

8 September 2021

OC210592

Hon Michael Wood

Action required by:

Minister of Transport

Monday, 20 September 2021

OPTIONS FOR IMPLEMENTING BILINGUAL TRAFFIC SIGNS ACROSS AOTEAROA

Purpose

Seek your views on how to progress the implementation of bilingual traffic signs across Aotearoa.

Key points

- After meeting with Rotorua mayor Steve Chadwick in November 2020, you announced your commitment to having bilingual traffic signs implemented throughout Aotearoa by the end of this Government's term.
- This project supports greater visibility of te reo Māori in the transport system and uphold the status of te reo Māori as an official language of New Zealand.
- We propose taking a "bilingual by default" approach – mirroring the Welsh model and reflecting the Government's Māori Language Revitalisation Strategy.
- There are trade-offs and considerations that will impact and determine the implementation approach. These include cost, consultation, safety, resources, legislative settings, and the visibility or coverage of bilingual signs in the ground.
- Here are four potential approaches to implementation (detailed further in Annex 1):
 - Approach one – undertake wide public engagement followed by enabling all suitable bilingual signs in legislation. This approach is unlikely to see many signs in the ground by the end of the current term.
 - Approach two – enable and progress a selection of bilingual signs. This would see the most signs in the ground by the end of the current term, as we could progress more quickly.
 - Approach three – undertake wide public engagement followed by enabling and progressing a selection of bilingual signs. This approach could see some signs in the ground.
 - Approach four – pilot bilingual signs in a town or iwi region before enabling the wider use of bilingual signs across Aotearoa. This would lead to a full suite of

suitable bilingual signs in one town, but minimal bilingual signs across Aotearoa.

- Te Manatū Waka, Waka Kotahi NZ Transport Agency and Te Taura Whiri support and prefer approach two. But we would like the opportunity to discuss with you how we can shape an implementation approach based on what you want to achieve by the end of this term, and how the approach can be scaled to reflect this.
- To ensure we remained aligned with the Budget process, we need your indication before 23 September if you want to take an approach where extra funding is required. Your feedback on the briefing is required so we can continue work to enable implementation of bilingual signs across Aotearoa by the end of this term.

Recommendations

We recommend you:

- 1 **signal** your indicative preferred approach to implementing bilingual traffic signs across
 - Approach one - undertake wide public engagement Yes / No
 - Approach two - enable and progress a selection of bilingual signs Yes / No
 - Approach three - undertake wide public engagement and then enable and progress a selection of bilingual signs Yes / No
 - Approach four - pilot bilingual traffic signs in a town or iwi before enabling the wider use of bilingual signs across Aotearoa Yes / No
- 2 **agree** to meet with Ministry of Transport and Waka Kotahi NZ Transport Agency officials to discuss what you want to achieve by the end of this term and an implementation strategy Yes / No
- 3 **indicate** before Thursday 23 September 2021 whether you intend on taking EITHER a relatively low-cost approach for this term of Government OR an approach that will require additional funding. Yes / No

Out of Scope

..... / /

M. Wood

Hon Michael Wood
Minister of Transport

..... / /

Minister's office to complete:

