is fixed and consistent – i.e., that there will be the same amount of freight to be carried while the new limits are in place as there was on average across 2024.

The reduction in vehicle kilometres travelled was then translated into potential fuel savings using the fuel consumption rates for a 50MAX line haul truck from the Ministry of Transport's 2023 Domestic Transport Costs and Charges Study.

This estimate likely overstates the fuel reduction benefits as:

- **The modelling assumed 100% uptake of higher payloads** (i.e., all eligible vehicles take up the full increase in payload). Actual uptake will depend on commercial decisions by operators, which are driven by a range of factors in addition to mass limits including what needs to be transported and where as well as marginal transportation costs (e.g., RUC, labour, fuel prices).
- **Freight demand may not be fixed**, as assumed. There is a risk that operators will take the same number of trips and carry more freight, rather than carrying the same amount of freight in fewer trips. Freight demand also varies significantly by season.
- **Different heavy vehicles may have different fuel consumption rates** to a 50MAX line haul truck.
- **Modelling has not accounted for heavier vehicles requiring more fuel per kilometre**. This additional fuel requirement has not been included in the calculations due to the timeframes for carrying out the analysis and as we only have a single fuel consumption estimate for a 50MAX line haul truck.

Calculating the costs (road maintenance)

Road network infrastructure damage increases exponentially with the weight on each axle. On average, NZTA assumes damage is expected to increase by the 4^{th} power with a given increase in axle weight. For example, 2x the axle weight leads to 16x the damage ($2^4 = 16$). However, variable road quality and condition mean the power factor for calculating damage for a particular road can range from as low as 2.5 and up to 12 in some cases.

NZTA used the decrease in truck movement and the increased payloads calculated above and converted these figures into the change in the number and weight of axles on the road network.[12]

Using the exponential damage relationship described above, the change in the number of axles is used to estimate the increased rate of damage to the road network.

This increased rate of damage is then applied to the maintenance and renewal costs for the past year to calculate the marginal increase in costs. NZTA expects the proposals would result in additional maintenance and renewals works for the state highway and local road networks, as the lives of roads are effectively being truncated, leading to an increase in cost relative to the status quo.

These calculations were first done for the state highway network then extrapolated to the local road network based on the relative proportion of freight that travels on the state highway and local road networks.

This approach has limitations that may under or overstate the infrastructure effects of additional payloads. These include:

- Using the 4^{th} power as a network average which is not representative for all roads. For example, if vehicles with heavier payloads travel more on weaker roads such as under maintained roads or end of life pavements, then the infrastructure impacts could be greater.
- This analysis assumes that half of the journeys will be taken unladen, as vehicles return to their point of origin. In practice, we would expect operators to try maximise payloads for both parts of a journey, particularly when fuel prices are elevated.
- The impact on local roads could vary significantly depending on the nature of freight movements, how concentrated or dispersed freight movements are geographically, and the quality and condition of local roads.
- Because the infrastructure effects are based on the uptake assumptions outlined above, infrastructure damage will be less if there is lower uptake.

Ministry for Regulation peer review of calculations

The Ministry for Regulation peer reviewed the methodologies for calculating the benefits and costs for increasing vehicle payloads. The Ministry noted that the analytical approach is sound and that:

- the estimates around fuel savings should be treated as a maximum upper bound; and
- the estimates of infrastructure costs have multiple assumptions in them that means the analysis may understate the potential maintenance costs.

[12] Truck movements are calculated by using the 'equivalent standard axles' (ESA) measure. ESA divides each truck's actual axle group mass loading by its axle group reference weight. The axle group reference weights create the same damage per trip across the reference groups. As payloads increase, ESA increases and as VKT reduces, ESA decreases.

Annex 4 – How the speed limit related fuel reductions were estimated

Vehicle fuel consumption by speed
A vehicle's fuel consumption varies with speed – it generally falls with rising speed up to about 60–70 km/h, then it rises again. As a result, reducing speed from 100km/h to 80-90km/h improves fuel efficiency. NZTA's Monetised Benefits and Costs Manual (MBCM) provides a function for estimating Vehicle Operating Costs (VOC) in $/km by speed for different vehicle types. The MBCM also reports the average fuel-cost share of VOC by vehicle type varies between 40% and 50%, depending on vehicle type.

