



**FIRE
EMERGENCY**

NEW ZEALAND



New Zealand International Convention Centre (NZICC) Action Plan

A plan to address the recommendations of the AFAC Independent Operational Review

He anga whakamua – to move forward positively

Date: 05/10/2021

Whakarātonga Iwi – Serving Our People | fireandemergency.nz

Contents

New Zealand International Convention Centre (NZICC) Fire, October 2019	5
Introduction	5
About the review	5
Review methodology	5
Context.....	6
Relationship to other review activities	6
Acknowledgements	6
Next steps	6
NZICC Fire Action Plan recommendations and responses	7
Recommendation 1.....	7
Context.....	7
Current work.....	7
Proposed future actions	8
Recommendation 2.....	10
Context.....	10
Current work.....	10
Proposed actions	11
Recommendation 3.....	12
Context.....	12
Current work.....	12
Proposed actions	13
Recommendation 4.....	14
Context.....	14
Current work.....	14
Proposed actions	15
Recommendation 5.....	16
Context.....	16
Current work.....	16
Proposed actions	16
Recommendation 6.....	17
Context.....	17
Current work.....	17
Proposed actions	17
Recommendation 7.....	18
Context.....	18
Current work.....	18
Proposed actions	19
Recommendation 8.....	20
Context.....	20
Current work.....	20
Proposed actions	21

Recommendation 9.....	22
Context.....	22
Current work.....	22
Proposed actions	23
Recommendation 10.....	24
Context.....	24
Current work.....	24
Proposed actions	25
Recommendation 11.....	26
Context.....	26
Current work.....	26
Proposed actions	27
Sections where no recommendations were made	28
Input into the development of the action plan	30
Appendix one – Accountability and Timelines.....	32

New Zealand International Convention Centre (NZICC) Fire, October 2019

Introduction

On 22 October 2019, a large, complex fire broke out inside the roof cavity of a building under construction in the Auckland Central Business District (CBD). The building, known as the New Zealand International Convention Centre (NZICC), consisted of seven storeys with a total floor area of 32,500 square metres. Construction was due to be completed in 2020 and was well advanced with the building mostly closed in. At the height of the response to the sixth alarm fire 130 firefighters, 30 appliances and 16 operational support vehicles were in attendance. The fire severely impacted the Auckland CBD and resulted in a full evacuation of the NZICC precinct, and the closure of key traffic routes in the city for multiple days. It was 11 days before the NZICC building was able to be safely handed back to the construction site owners. This fire is known as the NZICC fire.

There are few precedents for a structural fire of this size and complexity recorded in New Zealand history.

Fire and Emergency New Zealand commissioned an independent review into the NZICC fire because we want to ensure we improve how we manage long duration structural incidents. We understand the New Zealand built environment is evolving and ever-growing. We need to ensure we learn from significant incidents so that we are best placed to respond to incidents in this changing environment. We have developed this action plan in response to the lessons and opportunities the independent review identified and recommended.

About the review

The Australasian Fire Authorities Council (AFAC) independent review was conducted by a team from both Australia and New Zealand with broad and varied experience of structure fire, incident management, implementation of emergency management policy and doctrine, and of undertaking operational reviews.

Review methodology

The review team ('the reviewers') carried out field work in New Zealand between 12 and 20 February 2020 (inclusive). They met with Fire and Emergency personnel, as well as staff from other agencies, government, and representative bodies significantly impacted by the fire. The reviewers had the opportunity to visit the immediate environment of the NZICC and discuss the strategies used there. They considered relevant documentation, reviewed video footage of the fire and firefighting operations, and listened to recorded radio traffic. Officers and firefighters were also given an opportunity to provide written submissions outlining their experiences during the fire. Over 20 submissions were received. The reviewers also interviewed some stakeholders by phone.

The reviewers made recommendations, comments and suggestions for Fire and Emergency to take account of in future business planning.

The following were explicitly out of scope:

- The origin and cause of the fire
- The conduct or behaviour of any individuals involved for performance-related purposes

-
- The regulatory framework per se (i.e. any review of Fire and Emergency New Zealand's statutory functions or powers)
 - The subsequent investigations into the fire, including the cause and origin investigation
 - Legislative policy and legal issues, such as any potential fault or liability in connection with the fire
 - Building legal compliance issues
 - The operations and/or performance of agencies other than Fire and Emergency New Zealand.

Context

The context for each of the recommendations comes directly from the [NZICC Independent Operational Review](#).

Relationship to other review activities

The reviewers' report is independent and based on the evidence the reviewers gathered during the fieldwork phase of the review. The report deliberately did not deal with the detailed operational issues that have been or will be addressed in internal after-action reviews.

Acknowledgements

Fire and Emergency would like to thank the review team for their mahi in pulling together their report and recommendations. The review team consisted of Jeremy Fewtrell – Deputy Commissioner at Fire and Rescue New South Wales, Paul Considine – Director, Supporting Operations at the Australasian Fire and Emergency Service Authorities Council (AFAC) and our own Trevor Brown – National Operational Efficiency Manager. We would also like to thank everyone who took the time to input into the operational review.

