



*Submission on:*

## **FENZ Fleet Management**

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## Introduction

This submission is provided in support of The Governance and Administration Committee inquiry into Fire and Emergency New Zealand's (FENZ), fleet management to examine the current state, procurement challenges, and future needs of all types of fire appliances. The United Fire Brigades' Association of New Zealand (UFBA), New Zealand Fire Brigades Institute (NZFBI) and the Institution of Fire Engineers New Zealand Branch (IFE) have collaborated to develop this joint submission to bring a qualified and professional perspective, ensuring our submission is reflective of the high-level realities of fleet management within the fire and emergency sector. We welcome this opportunity to contribute to a process that has potential to align FENZ's fleet management design principles, processes and procedures with international best practice. Our organisations would welcome the opportunity to make ongoing contributions to a fleet modernisation process that is fit for purpose, enduring and financially sustainable.

## Background

FENZ was established in 2017 following decades of attempted reform to modernise our fire services and provide New Zealanders with a fit for purpose, broad based emergency service able to meet the needs of a contemporary, comprehensive and integrated emergency management environment.

FENZ combined the former New Zealand Fire Service (NZFS) urban fire authority with 38 independent rural fire authorities and 12 enlarged rural fire districts. This has resulted in a significantly larger organisation. FENZ is fundamentally a volunteer-based organisation supported by paid employees - comprising paid firefighters, community risk management personnel, management staff and back-office capability. Volunteers comprise 86% of the frontline workforce and respond first to emergencies in over 93% of New Zealand's landmass. The financial benefit of this contribution to New Zealand if monetised is estimated at \$823M per annum. The volunteer emergency services workforce is an irreplaceable strategic asset for NZ, reflective of our nation's strong community-based volunteering ethic.

The government's intentions for a reformed fire service included with clear emphasis:

- strengthening the role of communities and improving the support for volunteers in the provision of fire services. In short, placing the community at the "centre of the fire problem"
- providing for local advisory committees to influence and advise FENZ
- improving support for volunteers and enabling them to communicate directly with FENZ; and
- providing for new offences and penalties to improve fire safety.

Fire appliances and firefighters are the most obvious "face" of a fire and emergency service. However, fire appliances should be seen as an enabling tool that has their design and functionality determined by the mandate of an organisation and the community risk profiles. To continue doing what we used to do, is to miss a significant opportunity in helping shape fit for purpose fire appliance designs and allocations that are appropriate now, and into the future.

The **Targeted Operating Model**<sup>2</sup> developed by the FENZ Transition Office<sup>3</sup> in 2017-18, approved by the Fire and Emergency Board, and endorsed by over 40 Unions, Associations and key stakeholders, referred to the **unification** of the amalgamated fire services. What was possibly not well understood, was that the unification was not limited to the bringing together of the previous fire agencies and their people, it more importantly referred to a **unification of purpose** for the new organisation - a purpose determined by the mandate and responsibilities of the new fire agency called Fire and Emergency New Zealand, which aligned with the risk profiles of the communities it served. That unity of purpose was intended to capture many matters, but specifically matters such as working together, decision making, leadership, organisational capability, community readiness, community informed planning, and customer and stakeholder needs related to service delivery.

It is worth noting that Cabinet<sup>4</sup> agreed that the Board should provide these operating principles to guide the new organisations approach. It, inter-alia, required that the Board should:

- set out principles to guide the new organisation and to assist with a unified culture and **way of operating**
- appropriately balance the need to provide **evidence based**, effective and efficient services; and
- provide the new organisation with operating principles to assist with a **new way of working**.

Utilising the direction and guidance of the **Targeted Operating Model** has faltered significantly, perhaps to the point where it is not used at all. It is arguable that this has led (along with many other matters) to a continuance of what had guided fire appliance design and overall fleet management requirements pre-2017, rather than a modern and futuristic fit for purpose business model being the norm.

## About the Submitters

### **United Fire Brigades Association of New Zealand (UFBA)**

Founded in 1878, the UFBA is a non-profit membership association that provides services to over 690 urban and rural volunteer, paid, defence, airport and industrial fire brigades throughout New Zealand and the Cook Islands. Our services are available to approximately 14,000 individual members, in both frontline and brigade support roles. Our purpose is to support brigade members carrying out their work contributing to the wellbeing and safety of communities by giving direct effect to Fire and Emergency New Zealand's principal objectives and the main or additional functions as set out in the Fire and Emergency New Zealand Act 2017.

