

Emergency works investment policies review: supporting information and options analysis

1 May 2024

This document provides supporting information and options analysis considered in the review of emergency works investment policies. This is technical information which is being released as part of our consultation about our proposed changes to the emergency works investment policies. Further information about this consultation is available on the consultation [webpage](#).

Purpose

This report provides information and analysis of the trends in allocations, and expenditure for emergency works (EW) funded from the National Land Transport Fund (NLTF) over the past decade (fiscal years 2013/14 to 2023/24).

The data used alongside feedback from the review working and governance groups, supported identification and analysis of options for proposed FAR and related changes to ensure longer-term funding sustainability and certainty for approved organisations (AOs).

This document was developed to support the review of emergency works investment policies. It specifically relates to the FARs that are applied in work categories [141: emergency works](#) and [140: minor works](#).

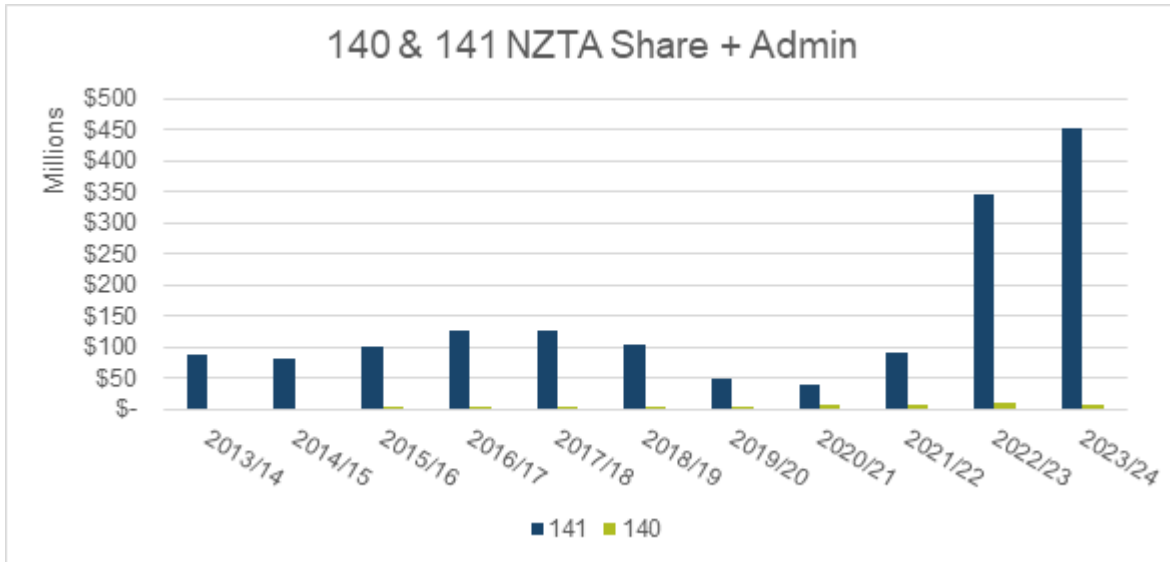
Data sources and caveats

- The EW expenditure data was extracted from Transport Investment Online (TIO) on 28 November 2023 through the National Land Transport Programme (NLTP) extract module for 'all organisations, all years' for the period 2013/14–2022/23.
- TIO is primarily a tool for tracking allocations in activity classes and work categories and related expenditure, and therefore there are some limitations.
- Although, the dataset delineated the start and end years of each emergency response, the data lacks more granular temporal data such as specific months or exact dates. Overall, this makes it harder to accurately delineate between recovery, response and rebuild activities through TIO.
- There are limitations in geographical granularity captured in TIO. Without detailed location information it becomes challenging to pinpoint and track the specific parts of the network that are recurrently affected by emergencies.
- To address data limitations additional analysis was required, including supplementary analysis of materials attached to claims. Improvements to data capture will be progressed as part of the review's implementation.