We would also like to acknowledge the Auckland community and Auckland businesses who were impacted by the NZICC fire and thank you for your support during the response efforts and in the days that followed.

Finally, we would like to take the opportunity to thank the firefighters, officers, and other personnel who worked tirelessly in extreme conditions to respond to the NZICC fire. Your professionalism, commitment, and efforts are commendable and appreciated.

Next steps

Fire and Emergency accepts the report is a fair review of our management of a very significant event and intends to take action to address the 11 recommendations made.

This action plan outlines how we will respond to these recommendations. Appendix one outlines the accountabilities and projected timelines for each action. The actions and timeframes for achieving these are subject to change as they need to be balanced against the other areas of organisation development and prioritisation and generally this will be achieved through the organisations formal investment prioritisation process.

In implementing the plan, we will:

- discuss with our affected communities, stakeholders, partners and the emergency sector so we can further inform and refine our activities, as appropriate, and
- establish governance and collaborative arrangements to actively develop, manage and monitor its implementation.

NZICC Fire Action Plan recommendations and responses

Recommendation 1

Fire and Emergency New Zealand should review its strategies to understand and manage high-risk buildings, including buildings under construction. These strategies should take into account the practicality of physically inspecting and keeping up-to-date with individual buildings, and provide solutions to support operational firefighters effectively to manage fire in the complex built environment where they may not be personally familiar with individual buildings.

Context

The reviewers found the pre-incident planning and risk management for the NZICC fire were appropriate in the context of the regulatory environment in which Fire and Emergency operates and in accordance with our own internal policies. Site familiarisation visits had been paid by crews to the NZICC while under construction and it was noted that due to the rapidly changing construction site it would not have been reasonable to expect a pre-incident plan to have been prepared. It was noted this is a significant challenge for fire and rescue services around the world who operate in high-density urban environments due to the pace and complexity of urban development in the modern world.

To address this, the reviewers suggested other solutions, such as better access to plans created by others, need to be implemented and firefighters and officers should be educated around general building construction issues.

Current work

Since the NZICC fire in October 2019 a number of actions have already started or been completed to begin to address this recommendation.

In April 2019, prior to the NZICC fire, Fire and Emergency updated its operational planning procedures which made area managers and principal rural fire officers responsible for ensuring local operational procedures (LOPS) are developed for their areas/districts. This includes ensuring site reports and tactical plans are up to date. This is a work in progress. In September 2020 our internal audit function undertook a review to determine if the local operational procedures were in place and were developed in accordance with the procedures. Overall, the audit found further effort is required and made recommendations to ensure we can target specific issues. The recommendations included ensuring a quality assurance process is put in place to review the content of the LOPs; a reminder to those who have not yet developed LOPs or tactical plans for major hazard facilities to do so; and the tactical plan template is updated to be more fit-for-purpose. Action is underway to address these.

We have made progress in completing a *Designers Guide to Firefighting Operations*, which is a guide for professionals in the construction industry such as designers and engineers on technical issues relating to firefighting operations that they should consider in their building design work. We expect chapters of this guide to be publicly released in the coming months, further chapters will be developed over time. We are also producing similar information for our frontline personnel which will include a checklist and online training modules. As part of this work, we have released an online training module for firefighters on building construction sites which covers general construction issues as recommended by the reviewers.

Fire and Emergency has been actively working with Standards New Zealand on *NZS4510 Hydrant Risers in Buildings* to ensure it includes more specific requirements for buildings under construction. We have had representation on the NZ Standards Committee and have also made a submission on this through the public consultation process run by Standards New Zealand.

In September 2020, we issued a “Heads Up” document which is a report we develop and share with targeted audiences and publish on our website to share key lessons learned from fires to help prevent or lessen the impact of future fires. This [“Heads Up”](#) report covered buildings under construction and was sent to territorial authorities and building industry groups. We have also participated in Engineering New Zealand seminars to inform engineers of the key lessons.

We are also in the process of deploying 200 tablets to our busiest fire appliances which are loaded with a full suite of applications including an operational site data application. This application helps firefighters to maintain current, accurate and complete critical building information by enabling them to review and update building information while attending an incident or undertaking a scheduled familiarisation visit. Building updates are automatically uploaded to our SMS system allowing other crews to access the most up-to-date information. This roll-out will be completed in June 2022. Further deployment of Fire and Emergency’s Mobility Solution will be considered when a final approval decision on the Government’s Public Safety Network (PSN) Business Case has been made and further implications and opportunities to leverage off the programme are better understood.

Our Service Delivery branch is undergoing a significant structural change which came in to effect on 27 September 2021. Through this process increased focus and capacity will be put on risk reduction activities in the districts through the establishment of a community risk manager and risk reduction advisors and senior advisors. These personnel will be focused on the technical aspects of reducing the risk of incidents occurring and minimising the impacts when they do occur. We have also established an Auckland strategic advisor position to help build strategic relationships and engagement in Auckland. Through building relationships with key partners we aim to influence changes relating to fire safety in construction.