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<sup>2</sup> A high-level design that covered all aspects of the new and or opportunity requirements of Fire and Emergency New Zealand

<sup>3</sup> An office of senior New Zealand Fire Service personnel and external contractors responsible for all the transition arrangements associated with the establishment of Fire and Emergency New Zealand

<sup>4</sup> Cabinet Paper 1 – **Fire Services Review**: Agreeing future directions and next steps - para 45

### **New Zealand Fire Brigades Institute (NZFBI)**

Founded in 1931, the NZFBI provides continuing education to fire and emergency personnel to encourage the advancement of knowledge and skills relevant in fire and emergency operations. The NZFBI is an Associate Member of the UFBA.

### **Institution of Fire Engineers (IFE) New Zealand Branch**

Founded in 1918, the IFE is a nonprofit making professional body with a membership of over 12,000 and a global reach that extends through 44 international branches.

Licensed by the Engineering Council (UK), the Institution upholds professional standards within all public and private fire sectors by offering assessment of knowledge, experience and development and engages with major stakeholders to offer international conferences, identify and promote good practice and enhance technical networks worldwide.

The Institution provides professional recognition for members across a broad spectrum and has achieved recognition from several professional bodies.

Its mission is to encourage and improve the science and practice of Fire Extinction, Fire Prevention and Fire Engineering and all operations and expedients connected therewith, and to give an impulse to ideas likely to be useful in connection with or in relation to such science and practice to the members of the Institution and to the community at large.

## Executive Summary

For some time, there have been complaints and concerns over the operational readiness of some of the FENZ fire appliance fleet. More recently, there has been an inability for FENZ management to provide accurate and consistent fleet advice to the Governance and Administration Select Committee. This has culminated in political concern over matters to do with the overall management of the FENZ emergency response fleet.

While some of the matters that are either known or have been portrayed in the media, are concerning from a state of general readiness, some of the complaints appear inflated against a backdrop of genuine concerns. Most of the concern appears to rest with the paid firefighter fleet, although that is not exclusively the case.

Despite most of the concerns being with one segment of the fleet, there is still significant opportunity to look at and consider ways to improve the overall management of the both the current and future FENZ fleet. These opportunities include:

- seeking clarity on matters that have been raised as they relate to age, condition, maintenance, testing and training on the frontline fleet and the spare relief fleet
- determine the input considerations over the next few years relating to:
  - what determines fit for purpose appliances - including community risk profiling, changes to the building codes and regulations, and the review of firefighting water supplies
  - future appliance types and designs - including those that are destined for communities with very poor reticulated water supplies, or no reticulated water supply at all
  - effective and efficient fleet management
  - effective and efficient deployment of fire appliances
  - the life cycle of appliances; and
  - procurement and ownership options.

Taking a more holistic and futuristic view, it needs to be recognised that modern fire and emergency services no longer operate solely as traditional firefighting organisations. In most comparable jurisdictions, they function within an **all-hazards emergency management framework** - often encompassing a primary focus on community safety and risk reduction, along with responding to structural fires in the build environment, vegetation fires in the forest and rural landscape, road crash rescues, medical co-response/ first response, hazardous substances emergencies, marine incidents, flood response, urban search and rescue, incident management, and recovery support.

Accordingly, fleet policy must support a wider operating model than it did historically. Appliance deployment needs to be determined by local risk, topography, community demographics, incident type, and workload, and then aggregated to determine national fleet requirements and associated capital investment.

Within this context, fleet procurement and fleet management cannot be treated as an isolated purchasing exercise. It must instead be considered part of a broader system of:

- service design
- operational doctrine
- workforce capability
- logistics and maintenance
- mutual aid and interoperability
- climate challenges
- financial sustainability; and
- community outcomes.

International practice indicates that fire service fleet policy is most effective when treated as a **strategic capability system** rather than a collection of locally owned vehicles. The strongest models are risk-based, standards-led, centrally governed, lifecycle-funded and interoperable. The weakest models are fragmented, under-standardised and structurally unclear about who owns, funds, maintains and controls operational assets.

