

MINISTERIAL BRIEFING NOTE

Subject	Temporary Traffic Management – State highway historical and Q1 cost and inspection data
Date	25 October 2024
Briefing number	BRI-3162

Contact(s) for telephone discussion (if required)				
Name	Position	Direct line	Cell phone	1 st contact
Vanessa Browne	Group General Manager- Transport Services	s 9(2)(a)	s 9(2)(a)	✓

Action taken by Office of the Minister

- ☐ Noted
- ☐ Seen by Minister
- ☐ Agreed
- ☐ Feedback provided
- ☐ Forwarded to
- ☐ Needs change [please specify]
- ☐ Withdrawn
- ☐ Overtaken by events

25 October 2024

Hon Simeon Brown – Minister of Transport

Temporary Traffic Management (TTM) – State highway historical and Q1 cost and inspection data

Purpose

1. This briefing provides you with information on temporary traffic management performance measures reporting, and includes:
 - State highway 3-year historical TTM cost data (baseline).
 - State highway Q1 TTM cost and inspections data.

Background and context

2. The Government Policy Statement on land transport (GPS 2024) sets out the expectation that NZ Transport Agency Waka Kotahi (NZTA) will reduce expenditure of TTM while maintaining the safety of road workers and road users. It is expected that the NZTA will calculate its expenditure on temporary traffic management for each of the three previous financial years to form a baseline for future savings.
3. In addition, the NZTA Performance and Efficiency Plan outlines what we will monitor and measure to improve performance, and how we will demonstrate progress towards safe, efficient and effective TTM:

“...Reporting on expenditure on temporary traffic management on a quarterly basis and reducing this expenditure while maintaining the safety of workers and road users. The initial report will include calculated expenditure on traffic management for each of the three previous financial years to provide a baseline for future savings.”

State highway 3-year baseline and Q1 data

4. For the three-year historical baseline information, reflecting the mix of all NZTA Maintenance and Operations and Capital activities during this time, the state highway overall TTM expenditure was 9.3% of total programme costs.
5. For Q1, reflecting the mix of all NZTA Maintenance and Operations and Capital activities, the state highway overall TTM expenditure was 6.1% of total programme costs.
6. Attachment 1 – TTM Baseline and Q1 2024 Summary outlines the 3-year historical baseline information and Q1 data for state highways. This includes a separation for Capital Improvement and Maintenance activities alongside reporting methodologies used and key insights from both the baseline and Q1 data.

7. Q1 costs are not indicative of future periods as it covers the winter months when less work is undertaken. We expect to be able to provide more thorough commentary and observations regarding trends in future periods.
8. Additional TTM performance measures have been included to demonstrate progress:
 - Number of sites inspected.
 - Number of inspections where redundant equipment is onsite.

Next steps

9. NZTA's TTM cost and inspections data will be included in the NZTA Q1 performance report (July-September 2024) due for submission to the NZTA Board on 15 November.
10. NZTA will provide a more detailed update to the Minister on TTM data at the Senior Officials Meeting on 18 November.
11. We already know that Q2 represents a significant works programme across the state highway network – the summer maintenance and renewals programme will be underway, recovery work will continue, and there will be increasing work on large capital projects. The seasonal differences in the type of work and volume of work will affect the TTM costs for Q2.
12. At the end of 2024/25 financial year, the data will be compared to the three-year baseline data to establish a comparable figure.
13. NZTA will investigate TTM costs for projects that show outliers i.e. high or low, relative to similar activities.
14. At a national transport system level, NZTA is rolling out the new risk-based approach *New Zealand Guide to Temporary Traffic Management* (NZGTTM) across our state highways. NZTA is now applying the NZGTTM to all new capital works projects as well as to some maintenance works. We expect more maintenance contracts to convert in line with the new Integrated Delivery Contracts from early-2025 following the busy summer maintenance and renewals season.
15. The move to the risk-based approach to TTM gives construction contractors the opportunity to right-size their TTM setups to achieve safer, more efficient and effective TTM.
16. We expect this will lead to better TTM setups over time, however it is important to note road users will still see more worksites with TTM equipment on the state highway network this summer as this is our busiest time of the year to carry out maintenance and renewals.
17. Over time, to help reduce TTM expenditure, NZTA expects that long-term cost efficiencies will come from the new TTM approach driving fit for purpose TTM setups, and a significant uplift in high quality renewal activities and integrated delivery, over a sustained period. Over time, this will reduce the requirement for smaller fixes and low-risk activities, therefore reducing TTM and costs overall.

It is recommended that you

1. **Note** the contents of this briefing

VC Browne

.....
Vanessa Browne

Group General Manager – Transport Services

.....
Hon Simeon Brown, Minister of Transport

Date: 2024

Purpose

GPS 2024 sets expectation NZTA will reduce TTM expenditure while maintaining safety of road workers and road users. Expectation to improve TTM efficiency and effectiveness across the state highway network to improve safety, value for money and customer experience.

GPS outlines that NZTA is expected to calculate its TTM expenditure for each of the three previous financial years to form a baseline for future savings and report quarterly.

To demonstrate progress with TTM management we are also reporting quarterly on the number of sites inspected.