Current state assessment

Emergency works work categories 140 and 141

Expenditure by work category for state highways and local roads



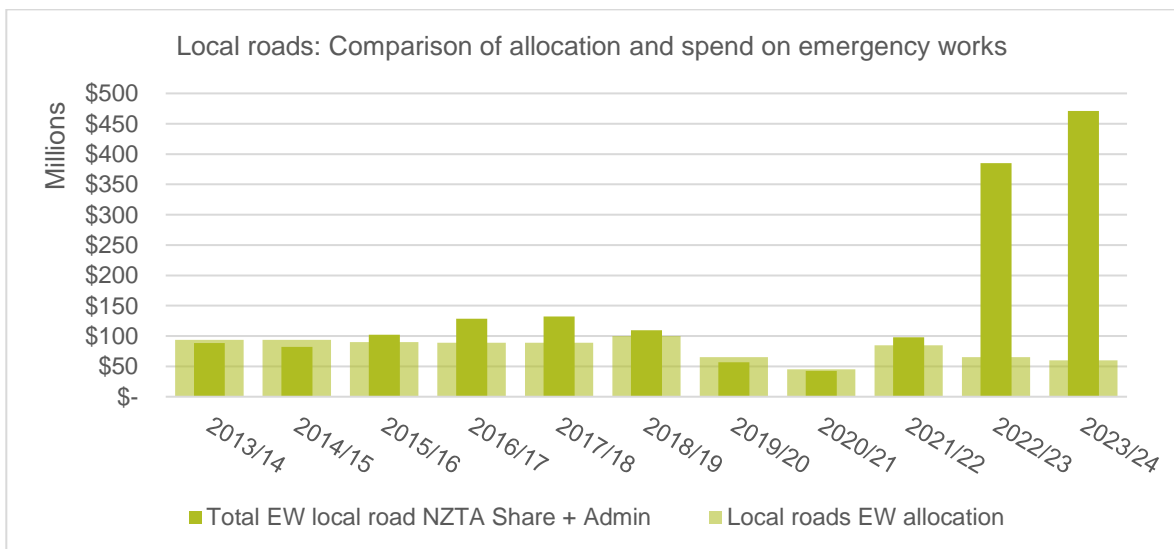
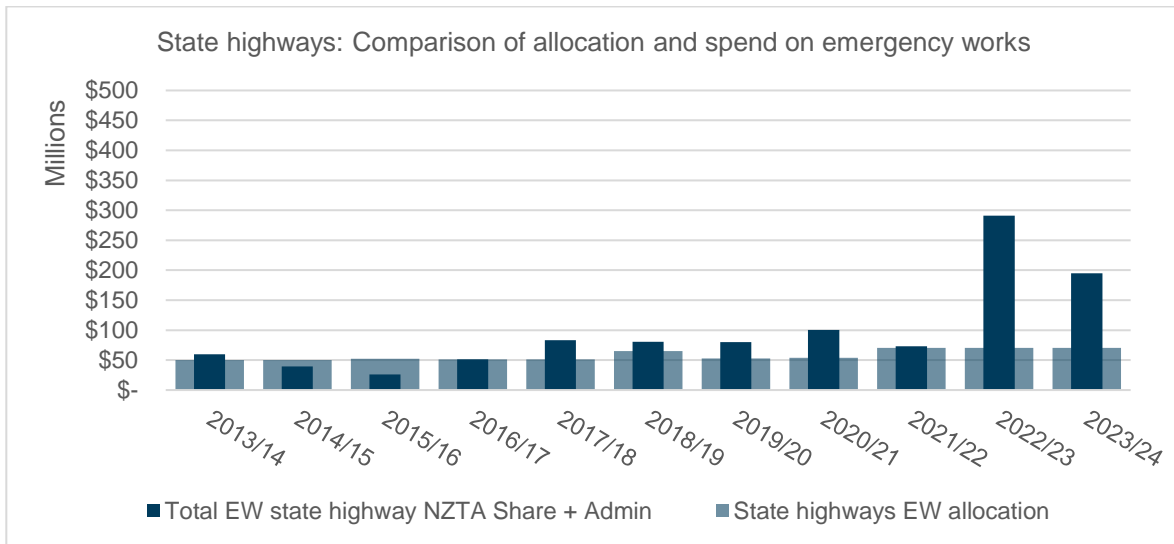
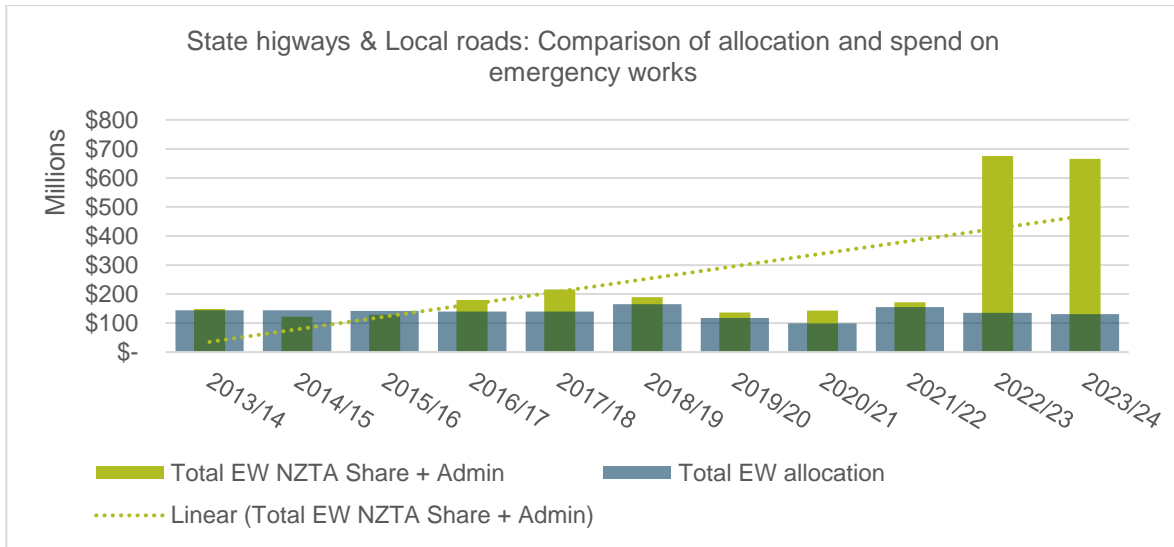
Waka Kotahi funds emergency works using work categories 141 and 140 as follows:

- **Work category 140: minor events:** applies to any activities that would otherwise qualify as emergency works (141) except that the total cost of the works is less than \$100,000 per event per approved organisation or NZ Transport Agency Waka Kotahi (NZTA) (for its own activities) region. Over the past 10 years, funding for these minor emergency events (140), show relatively modest fluctuations over time.
- **Work category 141: emergency works:** applies to events that qualify for NLTF funding as emergency works involving a total cost of \$100,000 or more per event per approved organisation or NZTA (for its own activities) region. In recent years there has been a sharp increase in funds allocated to these larger events indicating a rise in the number or severity (or both) of more costly emergency events.

This disparity in funding trends between minor and major events reflects a broader trend towards an increase in the frequency and severity of high-cost emergencies and possibly escalation in the costs associated with significant events.

Patterns of expenditure by work category

EW expenditure and allocations comparison (all events) for state highways and local roads



The emergency works FAR for state highways (SH) is 100%. The emergency works FAR for local roads (LR) ranges from normal FAR, to enhanced FAR (normal FAR + 20) to bespoke FAR up to a maximum of 95%.

The data shows a recurring pattern where NLTF allocation has frequently exceeded the initially allocated budget over 7 of the last 10 years.

In the early years of the decade, expenditure for EW (NZTA share + administration) for both LR and SH remained comparatively on par with available EW funding allocations. Initially SH was allocated approximately \$50 million annually, with the LR allocation ranging from \$89 million to \$94 million.