☐ Approved

☐ Declined

☐ Seen by Minister

☐ Not seen by Minister

☐ Overtaken by events

Comments

Contacts

Name	Telephone	First contact
Out of Scope		✓

Released under the Official Information Act 1982

OPTIONS FOR IMPLEMENTING BILINGUAL TRAFFIC SIGNS ACROSS AOTEAROA

You announced your commitment to implementing bilingual traffic signs

- 1 In November 2020, you met with Rotorua mayor Steve Chadwick to discuss bilingual traffic signage, after Te Tatau o Te Arawa representative, Rawiri Waru, called for a review of the rules. Following this meeting, you announced your commitment to having bilingual traffic signs implemented throughout Aotearoa by the end of this Government's term. Given this public commitment, we need to progress this work quickly so we can begin implementation.
- 2 In your Letter of Expectations 2021-22 to Waka Kotahi NZ Transport Agency (Waka Kotahi), you stated your expectation was for Waka Kotahi to move forward at pace with its review of road signage regulations so that te reo Māori can be safely incorporated where appropriate. Waka Kotahi, with the support of Te Manatū Waka – Ministry of Transport (the Ministry), is undertaking a programme of work to support the use te reo Māori on traffic signs in Aotearoa.
- 3 The organisations below have provided input to this briefing and support our advice:
 - Waka Kotahi
 - Te Taura Whiri (Māori Language Commission)
 - Te Mātāwai (an independent statutory entity that provides leadership on behalf of iwi/Māori and they have an interest in revitalising te reo Māori).

There is an opportunity to make te reo Māori more visible across the transport system

- 4 Te reo Māori is the indigenous language of Aotearoa. In 1986, te reo Māori was recognised as a taonga (treasure) under Article II of the Treaty of Waitangi (the Treaty), and it was then made an official language in 1987. The Treaty forms the bicultural foundations of Aotearoa, with the language at the core of Māori culture and mana.
- 5 As we progress this project we will align with the principles of the Treaty by:
 - 5.1 protecting the taonga and values that underpin te reo Māori as we seek to determine, translate (where appropriate), design and implement bilingual signs
 - 5.2 partnering and engaging with Māori organisations and communities in the approach, prioritisation and delivery of bilingual traffic signs
 - 5.3 ensuring opportunity for Māori participation in the decision making and implementation process, as well as reflecting Māori aspirations in our approach.

- 6 This project will support the Crown's Strategy for Māori Language Revitalisation 2019–2023 – Maihi Karauna. One of the visions set out in this strategy is that te reo Māori is used by everyone, every day, every way and everywhere.
- 7 This will tie with other mahi across Government such as Reo-Rua (bilingual towns and cities) led by the Department of Internal Affairs, and other mahi facilitated by Te Puni Kōkiri.
- 8 We have a responsibility to embrace and steward te reo Māori in the transport system. Implementing bilingual traffic signs will encourage and support all New Zealanders to learn, use and value te reo Māori as a normal part of daily life.

We started this work by gaining an understanding of traffic signage, the local situation, common international practice, and safety considerations

- 9 There are three general types of traffic signs set out in the Land Transport Rule: Traffic Control Devices 2004 (the TCD Rule), that are commonly used around the world:

- regulatory signs – require or prohibit specific actions such as stop signs
- warning signs – inform of hazards such as hidden queue signs
- advisory signs – provide information or guidance such as destination signs.

Aotearoa has many traffic signs, of which a very small number are already bilingual

- 10 In Aotearoa, the TCD Rule sets out the requirements for 580 different types of signs including dimensions, colour, shape, text or icons for each sign type. Close to 60 percent (340) of signs require text. There are approximately 190,000 traffic signs on the state highway network (administered by Waka Kotahi), and there are significantly more signs on the local road network¹ (administered by Road Controlling Authorities (RCAs)).
- 11 There are a few bilingual signs in Aotearoa such as Aoraki Mt Cook or Milford Sound Piopiotahi. These places are granted dual name status through the TCD Manual by the New Zealand Geographic Board for route, tourist, and general interest signs. However, the current process only permits a selection of bilingual advisory signs.
- 12 Also, as you enter Rotorua, there are two speed limit signs that include “Welcome to Rotorua” on the left and a “Nau Mai ki Rotorua” on the right, as pictured below. This paired approach was established through tacit agreement with Waka Kotahi.

Image 1:
Welcome to Rotorua traffic signs
in English and te reo Māori



¹ The exact number is still being finalised, and we can provide this in further advice.

Initial research shows that bilingual signage is common overseas, but approaches vary – with Wales most similar to New Zealand

- 13 Despite different transport practices, traffic signage design and imagery are very similar around the world. For example, many members of the European Union utilise a standard set of shapes, colours and icons². This practice allows road users who do not speak the local language to recognise key road information and improves safety.
- 14 Bilingual signs are quite common across Europe, Asia, North America and in some places in the Middle East. However, most countries that have bilingual signs usually only apply them to advisory signs, which tend to contain more text. A small number of countries (notably Japan) also use bilingual warning and/or regulatory signs. Wales provides a relevant case-study due to its similarity with New Zealand (as a small country with a focus on indigenous language revitalisation) and a long-standing history of bilingual signage.

