

Rail Network Investment Programme

2023/24 Annual Report



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Executive Summary

NZ Transport Agency Waka Kotahi (NZTA) produces an Annual Report on the Rail Network Investment Programme (RNIP) as part of its monitoring function under section 102A of the Land Transport Management Act 2003.

Progress towards outcomes in 2023/24

The NZ Rail Plan outlines a monitoring framework to assist in measuring the achievement of outcomes across the wider programme of government investments to restore a resilient, reliable, and safe freight and passenger rail network for New Zealand. The framework covers a wide range of topics across KiwiRail's above and below rail businesses. Results for 2023/24 are shown below.

Table 1: Overall outcome results for 2022/23

Outcome	Target	Trend
Improve the value of rail		
More freight carried by rail		
More people travel by rail		
Reduced emissions		
Fewer fatalities and incidents		
Rail network is more efficient		
Rail network is more reliable		
Rail network is more resilient		
Fair access to the network		

Key							
	Achieved target		Within 10% of target		>10% below target		Not reported this period (Tri-annual)
Trend (to prior year)		doing better		no change		doing worse	

Summary of key findings

Impact of extreme weather events

While there have not been any further significant weather events this financial year, there has been significant work ongoing on 'repair and make safe' works from the North Island Weather Events of last year. KiwiRail has delivered \$85.1million of recovery, repair, and make safe works this financial year (nett of insurance proceeds (\$50 million)). This is a strong result with the additional quantum of work being delivered in challenging circumstances in addition to the base programme.

Plant procurements remain critical

Plant remains a critical enabler of productivity and programme outcomes. It enables KiwiRail to complete core tasks efficiently (both time and cost) and to grow productivity and capacity into the future. Progress on plant procurements remains in-line with the overall programme with all contracts now awarded and final 'commissioned and in-service' dates confirmed within the RNIP 2024-27 period.

Recruitment of resources has continued strongly

Significant levels of front-line staff recruitment have been achieved to support delivery of the first RNIP across front-line and engineering/asset management staff. All planned recruitment is now complete. Significant progress has also been made to address the challenge of recruiting people with engineering and design skills for track work and signalling design, with 30 new staff employed during the year. It will take time for the additional capacity to be realised due to the significant amount of training required.

Cost pressures and escalation remains a real issue

Like the rest of the infrastructure market, cost escalation remains a significant risk with both material and labour costs above budgeted levels. We are concerned that if the necessary level of future funding is not available, current and future cost pressures will need to be managed by deferring renewals to remain within overall budgets. This will continue to deteriorate asset health and increase the renewal backlog.

Renewals programme delivery

Overall renewals delivery has been strong with almost all asset classes exceeding planned delivery levels. The quantity of track renewals delivered increased for the third consecutive year with the targets for rerailing, re-sleepering and full track relays all exceeded. We note the ongoing issues with civil and structures elements as the 2 areas behind target.

Issues remain relating to the funding of critical maintenance and renewals in the two metro networks. These costs are shared between central and local government, based on network usage. Budgets were again below the desired levels due to affordability constraints with councils, adding renewals to the backlog. Wider cost pressures, such as increasing insurance premiums contribute to this issue.

Asset Management Continuous Improvement Programme (CIP)

The CIP has progressed well and is evidenced by the depth and quality of the artifacts we have received to support the proposed RNIP 2024-27. This work has gone a long way to resolving many of the issues identified in our initial assessment and we highlight the criticality of continuing with a strong, well-funded asset management maturity programme into the future. All CIP deliverables for the 2021-24 programme have been completed.

Metro improvement projects

Delays and changes were experienced on several metro improvement projects, which has led to a final out-turn for the year 35 percent under original budgets. This is consistent with the over-optimistic forecasting that has been observed across all 3 years of the RNIP and we will work with KiwiRail to ensure this improves in the future. Of note, the Auckland Integrated Rail Management Centre was formally opened by the Minister of Transport on 14 March 2024. The facility is now referred to as the Auckland Rail Operations Centre (AROC) and is fully staffed and operational and was delivered on-time and under budget. The remaining funding for these activities will carry-forward into the 2024-27 period.

Programme level risks and issues

KiwiRail continues to manage RNIP delivery risks and report them to NZTA as part of monthly and quarterly reporting. We consider these documents cover the relevant delivery risks and issues and have suitable mitigation plans in place. The risks consider the wider KiwiRail works portfolio in their assessment and management.

Summary of delivery for RNIP 2021-24

In the third and final year of RNIP 2021-24, KiwiRail continued to build on the delivery momentum that has been established over the duration of the 3-year programme. This momentum saw further increases in the key output areas — particularly in track renewals where delivery outputs have increased year-on-year and individual targets for rerail, re-sleeping, and relay have all been exceeded. The benefits of this investment can be evidenced by the reported Key Performance Indicators (KPIs), particularly that:

- Track Quality Index has improved from 80% to 100% within target on priority routes,
- 97% of condition 5 (very poor) rail has been addressed on priority routes,
- the majority of condition 5 (very poor) sleepers have been addressed on priority routes.

Of note, there has also been significant advances in KiwiRail's asset management data, knowledge, and overall maturity as a result of the investment into their Asset Management Continuous Improvement Programme. This has been evidenced and noted in several reviews and assessments including a second Asset Management Maturity Assessment conducted by AMCL (a specialist asset management consultancy), and the NZTA assessment of RNIP 2024-27.

KiwiRail also responded well to significant unforeseen events during the period — particularly the North Island weather events of 2023. As a result, a significant level of activity was delivered in response, repair, and make-safe works in addition to the planned programme. Programme management has remained effective and agile throughout the period.

While these have been excellent outcomes, there remains a significant amount of work required on the rail network to increase overall reliability. The increased knowledge of asset condition and health has led to the identification of significant additional work and ongoing investment in the network remains critical.

In a similar vein, significant work has been delivered in the 2 metro networks over the last 3 years (both funded within the RNIP and from other sources), but further work is required to lift the network to the desired state and deliver the desired levels of reliability to customers.

Long run indicators are starting to improve but remain mixed — which is expected only three years into a 10-year+ programme of work.

The benefits of forward funding certainty and a fixed forward work programme are evident through the outputs and the results achieved.

Notwithstanding the strong delivery metrics over the period, there are a number of areas that require additional focus going forward:

- Timely development of a wider suite of benchmarking that can be used to demonstrate efficient and effective delivery,
- Improved forecasting accuracy for metro improvement projects,
- More timely release of performance reports and metrics to enable timely interventions if required.

Overall, delivery across the 2021-24 period has been strong with significant benefits delivered that have improved the overall condition of the network. We look forward to seeing the ongoing momentum carried forward into the 2024-27 period.

Section 1

Purpose and scope

1. This report is the NZTA Annual Report on the Rail Network Investment Programme (RNIP), as required under section 102A of the Land Transport Management Act 2003 (LTMA).
2. Under section 102A NZTA must:
 - a. monitor the provision of rail activities or combinations of rail activities approved by the Minister under section 22F; and
 - b. monitor the extent to which the rail network investment programme -
 - › contributes to the purposes of this Act; and
 - › is consistent with the Government Policy Statement (GPS) on land transport; and
 - c. report annually on its findings to the Minister.



Section 2

Background and context

RNIP Approvals to date

3. A summary of RNIP approvals to date, including a table summarising the costs associated with those approvals, included in Appendix A.

Summary of second Annual Report

4. In September 2023 we submitted our 2022/23 Annual Report. A summary of the report is below:
 - Renewals delivery was strong in most asset classes for the national freight network with track renewal target being exceeded. This was an excellent result.
 - Supply chain disruptions were not as pronounced, but disruption was experienced due to a number of extreme weather events.
 - Network condition KPIs remained variable, but we noted this was year 2 of a 10-year programme so there is still significant work to be completed to improve overall network condition.
 - Issues remained in the 2 metro networks where affordability issues for local councils have led to a reduction in planned critical work and significant disruption.
 - Cost escalation remained a significant risk to the delivery of the 10-year programme and we noted our concern that without sufficient funding current and future cost pressures will need to be managed by deferring renewals to remain within overall budgets.

Section 3

Annual Report on the delivery of the RNIP 2022/23








5. This section summarises the delivery of rail activities approved under section 22F and reconfirms that the activities continue to contribute to the purposes of the LTMA and are consistent with GPS 2021 (which was current when the programme was developed). In this section we will:
- provide a summary of the suite of reporting metrics in the NZ Rail Plan and RNIP to show how the delivery of activities are contributing to the outcomes sought from the investment
 - provide a summary of overall delivery, and (in an appendix) a commentary on the delivery of the individual activities
 - reconfirm the activities contribution to the LTMA and consistency with the GPS 2021 (which was current when the programme was developed), and
 - provide an update on the findings and recommendations from our initial advice and last annual report.















































Part 1: Summary of reporting metrics and contribution to outcomes

6. Until such time as it is updated, we will continue to report metrics and outcomes against the monitoring framework in Section 3 of the NZ Rail Plan (Measuring the benefits of investment). This framework assists in measuring the achievement of outcomes across the wider programme of government investments to restore a resilient, reliable, and safe freight and passenger rail network for New Zealand. The framework identifies 7 'success factors', and several draft indicators to measure progress against the seven success factors.
7. A more detailed reporting framework has been developed within the RNIP that is consistent with the framework in the Rail Plan. This framework consists of three levels of reporting that provide increasingly detailed and more granular information which roll-up to demonstrate progress towards outcomes. It contains:
 - Nine outcomes (the seven Rail Plan success factors, plus two additional outcomes)
 - › Fourteen indicators (cascading up to the nine outcomes)
 - Thirty-six individual KPIs with targets (cascading up to the fourteen indicators) (plus other additional KPIs which are only measured every three years).
8. The outcomes and indicators cover a wide range of topics across KiwiRail's above and below rail businesses (such as on-time performance for freight and asset condition indexes). We are satisfied that they are consistent with good practice having reviewed them against international equivalents.
9. This annual report summarises the results at the 'Outcome' and 'Indicator' level for the current year (2023/24) and 'Trend' which shows how the indicators have moved since last year. It is important to note that outcomes are best measured and monitored over the longer term and improvements in reliability and resilience across the network will take some time to deliver. As such, there is a likelihood of fluctuation in indicators in the short term. Commentary is provided with a focus on the KPIs that pertain to RNIP delivery that flow up to indicators and outcomes.