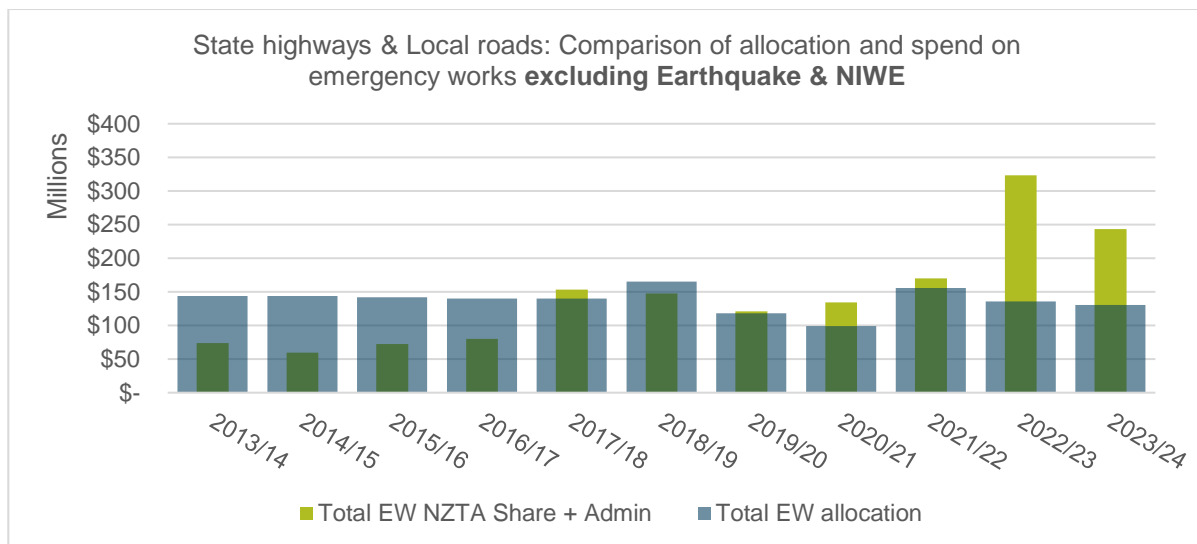
In 2018/19 the allocations for both SH and LR were increased. SH allocations increased to \$65 million and LR allocations were increased to \$100 million in 2018/19. Over this time period the costs of EW to the NLTF increased to beyond these increased allocations.

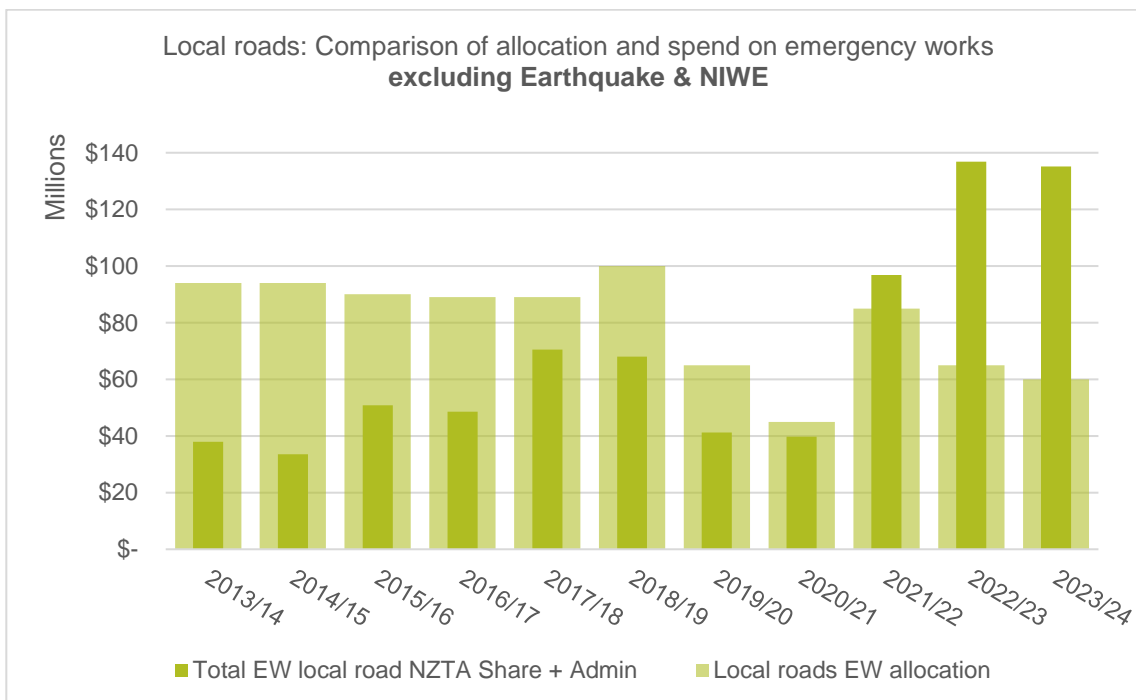
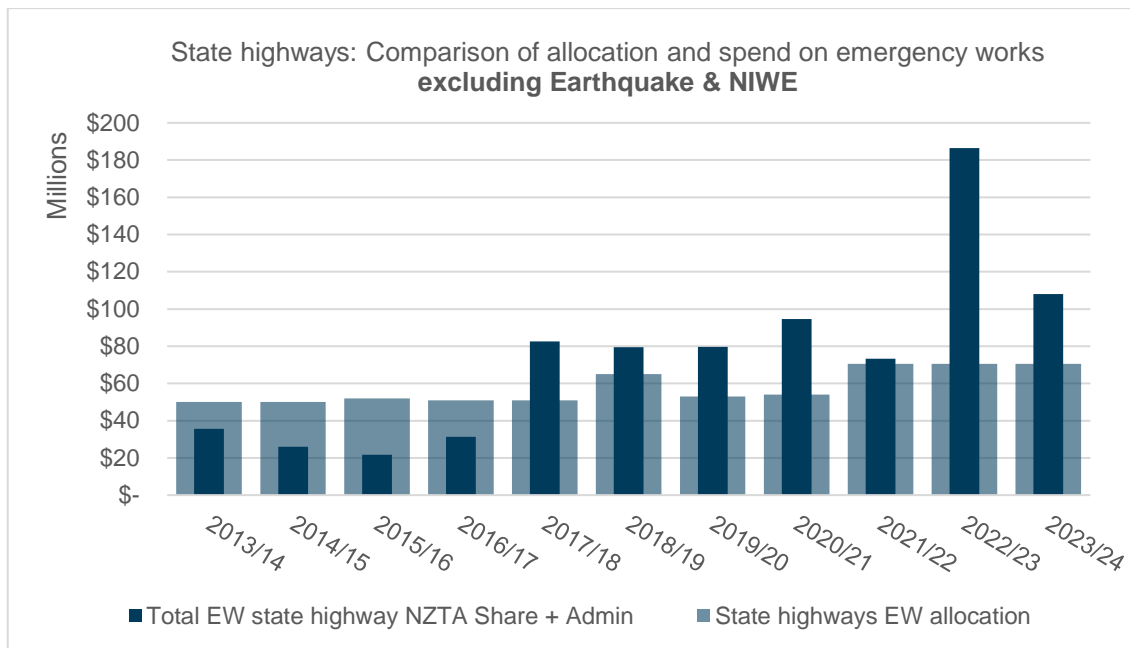
SH allocations continue to fluctuate but generally maintained higher levels, while the LR allocation was reduced to \$45 million in 2020/21 before gradually increasing again in subsequent years but not to the level allocated in previous years.