Wales – A case study for bilingual traffic signage

In Wales, community advocacy to revitalise the Welsh language (and bilingual traffic signage) was strong in the later half of the last century. Legislation and practice changes from 1965 onwards resulted in widespread bilingual traffic signs in Wales (across most advisory, warning and regulatory signs*).

Opponents to bilingual signage raised concerns about signage complexity, its impact on safety and the total cost of implementation. However, there was a collective decision early on to prioritise cultural benefits over these concerns. Nearly 60 years later, there is no reported evidence that the change to bilingual signage has increased road safety harm in Wales.

The Welsh implementation approach was to make English-only signs bilingual when it came time for them to be replaced. Originally local authorities were given the ability to decide which language was most prominent on the sign, but changes in 2016 now require that all replaced signs have Welsh as the prominent language.

* But not all. For example, the stop signs in Wales remain in English only; as per the EU standard.

Research and overseas experience show that using bilingual signage does not generally reduce road safety, especially when best-practice design elements are used

- 15 Waka Kotahi research into bilingual signage shows there is little evidence of major safety impacts associated with bilingual signage. For example, in Scotland there is no evidence that death and serious injury became more frequent on routes where bilingual signage was implemented compared to routes where it was not. However, research from Scotland has limitations, as sign design improvements were undertaken at the same time as signs were made bilingual. These improvements included larger signs, clearer language and design, and higher quality materials.
- 16 There is some evidence that drivers slow down as they approach a bilingual sign as the time taken to comprehend them increases with increased text and complexity. However, there was variation in these findings based on how the signage was

² Agreed through the Vienna Convention on Road Signs and Signals in 1978.

presented, depending on language placement, font type, and colour (see example below).

Image 2: Example of visual characteristics of bilingual traffic signs



- 17 In particular, the number of lines of text on any type of sign was found to negatively affect sign comprehension time when the message was longer than 4 lines, regardless of whether it was monolingual or bilingual. This may mean that signs that are already text-heavy, like heavy vehicle restrictions, may not be suitable for a direct bilingual approach.³
- 18 Any design decisions will consider the evidence about effective sign design principles.

We propose applying a “bilingual by default” approach, aligning with the Crown’s commitment to te reo Māori revitalisation

- 19 Guided by the Wales model, we propose that all traffic signs be bilingual by default (including advisory, warning and regulatory signs). This would make te reo Māori more visible across the transport system.
- 20 However, there may be specific reasons or circumstances that would make some sign types impractical or unsuitable, such as safety considerations. In these cases, we would be more considered and identify creative solutions that align with the principles of safety and te reo Māori visibility.
- 21 This bilingual by default approach to traffic signage would support the Crown’s strategy – Maihi Karauna for te reo Māori to be used by everyone, every day, every way and everywhere.

To achieve bilingual by default we need to enable bilingual signs and then implement them, which will be complex to do

- 22 All the traffic signage approved for use in Aotearoa is prescribed in the TCD Rule. This means that rule changes are required to enable bilingual traffic signs. The process and relevant considerations that would be required for each bilingual sign are outlined below.

³ There may also be instances where only te reo Māori is suitable such as marae.

Image 3: Process for establishing a bilingual traffic sign



- 23 The Ministry and Waka Kotahi are responsible for the regulatory process (with your and Cabinet's approval) as set out in the enabling stages above. Rolling these out would fall to RCAs for the local road network and Waka Kotahi for the State highway network.
- 24 Outlined in the following section are some of the key decisions that need to be made now to shape our project approach and next steps.