Proposed future actions

- 1.1 Research other jurisdictions’ approaches to issues with buildings under construction to find effective and efficient strategies which could work (or be adapted to work) in the New Zealand context.
- 1.2 Engage with Local Authorities on the work they already undertake relating to health and safety matters on construction sites to attempt to include firefighting risks as part of this.
- 1.3 Work with the construction industry to incorporate fire risks into their site safety reports. The New Zealand Construction Industry Council is interested in working with us on producing a Code of Practice on construction site safety that would provide specific guidance.

-
- 1.4 Work with the Ministry of Business Innovation and Employment (MBIE) in attempt to influence updating the Building Act (Clause F5) to include fire safety during construction.
 - 1.5 Develop a protocol and a recurring task in SMS to reminds crews to undertake a familiarisation visit when a building under construction/alteration/deconstruction, known to Fire and Emergency engineers, reaches a certain threshold.
 - 1.6 Incorporate guidance and information on buildings under construction in to RD2 – Operational planning documents when undertaking the next review.
 - 1.7 Special Response Zone's will be loaded into ICAD in our Communication Centres to enable predetermined attendance to be assigned based on the risk identified for particular sites.

Recommendation 2

Fire and Emergency New Zealand should review its operational doctrine to provide guidance to incident controllers about identifying incidents that are likely to develop into long-duration events, and setting up appropriate command facilities in an EOC to manage all major incidents, of whatever hazard type, from an EOC.

Context

Overall, the reviewers concluded that, due to the unique construction of the NZICC roof, firefighting strategies and tactics were limited which meant there were “no realistic options available to Fire and Emergency New Zealand to suppress this fire so as to reduce the loss significantly below what was incurred”. The reviewers did however find almost all personnel attending the scene did not initially consider the fire could last more than 24 hours which had an impact on how the incident was managed in its early stages and the way in which the Incident Management Team (IMT) operated.

The reviewers also identified there is no current doctrine to guide executive officers on identifying and managing long-duration incidents. It was also acknowledged long-duration incidents of this nature in the urban environment are rare. We consider it will be challenging to identify thresholds as to when an urban incident may become a long duration event so will seek to better understand which thresholds (if any) are used in other jurisdictions that could be used or adapted for use in a New Zealand context.

Current work

In response to the [independent review in to the Tasman Fires](#) we have begun to identify and test potential venues around the country, such as sports clubs, race courses, etc., for suitability for use as an Incident Control Point (ICP)¹. We are also doing work to ensure Fire and Emergency’s ICT equipment can be deployed to these locations. This is a work in progress and progress is regularly reported on as part of the Tasman Action Plan progress updates.

The Tasman Fires Action Plan also includes an action on reviewing how and when Local Coordination Centres (LCC), Region Coordination Centres (RCC) and the National Coordination Centre (NCC) operate and how they are resourced, exercised and tested (refer to action 11.1 of the [Tasman Fires Action Plan](#)). This action, once completed, will contribute to addressing recommendation two of this review. It is intended that this action is completed by the end of 2021. Progress on this action will continue to be reported as part of the Tasman Fires Action Plan regular progress reporting.

There is also work underway locally in Auckland to address this issue. A fourth alarm incident in Auckland is now the trigger for changing the executive officer’s mindset from a routine incident to a large, potentially long-duration incident. This means a fourth alarm in Auckland would trigger the incident controller to review appointments to key IMT roles, consider standing up the LCC or RCC and calling on partner agency support. Auckland officers are also intending on appointing an advanced planning manager at fourth alarm (and above) fires in Auckland to focus on longer term considerations. This is being supported by communications and training, as appropriate. Auckland Area Management consider a fourth alarm and above is appropriate and an advanced planning

¹ Fire and Emergency does not use the terminology EOC, we use ICP instead.

manager is not required for third alarm or below incidents. We will continue to evaluate this to determine if this is required nationally, or at some other locations around the country.

Proposed actions

2.1 Research other jurisdictions approaches and undertake a literature review to identify possible thresholds for identifying when an urban incident may become a long duration event that could work, or be adapted to work, in a New Zealand context.

2.2 Planning and Intelligence for multi-day incidents will be incorporated into the TAPs training programme to Senior Firefighter rank to ensure that duration of incidents is incorporated in to thought processes as firefighters progress through the rank structure.

2.3 Incorporate identification of long duration events and setting up appropriate command and control facilities into command and control training.

2.4 Incorporate identification of long duration events and setting up appropriate command and control facilities in the development of a new Command and Control manual.

2.5 Include competency for identification of and managing multi-day events in the development of the Technical Competency Framework for Fire Commander and Assistant Fire Commander ranks.

Recommendation 3

Fire and Emergency New Zealand should reinforce with incident controllers that individuals should only be given sector command responsibility if they have the appropriate training and competency assessment; and provide sufficient skills maintenance opportunities to qualified staff to ensure that they are able to deploy their skills effectively at low frequency, high impact incidents.

Context

Overall, the command structure and tactics used to manage the incident were found to be appropriate. There were some opportunities for improvement identified to ensure our people receive advanced training (i.e. beyond what personnel receive during station officer and senior station officer training) for command positions at large incidents. This included providing opportunities to maintain the skills they have which are required for low frequency, high impact incidents, such as the NZICC fire. Specific shortcomings identified with sector command at this incident were around fatigue and welfare management, personnel management and accountability. These issues feature throughout the recommendations made by the reviewers.