From an insurance perspective, fire appliance capability represents a critical external control within the fire risk pathway, particularly for complex commercial, industrial, and high-density urban buildings where underwriting and fire engineering assumptions often rely on timely and effective fire service intervention to limit fire growth and loss severity.

The issues identified in this submission—appliance unreliability, extended introduction-to-service delays, limited relief capacity, and uncertainty around specialist and aerial availability—reduce confidence in the reliability of that control, requiring insurers to assess fire risk based on delayed or constrained intervention.

This risk is amplified by contemporary building design trends, including increased height, density, lightweight construction, higher fuel loads, integrated building management systems, and constrained site access, all of which can accelerate fire development and increase reliance on external response. Where fire service intervention cannot be reliably assured, insurers are likely to apply more conservative loss assumptions, resulting in higher expected loss severity, increased maximum foreseeable loss outcomes, and pressure on premiums, capacity, and insurability for affected building classes.

Within this context, there are wider risk and economic implications beyond fleet operations alone.

It is our view that there is significant scope for improvement if these wider considerations were fully encompassed in the broader objectives of fleet procurement and fleet management.

## Current State

### **Understanding the status of FENZ professional and volunteer appliance fleet.**

There are no “paid” or “volunteer” appliances as such in official FENZ policy. Anecdotally, an unconscious bias is evident in fleet design and deployment decision making by some FENZ leaders. Community risk profiles are intended to determine appliance types, design and sizes, not how they are crewed. The rollout of contemporary community risk profiles by FENZ is a work in progress. Accordingly, there remains some misalignment between appliance availability and operational need. This misalignment is expensive.

In general, paid firefighters regard small (Type 1) and medium (Type 2) pumping appliance as “volunteer” appliances. In Provincial composite paid/volunteer brigades, the paid staff will crew medium pumps on occasion but not routinely. Historically, political expediency has on occasion resulted in fire appliance allocation based on crew type and this trend is no longer appropriate. Community risk has no regard for who turns up to manage that risk, and all firefighters are trained to maintain the exact same core skills. There is no such thing as a volunteer fire or paid road traffic crash. They are all fundamentally the same. Further, the public are unable to distinguish paid from volunteer personnel on the incident ground.

Most of the FENZ fleet is in good shape but the relief fleet is in poor order. Since 2017, FENZ have invested significantly in replacing end of life appliances and introducing specialist vehicles such as water tankers that were not in service previously. On balance, it is a matter of public record that the large fire pump fleet (Type 3) has been fraught with problems inherited from the former NZ Fire Service, that FENZ has been required to solve.

### **Understanding any current short-falls or opportunities.**

Future fleet demand is highly likely to shift due to population growth, a rapidly aging society, urban densification, climate-driven and sub-optimal land management practices resulting in elevated wildfire risk, and increasing building complexity. The impact of inadequate fleet forecasting is high, particularly given long procurement lead times.

The assessment would benefit from quantitative demand modelling, linking call volumes, response times, and appliance types, alongside clear assumptions on demographic and climate trends. Stress-testing demand for specialist appliances (e.g., aerials) is also critical to ensure future readiness.

A critical additional risk is the rapid evolution of the built environment, driven by densification and increasingly complex, technology-integrated buildings. Smart building systems shift part of fire response into technical system management, requiring alignment with appliance design, onboard systems, and training. Urban densification introduces access constraints (narrow streets, limited space, weight restrictions), creating a mismatch with traditional large appliances.

The impact is high: constrained access reduces response effectiveness, limits tactical options, and increases fire severity and safety risks.

Future fleet planning must explicitly consider:

- appliance size and mobility relative to access constraints urban form changes, not just population growth;
- and Integration with modern building systems and operational requirements.

Without this alignment, there is a significant risk that future investments will be optimised for outdated conditions rather than emerging realities.

The problems can't be fixed if the problems are not accurately and fully understood.

Consequently, an evaluation informed by the foregoing needs to be undertaken alongside an evaluation of current matters such as:

- why no type 2 pump appliances (as traditionally used by volunteer brigades in medium and larger communities) are being built?
- why some designs are not suitable in some locations e.g. ground clearance issues, or limited 4WD capability for smaller appliances located in rural communities that involve driving on gravel roads, off-road responses, farm tracks and forestry roads?
- the effectiveness of standard testing arrangements
- what is the regularity of, and the effectiveness of aerial appliance marine surveys?
- the formality of, and the effectiveness of fault logging arrangements and remedial actions
- the effectiveness of pump and aerial appliance training regimes
- the suitability, state of readiness, and the location of the spare fleet
- the complexity of fire appliance design compared to the purpose and costs of appliances; and
- is the current fleet management structure effective in ensuring the fleet is kept in a high state of operational readiness?