We need to decide now how this project will enable and implement bilingual traffic signs, and consultation will be a key variable in informing our approach

- 25 Reaching comprehensive coverage across Aotearoa of bilingual traffic signage will be a very large task. Even with unlimited resources, it is doubtful that we could fully implement this work by the end of the current term of Government⁴.
- 26 Although there are many ways we could approach developing and implementing bilingual signs, we have set out four examples below. These approaches are visualised and compared in Annex 1 attached to this briefing. We have asked you to signal your preferred approach and recommend a policy direction. The key question is: what would you realistically like to achieve by the end of this term of Government? This will determine if extra resource will be required.

To inform which approach you want to take, a key consideration is whether we undertake large or small-scale consultation.

- 27 Introducing bilingual signs is a fundamental shift in the way we view and present information in our transport system. Taking people on the journey and reducing the surprise element of new signage is important in obtaining public acceptance.

⁴ Note that Wales has been working on this for nearly 60 years and is still refining its approach.

28 We propose framing the discussion around the implementation approach. We do not think the conversation should be about whether or not to implement bilingual signs. The Government, through the Treaty of Waitangi and Maihi Karauna, has an obligation to protect te reo Māori and is committed to ensuring the revitalisation of te reo Māori across Aotearoa.

29 There are two ways we could go about this:

29.1 Initial public conversation: This would involve wide public engagement like roadshows and social media over several months. Undoubtedly there will be many people and communities who will embrace the introduction of bilingual signs. However, it may take some time for others to become accustomed to the new look of the signs and the concept of te reo Māori appearing on signs which previously were only in English. For this reason, adding public discussion and engagement at the start of the process may be beneficial⁵. This additional engagement would allow us to set the narrative and demonstrate community support.

29.2 Standard rule consultation: The standard policy process to amend the rule requires public consultation for six weeks. This would allow us to progress more quickly and minimise resource requirements. Many Māori communities and representatives have been asking for this type of change for years and are ready to see the change rather than continue to talk about it. This approach would acknowledge that we have been listening to and value the previous requests of our Māori communities.

30 We will also engage with iwi in the translation and implementation stages.

We have identified four different implementation approaches

31 There will be a lot of work to develop and implement bilingual traffic signs in this term of Government.

32 The four approaches we have identified are:

32.1 Wide public engagement followed by enabling all suitable signs in legislation. This approach takes the public on the journey, allowing time and space for public input, engagement and buy-in. This approach would then progress all suitable signs in one lot, meaning we could implement the bilingual signs in a more systematic way after this term of Government.

32.2 Enable and progress a selection of bilingual signs in legislation. This approach is the fastest way to see bilingual traffic signs in the ground throughout Aotearoa by the end of this term. Progressing with a smaller number of signs means we can begin implementation sooner. For example, we think that progressing “Welcome to”, “Destination km” and “School” signs will be quick wins⁶, as these signs are often requested to be bilingual and there is great coverage across the network.

⁵ There may also be road safety benefits to raising the profile of the new signage.

⁶ We will undertake a prioritisation process to determine which signs to progress first based on certain outcomes such as most visibility, Māori preference or known demand.

32.3 Wide public engagement followed by enabling and progressing a selection of bilingual signs in legislation.

This approach balances the additional public engagement approach with implementation of a selection of signs in this term of Government – but not as many signs in the ground compared with approach two.

32.4 Pilot bilingual signs in a town then enable use for rest of Aotearoa.

This approach would trial the use of bilingual signs in a town in Aotearoa, like Rotorua or Gisborne, or across an iwi region. Following the trial, we would then seek to enable the use of bilingual signs for the rest of Aotearoa. However, wider implementation across Aotearoa would likely not occur until after this term of Government.

- 33 We can concurrently undertake further research into any areas where there are outstanding questions and develop a plan to enable and implement the rest of the bilingual signs after this term of Government. Also, learnings from the initial phase of implementing bilingual traffic signs could be utilised for implementing bilingual signage outside of the transport sector.

With a preferred approach identified, there are a series of other trade-offs to consider

Do we want the legislative settings to enable or require bilingual signs?