State highway baseline

- ❖ Maintenance and Operations (M&O) against total programme cost – 15.8%
- ❖ Capital improvements against total programme cost – 6%
- ❖ State highway overall TTM expenditure (capital and maintenance and operations), total programme costs – 9.3%

Q1 2024/25 data

Activity	Total Costs ('000)	TTM Cost ('000)	TTM Cost % (vs Total Costs)
Capital	\$388,817	\$11,887	3.1%
M&O	\$315,652	\$31,116	9.9%
Total	\$704,469	\$43,003	6.1%
Total TTM site inspections carried out		TTM sites with unnecessary or redundant TTM	
42		2	

TTM cost data calculations

State-highway 3-year baseline	Q1 24-25 FY data
<ul style="list-style-type: none">• TTM costs are not universally available from all contracts due to differing historical requirements for information collection• We collected TTM actual costs and physical works from suppliers for a sample of contracts where costs were recorded and accurate, from this TTM costs percentages have been calculated• We applied the calculated total TTM costs to the total programme costs (land purchase, design, consenting, physical works etc) to calculate the TTM percentage of total programme costs	<ul style="list-style-type: none">• Actual TTM costs and physical works costs obtained from our suppliers for all contracts, and checked with NZTA systems• TTM percentages calculated compared to the baseline

3-year historical TTM costs

Activity	Financial Year	Total Costs ('000)	TTM Cost ('000)	TTM Cost % (vs Total Costs)
M&O	2021/22	\$739,000	\$114,000	15.4%
M&O	2022/23	\$915,000	\$145,000	15.8%
M&O	2023/24	\$1,154,000	\$184,000	15.9%
M&O	Sub-Total	\$2,808,000	\$443,000	15.8%
Capital	2021/22	\$1,648,000	\$101,000	6.1%
Capital	2022/23	\$1,835,000	\$109,000	5.9%
Capital	2023/24	\$2,190,000	\$133,000	6.1%
Capital	Sub-Total	\$5,673,000	\$343,000	6.0%
	Total (3 year)	\$8,481,000	\$786,000	9.3%

Key insights

- Increases in TTM costs over the three-year period are primarily attributed to responding to Cyclone Gabrielle and severe weather events, and a bigger pipeline of summer maintenance works and large infrastructure projects.
- Maintenance activity during winter differs from other periods, with 57% of TTM spend was on less invasive maintenance activities – e.g. cyclic activities like litter collection and mowing. Additional emergency/incident activities made up 23% of TTM spend, while this will fluctuate throughout the year, Q1 saw a number of large-scale weather events that will have influenced the result.
- NZTA has been working with suppliers to improve efficiency through better management of TTM on sites, including inspecting all M&O TTM sites in early 2024. We are developing a programme of regular inspections once the summer construction season fully commences.

Additional TTM data and insights for state highways against physical works costs only

The cost data and breakdown below is additional to the GPS 2024 requirement and will assist with better management of our suppliers' TTM costs. These data and insights are compared to the total *physical works* costs where the TTM costs are most applicable (not total *programme* including design and property where TTM is a relatively small cost). Comparison against total physical works costs results in a higher TTM cost % and gives a more granular understanding of the proportion of TTM activity spend.

Q1 TTM costs compared to total physical works costs				Capital activity type breakdown			M&O activity breakdown						
Activity	Total Project Physical Works Costs ('000)	TTM Cost ('000)	TTM Cost % (vs Physical Works Costs)	Activity	Brown fields	Green fields	Activity		\$TTM / \$Total Physical works (M&O)	TTM Cost % (Physical Works Costs)			
				\$TTM / \$Physical Works	\$8,629 / \$152,424	\$3,258 / \$120,026	M&O	24 hour pothole works	\$606 / \$2,030	29.8%			
Capital	\$272,451	\$11,887	4.4%	TTM Cost %	5.7%	2.7%	M&O	Emergency/incident activities	\$8,193 / \$40,290	20.3%			
M&O	\$177,991	\$31,116	17.5%	<p>Brown fields – improvement works within existing road corridors. The key factor is that traffic is travelling through/past these worksites.</p> <p>Green fields – improvement works adjacent to existing road corridors. The key factor is that traffic does not travel through or past these sites. They have limited locations where traffic interacts with the worksite i.e. at each end and intersection.</p>			M&O	Planned cyclic works	\$18,185 / \$101,576	17.9%			
Total	\$450,442	\$43,003	9.5%				M&O	Renewals	\$3,643 / \$31,194	11.7%			
							M&O	Variations*	\$489 / \$2,901	16.9%			
							Total	\$31,116 / \$177,991	17.5%				
							* Variations are very small capital works that the maintenance contractor completes. These are brownfield, short duration, complex TTM activities						

Key insights

- For maintenance, the activity with the highest % TTM cost is the 24-hour pothole repairs - 29.8%. 24hr pothole repairs costs are especially high due to the comparatively low cost for materials and the work being reactive, with short timeframes, therefore with a high level of exposure to live traffic.
- Therefore, Q1 results are not representative of typical maintenance activities throughout a whole year. The majority of NZTA's maintenance renewal delivery is done in the summer season, with mainly design elements and limited physical works happening in Q1.
- Brownfields projects on average have over twice the TTM costs as green fields projects.
- We expect quarterly results to fluctuate, due to the changing nature of activities through the year, but also as we establish and embed TTM cost reporting practice and mechanisms with our suppliers and contracts.