In recent years, and in the past 2 years in particular there has been an extremely dramatic increase in EW expenditure due to major national earthquakes and the 2023 North Island weather events (NIWE) alongside more frequent qualifying events. For SH, EW expenditure surpassed EW allocations by 313% and 177% in the last 2 years of the period reviewed, in contrast to the occasional instances of being under budget earlier in the period.

Similarly, for LR there was an initial trend of being under budget in the early years, but in the last 2 years, the cost of EW funding has exceeded budgets by 492% and 685%, highlighting a growing gap between budgetary allocations and the actual cost (to the NLTF) of addressing EW.

EW expenditure and allocations comparison (excluding NIWE and earthquakes) for state highways and local roads



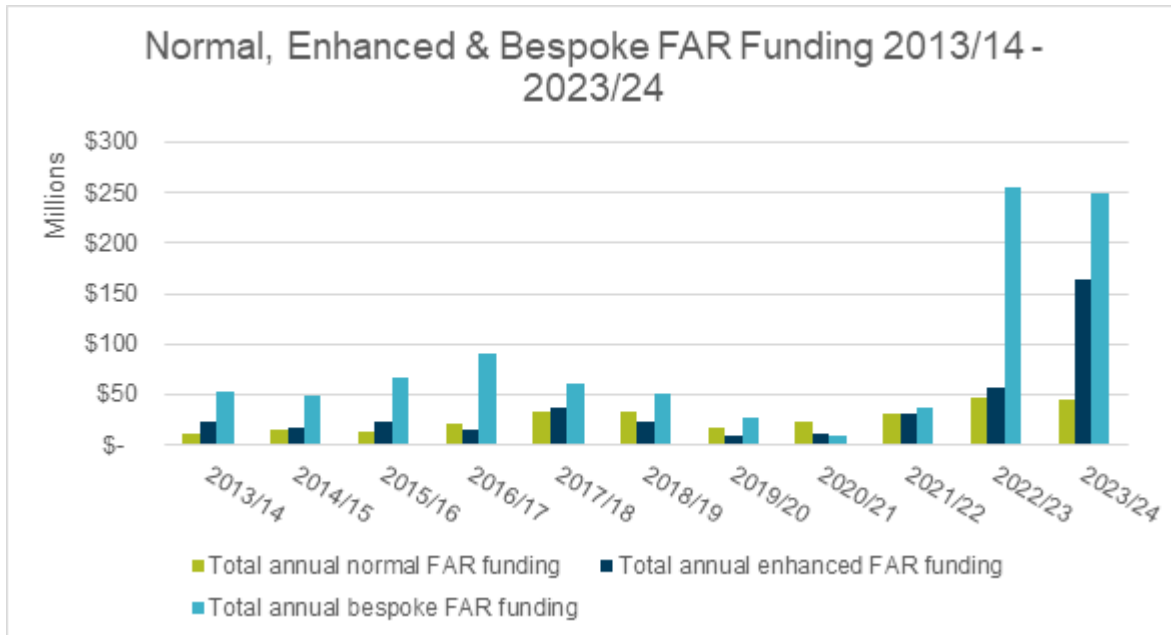


Excluding major events (NIWE and earthquakes), EW expenditure demonstrates a closer alignment with budgeted allocations. However, EW costs for SH have exceeded the allocation by varying amounts from 2017/18. EW costs for LR have also been tracking upwards from 2020/21.

EW costs in 2022/23 and 2023/24 for SH and LR show a major increase and dramatically exceeded the allocation. NZTA has managed this cost escalation through the use of its overdraft facilities and additional Crown funding.

Enhanced and normal funding assistance rates (FAR)

Trends in expenditure by FAR



The analysis of FARs shows funding allocated at the three levels of EW FAR (normal, enhanced and bespoke) across the 10 years between 2013/14 and 2023/24.

Enhanced FAR (normal FAR + from 20% to a maximum of 95%) is currently allocated to AOs for LR EW that exceed 10% of their maintenance, operations and renewals (MOR) programme. A bespoke FAR (normal FAR + from 40% to a maximum of 100%) may be considered for LR EW expenditure that is beyond an AO's ability to raise local share and continue to provide appropriate levels of service.

In recent years, there has been a notable shift in the distribution of EW event costs and an increased use of enhanced and bespoke FARs in line with the current EW FAR policy for AOs.

Between 2014 and 2023, the number of enhanced FAR requests has seen a 715% increase. One-off bespoke FAR approvals have seen a 460% increase over the same period, while funding at normal FAR increased by 390%.