The difficulty in obtaining enough water supply to provide sufficient water pressure to reach the roof of the NZICC building was acknowledged. The reviewers found more consideration should have been given to the practicalities and options for water supply and distribution, size, and length of hose earlier in the response. While not a formal recommendation, the reviewers made some suggestions to improve in this area. We accept there are opportunities for improvement and have included proposed actions to address this in the future. The reviewers also made it clear they did not suggest issues around water supply contributed to the “ultimate outcome of the fire, which was dictated by the roof construction and the imperative to withdraw crews from the roof on engineering advice”.

Current work

As an interim measure the Incident and Leadership Development Course and the Volunteer Executive Officer Course now include a lesson plan on sectorisation and the role of the sector commander, including fatigue and welfare management and accountability.

We are also in the process of rewriting the modules used to train personnel to senior station officer rank. Sector command will be incorporated in to this work, including a definitive list of what the role is and what it entails.

Fire and Emergency is also in the process of developing a new Technical Competency Framework which will be how we assess competency to appoint people to our executive officer ranks of Fire Commander and Assistant Fire Commander. Once the framework is in place, any senior officers who have operational response accountabilities will need to be assessed as competent via this framework. This will include regular re-assessment, to ensure people holding these ranks maintain their competency. Sector command will explicitly be included in the Technical Competency Framework.

Area Management across Auckland developed a draft sector commander role description and engaged National Training to develop and trial a sector commander training package for Auckland. This trial is now complete, and a national project is underway to develop sector commander training to all urban officers.

Work is also underway on setting service standards and specifications for the sector commander/sector supervisor role within the current Incident Command System model across the built and natural environments.

Proposed actions

- 3.1 Review the Officer notebooks and through this work include the role and responsibilities of a Sector Commander and a Water Supply Officer.
- 3.2 Review the Executive Officer training modules and through this work include the role and responsibilities of a Sector Commander.
- 3.3 Review existing, relevant training materials that have been developed and look to collate, update and implement proposed changes. For example, there has been some work completed previously on a new command and control technical manual which has not been launched.
- 3.4 Develop the requirements for training on sector command and implement training accordingly.
- 3.5 Incorporate sector command in the development of a new Command and Control manual.
- 3.6 Incorporate crew accountability into the major industrial incident exercise that Fire and Emergency will hold in 2022/2023 (as part of the government's National Exercise Programme).

Recommendation 4

Fire and Emergency New Zealand should reinforce current operational doctrine, training and exercises to ensure that crew accountability is placed front and centre of command considerations.

Context

Accountability in this context refers to knowing where people are on the incident ground, what tasks they have been assigned, and how long they have been operating for. The reviewers found accountability was “a significant challenge at this incident”.

Accountability is a challenge for Fire Services around the world. We are not aware of any technological solutions that currently exist to assist with accountability. The independent report also acknowledges this and suggests that until such time as a solution (or solutions) are developed we will need to rely on training and exercises. Everyone on an incident ground has joint responsibility for accountability, therefore it is important personnel have sound operational procedures to follow are trained and provided opportunities to practice in preparation for major incidents.

This recommendation is also closely aligned with recommendations three and nine. Actions underway and proposed to make improvements with regards to those recommendations will also contribute to progressing this recommendation.

Current work

Fire and Emergency currently has a programme of work underway focused on the control of carcinogens and on decontamination. As part of this programme, we are looking at accountability models and will develop policy/doctrine, procedures and guidelines for accountability. We are running trials on a five-step accountability and decontamination model that has been developed and is being trialled and implemented by the Metropolitan Fire Brigade in Victoria, Australia. The five-step process includes Decontamination, Exit, Breathing Apparatus Service Rehab, and Staging and is known as the DEBRiS model. The former New Zealand Fire Service developed, but never implemented a passport system. We will be looking to review this passport system as part of the accountability work alongside the DEBRiS model.

The passport system continues to be used in the Incident Leadership Development, Volunteer Executive Officers and Senior Station Officer courses. This training has limitations as the passport system is not yet used on the incident ground. The training does however teach the importance of accountability and reinforces accountability is a joint responsibility on the incident ground. As we further develop training across the business, we will incorporate this concept as suggested and as appropriate.

Fire and Emergency offers a firefighters’ scholarship, which provides an opportunity to research, study or undertake a project relevant to Fire and Emergency’s strategic plan, or that demonstrates innovative approaches to contributing to the welfare of the organisation. In the last financial year a scholarship was awarded to a station officer to undertake an international study into ‘Personal Accountability at Greater Alarms’, which includes reviewing practices in other countries. This work has unfortunately been hindered by the COVID-19 restrictions on international travel. The station officer is however conducting an electronic review of international accountability models and processes.

Operational Firefighters have also been in contact with the Auckland University of Technology who have offered assistance in potentially creating an electronic accountability application. This will continue to be explored as to whether or not it is a viable option.

We also have work underway on developing an interim resourcing tracker that can be used by Incident Management Teams during response to long-duration wildfires. Once this has been established and

properly implemented, we may consider if this is a feasible option for long-duration incidents in urban settings also.