The submitters are of the view that this evaluation needs to begin as soon as possible.

It is accepted that it was expedient to simply amalgamate the resources of the former NZFS, former rural fire authorities and enlarged rural fire districts back in 2017. However, had the allocation of resources for the new organisation taken a Greenfields approach, at least partially, the best design, type and allocation of firefighting and emergency management resources would have likely looked significantly different than it does today.

Given this, a valuable opportunity exists for the rationalisation of fleet, buildings and land. FENZ should take this opportunity to immediately begin a piece of work to understand its resourcing needs, District by District. This piece of work should also consider appliance types based on the organisations legal mandate, fire risk, topography, community demographics, closeness of neighbouring stations, the availability of reticulated water supplies, allied agency agreements, the challenges of climate change, and call numbers.

**Understanding the lifespan of different appliances and the projected state of replacement to meet current and future demand.**

United Kingdom fire and rescue services provide examples of fleet policy anchored to formal risk planning and asset strategies. Cumbria Fire and Rescue Service state that the way a

service fulfils its statutory duties through the Community Risk Management Plan process will, to some extent, dictate the type of fleet it maintains. Its strategy also commits to cradle-to-grave fleet management and a robust, fully costed replacement programme aligned to long-term financial planning. His Majesty's Inspectorate of Constabulary and Fire & Rescue Services has also identified, in inspection reporting, the importance of linking fleet management programmes to integrated risk management.

The strength of the UK approach is that fleet is treated as an asset management and service-planning issue, not merely an operational preference. The lesson is that fleet replacement should be governed through approved risk plans, transparent asset strategies and medium-term funding settings.

The current lifespan settings for fire appliances, especially pumping and aerial appliances is too long and out of step with international practice. The submitters accept that the cost implications of revising these settings are significant, however if not managed now, the problem will only become more severe in the mid-long term.

**Examining any current faults, breakdowns and serviceability issues with the current fleet.**

The submitters would query the current fleet maintenance provider arrangements for effectiveness and providing value for money? There is anecdotal evidence that this is not as robust as it should be.

A fleet strategy is incomplete if it focuses only on acquisition.

As noted above, the Cumbria Fire and Rescue Service's strategy is notable for explicitly framing fleet as cradle-to-grave asset management.

## **What are the emergency response capacity differences between the professional and volunteer appliance fleets?**

FENZ operates a red fleet comprising Type 1, Type 2 and Type 3 pumping appliances some of which have a dual role as pump/rescue appliances. Specialist appliances include aerials (elevated platforms, ladders and water monitors), Hazmat/Command Communication apparatus, foam tenders, hose layers, water tankers, light personnel carriers and more.

The capacity differences are driven by local needs determined historically. Paid firefighters tend to be in large cities with complex risks such as shipping ports, ultra large commercial and industrial sites, airports, hi rise buildings and in provincial centres where the workload exceeds the capacity of local volunteers to manage alone. Rural and smaller urban communities are exclusively volunteers with some exceptions (e.g. Kawerau).

Paid firefighters only crew large pumping appliances irrespective of local risk. Most volunteer brigades operate light and medium pumping appliances with some exceptions where end of life type 3 pumps are provided e.g. Bluff, Blenheim and selected composite paid/volunteer stations. The allocation is inconsistent however and politics tends to override practical needs.

Type 3 pumping appliances have more technology fitted such as data terminals, 360-degree cameras, have larger capacity pumps, mount Breathing Apparatus sets in the cab and have more locker space.

## **Current and Future Needs**

International research identifies there are several matters and best practice examples that should be analysed for suitability when considering both the current and future needs relating to procurement, ownership and maintenance of the fleet.

### **Fleet should be planned as a capability, not as an entitlement**

The international evidence strongly supports moving away from a model in which each station or locality is assumed to retain historically familiar appliance types regardless of changing risk. Better systems determine fleet by assessed hazard, geography, response model, call profile, workforce capability and availability, and mutual-aid assumptions.