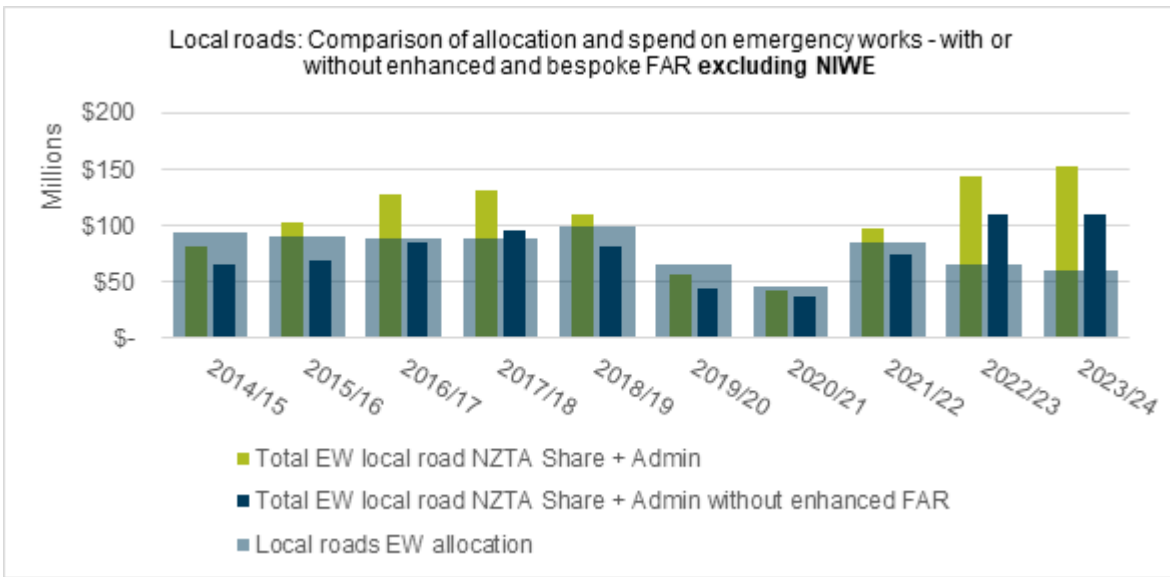
These trends reflect:

- a general increase in disruptive weather events year on year requiring more EW funding
- more events that qualify for enhanced and bespoke FAR
- increasing infrastructure vulnerability and construction costs, which are also leading to higher costs of response and recovery work.

Funding EW at higher or enhanced FARs means that spend in a NLTP period is greater than had been planned or anticipated. Subsequently, when there are other weather events in the same period this results in increased pressure on the allocation and leaves limited headroom available for when more and larger events occur.

There has been a similar year-on-year increase in EW spend for SH. The data suggests that the run rate for LR emergency work NLTF share is just slightly more than that of the SH over the past 10 years when looking at the allocated funding assigned to LR versus SH compared to the actual spends incurred. In the last 2 years, the number of events the NLTF allocation for both activity classes have exceeded the approved allocated NLTF funds by more than 200%, even after excluding NIWE funding.

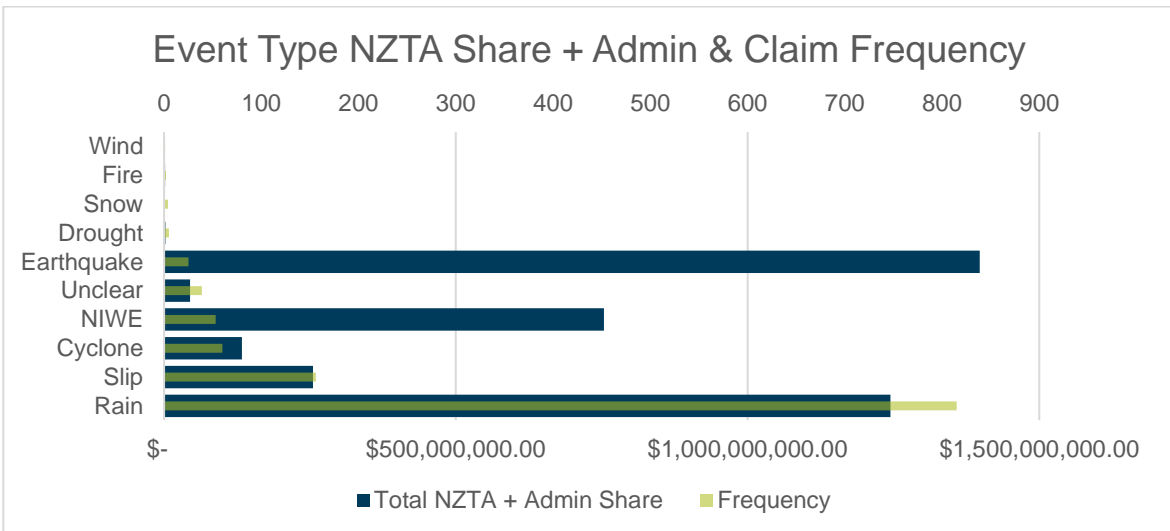
Emergency works allocation compared to expenditure: with and without enhanced and bespoke FAR



Emergency works costs for LRs exceeded NLTF allocations for 7 of the past 10 years. Had normal FAR (rather than enhanced and bespoke FARs) been applied to qualifying events during this period, this would have reduced NLTF expenditure on emergency works by \$278 million. The allocation for emergency works would therefore have been exceeded significantly only twice over the same time frame.