Table 2: Overall outcome results for 2023/24 and trend demonstrating movement from previous year's results.

Key			
 Achieved target	 Within 10% of target	 >10% below target	 Not reported this period (Tri-annual)
Trend (to prior year)	 doing better	 no change	 doing worse

Outcomes	Indicators	Summary commentary (As pertaining to RNIP delivery)
Improve the Value of Rail	 Value of Rail Report	 This is measured tri-annually to support Rail Plan and GPS development. This work is now being led by the Australasian Railways Association (ARA) rather than KiwiRail. The ARA has commissioned Ernst and Young to update the Value of Rail exercise. While not complete the work is nearing completion.
More freight carried by rail	 Mode share for freight 	 A subdued freight market and the impact of line closures from severe weather events led to a decline in rail freight volumes.  The subdued market was felt across all freight modes and was reported at ports. Both rail and road volumes declined, and the overall mode share across road and rail remained consistent to the previous year.
More people travel by rail (passenger mode shift)	 More people travel by rail 	 Commuter Journeys remained below target, but have increased by 23.3% from previous year.  Scenic Tourism passenger numbers continue to outperform the target.
Reduced emissions	 Tonnes of greenhouse gases emitted per year 	 Reduced freight volumes (with a higher reduction in the North Island compared to the South Island) led to running of lighter trains, meaning less fuel-efficient movements, and redistributing empty containers for export customers.  Note: better fuel efficiency of fleet in the North Island.
	Tonnes of avoided emissions	 

Outcomes	Indicators	Summary commentary (As pertaining to RNIP delivery)
Rail network is more reliable	  Number of rail safety incidents	  Within this outcome and indicator is the Total Recordable Injury Frequency Rate (TRIFR). We note that the TRIFR has improved over the last 12 months, but the actual result is still failing to meet target.
	Deaths and serious injuries (include KiwiRail Personnel/ KiwiRail Contractors, excludes non-KiwiRail incidents/ suicides etc)  	
	Decreasing number of level crossings in service  	11 less in service.
Rail network is more efficient	  Rail freight productivity / utilisation	  Details of operating surplus are yet to be published at date of issue of Annual Report.
Rail network is more reliable	  Travel time reliability	  The overall indicator has improved to amber. We note the overall result reported here includes age and reliability of rolling stock and Interislander fleet which are outside the scope of the RNIP. Within the scope of the RNIP is on-time performance of premier freight. This result was 89% against a target of 90%.
	Number of derailments  	
	Network condition  	Individual KPI results remain variable particularly on priority routes. The KPI for temporary speed restrictions on priority routes has improved this year but remains significantly below target. Further detail of these results is shown in Table 9.
Rail network is more resilient	  Number of outages	 
Fair access to the network	  Track access applications approved	 



Note: A number of these results also feature in KiwiRail's Statement of Corporate Intent and Annual Report and are subject to audit and confirmation.

- 10.** Of particular importance to measuring the success of investment through the RNIP is the set of KPIs under the network condition indicator. As noted, these have remained variable and once again temporary speed restrictions (TSRs) appear to be the biggest issue on the network.
- 11.** While there has been an improvement in TSR performance since last year, the actual result is still significantly below target. TSRs on priority routes have consistently failed to meet targets with only 30 percent within target on priority freight lines in the 2024 financial year (FY24) and significant implications of ongoing TSRs reported in both metros. The cause of this issue remains largely unchanged and is as a result of lingering impacts of the North Island Weather Events, tamper availability and reliability, asset condition, and both non-RNIP capital programmes, RNIP and planned renewal activities. As in last year's annual report, we note that:
 - the 2 metro networks continue to be severely impacted due to the amount of upgrade projects underway and their related TSRs. This means short term disruption to achieve longer term benefits
 - there is fluctuation in TSR numbers due to planned renewals and upgrades, which impacts on the KPI result
 - accelerated asset deteriorations identified through increased asset condition knowledge have increased the number of TSRs in place.
- 12.** We will continue to work with KiwiRail as they monitor and plan for the removal of TSRs. Work continues on rail grinding, improvements to slope stability, and bridge renewal. The introduction of new tampers will improve reliability of priority lines.
- 13.** Realistically, we do not expect to see a significant change in TSR performance until new plant and equipment is commissioned and in-service. Encouragingly, the second-hand tamper procured from Japan is now in-service. KiwiRail (with Auckland Transport (AT) and Greater Wellington Regional Council (GWRC)) has now also completed modelling to demonstrate the impact of varying funding levels to clear the overdue renewals backlog on TSRs and the resultant impact to customers. This analysis is also feeding into the ongoing update of the Metro Rail Operating Model (MROM).
- 14.** Below, we also highlight the performance in the Auckland and Wellington metro networks using resilience and reliability results to demonstrate how customer performance is being delivered.

Auckland Metro Network Performance

15. The results for punctuality (on time performance) and reliability (percentage of services that were not cancelled) in the Auckland metro network are shown in the table below. These results include the impact of disruption from capital projects (such as the Rail Network Rebuild).

Table 3: Auckland Metro network performance

Measure	Actual	Target	Status	Commentary
Punctuality	87.8%	95%		<p>Target not achieved and has worsened compared to last year (2022/23 result was 92.8%).</p> <p>We also note that within the overall 2023/24 result punctuality within the peak period was 79.5%.</p>
Reliability	93.6%	98%		<p>Target not achieved and has worsened compared to last year (2022/23 result was 97.1%).</p> <p>We also note that within the overall 2023/24 result reliability within the peak period was 92%.</p>



16. TSRs have impacted on both punctuality and reliability performance. The impact of speed restrictions was at its greatest following the Christmas shutdown with heat-related speed restrictions significantly impacting performance. Signalling issues at Britomart and train control system failures, along with failures of other critical track assets have also impacted performance throughout the year.

17. Significant work is still required to bring the network condition to the desired standard and achieve the stated level of service. This work is ongoing through the Rail Network Rebuild project which commences Stage 5 in FY25 following confirmation of additional funding to continue the project.

Wellington Metro Network Performance

18. The results for punctuality (on-time performance) and reliability (percentage of services that were not cancelled) in the Wellington metro network are shown in the table below. These results include the impact of disruption from capital projects (such as the Wellington Metro Upgrade Programme (WMUP)).

Table 4: Wellington Metro network performance

Measure	Actual	Target	Status	Commentary
Punctuality	94.1%	96.6%		<p>Target not achieved and has worsened compared to last year (2022/23 result was 96%).</p> <p>We also note that within the overall 2023/24 result punctuality within the peak period was 83.2%.</p>
Reliability	99.5%	99.3%		<p>Target achieved and has improved compared to last year (2022/23 result was 99.3%).</p> <p>We also note that within the overall 2023/24 result reliability within the peak period was 99.4%.</p>

19. The punctuality result reflects the ongoing project work across the region, along with the volume of over-due asset renewals required on the network. The peak period punctuality result is disappointing but also demonstrates how off-peak services are much less impacted by network disruption as less services are travelling, and the network is not under as much stress.

20. TSRs caused significant delays on all lines, with longer-term TSRs impacting services while awaiting remediation and or project work to complete. The cause of delays was varied and region wide with train control system failures, embankment and slope failures, and general track and points failures throughout the year. Notable non-project delays were caused by:

- overhead line equipment failure near Wellington Station in January which required emergency repair and inspection work,
- Wairarapa Line vibration interoperability issue,
- Porirua sea wall degradation, and
- train stabling yard availability due to track condition.

21. As with Auckland, significant work is still required to bring the network condition to the desired standard and achieve the stated level of service. WMUP project work continues, but benefits are still to be realised for passengers. A concern is the growing over-due renewals workbank which the current funding model is not able to address.

Part 2: Summary and commentary on delivery of activities

- 22.** NZTA have developed a Monitoring Plan for RNIP 2021–24 which contains four key areas of focus:
- renewals programme delivery
 - Asset Management Continuous Improvement Programme (CIP)
 - metro improvement projects
 - programme level risks and issues..
- 23.** These four areas are discussed below, but we first update 4 common challenges that had an impact on last year's performance. These challenges were less noticeable this year but still had some impact.

The impact of repairs to last year's weather events has been well managed and has not materially impacted wider programme delivery.

- 24.** While there have not been any further significant weather events this financial year, there has been significant work ongoing on 'repair and make safe' works from the North Island Weather Events of last year. KiwiRail has delivered \$85.1million of recovery, repair, and make safe works this financial year (nett of insurance proceeds (\$50 million)). This is a strong result and has demonstrated flexibility and agility in how this additional quantum of work has been delivered in challenging circumstances in addition to the base programme.
- 25.** Despite the significant additional workload this presented, the delivery of the renewals programme in 2023/24 was not significantly impacted due to KiwiRail mitigating any issues to achieve overall targets.