### **Governance works best when ownership and accountability are aligned**

A New South Wales example shows that split ownership and control produce avoidable inefficiency, ambiguity and friction. A Government seeking a modern emergency management system should ensure that ownership, depreciation, replacement planning, operational accountability and compliance responsibility sit in the same place wherever practicable.

### **Central standards with controlled local adaptation are preferable**

The best systems do not allow every vehicle to become a one-off local specification. They standardise core platforms, safety requirements, equipment layouts, maintenance regimes, digital systems and replacement principles, while still allowing limited adaptation for terrain, water supply, urban density, crew model or specialist role. This is consistent with UK lifecycle strategies and US procurement guidance on standards. End user input is to be valued, but should be limited to the operational requirement, not the design. And even then, this should not proceed past a point where cost outweighs the benefit or needs, or the overall cost of an appliance is out of sync with its operational purpose. Local adaptation or modification of appliances should be strongly discouraged, if not prohibited.

### **Fleet management must include maintenance, parts, data and readiness**

A fleet strategy is incomplete if it focuses only on acquisition. Government should expect fleet policy to address workshop models, contractor arrangements, parts supply, reserve fleet ratios, telematics, inspection standards, asset data quality and downtime management. Cumbria's strategy is notable for explicitly framing fleet as cradle-to-grave asset management.

### **Sustainability matters, but operational capability must remain paramount**

Comparable jurisdictions are clearly moving toward cleaner fleets, but heavy emergency vehicles remain technically and commercially difficult to replace at scale. The international lesson is to electrify light and support fleets first, trial heavy solutions carefully, and avoid imposing emissions targets that undermine response capability or affordability.

### **Some specialist capability is better pooled or leased**

Infrequently used specialist assets may be better managed through national or regional pooling, leasing or contracted surge arrangements than through universal permanent ownership. The Canadian Interagency Forest Fire Centre (CIFFC) model is a strong current example.

### **Understanding the future needs of FENZ over the next 5-10 years**

As mentioned previously in this submission, first and foremost, the procurement and management of the fleet need to be focussed on the **core operational capability** need, and **community risk profile**, not simply vehicle class or historical station entitlement. Nor is it simply a transport or appliance replacement issue.

It is accepted that there are legacy fleet issues given the previous legal mandates of the NZFS and rural fire authorities, and the amalgamation, especially of the various existing fleets, that occurred in 2017. Continuing to procure fleet on the premise that existed pre-2017, would not recognise the now broader operational mandate of FENZ.

This is explicit in Western Australia, where the Department of Fire and Emergency Services describes its operational fleet as supporting prevention, preparedness, response and recovery (the Four R's), across multiple hazards. FENZ similarly states that its fleet provides operational capability, and that appliance type and deployment are matched to local risk. We suggest that the future requirement has a much wider context.

Broadly speaking, for fire and emergency agencies pursuing comprehensive and integrated emergency management, the key policy objective should be to ensure that fleet procurement and management arrangements deliver:

- risk reduction fleet as a priority
- a modern relief fleet equal to the frontline fleet
- operational readiness
- all-hazards flexibility
- interoperability
- resilience under surge conditions
- fiscal discipline; and
- a sustainable long-term capability.

A modern fleet policy should therefore ask more than what vehicles are required, but what **fleet system** is required to deliver the fire & emergency management outcomes the public expects.

## Procurement Issues

### **Reviewing procurement procedures and systems, including opportunities, capacity and challenges.**

On the surface, there does not appear to be too many issues with the actual procurement process itself. FENZ as a Crown Entity is required to adhere to governments procurement policies. But there are issues with delays around procurement, unnecessarily high costs in some instances due to over-the-top user input customisation, and remedial costs due to poor initial design, or apparent engineering short comings.

The best systems do not allow every vehicle to become a one-off local specification. They standardise core platforms, safety requirements, equipment layouts, maintenance regimes, digital systems and replacement principles, but still allow limited adaptation for terrain, water supply, urban density, crew models or specialist roles. This is consistent with UK lifecycle strategies and US procurement guidance on fleet and appliance standards.