Event type and claims

Number of claims by event from 2013/14 to 2023/24

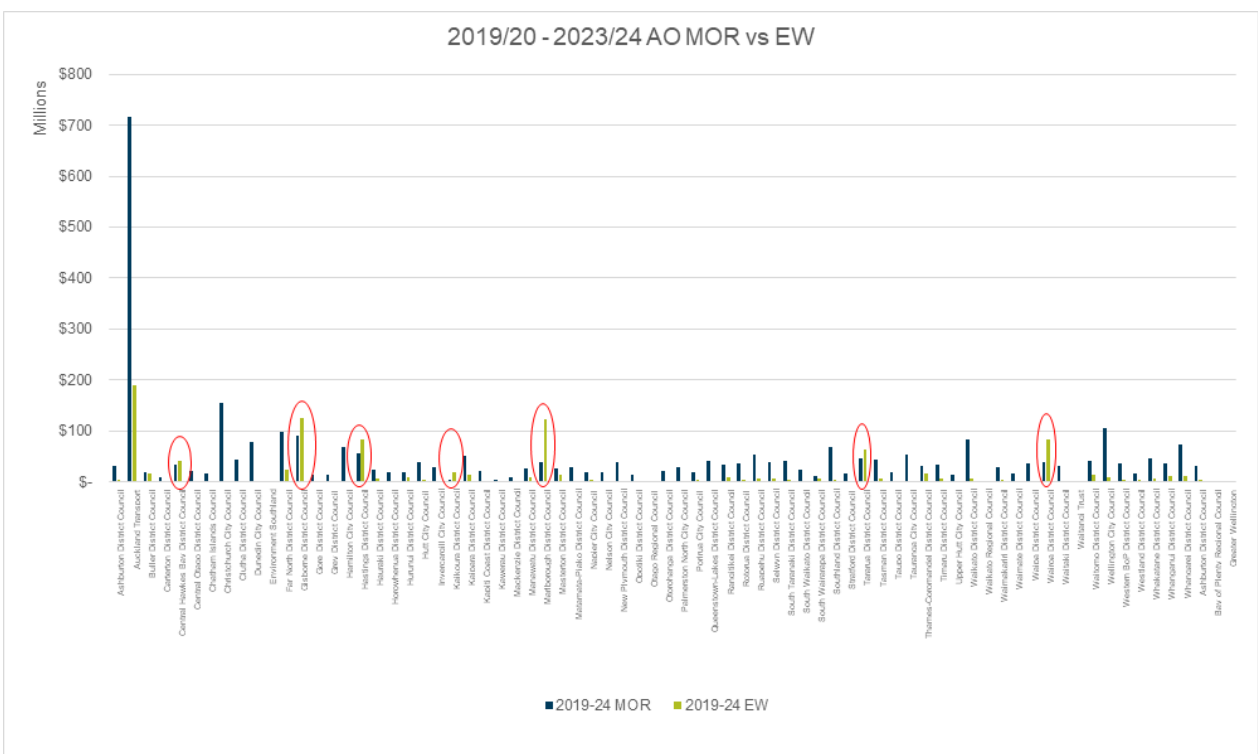
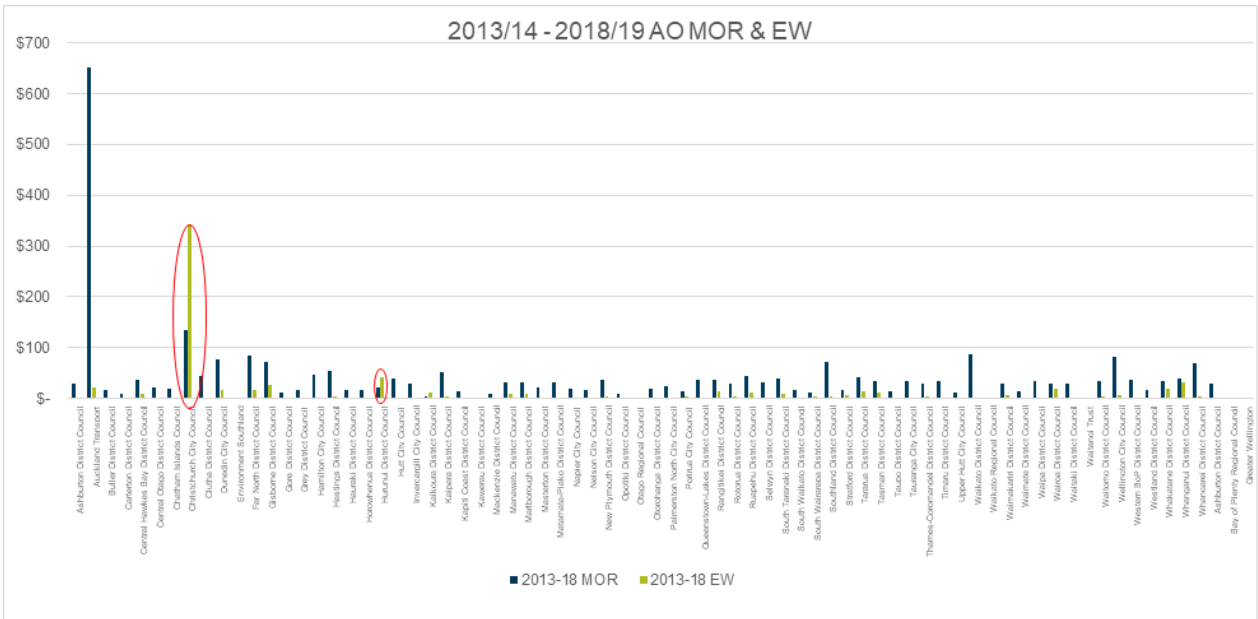


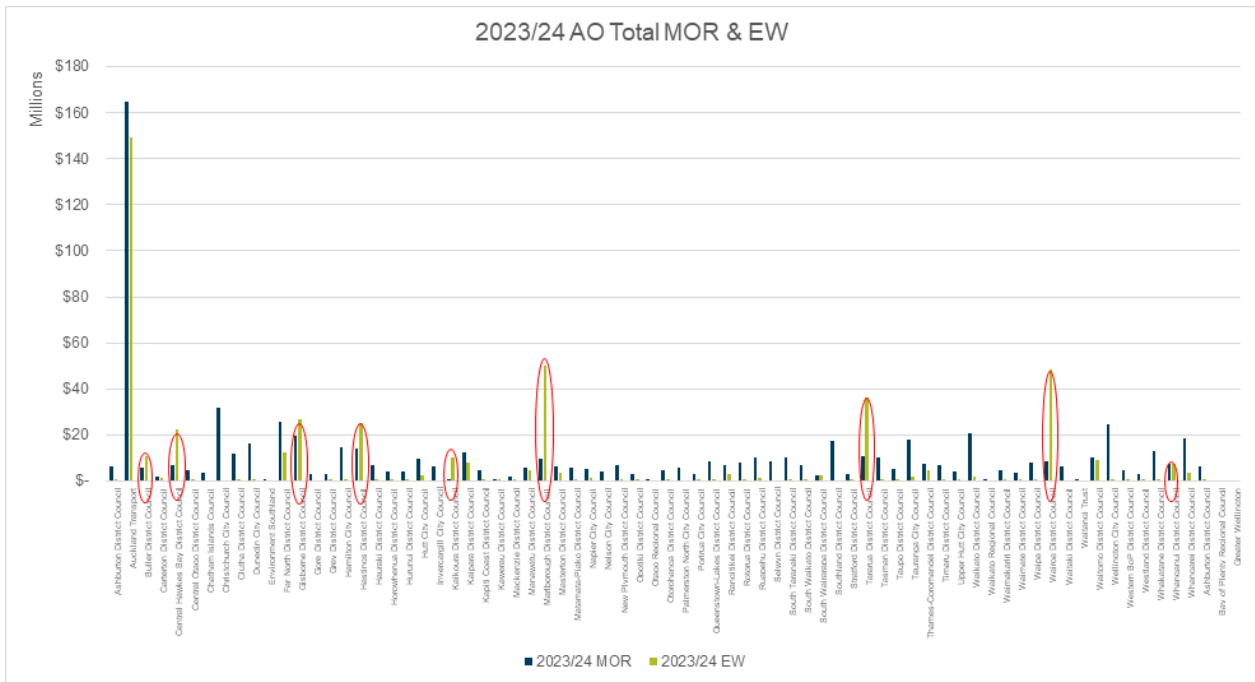
The data highlights the substantial financial impact of rain and rain related events, which have required a significant portion of EW funding, emphasising their prevalence and the extensive damage they can cause to infrastructure.