The procurement of plant remains critical to enable delivery performance and productivity improvements.

26. Plant remains a critical enabler of productivity and programme outcomes. It enables KiwiRail to complete core tasks efficiently (both time and cost) and to grow productivity and capacity into the future. Progress on plant procurements remains in-line with the overall programme with all contracts now awarded and final 'commissioned and in-service' dates confirmed. Note however, there is still around \$100 million of payments to be made in the 2024-27 period to complete the purchases. A summary status of the plant purchases is below:

Table 5: Status of plant purchases

Item	Description	Contract Awarded	Commissioned and in-service date	Variance to original planned dates
Tamper, Regulator and Stabilizer Sets (4 No.)	Machines used for distributing, profiling and compacting track ballast and improving track stability.	Yes	Sets 1&2 March 25 Sets 3&4 December 25	In advance of planned dates
EM80 Track evaluation car (TEC)	Rail vehicle used to monitor track quality at regular intervals.	Yes	September 27	In line with planned date
EWR Wagons (30 No.)	EWR wagons are used to transport and handle lengths of rail. They are critical for the distribution of material to and from the required locations around the rail network.	Yes	February 26	Delayed one year compared to the original schedule to allow time to fully evaluate and complete negotiations. No change to delivery timing have occurred in the last 12 months.

27. In addition to the planned plant procurements, KiwiRail has also procured a second-hand tamper from Japan which arrived in New Zealand in late 2023 and is now in service. KiwiRail continues to investigate other opportunities to procure and mobilise plant quickly, but in general terms the narrow gauge and axle loads used in New Zealand means there is limited plant available which can be quickly and easily deployed here.

28. While not part of the RNIP programme, we also note that through the Rail Network Growth Impact Management (RNGIM) project in Auckland, KiwiRail has procured additional Automatic Track Inspection Systems (ATIS) that can carry out more continuous track inspections on the metro networks. The ATIS equipment was delivered in May and commenced trials in July. A 6-month data collection period will follow with results correlated with the EM80 prior to full commissioning. The ATIS equipment will deliver significant benefits including automated fault reports, ballast profile assessments, track quality index readings and wider information to enable analysis and monitoring of asset deterioration.

Recruitment of front-line and skilled staff has continued to progress well and is now complete.

- 29.** Significant levels of front-line staff recruitment have been achieved to support delivery of the first RNIP. Since last year's annual report further recruitment has been completed and all front-line positions are now filled. In total, there have been 3,365 staff recruited including 71 in engineering, 282 in infrastructure and 12 in asset management during the 2021-24 period. All planned recruitment is now complete.
- 30.** During the year significant progress has been made to address the challenge of recruiting people with engineering and design skills for track work and signalling design. In last year's annual report, we noted recruitment in this area was ongoing and the level of recruitment was up to 83 percent. This has now been completed with 30 new track and signalling design staff within the year, lining up with KiwiRail's new risk-based maintenance and inspection regimes. It will take time for the additional capacity to be realised due to the significant amount of training required.

Cost pressures and escalation remain a real issue and pose a threat to achieving programme outcomes.

- 31.** Cost escalation remains a significant risk to the delivery of the 10-year programme, and we note it remains a 'very high' risk on the programme risk register. This financial year there has been significant escalation reported in some areas – particularly in the civils and structures projects. NZTA engage Infometrics to provide quarterly reports on cost trends affecting the delivery of infrastructure works. These reports validate the levels of cost increases reported by KiwiRail with a sector average of 4% over the last year, but also demonstrate there have been particularly high levels of cost escalation for structures activity over the last 3 years. These increases are now being realised as KiwiRail complete tender processes for structures projects that had been estimated using more historic unit rates with current construction sector pricing significantly higher. KiwiRail has updated their pricing methodologies and unit rates based on the received tender prices going forward, particularly for more complex works.
- 32.** We are concerned that if the necessary level of future funding is not available, current, and future cost pressures will need to be managed by deferring renewals to remain within overall budgets. This deferral will continue to deteriorate asset health and increase the renewal backlog. Like on the national state highway network, a large proportion of structures on the rail network are now over 100 years old and require replacement. We will work with KiwiRail on this issue to manage as appropriately as possible and report any further risks as they emerge.
- 33.** The labour component of track renewals costs has continued to increase in excess of the 2 percent factored in when the RNIP programme was established in 2021. In the FY24 collective employment agreement costs increased by 6 percent. Again, data provided by Infometrics confirm sector labour cost growth above 4 percent across the sector.

Renewal programme delivery

Freight network renewals delivery has been strong with track renewals exceeding targets

34. Within the overall renewals programme our main focus is the delivery of track renewals. This year's result was strong with a total of 95.8km of track and sleeper renewal being completed. This is 2.8km more than planned and the targets for rerailing, re-sleeping and full track relays were all exceeded. This year's outturn is also an increase of 6 percent from 2022/23. Overall, this is an excellent result.

Figure 1: Track renewal kilometres against plan and expenditure against plan 2023/24














35. Overall renewals delivery has been strong in most asset classes as shown in the table below. The civil and structures elements of the programme were again the most affected with design and consenting delays, and the escalating costs noted above, resulting in some work being deferred.

36. In response, KiwiRail has prioritised the completion of safety critical work throughout the year. Of the 16 planned structures renewals half were completed with the remaining eight expected to be finished by the end of FY25. However, this cannot be confirmed until budgets and the forward works programme are finalised and there is a risk they may be delayed further to FY26. An additional 5 structure projects were also completed, however does not form part of the KPIs.

Table 6: Renewal volumes delivered for all asset classes 2023/24

A percentage complete in excess of 100% indicates delivering more than the planned volumes.

Key		
 Achieved or exceeded target	 Within 10% of target	 >10% below target

Asset	Actual	Annual Baseline	Status	Percentage complete
Total Track (km)	93	96.1		103%
Turnouts (No.)	34	35		103%
Track Level crossings (No.)	34	38		112%
Civils Formation/Drainage (km)	6.4	7.9		123%
Civils Coastal & River Protection (km)	3.8	2.7		71%
Structures (No. of projects)	16	8		50%
Telecom Fibre Cable (km)	34.3	40.8		119%
Active Level Crossings (No.)	10	10		100%

37. Again, programme management remained agile through a robust change control process, and delivery was optimised to respond to changes.

Challenges remain in the affordability, funding and delivery of metro network renewals

- 38.** In the 2022/23 annual report we reported significant issues relating to the funding of critical maintenance and renewals in the two metro networks. In the metro networks routine renewal (and maintenance) costs are shared between central and local government, based on network usage, and under the overarching principle that the cost of maintaining the network is recovered from the users of network.
- 39.** These challenges have continued through 2023/24 and the necessary levels of funding have, once again, not been able to be provided by AT and GWRC. The shortfall across the three years of RNIP 21-24 is shown in the table below.

Table 7: Metro network funding shortfalls

		2021/22	2022/23	2023/24
Auckland Transport proposed share	RNIP (original)	\$34.2	\$34.9	\$41.8
	RNIP (revised request)	\$30.8	\$46.1	\$62.7
	Auckland Transport Confirmed	\$27.3	\$32.4	\$34.0
	Shortfall (To revised)	\$3.5	\$13.7	\$28.7
Greater Wellington Regional Council proposed share	RNIP (original)	\$43.1	\$45.8	\$46.6
	RNIP (revised request)	\$32.9	\$46.0	\$73.4
	Greater Wellington Confirmed	\$32.9	\$32.7	\$35.2
	Shortfall (To revised)	\$0.0	\$13.3	\$38.2

- 40.** Across both councils there is a total shortfall of \$66.9 million. When coupled with KiwiRail's corresponding reduction to the planned programme, the shortfalls noted above will lead to a total of around \$90 million of necessary renewal and maintenance work being deferred during this RNIP period. Wider cost pressures, such as increasing insurance premiums, also contribute to this issue.
- 41.** This continues to highlight the criticality of reviewing the cost share, incentive, and affordability aspects within the MROM. NZTA continues to work with the Ministry of Transport, KiwiRail and other rail participants to prioritise this work to enable the metro networks to be maintained to modern metro network standards. We acknowledge the additional funding provided by Government through Budget 2024 which will assist in meeting the shortfall in 2024/25 until the MROM review is complete.

The Asset Management Continuous Improvement Programme (CIP) is being delivered as planned and evidence of increasing asset management maturity is visible.

- 42.** The CIP has progressed well and is evidenced by the depth and quality of the artifacts we have received to support the proposed RNIP 2024-27. This work has gone a long way to resolving many of the issues identified in our initial assessment and we highlight the criticality of continuing with a strong, well-funded asset management maturity programme into the future.
- 43.** Cabinet Office Paper ‘Investment Management and Asset Performance (23) 9’ requires that: Agencies must demonstrate a level of asset management practice and performance that is appropriate to the scale of assets under their management and the criticality of those assets to the delivery of key public services. Our initial conclusions are that the suite of asset management documentation provided in support of the second RNIP are of an appropriate quality for the level of funds sought and potential risks to be mitigated.
- 44.** Progress against remaining planned deliverables of the CIP is shown below.