Proposed actions

4.1 Undertake a stocktake of technological solutions that have been or will be implemented internationally to address accountability challenges.

4.2 Develop guidance regarding systems/methods to take “respite” within hot zones for trial in Auckland.

4.3 Accountability will be incorporated into regular exercises at a local level, including inter-agency and inter-station/brigade exercises.

Recommendation

Fire and Emergency New Zealand should progress the review of its aerial appliance strategy to completion, to include the training of additional aerial appliance operators in the next 12 months.

Context

The availability of aerial appliances to respond to the NZICC fire was slightly reduced at the time. Auckland city normally has two 32m aerial appliances in service; one was at the mechanical service provider undergoing routine maintenance. As the relief 32m aerial appliance was already in use this left one 32m aerial appliance and three type 4 aerial appliances for immediate response. The type 5, undergoing maintenance, return to service was expedited and a type 6 equivalent was dispatched from Hamilton in the early stages of the response. The reviewers found the “decision to promptly respond this key resource was astute and showed commendable initiative”. We agree with the reviewers and would like to acknowledge our highly skilled Communications Centre staff for their mahi and for the significant contribution they made in the response to this incident.

The reviewers also commented on the limited horizontal and vertical reach of the aerial appliances within Fire and Emergency’s current fleet. The reviewers acknowledged there is work underway to review our aerial strategy and recommended focus continues to be put on completing this work.

Despite the challenges the reviewers concluded and “that due to the construction of the roof providing cavities for the fire to spread within the roof, and the rapid spread of the fire, a greater height and reach capability in the aerial fleet may not have significantly altered the outcome of the fire” and “the outcome of the NZICC fire cannot be blamed on the nature of the Fire and Emergency New Zealand aerial fleet”.

The reviewers also commented on the number and availability of aerial operators in Auckland to respond to the NZICC fire which in their view lead to “unacceptably long periods of time without relief.” They suggested Fire and Emergency should train more aerial operators.

Current work

Work continues to progress on the review of our aerial appliance strategy. In late 2020 we released a discussion document seeking views of key stakeholders. The feedback received through this process is being used to inform the development of the Aerial Strategy; feedback debrief sessions were conducted in August 2021 and steady progress on the strategy is being made.

In developing the aerial strategy and solution options we continue to review the available technologies and signalled technological advancements in this area.

Since the release of the independent review we have trained an additional 12 aerial operators in Auckland.

We acknowledge one of the issues which contributed to the limited availability of trained aerial operators was that some trained personnel were on the incident ground in other roles. We also had a number of aerial operators who were unavailable due to a national Urban Search and Rescue exercise being undertaken at the same time as the NZICC incident. Going forward Auckland Area Managers will ensure we efficiently and effectively manage trained personnel at incidents so that relief is available. Improvements in how we schedule/roster aerial operators in Auckland is also underway.

Proposed actions

5.1 Complete the review of the Aerial Strategy.

Recommendation

Fire and Emergency New Zealand should provide clear direction to communications staff and commanders about the capability of Fire and Emergency brigades in their area to respond to a range of hazards, and should also ensure that any specialist training required to equip brigades to respond to hazards in their area and neighbouring areas is provided to them.

Context

During the initial response to the NZICC fire, Fire and Emergency was also called to a second incident involving a fire in a high-rise building in Auckland's CBD. Because of this, reviewers looked into our ability to manage a concurrent incident. During their review into this matter, they identified situations where the capability and training of volunteer crews to support major incidents in metro areas was challenged by some personnel. We reject the assertions made about the capability of our volunteer brigades by those personnel who commented in this regard. Our volunteers are trained to a high standard, as are our Officers in Charge/Incident Controllers. The volunteers at nearby stations also have the required equipment to carry out multi-story building firefighting and they had the required skills maintenance recorded to sufficiently respond to this second multi-story building incident. As such, these claims are unfounded, and the second incident was managed effectively as planned.

The reviewers also found some volunteer crews who are trained in the use of breathing apparatus (BA) were not dispatched to the incident as relief crews because they had non-telemetry sets. Fire and Emergency operates a system whereby telemetry and non-telemetry sets can be used concurrently at an incident. We agree with the reviewers' summation that this decision represents a disconnect between our intent and the application of policy at this incident. We do however recognise that operationally it is more efficient to have everyone operating off the same type of BA sets and so have been rolling out telemetry BA sets to 7 composite stations and additional volunteer stations in Auckland.

Current work

Fire and Emergency is focused on undergoing a culture change and has an action plan in place to build a more respectful and inclusive culture. We acknowledge some groups within our organisation suffer from discrimination and we are actively working to address this. With any culture change we are realistic this will take some time to achieve. You can read more about our Positive Workplace Culture programme [here](#).

In regard to dispatching of crews, our Communication Centres personnel dispatch resources based on response plans developed and provided by local area and district personnel. These response plans include the appropriate appliances/crews to dispatch to different incident types in each response zone. The purpose of this is to ensure those who are dispatched to incidents have the appropriate equipment, fleet capability, and training of the crew to respond to the incident type. This approach acknowledges local personnel have the most knowledge and understanding in regard to the capability of their brigades. Our Communication Centres staff rely on this local input in their work.