NIWE, which covers cyclone Gabrielle and Auckland Anniversary events in 2023, stands out for requiring significant EW funding, highlighting the challenges posed by these events in terms of infrastructure damage and the need for substantial recovery efforts to restore affected areas.

Maintenance, operations and renewals and EW expenditure

MOR and EW expenditure by AO – data snapshots





As part of the analysis of data for the review, staff gathered information to understand MOR expenditure by AOs. The comparison of MOR and EW spending across different periods shows notable trends.

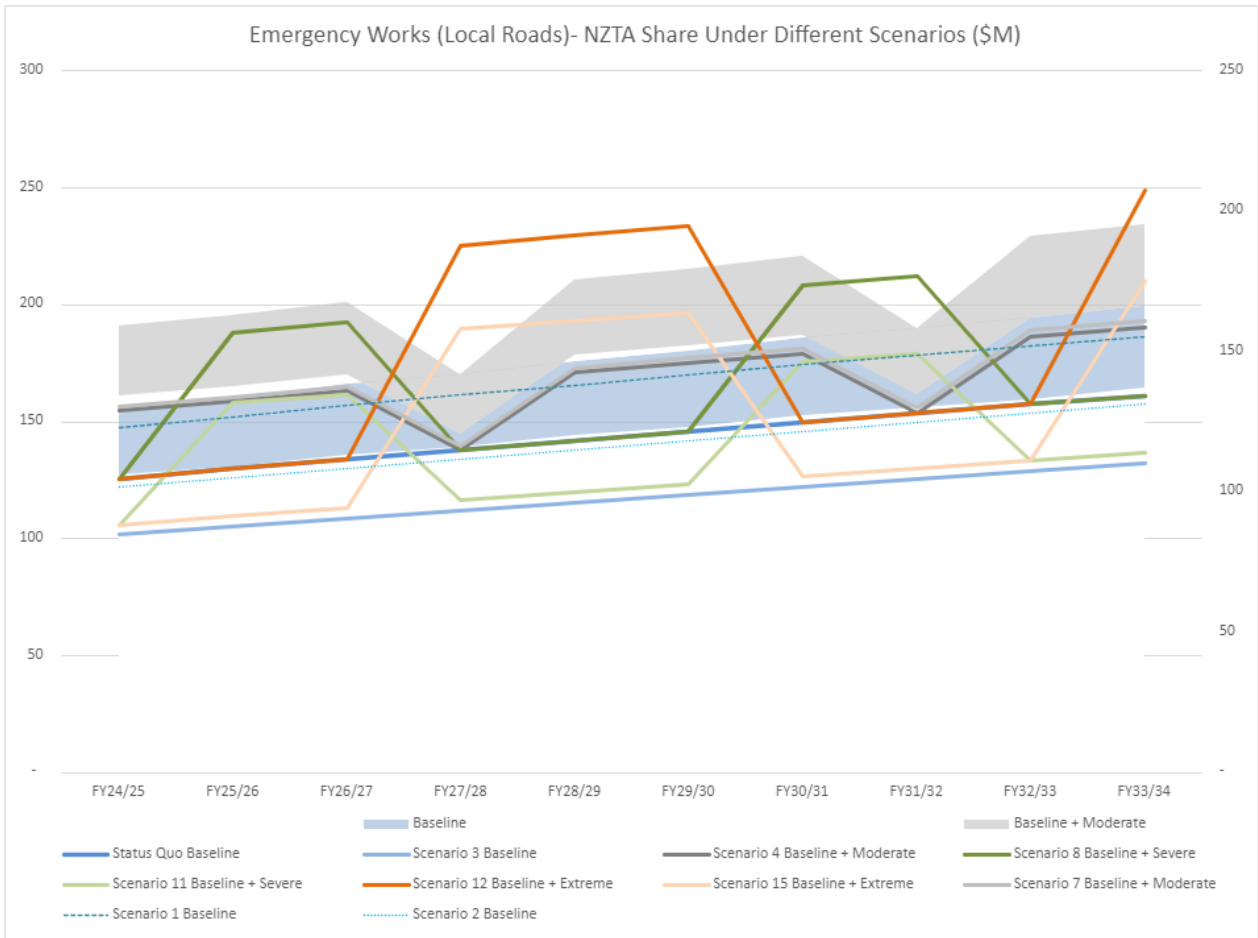
Initially, from 2013/14–2018/19, only 2 AOs – Christchurch District Council and Hurunui District Council – spent more on EW than MOR.

However, in the period from 2019/20–2022/23, this number grew to 7 councils, including Central Hawke’s Bay District Council, Gisborne District Council, Hastings District Council, Kaikōura District Council, Marlborough District Council, Tararua District Council, and Wairoa District Council. By 2023/24, the trend escalated, with 9 AOs spending more on EW than MOR, including Buller District Council, Central Hawke’s Bay District Council, Gisborne District Council, Hastings District Council, Kaikōura District Council, Marlborough District Council, Tararua District Council, Wairoa District Council, and Whanganui District Council.

If an enhanced FAR (of normal FAR + 10%) had been applied to MOR for local LR over the same time frame (enabling increased funding support for proactive maintenance) the cost to the NLTF would have been \$535 million.