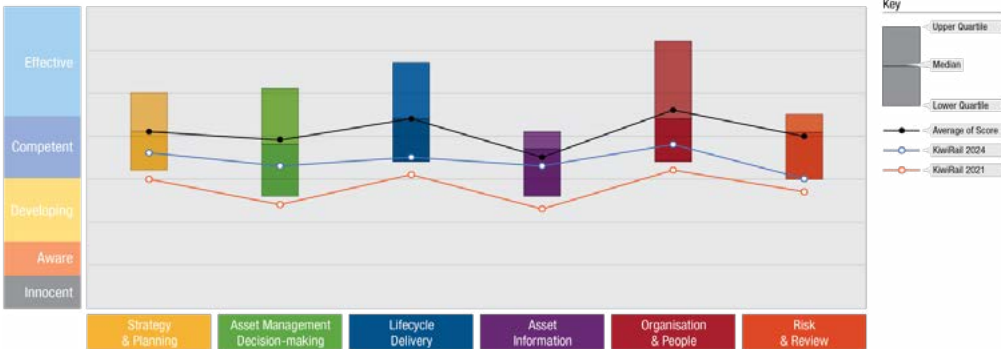
Table 8: Asset Management Continuous Improvement Programme - update on progress against deliverables

Focus Area	Initiative	Status	Commentary
Asset Management Strategy	Asset Management Policy	Complete	Approved by Executive Capital Committee (ECC) Executive Capital Committee is a subgroup of the KiwiRail Executive team.
	Asset Management Framework	Complete	Approved and is now being updated with enhanced requirements identified through the 2024 asset management maturity review.
	Strategic Asset Management Plan (Rail Network)	Complete	Approved by ECC
	Asset class strategies	Complete	All asset class strategies approved.

Focus Area	Initiative	Status	Commentary
Asset Management Plan and Investment Planning	Planning Guide (2nd version)	Complete	<p>The KiwiRail Asset Management Group has developed two planning guides, one for above rail and one for below rail. The following documents have been produced:</p> <ul style="list-style-type: none"> • RNIP Capital Forward Works Programme (FWP) Development, • RNIP Capital Works Change Control Process document, • RNIP Incident and Emergency Funding Approval, • Above Rail FWP Development, • Above Rail Capital Works Change Control Process document.
	3-year Forward Works Programme	Complete	Completed and included in RNIP 24-27 submission. FY25 Q1 work programme approve and in delivery, full FY25 work programme to be approved in August.
	Rail Network Asset Management Plan	Complete	Completed and included in RNIP 24-27 submission.
Works Delivery	Work Delivery Management Manual	Complete	Approved by KiwiRail's internal RNIP Governance Board.
	Implementation of New Works Delivery Management Processes.	Complete	Implementation of requirements are underway with workshops with key business units ongoing. KPIs to be developed in Q1 2024/25.
Asset Information	Deliver Tranche 1 of Data Quality Improvement Project	Complete	<p>Dashboards are in use and continue to be developed and maintained as required.</p> <p>Ongoing improvements in progress driven by improved Works Delivery Management.</p>
	Develop Asset Information Framework	Complete	Asset Information Framework is defined with an implementation roadmap of initiatives in progress. Data Quality Improvement Programme is underway. Governance body Terms of Reference drafted and governance to commence Q1/Q2 FY25.
	Asset Information Strategy	Complete	Approved by KiwiRail's internal RNIP Governance Board

- 45. We note that the average age of condition records (currency and completeness) for critical asset classes has stabilised at 2 years on average and they continue to be updated based on inspection cycles. This is a significant improvement on the average age of records which was 7 years at the start of the 2021-24 period. Ongoing improvements are also in progress driven by improved Works Delivery Management.
- 46. KiwiRail has now completed a second independent Asset Management Maturity Assessment conducted by AMCL (a specialist asset management consultancy). The assessment shows a marked improvement in asset management maturity through an objective review. As we noted above, the AMCL review also states 'The improvement journey should continue as a part of the multi-phased improvement plan developed in 2021'.
- 47. The AMCL review process is multi-faceted and interrogates maturity levels over 39 specific areas of asset management. We will provide further information into the assessment and its results in our Initial advice on the 2024-27 Rail Network Investment Programme. However, at the summary level the review has identified an increase in KiwiRail's asset management maturity from a level previously assessed as 'developing' to one now assessed as 'competent' with results now consistently in the lower quartile when benchmarked against 23 global rail businesses which are considered the most relevant.

Figure 2: KiwiRail vs Rail in Australia-NZ 2021 benchmark data with 2021 and 2024 KiwiRail

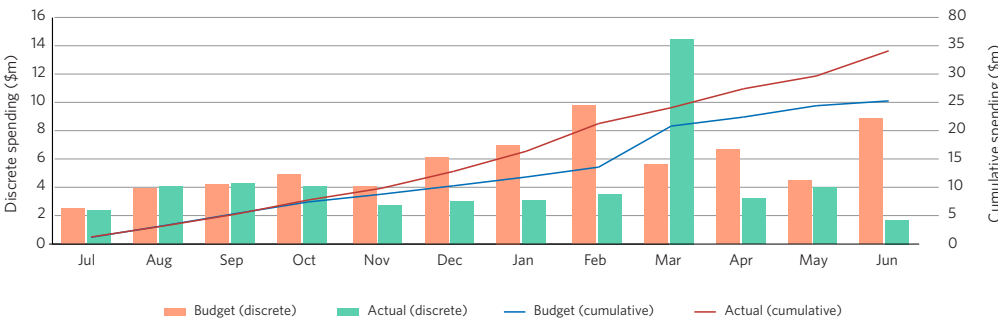


Source: KiwiRail.

The delivery of metro improvement projects has been mixed with some delays experienced.

- 48.** At commencement of the year KiwiRail was forecasting \$68.3 million of expenditure on the metro projects in the RNIP. Within that forecast, 2 significant projects represented 72 percent of the total expenditure - the Auckland Integrated Rail Management Centre and the Auckland Additional Power Feed.
- 49.** Delays and changes were experienced on several metro improvement projects which have led to a final out-turn for the year of \$50.6 million (35 percent under original budgets). This is consistent with the over-optimistic forecasting that has been observed in the metro projects across all 3 years of the RNIP. The remaining funding for these activities will carry-forward into the 2024-27 period and we will work with KiwiRail to ensure this improves in the future. The two most significant projects are discussed below, with commentary on all activities in Appendix B.

Figure 3: Metro improvement projects expenditure against plan 2023/24



Significant Projects

- 50.** The Integrated Rail Management Centre was formally opened by the Minister of Transport on 14 March 2024. The facility is now referred to as the Auckland Rail Operations Centre (AROC) and is fully staffed and operational. Expenditure this financial year was below the amount originally forecast due to a lower out-turn cost for the project. A surplus of funds of \$2 million has previously been declared and now that the construction contract has been closed and handover of maintenance and warranty complete a further surplus will be forthcoming. The project has been very successful and well managed by KiwiRail with strong buy-in from all stakeholders (specifically AT and Auckland One Rail) throughout the design and construction process.

51. The Additional Power Feed project is continuing to experience delays. While the contracts have been awarded for equipment required, the compound construction has been delayed from April 2024 to November 2024 due to ground condition issues. This has caused a delay to the start to the equipment installation which is now expected to commence in parallel to the compound works. The project now expects to commission the power feed in November 2024 with post-commissioning testing complete by February 2025, and as such is still expected to be completed to support the City Rail Link (CRL) Day One services. There is an ongoing risk relating to site access approvals which has been escalated to project director level for resolution.

Programme level risks and issues have been well identified and mitigations are effective

- 52.** KiwiRail continues to manage RNIP delivery risks and report them to NZTA as part of monthly and quarterly reporting. We consider that these documents cover the relevant delivery risks and issues and have suitable mitigation plans in place. The risks consider the wider KiwiRail works portfolio in their assessment and management. The most significant risks include:
- council co-funders not meeting their share of maintenance and renewal funding. This risk considers both the immediate and future years of the programme leading to further degradation of asset health and disruption on the metro networks
 - achieving KPI targets (particularly for structures and TSRs) leading to ongoing delays and disruption on the network
 - impact of delays in detailed scoping and design on procurement leading to delays in the ordering of materials
 - plant unavailable to complete all works due to competing demands from other funded programmes leading to delays to RNIP works
 - increased level of incidents due to effects of climate change leading to reduced availability of the network and a diversion of resources to deal with incidents and
 - risk of finding contaminated soil making disposal difficult leading to delays or stopping projects, increased costs for disposal, Safety, Health and Environment concerns.
- 53.** We are continuing to work with KiwiRail on mitigations, and ways to maximise the opportunities that the multi-year funding provides.
- 54.** Commentary on the progress of individual activities is shown in Appendix B.

Part 3: Confirming contribution to the LTMA and consistency with the GPS

- 55.** Under section 22C of the LTMA, NZTA is required to consider whether the RNIP:
- contributes to the purpose of the LTMA (to contribute to a safe, efficient and effective land transport system)
 - is consistent with the Government Policy Statement on land transport.
- 56.** We have reviewed our assessment and can reconfirm that the activities contained in the RNIP contribute to an effective, efficient, and safe land transport system in the public interest through restoring the rail network to a resilient and reliable state. We consider that the proposed investments will:
- support mode shift that reduces pressure on the wider land transport network
 - improve the movement of people in our largest metro centres in an efficient and effective way.
- 57.** GPS 2021 (which was current when the annual programme was developed) sets out delivery of the Rail Plan as a Government commitment to be met through the National Land Transport Programme. We consider that the activities included in the RNIP are consistent with the investment priorities set out in Section 2 (Strategic priorities for Rail) of the Rail Plan.
- 58.** Our reviewed, but unchanged, assessment can be found in Appendix C.