- 34 There are ways we can design the legislative settings to encourage or require implementation. We need to enable bilingual signs in legislation, but we could also:

34.1 legislate so that both bilingual and English-only versions are valid indefinitely – but this does not align with our objective of having bilingual signs by default and would undermine standardisation

34.2 require that when a sign is replaced, it must be replaced by the new bilingual version – this is a low-cost approach, but it would take 15 years⁷ before most signs are replaced with a bilingual version. Te Taura Whiri support this approach as it aligns with their previous advice to other agencies about implementing bilingual signs.

34.3 require that the old signs must be replaced by a certain date (for example within 5 years) and after this date the old signs are no longer valid – this is the best way to support standardisation and familiarity, but it would impose extra costs on councils and Waka Kotahi.

- 35 These legislative choices can have direct implications for the costs discussed below.

How shall we balance cost and speed of implementation?

- 36 The normal costs of replacing traffic signage due to damage or wear is built into the system. These costs are allocated through:

⁷ Waka Kotahi estimate that the average life of a traffic sign is 10-15 years, with signs on state highways averaging only 8 years.

- 36.1 the National Land Transport Programme (NLTP), which includes an activity class for the maintenance of state highway and local road traffic signs – this pays for the maintenance of all state highway signs and 50 percent of the cost of other local traffic signs
- 36.2 RCA funds, which pay for the other 50 percent of the local sign maintenance. This means that progressing implementation beyond regular maintenance will impose costs on councils.
- 37 The cost of replacing a traffic sign depends on the size of the sign and can range from § 9(2)(b)(ii) through to § 9(2)(b)(ii) (including traffic management costs).
- 38 The cost of implementation will depend on how fast implementation happens. For example:
- 38.1 Coordinating bilingual sign changes with scheduled sign maintenance was the model used in Wales which adds minimal costs to the system⁸. However, this could result in slow and patchy implementation creating consistency and standardisation risks.
- 38.2 Utilising upcoming opportunities to implement bilingual signage is also relatively cost-neutral. For example, the implementation of new speed limit signs around schools, scheduled sign maintenance, and existing infrastructure or roadwork projects. There will be no additional costs to implement “School” signs as this can be aligned and absorbed into the existing Setting Speed Limit work. This would be more impactful than scheduled sign maintenance only, but it is still relatively slow.
- 38.3 Replacing traffic signs before scheduled maintenance for example, within 5 years. This would require further funding for implementation, which could come from:
- 38.3.1 Budget 2022 – this would be the most appropriate option given that the outcomes and benefits are not solely linked to transport (such as cultural benefits). No additional costs would be imposed on local councils.
- 38.3.2 The Government Policy Statement on Land Transport (GPS) 2024 – you could signal bilingual traffic signs as a priority and provide additional funding in the ‘maintenance’ activity class to support this. But the GPS 2024 will only provide funding from 2024/25 onwards, and a significant proportion of signs are on the local road network meaning local councils will need to bear half the costs.
- 39 When we receive your initial indication of a preferred approach, we can provide a more accurate cost estimate. But to give you a sense of the scale of cost involved we have outlined two examples below:
- 39.1 To replace the 7,000 “Give Way” signs on the state highway network, it would cost about \$ § 9(2)(b)(ii). This is a low-cost sign to replace – about § 9(2)(b)(ii) each to manufacture and install.

⁸ Additional costs only occurring though signs needing to be larger or designed differently.

39.2 There are over 60,000 informational signs relating to destinations on the state highway network. Not all of these will require a bilingual version as some place only have a te reo Māori name. But if we estimate that half the destination signs could be replaced with a bilingual version, it could cost about \$ s 9(2)(b)(iii)

.⁹

How shall we maximise safety through implementation?

40 Waka Kotahi's research shows that bilingual signs generally do not have negative safety effects. But as we introduce bilingual traffic signs, it is expected that there will be an initial increase in the demand of the driving task as people become accustomed to the new information on the signs.

41 To ensure the new signs do not contribute negatively to safety outcomes due to additional comprehension times for road users, it is important we balance the cost and speed of implementation with:

41.1 widespread communication about the changes so people initially know what to expect

41.2 phasing in bilingual signs in a sensible way such as systematic roll out and avoiding long periods of time with different signs around the country¹⁰

41.3 ensuring we use design principles to draw people's attention to the information they need to process more information rapidly and effectively.