Future policy settings, should also test the following:

- does the current fleet model reflect present and future all-hazards risk, or legacy assumptions?
- are ownership, accounting, maintenance and operational control aligned?
- is there a funded replacement programme based on lifecycle and risk, rather than deferred replacement pressure?
- are vehicles sufficiently standardised to support interoperability, training and maintenance efficiency?
- is the current fleet mix too limited or unsuitable for integrated emergency management demands?
- is the fleet system able to surge for large-scale, rapid on-set, or seasonal events? and;

- is there a realistic pathway to reduce emissions without compromising frontline performance?

### **Investigating opportunities for cost-effective and timely future procurement.**

There may be further opportunities for New Zealand businesses to be part of the design, build and acquisitions processes, but there are also engineering, build quality and commercial risks. Decisions on future procurement processes should proceed only after robust evaluations and feasibility studies of the following:

- engineering design capability in New Zealand
- the build quality of New Zealand manufacturers
- the engineering quality and engineering risk associated with assembling fire appliances from separate items such as a truck chassis, a pump, a locally manufactured locker body, and in some cases the aerial components
- comparing the above-mentioned **quality** and **risk** with reputable and established overseas fire appliance manufacturers who provide fully assembled appliances
- the suitability and cost of existing fire appliance designs from reputable and established overseas appliance manufacturers, including aerial appliances
- the efficiency and timeliness of the time taken from the letting of build contracts through to the delivery and commissioning of appliances
- the robustness and timeliness of warranty processes
- evaluations of the experience of other fire and emergency services who use overseas appliance manufacturers
- the feasibility of purchasing overseas built fire appliances through joint contracts with Australian brigades
- the provision of whole of life support from overseas manufacturers; and
- the commercial risks to local manufacturers who solely build fire appliances should Fire and Emergency move to other providers, overseas or not.

### **Introduction into, and return to, service**

#### **Investigating the reason for delays with current Type 3 appliances, including the cost of 'parking up' vehicles for a number of years.**

There is more than anecdotal evidence that suggests the current Type 3 (Heavy) MAN pumping appliance chassis were purchased with costs savings over the Scania chassis as being the main driver. The difference was approximately \$100k per chassis. It is possible that the cost savings overrode any evaluation and determination of whether or not the MAN chassis was chosen because it was known and proven that such a chassis was a suitable basis for a heavy pumping appliance.

Since the build of the MAN appliances there has been ongoing design and engineering issues which have led to widespread concerns resulting in limited end user acceptance.

We are not aware of the overall downstream costs of the issues associated with the MAN appliances, but it will be considerable (estimated to be many millions of dollars). These costs exclude the initial purchase and importation costs but will be driven by:

- approximately 30 chassis sitting in the open air for many years, in most if not all cases, past the expiry dates for warranty claims – this is a lost opportunity cost
- shipping these appliances back to the UK to have locker bodies fitted
- shipping the built-up appliances back to New Zealand
- approximately 50% of the locker bodies that were fitted in the UK were not structurally strong enough to be put into service as combined pump/rescue appliances; and
- crack repairs to chassis and locker bodies on the original batch of MAN appliances.

**Investigating projected timelines and requirements to fully introduce into service or retire all current FENZ appliances.**

The submitters are not aware of how long it will take to have all the recently built MAN appliances commissioned, trained on, and placed into the operational fleet. However, for reasons unknown to us, it does appear to be taking much longer than for appliances previously built on a different manufacturer's chassis. Having said that, this does not appear to be an issue to be directed at the manufacturers of the MAN chassis and it is likely the issues are much closer to home.

As mentioned previously in this submission, there are few, if any, issues with most of the fleet. The issues appear to be directly linked to:

- appliances that have their base design being predominantly the same as the designs of 25-30 years ago
- the possibility that over-the-top end user input has complicated the design, which has led an imbalance of suitability and functionality versus cost
- the possibility that the degree of engineering and build quality in New Zealand is less than optimal, particularly if that is complicated by a poor choice of chassis
- the MAN chassis and the locker bodies that have been fitted
- poor decisions relating to locker body design
- older poorly maintained, or not well looked after appliances e.g. predominantly those that have been in service for 25 plus years; and
- the aerial fleet.