Part 4: Update on findings and recommendations from the 2022/23 Annual Report

Uncertainty around the costs of delivering RNIP activities and robustness of 10-year forecast

59. We noted that the cost estimates contained in the RNIP were based on KiwiRail's experience of historic cost data for similar work, supplemented by local knowledge of site-specific issues. Work has progressed in the last year on improving base levels of cost data and we can see the results of this ongoing work to support RNIP 2024-27.
60. KiwiRail has made progress in developing benchmarking across the track renewal activities that they delivered using internal resources. These benchmarks will help to support future programme costing and to demonstrate value for money. They will enable KiwiRail and NZTA to better understand the main drivers of expenditure across an agreed set of programme outputs to understand the reasons for changes from year to year and to measure efficiency.
61. Progress has been slow in finalising the data but we have now seen updates to the initial benchmarking data for the period between FY19 and FY24. This has shown some variable results with the unit costs of installation for re-sleeper, rerail, and relay activities initially decreasing over time but then increasing over the last 2 years. However, as noted in our 2022/23 Annual Report, we know what KiwiRail has been undertaking additional activities when completing scheduled renewals and we noted that we supported this approach as it increased overall delivery efficiency and effectiveness.
62. There have also been some changes to the methodology for cost capture (particularly in FY24) to improve the robustness of the data and costs going forward. These changes include the addition of items that had not previously been included (such as shunting costs) and there have been increases in labour costs through Collective Employment Agreement negotiations. Although this has led to increased unit rates, we are satisfied that they are more robust going forward.
63. Based on these changes KiwiRail has developed and mechanised a robust cost capture and reporting methodology going forward. This has now enabled them to set benchmarks and it is encouraging to see the inclusion of these in RNIP 2024-27, with KPIs tensioning delivery improvements against these benchmarked rates.
64. We consider that the continuation of the development of a wider and robust set of benchmarks continues to be a matter of priority and recommend that KiwiRail progresses this at pace.

- 65.** While not included in the RNIP, we are still experiencing cost increases on the projects funded during 2018-21 through the Transitional Rail activity class. In Auckland, the price level adjustment for the Rail Network Rebuild has now been funded through Budget 2024, but in Wellington, the substation upgrade project remains unfunded and there are ongoing cost pressures being signalled on the existing catch-up renewal project. There is ongoing pressure on the National Land Transport Fund (NLTF) to deliver the Government's transport priorities as set out in GPS 2024, particularly through the Public Transport Infrastructure Activity Class which is where these projects are now funded.

Ability to deliver the programme

- 66.** This has been another strong year for delivery and once again KiwiRail has delivered to plan. However, the availability of specialist resources and plant is still hampering delivery capacity growth and impacting KPI results. Annual programmes are now being developed with an element of stretch and are being successfully delivered, but it is apparent that until the new plant and equipment currently on order is received and put into service, there are limited opportunities to increase outputs.

Overarching Productivity Programme

- 67.** KiwiRail has continued to deliver their productivity and efficiency initiatives based on the overarching programme they developed in FY23. The initiatives look to improve the cost effectiveness and predictability of delivery across the wider programme. These initiatives also feature strongly in the 2024-27 RNIP and include:
- supply chain initiatives - through procurement panels and bulk buying materials at better prices with decreased lead times,
 - access strategies - investigating strategic access arrangements to reduce delivery costs through better use of planned network access,
 - integrated planning approach - enhanced planning, prioritisation and optimisation across different work sites, reducing disruption to services and maximising plant productivity with enhanced maintenance regimes that align to route strategies to support better whole of life cost,
 - standard designs - that will reduce design costs, reduce material costs through use of standard components, reduce consenting lead times and increase labour productivity,
 - use of technology - deploying digital shields around worksites to allow safe operation of plant closer to the tracks and 3D digital engineering as a design norm.
- 68.** NZTA support these initiatives, and we continue to strongly encourage KiwiRail to develop further initiatives driven by data, technology and innovation to better understand the condition of their assets, reduce waste, improve customer satisfaction, and increase value.

Section 4

Other issues

Rail Safety Regulator perspective

- 69.** In addition to working with KiwiRail, AT and GRWC to fund the rail network, we have primary regulatory responsibility for rail safety in New Zealand under the Railways Act 2005. Our role is to provide independent assurance to stakeholders and the public of the effective management of rail safety risks by rail participants.
- 70.** Section 104A of the LTMA creates a Director of Land Transport role within NZTA, reinforcing the independence of the regulatory functions that we are responsible for.
- 71.** As the independent safety regulator, we are impartial to funding sources but welcome seeing additional funding that will help rail participants contribute to a safer rail system through maintenance, replacement or new infrastructure, works and equipment. This RNIP reaffirms commitments to rejuvenate New Zealand's rail network that has historically suffered from years of under-investment. We look forward to working with KiwiRail as the projects within this investment programme are scoped and delivered.
- 72.** We have an expectation that safety criteria and legislative requirements are considered in the design stage of projects, in order to maximise safety benefits and investment outcomes. Once an asset is built, the safety risks arising from the asset must be managed for the asset's lifetime. The more safety risks that can be engineered out of an asset during its design and construction, the safer the asset will be.
- 73.** Working with the relevant stakeholders, we will continue to develop and implement processes for identifying and managing system risk. Alongside this, we will be ensuring the requirements of the Railways Act 2005 are being met, including that rail participants, and in particular rail licence holders such as KiwiRail, are managing safety risks effectively and meeting the 'so far as is reasonably practicable' test, including during the design and build phase.
- 74.** Our regulatory strategy Tū ake, Tū maia, sets out the strategic intent of our regulatory model, and the capability shifts required to be a real-world regulator. This journey is well underway, and we will continue to work with KiwiRail in the spirit of our Te Ao Māori principles in the next phase as they seek to establish a reliable and resilient network.

KiwiRail procurement procedures

- 75.** The LTMA requires KiwiRail to approve one or more procurement procedures that will apply to the delivery of rail activities. Before approving the procedure(s), KiwiRail is required to consult with NZTA. A procurement procedure has been provided that is intended to cover all outsourced expenditure required to deliver rail activities in the RNIP.
- 76.** The LTMA states that any such procurement procedure must be 'designed to obtain best value for money ... and take into account current government procurement practices.' The procurement procedure provided is consistent with what we would expect of a government agency that is required to follow most of the Government Procurement Rules (GPR). Like the GPR themselves the KiwiRail procurement procedure is focused on the sourcing / supplier selection process.
- 77.** The approach to procurement described is based on the GPR, follows public sector standards of fairness, and is generally consistent with the advice provided by the Ministry of Business, Innovation and Employment (as the government Procurement Functional Leader). KiwiRail manage their procurement activities through a conventional, modern, and sophisticated procurement function, and as such value for money outcomes should be obtained through the commercial arrangements subsequently established.
- 78.** When NZTA assesses a business case for an individual improvement activity, and considers the efficiency and effectiveness of that activity, we may offer KiwiRail further advice on the application of its procurement procedure to that activity.
- 79.** No updates to the KiwiRail procurement manual were notified during FY24.



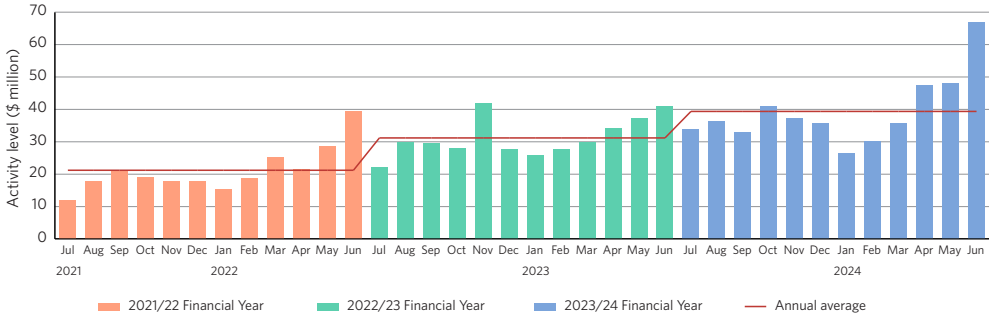
Section 5

Summary of delivery RNIP 2021-24

Programme Delivery and Funding

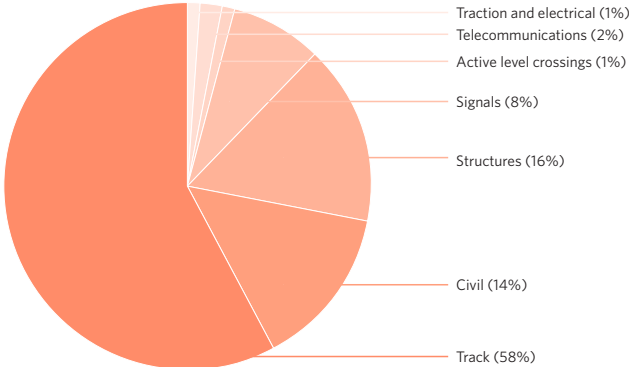
- 80.** The focus of the first RNIP has been on foundational infrastructure (i.e. maintaining and renewing the existing network to a resilient and reliable level, with a modest improvement programme). The 3-year goals of the RNIP were to deliver:
- improved asset condition/service level ratings (priority network routes),
 - improved asset management maturity and data quality to support decision making,
 - maintained volumes on rail using existing above rail assets, and
 - improved financial performance.
- 81.** Over the 3 years of the first RNIP continual increases in the level of maintenance and renewal activity delivered are noticeable with an 85 percent increase in activity levels over the period. This clearly demonstrates increased momentum across all 3 years of the programme and demonstrates what KiwiRail has been able to achieve through having a solid forward programme and funding certainty.