Area Managers (and future Group Managers) will continue to reinforce the existing procedures around the use of telemetry and non-telemetry breathing apparatus sets on the incident ground.

Proposed actions

- 6.1 Group Managers are to make sure that the high-rise competency for relevant brigades is turned on in OSM to ensure that they train to and maintain this competency and to provide assurance that this is the case.

Recommendation 7

Fire and Emergency New Zealand should review its doctrine relating to liaison with emergency management partners, to ensure that the importance of liaison, and having appropriate command facilities for liaison activities to be carried out, is embedded throughout Fire and Emergency; and to formalise a liaison structure with emergency management partners for major incidents where Fire and Emergency is the control agency.

Context

As part of the review process the reviewers also spoke to key response partners to the NZICC fire. The reviewers found all partner agencies at this incident were involved in liaison activities and identified close relationships were formed in the process. Some improvements as to how the liaison activities could have been carried out or more formally structured were identified in the report.

Opportunities for improvement were identified in regard to the location of the incident management team (IMT) which operated from an on-site command unit. It was suggested that, due to the complexity and duration of the incident, the IMT should have operated from a fixed command location. It is our view that this recommendation is linked with recommendation two in that if this incident had been identified as a long-duration incident earlier on then a different decision may have been made around the location of the IMT. It is also worth noting that the Regional Coordination Centre in the Area office was stood up early on in the incident and a significant portion of the liaison activities occurred from this fixed location.

Current work

In response to the findings into the Independent Review into the Tasman Fires, we have an action to “review and reform the coordination centres that clearly establishes the form, function, and fit of NCC/RCC/LCC and ICC to supporting incident management” (refer to action 11.1 of the [Tasman Fires Action Plan](#)). This action, once completed, will also contribute to addressing recommendation seven of this review as it will consider how best to incorporate liaison officers from other agencies and iwi into our incident management teams and co-ordination centres. This action is intended to be completed by the end of 2021. Progress on this action will continue to be reported as part of the Tasman Fires Action Plan regular progress reporting.

We recognise the key to being successful in regard to this recommendation is to build and maintain strong relationships prior to incidents occurring and pre-planning with our partners and key stakeholders. Our frontline personnel and management do a good job at building relationships with relevant partners, stakeholders, and their local communities. However, we acknowledge that due to the changing nature of our climate we need to work differently and more collaboratively with our existing partners and key stakeholders than we currently do. This means also developing relationships with organisations we haven’t previously engaged with. Building and fostering local relationships will be a key part of the role of the new District Managers and the District Leadership Teams under the new Service Delivery structure. An increased focus is also being put on this at a national level.

The report noted the appointment of a Recovery Manager did greatly assist in this situation as it provided a single point of contact. We intend to continue to appoint recovery managers to significant incidents (see the section below relating to Recommendation 10 for further information). We also view this recommendation as being closely linked to Recommendation 11.

Proposed actions

- 7.1 Incorporate the role of liaison officers in the implementation of AIIMs and ensure it aligns with the CIMS system used for multi-agency national incidents and with the definition developed by the Incident Management Reference Group.
- 7.2 Incorporate the Liaison Officer role into interagency exercises. Learning from these exercises about threshold triggers and CIMS/AIIMS roles will be considered in the work to move to AIIMS.
- 7.3 Group and District Manager inductions will reinforce they are empowered, enabled and encouraged to establish and maintain relationships at a local level, which should make liaison activities easier when incidents happen.
- 7.4 New formal arrangements will outline how we will operate in an emergency situation: i.e. the use of the CIMS or AIIMS model and that a liaison officer from that agency needs to be established.
- 7.5 Review the Officer notebooks and through this work include the role and responsibilities of a Liaison Officer.
- 7.6 Incorporate liaison activities in the development of a new Command and Control manual.
- 7.7 Develop a Recovery Manager/Liaison Officer pack, similar to the Safety Officer pack, which includes all of the information and tools needed to undertake the role.

Recommendation 8

Fire and Emergency New Zealand should engage with government to obtain confirmation about responsibility and capability for atmospheric monitoring and should use its influence to ensure that a national air quality monitoring capability exists and can be activated on an emergency basis for incidents such as the NZICC fire.

Context

Due to the nature of the fire and the type of fuel that burned, thick black (potentially toxic) smoke was emitted from the NZICC building filling many nearby central Auckland streets. Reviewers looked in to this matter and made comments regarding the lack of clarity on where accountability for atmospheric monitoring at fire incidents in New Zealand sits and for providing warning to the public.

We agree it is not clear in legislation who is responsible for atmospheric monitoring and for providing warnings to the public. It is also not clear what capability or capacity exists across relevant agencies in New Zealand to monitor atmospheric conditions. The capability does not exist within Fire and Emergency currently and our legislation does not explicitly require it. While Fire and Emergency is not a core Government Department responsible for policy setting and legislation, we do agree we have a part to play in raising this issue with those agencies who do have the mandate, for their consideration for inclusion on their work programmes.