We use the information in the MBCM to estimate fuel consumption by driving speed and vehicle type by:

- Evaluating the MBCM VOC function at 1 km/h increments from 10 to 120 km/h for each vehicle type, assuming flat terrain (gradient 0).
- Applying the fuel-cost share to isolate the fuel-cost-per-km component.
- Dividing by fuel prices (assuming light passenger vehicles use petrol; all others use diesel) to obtain fuel consumption (in L/100km). We use mid-2024 fuel prices to align with other parameters used in the analysis.

This analysis covers petrol and diesel vehicles only. Electric, LPG, CNG and hydrogen vehicles and related energy consumption effects are therefore excluded, along with other economic effects of the policy.

Distribution of driving speeds
Drivers do not all travel at the allowed speed limit. We use the 2024 open-road speed distribution from the National Speed Monitoring Survey, which shows a mean speed of about 91 km/h, an 85th percentile of about 101 km/h, and around 17% of vehicles exceeding the 100km/h limit. We assume this distribution shape holds across all open-road limits, shifted by the change in the posted speed limit. We apply the same distribution to light and heavy vehicles, shifted to match their effective speed limit (capped at 90km/h for heavy vehicles). In practice, heavy-vehicle compliance with the speed limit is likely tighter. As a result, our model probably overstates the fuel-saving effect of speed limit reductions for heavy vehicles.

Driving speeds in our analysis are floored at 10 km/h and capped at 120 km/h to remain within the domain of the MBCM VOC curves.

Vehicle Kilometres Travelled by speed limit
To obtain Vehicle Kilometres Travelled (VKT) by posted speed limit, we use baseline simulation output from the National Transport Model (Monty), which reflect an average weekday scenario.

Monty does not distinguish between vehicle groups within "car" and "truck" categories. We address this by decomposing the Monty car totals into Light Passenger and Light Commercial, and the Monty truck totals into Medium Truck and Heavy Truck using each group's overall VKT share from the Vehicle Fleet Model's (VFM) 2025 baseline run. We assume the within-category VKT mix is the same across all speed limits.

Fuel price response

To consider the fuel-price effect on travel demand, we apply a constant-elasticity formula to light passenger VKT, using a central own-price elasticity of −0.23 with a sensitivity range of −0.10 (low) to −0.28 (high). Commercial vehicles are assumed to be inelastic to fuel prices over the timeframe of interest.

The price response is applied uniformly across all driving speeds. We do not assume drivers reroute or reallocate VKT differently across the network in response to higher prices (or lower speed limits).

Estimating fuel consumption changes

For each vehicle group and posted speed limit, we allocate VKT across the range of likely driving speeds using the 2024 open-road distribution (shifted to match the posted limit), apply the fuel consumption rate at each driving speed, and sum to get total fuel use.

Policy effects are calculated as the difference between the baseline and each policy option (cap speed limits at 80 or 90km/h) for each vehicle group, then aggregated to total petrol and total diesel consumption.

Annex 5 – Potential expanded access to Auckland motorways

Under current rules, overdimension vehicles are generally restricted from travelling on Auckland motorways, except for a small number of motorway sections they are permitted to use.

As part of the fuel response, the Government is considering allowing overdimension vehicles to make greater use of the Auckland motorway network. This could marginally reduce fuel consumption by enabling overdimension loads to be delivered via shorter, more direct routes with fewer intersections and stops.

The table below shows current and potential limits on the relevant sections of Auckland motorways.

Table 16. Current and potential overdimension access limits for Auckland motorways

Route	Current access	Potential expanded access
SH20A Kirkbride Road to The Landing	Max width: 3.1m Max height: 4.3m	Max width: 4.5m Max height: 5.8m
SH16 St Lukes Interchange to/from Great North Road, Waterview	Max width: 3.1m Max height: 4.3m	Max width: 4.5m Max height: 4.6m
SH16 Great North Road, Waterview to/from the western end of the motorway	Max width: 3.1m Max height: 4.3m	Max width: 4.5m Max height: 5.2m
SH18 from Albany Highway to SH1 Interchange	Max width: 3.1m Max height: 4.3m	Max width: 4.5m Max height: 5.8m
SH1/SH18 Interchange to Dairy Flat Highway	Max width: 3.1m Max height: 4.3m	Max width: 4.5m Max height: 5.8m
SH1 from Drury Interchange to southern end of motorway	Max width: 3.1m Max height: 4.3m	Max width: 4.5m Max height: 5.2m