Figure 4: National Rail Network – total level of activity per month (excluding annual lump sum insurance payments)



- 82. Based on this year’s delivery there is an expected underspend and carryover into 2024-27 of \$40 million. This is a further reduction of the forecast at end of last financial year which signalled a carryover of between \$65 and \$115 million. The final financial result across the 2021-24 period is within 3% of budget.
- 83. While renewal activity was undertaken across all asset classes, the focus of activity was on track, civils, and structures renewals. Based on actual results, these asset classes totalled 88 percent of the activity in the 2021-24 period which is a slight increase from the original estimates, and we support the focus in these areas.

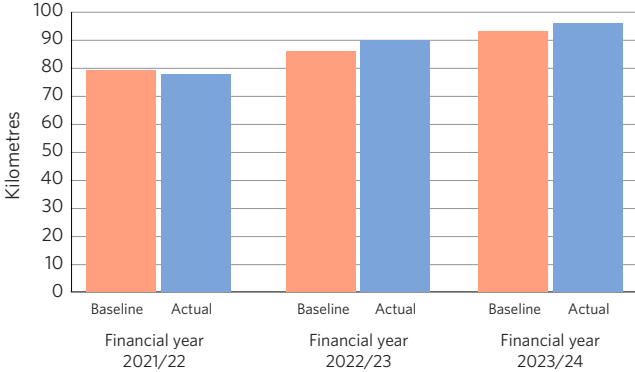
Figure 5: RNIP21-24 Asset Renewal - actual levels of activity by asset class.



Track renewal delivery

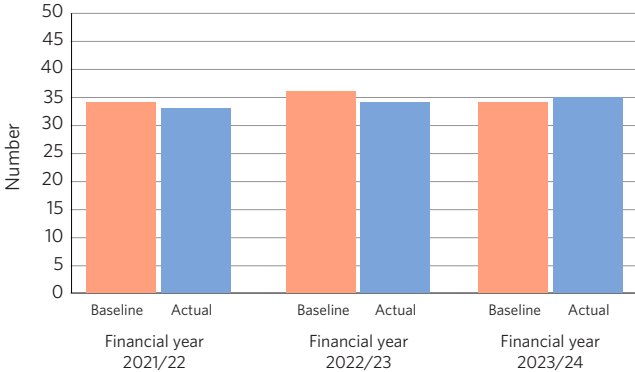
- 84. Track renewal was the single biggest asset class in terms of planned activity levels. Delivery in this asset class has been strong and can be summarised as follows:
 - **FY22** - delivery was impacted by supply chain disruption post COVID-19. Rail deliveries from China were delayed by up to 6 months leading to a reforecast of planned quantities. Once reforecast, delivery was strong with the actual achievement 98 percent of the revised target.
 - **FY23** - baseline was set at a deliverable level, but 8 percent higher than in FY22. The setting of the target was informed by lessons learned from FY23. Delivery was strong with the actual achievement 105 percent of the target.
 - **FY24** - baseline was set at a further 8 percent increase from FY23 providing further stretch. Again, delivery was strong with the actual achievement 103 percent of the target.

Figure 6: Track renewal kilometres delivered - annual achievement vs plan



85. Within the wider track renewal programme, turnouts (which enable trains to switch tracks) were equally affected by the supply chain disruption in FY22. Much like the general track programme, once reforecast, delivery has been strong with the final delivery 99 percent of annual baselines.

Figure 7: Track turnouts - annual achievement vs plan

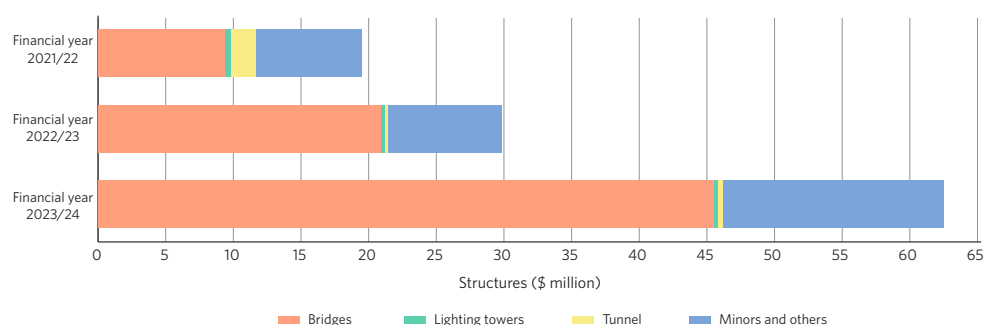


- 86.** The benefits of this investment can be evidenced by the reported KPIs, particularly:
- Track Quality Index is 100 percent within targets on priority routes, and
 - 97 percent of condition 5 (very poor) rail has been addressed on priority routes
 - the majority of condition 5 (very poor) sleepers have been addressed on priority routes.

Structures renewal delivery

87. Structures renewal delivery has been focused on bridges, lighting towers, tunnels and other minor structures. Notwithstanding the fact that annual targets have not been achieved, there has been a steady increase in delivery over the period. This asset class has been the most affected over the last 3 years by re-allocation of resources onto other priorities – particularly following the extreme weather events in FY23. Overall structures health and renewal will continue to be a focus in RNIP 2024-27.

Figure 8: Structures renewal delivery breakdown (\$m)

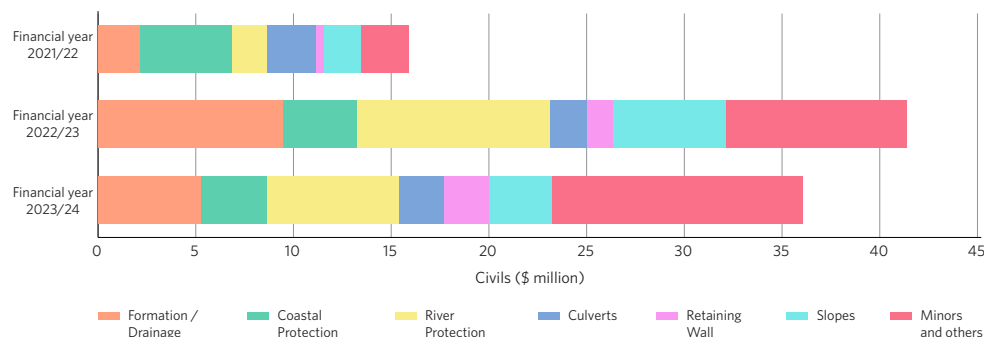


Civils renewal delivery breakdown

88. Civils renewal activity has been delivered over a number of outputs as shown in Figure 8 below. Noting the FY23 actual results delivered the largest quantum of work, delivery momentum has grown. This asset class has been equally affected by the issues noted in the structures commentary.

89. The drop in delivery for river protection activity in FY24 was due to delays on the Midland line river protection project, which is a multi-year ongoing programme. In response, KiwiRail has prioritised the completion of safety critical work sites throughout last year.









Figure 9: Civils renewal delivery breakdown (\$ million)













Specific measures and targets to be delivered in RNIP 2021-24

90. The focus of the first RNIP was on foundational infrastructure with several specific targets to deliver improved asset condition on priority network routes, and improved asset management maturity and data quality to support decision making. These are the first steps in shifting to a resilient, reliable and safe network. Most of the targets below are the individual KPIs within the reporting framework under the network condition indicator.

Table 9: Assessment against RNIP 2021-24 targets based on actual results.

Key		
 Achieved	 Not fully achieved	 Not achieved
Measure	Target	Assessment (Based on results to end 2022/23)
All temporary speed restrictions (average TSRs) within target(s) for priority routes	100% within target(s) by 2024. 21/22 80% - actual 40% 22/23 90% - actual 20% 23/24 100% - actual 30%	 TSRs on priority routes have consistently failed to meet targets. Tamper availability, disruption from renewals and upgrades across the network, and weather event have impacted this KPI.
All temporary speed restrictions (average TSRs) stabilised for secondary routes	100% within target(s) by 2024. 21/22 50% - actual 50% 22/23 67% - actual 60% 23/24 100% - actual 100%	 TSRs on secondary routes have met target at the end of period.
All Heat 40s (average Heat 40s) within target(s) for priority routes Destressing lengths of rail prior to the summer season to avoid the need for operational restrictions over lengths of track that are at a higher risk of rail buckling from excessive heat.	Increasing to 100% within target(s) by 2024. 21/22 80% - actual 90% 22/23 90% - actual 80% 23/24 100% - actual 100%	 Heat 40s on priority routes have met target at the end of the period.
All Heat 40s (average Heat 40s) stabilised for secondary routes	Increasing to 100% within target(s) by 2024. 21/22 50% - actual 90% 22/23 67% - actual 100% 23/24 100% - actual 100%	 Heat 40s on secondary routes have met target at the end of period.
Mainline derailments due to infrastructure defects	5 average p.a. by 2024. 21/22 - actual 1 22/23 - actual 2 23/24 - actual 0	 Mainline derailments have met target at the end of period, with no derailments in FY24.