NLTF sustainability

The graphic below is an extract from a model built to understand different financial impacts under different event scenarios and FARs. The graphic highlights that in the long run, irrespective of extreme events, there is now a continuing trend for more NLTF funding required to support weather events – as indicated by the blue status quo line.



The impact of climate change is expected to result in more small-scale events as well as more frequent extreme events with 1-in-100-year storms and 1-in-20-year storms becoming more frequent.

This highlights the increasing and consistent vulnerability of infrastructure, as identified by the different scenarios presented below, showing a potential massive increase in NLTF funding required. This has played out more recently through responding the cyclones Hail and Gabrielle.

While restricting the availability of higher FARs may reduce the reliance on NLTF funding in the short term, there is still a risk that the NLTF is not sustainable under current settings for EW.

A wider discussion on what further funding levers are available is warranted. This may be part of any wider funding sustainability conversation with the Ministry of Transport.

Options assessed

Staff identified and assessed options using the scenario model created using existing FAR, adjusted FAR, past events data and potential future scenarios. Options initially considered are shown in the following table.

Setting	Reduced FAR	Status quo	Higher FAR
EW FAR	<ul style="list-style-type: none"> • Normal FAR + 20% to, say, + 10% • Remove the policy allowing for bespoke FARs based on financial hardship 	<ul style="list-style-type: none"> • Normal FAR plus 20% • Normal FAR for costs up to 10% of annual maintenance programme, and • Councils may request bespoke FARs, which in the past have been granted at up to 100% 	Or enhanced FAR only for very large events

Phase

Response	<ul style="list-style-type: none"> • Increase threshold for normal FAR to (say) costs up to 20% of annual maintenance programme • normal FAR for all response costs (that is, no enhanced FAR) 	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • Enhanced FAR for all response costs incurred within 4–12 months (then revert to normal FAR), or • Enhanced FAR for all response costs
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Recovery	<ul style="list-style-type: none"> • Increase threshold for normal FAR to, say, costs up to 20% of annual maintenance programme • Revert to normal FAR for all recovery costs after 12 months • Normal FAR for all recovery costs (that is, no enhanced FAR) 	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • Enhanced FAR for all recovery costs within 12 months, or • Enhanced FAR for all recovery costs for defined period
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Rebuild (includes improving resilience)	Normal FAR	<ul style="list-style-type: none"> • As above • May require a business case for improvements 	<ul style="list-style-type: none"> • Enhanced FAR for costs attributed to increasing resilience, or • Enhanced FAR for total costs
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Investigation/ business case for rebuild or changing level of service	Normal FAR	<ul style="list-style-type: none"> • Normal FAR 	<ul style="list-style-type: none"> • Enhanced FAR
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Further analysis on the options assessed the ability to improve reduce pressure on the NLTF and retain a level of enhanced support for AOs.

Lever	Options considered	Approx. annual \$m impacts (NLTF share average 10-year forecast)	Reason for change	Impact of change
Qualifying event threshold Limit enhanced FAR to larger events (current threshold is 1-in-10-year event)	Retain threshold at 1-in-10-year event	Nil	1-in-10-year events are now more frequent. Smaller events should be managed by AOs at normal FAR.	Normal FAR applies to more routine events. Increased financial burden on AOs to provide local share.
	Change threshold to 1-in-20-year event ¹	\$20–25m saving	Better aligns to original principle that enhanced FAR is available to support 'severe' events.	Reduced burden on the NLTF. Could incentivise more proactive maintenance and resilience focus from AOs.
	Change threshold to 1-in-50-year event	\$35–45m saving	Helps manage sustainability of the NLTF.	More guidance is required to verify event magnitude.
Maintenance threshold Increase cost threshold to qualify for enhanced FAR (current threshold is costs exceed 10% of annual maintenance budget)	Increase qualifying cost threshold to 20% of annual maintenance budget	\$2–4m saving	Retaining the threshold because savings are achieved with the other changes. Retaining the threshold avoids rushing delivery to maximise FAR.	No change proposed.
	Retain current threshold	Nil		
Enhanced FAR Reduce level of FAR enhancement (currently normal FAR + 20% as a default)	Enhanced FAR retained at normal FAR + 20%	Nil	Constrains cost escalation with greater local share. Helps manage sustainability of the NLTF in providing the enhanced FAR.	Greater local share contribution by AOs to response and recovery works. Could incentivise shift to more proactive asset maintenance and resilience focus from AOs.
	Enhanced FAR reduced to normal FAR + 10%	\$15–20m saving		Reduced financial burden on NLTF.
	No enhanced FAR	\$30–45m saving		
Bespoke FAR Restrict policy provision for bespoke FAR (that is, above enhanced FAR) ¹	Only applies if matched by Crown top-up to NLTF	\$35–50 million saving for a severe event over a 3-year recovery	Removes NZTA's role as a funder of local share when an AO cannot afford its local share. Limits expectations and applications to consider for bespoke FAR (except if Crown funding enables a higher FAR).	Removes/limits expectation of very high FAR for EW if an AO cannot afford its local share. Does not preclude the government from funding a higher level of support if it determines. AOs may choose to engage directly with the government to seek Crown funding for extremely large events.
	Remove provision for bespoke FAR entirely	As above		Reduced financial burden on NLTF.
	Specify a financial hardship trigger to clarify eligibility			

¹ Currently the NZTA Board may consider a bespoke FAR where there is evidence that an extreme event results in EW expenditure beyond an AOs ability to raise local share and continue to provide appropriate levels of service over the next 3 years.

Conclusion

The analysis of EW funding over the past decade reveals significant financial challenges. Recent major events have had a substantial impact on EW funding, leading to increased financial pressure. Disparities between actual spend to allocated budgets persists with NLTF share exceeding EW allocations, particularly in recent years.

Additionally, the comparison of MOR and EW spending highlights a concerning trend, with an increasing number of AOs spending more on EW than MOR.

The trends observed underpin the pressing challenges faced in managing EW funding, particularly in light of escalating costs and the impact of increasing major EW events.

Options for potential FAR and related threshold changes have been proposed for feedback via consultation. These options help progress towards longer-term funding sustainability while providing certainty for AOs.

NZTA will need to work with government on funding and financing options in response to extremely significant events that would overwhelm the NLTF.