Fire and Emergency's legislative responsibilities are to provide for the safety of people endangered by incidents involving hazardous substances and where we have the capability and capacity to do so incidents in which a substance other than a hazardous substance presents a risk to people. We do not treat smoke from fires as hazardous substance emergencies, but we do provide for public safety from smoke via the appropriate use of public safety messaging, cordons and exclusion zones, shelter in place orders and evacuations. We do not have the capability to provide remote atmospheric monitoring.

Worksafe has also initiated an Asbestos Liaison Protocol between territorial authorities, district health boards and Fire and Emergency New Zealand. The protocol is in the form of a Memorandum of Understanding and outlines the roles and responsibilities during a fire involving asbestos. In this protocol, the local public health units are responsible for air monitoring if they deem that it is appropriate. While the NZICC fire did not involve asbestos, this action from Worksafe indicates that air monitoring is the responsibility of local and/or national health authorities.

Current work

We consider there are two distinct issues relating to atmospheric monitoring. The first relates to the safety, health and wellbeing of our own personnel directly operating in potentially toxic environments. The second, and the key focus of this recommendation, is on general air quality and the impacts that has on members of the public in the vicinity and the environment.

In regard to our own personnel, we have significant projects underway to improve gas detection capability as well as the carcinogen control project. By July 2022 we are intending on rolling out new and improved personal gas monitors to our 115 busiest appliances (covering 100 stations). We will also be providing lighter and smaller monitors to specialist fire investigators with added detection capabilities. We also intend to provide wildfire packs which allow for monitoring of carbon monoxide at pure vegetation fires. We have completed trials for these monitors and are currently going

through procurement processes. In the longer term we will also be upgrading gas detection on our hazmat command units to enable them to detect more gases. In the meantime, we have deployed an interim gas detection solution to a number of stations and hubs across the country.

While it is not clear who is responsible for warning the public about atmospheric conditions as a consequence of a fire, Fire and Emergency does routinely publish generic safety messaging on its social media channels. For example, we often encourage residents within the vicinity of an incident to close their windows and doors.

Proposed actions

8.1 Undertake a stocktake of the capability/capacity of relevant agencies in New Zealand to undertake atmospheric monitoring with a view to developing Memorandums of Understanding (MoUs).

8.2 Discuss with our monitoring agency (Department of Internal Affairs) the need for a policy decision on ownership and responsibility for atmospheric monitoring.

8.3 Issue general public safety information around what to do around smoke: e.g. turning off air conditioning units, shutting windows, etc.

Recommendation 9

Fire and Emergency New Zealand should develop doctrine on supporting welfare functions and their organisation as a formal Rehabilitation Sector at an incident.

Context

Fire and Emergency asked the reviewers to look into all aspects of safety, health and wellbeing of personnel including response to and management of safety concerns, resourcing, crew rotation, ablution facilities, and catering. The safety, health and wellbeing of our personnel during incidents is paramount and we are eager to ensure we continue to improve in this regard.

Overall, the reviewers found a demonstrable commitment to safety as a priority and commended Fire and Emergency for the low number and severity of injuries, given the complexity and duration of the incident and the number of personnel involved.

Criticisms had been raised during and in the immediate aftermath of the incident around access to catering and ablution facilities. These criticisms were found to not be well-founded, however some suggestions were made to Fire and Emergency on small improvements that could be made in the future.

The key area for improvement in regard to safety, health and wellbeing identified in the report related to fatigue management, including the development of a formal rehabilitation sector at major incidents. The National Commander publicly stated following the incident that having firefighters at an incident for 24 hours is “not acceptable” and “we’ll be making sure that doesn’t happen again”.

Current work

As per the current work outlined under recommendation four (above), Fire and Emergency currently has a project underway relating to the control of carcinogens. Through this work we are looking to introduce a modified DEBRiS model as a Fire and Emergency NZ post fire management system. This will include welfare and rehabilitation sectors.

Since the NZICC fire, our internal audit team has also undertaken an audit on fatigue management. This audit also identified shortcomings but noted Fire and Emergency has work underway to begin to address these. This work includes a critical risk management programme, which will be used to understand any gaps in safety, health and wellbeing, including fatigue management, and will prioritise the response to the gaps identified and develop appropriate controls. This programme will analyse fatigue as a critical risk and establish an improvement plan where gaps are identified, such as reviewing and updating the fatigue management policy. At the time of writing this programme was due to commence. The internal audit also recommended that the fatigue management Policy be reviewed. This review will incorporate information on shift rotations and on shift length. We have also conducted a literature review on fatigue in firefighting operations which will be used to inform the policy review.

Fatigue management is the responsibility of everyone on an incident ground. Our current breathing apparatus training includes training on when to recognise symptoms of fatigue. It is the responsibility of the individual to ensure that when they do recognise these symptoms, they inform the relevant commander.

We are reinforcing to officers that rehabilitation time is sacrosanct and that personnel cannot be taken out of the rehabilitation until they have had sufficient rest.

In response to the NZICC fire, Auckland Area Managers are developing local standard operating procedures on rehabilitation. They are also developing the concept of a comprehensive and scalable formal rehab sector that commences on exit from decontamination and includes fatigue assessment, PPE resupply, medical support, ablutions, breathing apparatus (BA) reconstitution, canteen and rest areas. In time, we will review this approach to determine if it is required nationally, or in some other locations.