Measure	Target	Assessment (Based on results to end 2022/23)
Track Quality Index (average TQI) within target(s) for priority and secondary routes	Increasing to 100% within target(s) by 2024. 21/22 90% - actual 80% 22/23 95% - actual 85% 23/24 100% - actual 85%	 Track Quality Index has not achieved but, importantly, the target of 100% was successfully met on priority routes hence the amber rating.
Sleeper condition on priority routes	100% of condition 5 sleepers addressed by 2024. 21/22 20% - actual 31% 22/23 55% - actual 65% 23/24 100% - actual 82%	 While good progress was made though the period, the target was not fully achieved.
Rail condition non-destructive testing (NDT) fault/defects on priority routes	<6 per km by 2024. 21/22 - actual 10 22/23 - actual 10 23/24 - actual 15	 NDT faults have consistently failed to meet targets. This year's result was once again driven by multiple instances on a specific 100km section on the North Island Main Trunk Line and is being investigated by KiwiRail. All other areas of the network are at 6 or less per km.
Rail condition on priority routes	100% of condition 5 rail addressed by 2024. 21/22 60% - actual 26% 22/23 80% - actual 84% 23/24 100% - actual 97%	 While not fully achieved, good progress was made on addressing condition 5 rail.
Structures risk reduction	Priority structures delivered to plan by 2024. 21/22 10% - actual 6% 22/23 67% - actual 24% 23/24 100% - actual 24%	 Although activity levels have increased, the structures KPI has consistently failed to meet targets due to design and consenting delays. We note the significant focus in the draft 24-27 programme on structures that we will recommend for funding.
Network congestion assessment	Completed by June 2023. (Rail network congestion is defined as reaching capacity on a section of the rail network to the point that following services are impacted more than would be expected during a normal operating day. The level of congestion refers to the degree of impact to following services and the time it takes to recover to the normal timetable).	 In 2022/23 no regular congestion was experienced on the freight network, but some major yards have experienced limited congestion during. On the Auckland and Wellington Metro networks, commuter train frequencies have been busy during 2022/23, but no persistent congestion was observed.

Measure	Target	Assessment (Based on results to end 2022/23)
Number of level crossings in service	Decreasing number of level crossings by June 2024. 21/22 – actual 5 less 22/23 – actual additional 5 less 23/24 – actual additional 1 less	 Decreases in the number of level crossings have met target at the end of period.
Yard asset improvement business case	Completed by June 2023.	 Preferred programme identified and business case complete.
Resilience improvement business case	Completed by June 2023.	 Preferred programme identified and business case complete.
Deliver long term 30-year network development plan	Completed by June 2024.	 The 30-year network plan was deferred with the agreement of all stakeholders. While it has recommenced it is inter-dependent with the line-by-line economics of the rail network and may not complete until around August 25.

- 91.** There are a number of areas where KiwiRail will need to continue to focus as it moves into the next RNIP. They relate to all TSRs (priority and secondary routes), rail condition faults and defects, track quality and structures risk reduction. The proposed KPI framework has been adjusted in some areas going forward to improve its effectiveness. This will need to be done in the context of GPS 2024 and its tighter focus on the busiest and most productive parts of the network.
- 92.** Some KPIs such as TSRs are likely to continue to impact the network as we move into the next RNIP period until major renewals and upgrade works are complete and the tamper replacements arrive.
- 93.** Notwithstanding the strong delivery metrics over the period, there are a number of areas that also require additional focus going forward:
- Timely development of a wider suite of benchmarking that can be used to demonstrate efficient and effective delivery,
 - Improved forecasting accuracy for metro improvement projects,
 - More timely release of performance reports and metrics to enable timely interventions if required.
- 94.** Overall, delivery across the 2021-24 period has been strong with significant benefits delivered that have improved the overall condition of the network. We look forward to seeing the ongoing momentum carried forward into the 2024-27 period.

Appendix A

Summary of RNIP approvals to date

- A number of RNIP approvals were made by the previous Government's Minister of Transport. These approvals culminated in all RNIP activities being fully funded and the addition of a new activity for the North Island Weather Events emergency response.
- This resulted in the maximum contribution from the NLTF being \$1,385.2 million — an increase of \$33.5 million against the original RNIP allocation. This reflected:
 - the reduction in the estimate for the Infill Signalling activity of \$10.5 million (from \$15 million to \$4.5 million)
 - the addition of the North Island Weather Events response activity of \$40 million
 - the addition of the North Island electrification business case of \$4 million.
- Further, on 21 February 2024, the Minister of Transport approved an additional variation to reflect decisions made by the Cabinet Extreme Weather Recovery Committee in August and September 2023 to allow \$176 million of already appropriated funding to be added to the North Island Weather Events activity to support the repair and make safe works on damaged lines. This final approval led to the maximum contribution from the NLTF now being \$1,561.0 million.

Table 10: Summary of RNIP approvals to date






#	Region	Activity	Phase	NLTP Activity Class	RNIP as at July 2021 (\$m)	RNIP Current approved funding (\$m)	Commentary on variance
1	National	Freight Network Renewals	Implementation	Rail Network	789.9	759.8	Reallocation of -\$30.1m to Maintenance and Operations activity #2 to manage cost pressures
2	National	Freight Network Maintenance and Operations	Implementation	Rail Network	361.0	391.1	Reallocation of \$30.1m from Renewals activity #1 to manage cost pressures
3	National	Freight network improvements	Business Case	Rail Network	49.5	53.5	Includes 2023/24 costs for North Island electrification Detailed Business Case
4	Auckland	Additional Traction Feed (West)	Implementation	PT Infrastructure	57.0	57.0	
5	Auckland	European Train Control System Upgrade	Business Case	PT Infrastructure	4.0	4.0	
6	Auckland	Integrated Rail Management Centre	Implementation	PT Infrastructure	35.7	35.7	
7	Auckland	Metro Infill Signalling	Business Case and Implementation	PT Infrastructure	15.0	4.5	Reduced cost estimate based on preferred option
8	Auckland	Progressive fencing and security	Business Case and Implementation	PT Infrastructure	6.0	6.0	
9	Auckland	KiwiRail Strategic Future Planning	Implementation	PT Infrastructure	12.0	12.0	
10	Wellington	Wellington Rail Network Re-signalling	Business Case	PT Infrastructure	20.6	20.6	
11	Wellington	Wellington Network Capacity Improvements	Business Case	PT Infrastructure	1.0	1.0	
12	National	Cyclone Gabrielle Emergency Works	Implementation	Rail Network	0.0	216.0	RNIP varied to include response, repair and make safe works on damaged lines
TOTAL NLTF					1,351.7	1,561.0	



Appendix B





Commentary on the progress of individual activities

Delivery of Continuous Programme – Freight and Tourism Network

Table 11: Freight and Tourism Network - Summary of progress and commentary on all activities






Key										
	Proceeding as planned		RNIP outcome secure, but risks or delays experienced		Overall outcome at risk, or major variance to plan deferring into RNIP 2024–27					
Region	Activity	Phase	Delivery metrics			Cost			Commentary and Indicator	2022/23 RNIP 2021-24
			2023/24 Targets (significant metrics only)	2023/24 Actual	2023/24 Variance	2023/24 Funding (\$m)	2023/24 Actual (\$m)	2023/24 Variance (\$m)		
National	Freight Network Renewals	N/A	Track total: 93.0km Rerail 36.7km Resleeper 48.3km Relay 8.0km Turnouts: 34 214 projects to reach implementation phase or complete	Track total: 96.1km Rerail 36.6km Resleeper 51.1km Relay 8.4km 35 204 projects in implementation or complete	+3.65km (+3%) +1 (+3%) -10 projects (-4%)	\$302.8	\$336.2	+\$33.4	<p>Delivery has been strong with track renewals delivery exceeding target, and a further step-up compared to the previous year. The FY24 financial out-turn was slightly overbudget, but within the forecast range.</p> <p>The forecast overspend was notified early and can be accommodated using the surplus funds from the previous year's underspend. (i.e. it is effectively a catch up).</p>	 

Region	Activity	Phase	Delivery metrics			Cost			Commentary and Indicator	2022/23 RNIP 2021-24	
			2023/24 Targets (significant metrics only)	2023/24 Actual	2023/24 Variance	2023/24 Funding (\$m)	2023/24 Actual (\$m)	2023/24 Variance (\$m)			
								Cost escalation and design and consenting delays have impacted Civils and Structures work with some planned structures works now expected to be completed in FY25. Where this has occurred, KiwiRail has prioritised the completion of safety critical works. RNIP21-27 indicator is Amber as some activity and funding remains deferred into 2024-27, but we note the expected deferral has reduced to \$37.7m.			
National	Freight network Maintenance and Operations	Maintenance and Operations	Outstanding Service Requests: 5% reduction	2.5% increase	-7.5%	\$122.1 (Following reallocation approval)	\$121.3	-\$0.8	There was a significant increase in inspection hours which is a positive result and will increase the overall understanding of asset condition and health. Conversely, outstanding service requests rolling 12-month average did not achieve the target for the year (as the rolling average increased). Following the reallocation of budget from renewal and Maintenance and Operations the financial outturn has been on budget. The key drivers for the reallocation were increased insurance premiums and inflationary pressures across the programme at a much higher levels than allowed for.		
			Inspection Hours: (maintain increased target of 75,500 hrs)	86,713 hrs	+11,213 hrs (+15%)						

Region	Activity	Phase	Delivery metrics			Cost			Commentary and Indicator	2022/23 RNIP 2021-24
			2023/24 Targets (significant metrics only)	2023/24 Actual	2023/24 Variance	2023/24 Funding (\$m)	2023/24 Actual (\$m)	2023/24 Variance (\$m)		
									There is a risk that in order to internalise these ongoing funding pressures they will continue to be managed by deferring or reducing the scope of renewals which may jeopardise the overall outcomes of the programme and degrade overall asset health.	
		North Island Weather Events	N/A	N/A	N/A	\$93.0	\$85.1	-\$7.9	While actual expenditure was below the amount of funding approved progress has been strong on the response and moving into recovery. The North Island rail network is mostly open with commuter and freight services running. "Make Safe" works on the Napier to Wairoa line are now at handover stage and a scoping study is underway to understand the cost of line reinstatement/resilience improvements or alternatively mothballing. The North Auckland Line reopening, which was originally planned for reopening late July, will be delayed for at least one month due to bridge repair works.	 
National	Freight network improvements	N/A	Programme Business Cases complete	Programme business cases complete.		\$21.9	\$17.2	-\$4.7	Business cases are now complete and preferred programmes have been identified. The preferred programmes identify a significant need for investment over the next 30 years. Some elements of these programmes are included in the proposed RNIP 2024-27, but funding is constrained, and the GPS signals a change in direction to focus on the busiest and most productive parts of the network.	 