The vast majority of the FENZ fleet does not need to be retired, and it would be fiscally irresponsible to retire all the MAN based fire appliances. However, fleet management needs to consider the following options assuming suitable replacement, or relocated appliances can fill the gaps:

- retire all Type 3 appliances that are not in a physical or functional state to be operational appliances
- consider a more acceptable chassis as the basis of future Type 3 (or equivalent) builds
- consider a better mix of pumping fire appliance allocations for paid stations e.g. based on community risk, climate challenges, street layouts, building size and design, the availability of fixed fire protection systems, topography of response areas and inter-agency agreements. It would be clear that not all appliances on paid stations need to be Type 3's
- consider replenishing any shortfalls in the fleet in a timely manner by importing new appliances fully built up overseas by reputable manufacturers
- purchase all aerial appliances fully built up from reputable overseas aerial appliance manufacturers; and
- consider the implications of compliance issues like axle weights when considering overseas built appliances, and where/if necessary, seek dispensation from the requirements.

#### **Understanding acceptance issues body cracking and other unfit-for-purpose issues.**

The submitters are not fully across the engineering issues that have led to the large pumping appliance locker bodies cracking, but clearly there are links between an unsuitable truck chassis that flexes, locker body design, locker body flexing, and the possibility the locker body is either over-loaded, or firefighting and rescue equipment if being placed in locker body spaces it was not intended for. An independent engineer should be tasked with determining the exact issues and consequently, the appropriate solutions.

#### **Understanding all aspects of new aerial appliance introduction.**

For many years now, there has been a view that the engineering expertise does not exist in New Zealand that allows for a truck chassis, a locker body, a pump and aerial components to be built up into a fire appliance - particularly as that relates to the stresses the chassis, stabilising jacks and outriggers are placed under when the aerial component is being operated near its design limits.

Reputable overseas manufacturers are fully aware of these issues. Consequently, there is a strong argument for FENZ to continue purchasing and importing fully built-up aerial appliances.

If such appliances are considered, end user input should be limited to the appliance's capability, based on need e.g. the operational requirement. With all due respect to their thoughts, experience, and knowledge, they should not have influence over the manufacturer of either the chassis or the aerial componentry.

## **Reviewing broader introduction into service for all types.**

This has been mentioned in general in various other parts of this submission, but to summarise:

- FENZ now has a wider service delivery mandate than the previous NZFS and rural fire authorities/enlarged rural fire districts
- FENZ also has an extended operational response area
- the operational fleet design of around 20 years ago needs to be re-evaluated
- community risk profiling needs to be more prominent in the thinking associated with appliance design and appliance allocation
- a one-stop-shop approach to appliance allocation needs re-evaluated e.g. hybrid allocation in some fire stations based on community risk, is highly likely to suggest a more fit-for-purpose mixture of appliance types is an overdue consideration
- overall resourcing, including the type, design, function and location of fire appliances should be the main driver associated with overall fleet design and overall fleet management, not history.

Given the above, a significant opportunity exists to take a fresh look at the overall fleet, what determines fit for purpose both in terms of individual design and overall allocation, as well as if FENZ is taking a best practice approach to its broader fleet management requirements.

While undertaking this work, it would be a worthwhile exercise to confirm (or otherwise) on whether some of the technology aspects built into the more modern fleet are necessary, or is such technology is an impediment to the end users not using the appliance to its full capability.

## **A general re-think.**

It would be wrong to think concerns only exist with the fleet issues that get mentioned in the media. It would be equally wrong to think everything needs change. However, a broad re-think of aspects of fire appliance fit for purpose design and allocation is required.

It is equally clear that there are headwinds with remedying the issues. There are significant capital expenditure issues, timing issues, risks associated with limited or slow remedial work, risks should the re-allocation outcomes make firefighters and or communities think they are losing vital assets, firefighter safety issues, and there is risk associated with appliances that are not fit for purpose for whatever reason, remaining on operational responses.

However, thinking that all the remedies are obvious, or can be overcome quickly, is not the case. Nor is not recognising the significant amount of work that is needed and the inevitable capital cost.

The submitters respectfully suggest that the required investigative work is started almost immediately and guided by an approved terms of reference. To reiterate, the UFBA and its dedicated fleet expert group, along with the NZFBI and IFE are committed to working alongside FENZ to help shape the terms of reference, and equally importantly, will be a fully engaged partner in seeking input from the volunteer fire brigades represented by the UFBA.