It would be useful to meet with you to determine the implementation approach

42 Based on the approaches set out above, our preference would be approach two. This approach best utilises our resource, takes advantage of opportunities, is reasonably low cost for this term of Government, and will lead to faster and more widespread implementation of bilingual traffic signs across Aotearoa.

43 Waka Kotahi and Te Taura Whiri also support approach two.



44 There are lots of moving parts and considerations to be made for this project. These decisions will impact how widespread and how quickly bilingual traffic signs are able to be rolled out across Aotearoa.

45 For this reason, it would be helpful to meet with you (alongside Waka Kotahi officials) to determine what you would like to achieve by the end of this term of Government and how we can best shape an implementation approach to reflect that.

⁹ We do not have sufficient data currently to accurately determine the number signs that would need to be replaced or the individual cost. However, we have provided this indicative figure to estimate the scale of cost.

¹⁰ In terms of comprehension, there is safety benefit to a phased approach that aims to minimise the time different versions of the same sign are in use on the network. It is therefore preferable to choose a single sign and implement that nationally over a short duration than to implement multiple signs over extended durations.

Annex 1 – Detailed potential approaches for implementing bilingual traffic signs

Approach one – wide public engagement followed by enabling all suitable bilingual signs in legislation					Approach two – enable and progress a selection of bilingual signs (preferred approach)				
Description: This approach prioritises taking the public on the journey rather than quick results. This creates plenty of time and space for public input, engagement and buy-in. Depending on the public response, we would then look to progress all suitable bilingual signs and could implement these in a more systematic approach.					Description: This approach is the fastest way to see bilingual signs in the ground and will have the most coverage across Aotearoa. It will allow us to start progress on making the required legislative change and leaving lots of time for implementation this term. It will also appeal to many councils and Māori communities who have been advocating for te reo / bilingual options for years.				
Considerations: <ul style="list-style-type: none"> No bilingual signs in ground by the end of this term Low costs for this Government High public engagement May lead to pushback from Māori communities who want to see bilingual signs now Allow for systematic and safe implementation after 2024 					Considerations: <ul style="list-style-type: none"> Option with greatest visibility and coverage of bilingual signs Some implementation costs that will require funding To minimise costs we could align with existing opportunities (for example, the Setting Speed Limits which would see approx. 1,000 bilingual school signs implemented by the end of 2023). Standard rule consultation will occur – but some people may feel like this is being imposed on them or haven't had the chance to share their views 				
Cost Consultation Signs in ground Staff resource					Cost Consultation Signs in ground Staff resource				
									
Public engagement Policy development (incl. translation & design) Consultation Sign rule Prepare for implement / comms					Policy develop Con-sult Sign rule Prepare for implement comms Implementation				
2021 2022 2023					2021 2022 2023				

Approach three – wide public engagement followed by enabling a selection of bilingual signs in legislation

Description:

This approach combines the best aspects of approach one and two, to allow time and space for the public to come on this journey and also being able to see some signs in the ground. But with this option, there would be 6-12 months less time for implementation compared with approach two.

Considerations:

- Some bilingual signs in the ground by the end of this term
- Some implementation costs that will require funding
- High public engagement
- It will take longer to reach the implementation stage, which may result in us missing opportunities like aligning with implementing the new speed limit signs around schools.



Approach four – pilot bilingual signs in a town then enable use for rest of Aotearoa

Description:

With this approach, we could trial the use of bilingual signs in a town like Rotorua or Gisborne. This would definitely promote the wider public discussion, and provide the time and space of people to experience the new signs.

Considerations:

- There would be visibility of the bilingual signs but it would not have coverage across Aotearoa
- High public engagement
- High upfront implementation costs and major disruption for the pilot town
- It will take longer for other interested towns or regions to adopt bilingual signs
- Require a lot of communication and engagement to support a safe transition with implementation.