Delivery of Metro Network Improvement Projects

Table 12: Metro Improvements – Summary of progress and commentary on all activities

Key										
	Proceeding as planned		RNIP outcome secure, but risks or delays experienced		Overall outcome at risk, or major variance to plan deferring into RNIP 2024-27					
Region	Activity	Phase	Delivery metrics		Cost			Commentary and Indicator	2022/23	RNIP 2021-24
			2023/24 Target	2023/24 Actual	2023/24 Funding (\$m)	2023/24 Actual (\$m)	2023/24 Variance (\$m)			
Auckland	Additional Traction Feed (West)	Implementation	Site installation commenced	Construction in progress but behind schedule	\$28.3	\$24.5	-\$3.8	The Additional Power Feed project is well into the implementation phase and was initially delayed due to consent issues and the supply of Static Frequency Converter (SFC) into New Zealand. While the contracts have been awarded for equipment required, the compound construction has been delayed from April 2024 to November 2024 due to ground condition issues. This has caused a delay to the start to the equipment installation which is now expected to commence in parallel to the compound works. The project now expects to commission the power feed in November 2024 with post-commissioning testing complete by February 2025, and as such is still expected to be completed to support the City Rail Link (CRL) Day One services. There is an ongoing risk relating to site access approvals which has been escalated to project director level for resolution.		

Region	Activity	Phase	Delivery metrics		Cost			Commentary and Indicator	2022/23	RNIP 2021-24
			2023/24 Target	2023/24 Actual	2023/24 Funding (\$m)	2023/24 Actual (\$m)	2023/24 Variance (\$m)			
Auckland	Integrated Rail Management Centre	Implementation	Site commissioned and open	Site commissioned and open	\$21.1	\$13.9	-\$7.2	The Integrated Rail Management Centre was formally opened by the Minister of Transport on 14 March 2024. The remaining tasks to be completed include train controller training, and final information and communication technology and furniture fitout. Expenditure this financial year was below the amount originally forecast due to a lower out-turn cost for the project. A surplus of funds of \$2.4 million has previously been declared and now that the construction contract has been closed and handover of maintenance and warranty complete a further surplus will be forthcoming.		
Auckland	Metro Infill Signalling	Implementation	Construction in progress	Hander to delivery	\$1.9	\$0.7	-\$1.2	Work is progressing well with some slight delays experienced which were to align with the Wiri to Quay Park project — but thus providing overall increased efficiencies.		
Auckland	Progressive fencing and security	Implementation	Implementation of all Auckland metro site	In implementation, but behind schedule	\$4.1	\$2.5	-\$1.6	97 percent of planned work has been completed in FY24 (3,755m against a forecast of 3,875m), with the remaining 120 meters (3 percent) to be completed in the next financial year. This was due to multiple issues with contractor productivity (resourcing issues), which has resulted in pushing some of the planned works into FY25. Overall, 4,272 meters out of a total work package of 7,469m (57%) has been installed.		

Region	Activity	Phase	Delivery metrics		Cost			Commentary and Indicator	2022/23	RNIP 2021-24
			2023/24 Target	2023/24 Actual	2023/24 Funding (\$m)	2023/24 Actual (\$m)	2023/24 Variance (\$m)			
Auckland	KiwiRail Strategic Future Planning	Implementation	Implementation	Proceeding to plan	\$7.1	\$4.3	-\$2.8	This activity enables KiwiRail to perform its role as the lead for planning and delivery of rail projects across Auckland. Works competed or ongoing include development of Early Design Strategies, Investment Strategies (such as a memorandum of understanding with Kāinga Ora), Route Protection Strategies, and the final work on the Auckland Rail Programme Business Case.		
Auckland	European Train Control System Upgrade	Business Case	Detailed Business Case commenced	Business case commenced but slightly behind schedule	\$1.5	\$0.4	-\$1.1	Project has now commenced with Investment Logic Mapping workshops arranged to develop project investment objectives		
Wellington	Wellington Rail Network Re-signalling Renewal	Business Case	Detailed Business Case complete	Business Case commenced but not yet complete	\$4.7	\$4.2	-\$0.5	Significant progress has been achieved this year on the business requirements, cost modelling, and risk modelling. These will support and feed into the identification of the preferred option and business case.		
Wellington	Wellington Network Capacity Improvements	Business Case	Complete	Complete	\$0.0	\$0.0	\$0.0	The capacity improvement study is now complete. This work has informed a number of wider activities including Greater Wellington Regional Council's programme business case and Lower North Island Rail Integrated Mobility.		

Appendix C

Contribution to the LTMA purpose and consistency with GPS 2021

Table 13: RNIP activities contribution to the LTMA purpose and consistency with the GPS 2021

Activity or combination	Overview	Contributes to the LTMA purpose and is consistent with the 2021 GPS
Freight network renewals	Continuous programme of renewal work on the national freight network	Activity contributes to the LTMA purpose because investing in rehabilitation of the national rail network will enable it to operate more effectively, efficiently and safely. Activity aligns to the Improving Freight Connections strategic priority.
Freight network maintenance and operations	Continuous programme of maintenance work, along with funds to purchase new plant and equipment	Activity contributes to the LTMA purpose because investing in rehabilitation of the national rail network will enable it to operate more effectively, efficiently and safely. Activity aligns to the Improving Freight Connections strategic priority.
Freight network improvements	Funding requested mainly to develop business cases for minor improvements to the national freight network, with some constructing beginning in 2023/24. This now includes the North Island Main Trunk electrification business case.	Activity contributes to the LTMA purpose because investing in rehabilitation of the national rail network will enable it to operate more effectively, efficiently and safely. Activity aligns to the Improving Freight Connections strategic priority.
Additional Traction Feed (West)	Installation of an additional grid exit point and traction power feed to the Auckland rail network.	Activity contributes to the LTMA purpose by enabling the Auckland rail network to operate more efficiently/effectively. Aligns to the Better Travel Options strategic priority.
Auckland Metro Network - ETCS Upgrade	Upgrade of the Auckland metro train control system to Level 2.	Activity contributes to the LTMA purpose by displaying signalling and movement authorities in the train cab, improving safety and optimising train movements on the network. Activity aligns to the Better Travel Options strategic priority.

Activity or combination	Overview	Contributes to the LTMA purpose and is consistent with the 2021 GPS
Integrated rail management centre and emergency management systems	Establishing the Integrated Rail Management Centre (IRMC) in Auckland.	Activity contributes to the LTMA purpose by providing for greater resilience in national train control functions. Should an event affect Wellington, the IRMC in Auckland will be able to carry out these functions. Activity aligns to the Better Travel Options strategic priority.
Auckland Metro Infill Signalling	Investment in improvements to the existing European Train Control System (ETCS) Level 1 rail signalling system to make the Auckland rail network better capable of supporting the level of service and performance required when the Auckland CRL opens.	Contributes to the LTMA purpose because adding signalling capacity allows for more efficient operation of the network. Without these additional signals, the full benefits of the CRL project cannot be realised. Aligns to the Better Travel Options strategic priority
Progressive fencing and security	Fencing across the network does not currently meet requirements and progressive investment to address this is required.	Contributes to the LTMA purpose through increasing the safety and security of rail yards to ensure that the network can operate in an efficient, safe and secure manner - including guarding against track incursions. Aligns to the Better Travel Options strategic priority.
KiwiRail Strategic Future Planning	Funds to support KiwiRail to undertake strategic planning for future investments in the Auckland network.	Contributes to a more effective and efficient network by providing funding to ensure that rail projects are considered within the broader transport and land use planning context. For example, this funding will enable KiwiRail to better integrate with ATAP, the Strategic Growth Alliance, the Regional Land Transport Committee and other planning forums in and around Auckland. Aligns to the Better Travel Options strategic priority.
Wellington Rail Network Resignalling Renewal	Renewal of the Wellington Metropolitan Rail Network Resignalling and Train Control System to a modern, safer and more operationally flexible system	Activity contributes to the LTMA purpose by enabling the Wellington metro network to operate in a safer and more operationally flexible way. Aligns to the Better Travel Options strategic priority.
Wellington network - further capacity improvements	The overall programme considers the replacement of all existing longer-distance rail rolling stock on the Wairarapa and Manawatu lines, with supporting improvements to maintenance facilities, stations and network infrastructure. KiwiRail is responsible for network infrastructure portion.	Activity contributes to the LTMA purpose by enabling the Wellington metro network to operate in a safer and more operationally flexible way. Aligns to the Better Travel Options strategic priority.
North Island Weather Events	Repair and Make Safe works on damaged lines from the North Island Weather Events.	Activity contributes to the LTMA of an effective, efficient, and safe land transport system in the public interest and that the requirements of section 20 have been met.

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ISBN: 978-1-99-004497-7 (online)

NZ Transport Agency