This recommendation is also linked with recommendation two, therefore we consider the proposed actions under recommendation two will also result in improvements to recommendation nine (and vice versa).

Proposed actions

9.1 Collate existing documents and tools (policies, procedures, training) together into a safety and wellbeing at incidents policy which incorporates fatigue management, catering (incl. special dietary requirements), toilets, BA training, etc. This policy will include triggers for when welfare needs to escalate.

9.2 Review the fatigue management policy with a view to making the policy the overarching doctrine for fatigue management. This will incorporate some of the suggestions made in the report for example shift lengths, BA procedures, work rest guidelines, returning safely home or to station after long duration events, ongoing wellbeing support etc.

Recommendation 10

Fire and Emergency New Zealand should develop doctrine on the functions and responsibilities of the Recovery Officer and identify triggers for the appointment of this role in respect of an incident

Context

As part of the review process, the reviewers looked into Fire and Emergency's reporting mechanism and engagement with key stakeholders during and in the aftermath of the NZICC fire. It was noted local debriefs had been conducted and the local Area Management had begun to look at opportunities for improvement as a result of the outcomes of the debriefs. The reviewers noted the "commanders' professionalism and their genuine willingness to learn from the incident". It was suggested Fire and Emergency take into account the broader emergency management considerations of the sector.

A recovery manager was appointed in the early stages of response activities, which Fire and Emergency were commended for. This allowed for a dedicated person to identify with key stakeholders and keep them regularly updated on the incident and anticipated activities and timeframes to enable better planning of recovery activities. This was a first for Fire and Emergency, which meant the person appointed to this role had to rely on his own initiative, and emergency management skills/experience to succeed in the role as opposed to any specific doctrine, training or guidance.

Current work

Since the NZICC fire we have appointed a Principal Advisor Recovery whose role is to develop a national recovery framework, as well as tools and guidance for our personnel around the country to utilise in undertaking recovery activities. Work is progressing on determining the scope of Fire and Emergency's recovery function which will guide our recovery activities.

We have appointed a Recovery Manager in the early stages of multiple major incidents since October 2019 including a significant wildfire in Lake Ōhau and flooding in Hawkes Bay. The intention is that lessons from these incidents will help to inform our national framework, tools, and guidance.

We are in the process of establishing 37 Community Readiness and Recovery (CRR) Advisor positions and 17 Community Risk Manager (CRM) positions in all 17 Districts around the country. These positions come into effect on 27 September 2021. The CRMs will be responsible for managing the delivery of our recovery framework at a local level, and this will be carried out by the Senior CRR advisors/CRR advisors. Their key role with regard to recovery will be to ensure the transition from response to mid-term/long-term recovery is as seamless as possible.

Recovery Managers will continue to be appointed for significant incidents and will be trained based on the Recovery Manager role card within the third edition of the Coordinated Incident Management System and in accordance with the scope of Fire and Emergency's recovery function (once determined). We will also utilise information from the Planning Manager manual we use for wildfire incidents on recovery planning as a discipline. Our Principal Advisor Recovery has also developed recovery position role cards for functions operating within our National Coordination Centre, Regional Coordination Centres, Local Coordination Centres, and at an incident level.

It is also important to note while recovery as a function is relatively new to Fire and Emergency, our frontline personnel regularly undertake recovery activities during the response phase in order to

minimise the impact of emergencies on life, property, and the environment during incidents of all sizes. Our people do a good job at this and these activities contribute significantly to Fire and Emergency being New Zealand’s most trusted public sector organisation.

In line with the reviewers’ suggestion that we need to take in to account the broader emergency management considerations of the sector, we engaged with the Auckland Coordinating Executive Group (CEG) to determine if there is anything Fire and Emergency should consider including in the Action Plan from a broader emergency management context (specific to the NZICC fire).

Proposed actions

10.1 Incorporate recovery in the development of a new Command and Control manual to ensure that recovery is considered from the outset of an incident.

10.2 Produce a framework for what “recovery” is for Fire and Emergency.

10.3 Provide guidance to personnel on tactics to improve immediate and short-term recovery outcomes.

10.4 Produce a pro-forma handover form.

10.5 Educate Officers in Charge (OIC), Incident Controllers, and the wider organisation on the importance of recovery as a function and provide practical training in accordance with the framework developed in 10.2.

Recommendation 11

Fire and Emergency New Zealand should engage with iwi when managing any future major incident with community or environmental impacts.

Context

Through the process of undertaking the review, concerns were raised that Fire and Emergency had not engaged with iwi on the management and impacts of the NZICC fire. The report makes it clear that iwi engagement should be standard practice.

Current work

We agree with this finding and have work underway to improve our engagement with iwi before, during, and after an incident. We have some way to go before this becomes standard practice and our automatic way of operating, but it is our ultimate objective. There are a number of mechanisms we have or intend to put in place to improve our engagement with iwi including, for example, education and improving cultural awareness and the importance of Māori as tangata whenua; empowering our new Region and District Leadership teams to build strong relationships and partnerships at a local level (and holding them accountable for doing so); improving our processes and procedures particularly around IMTs and Co-ordination Centres to include iwi representation; and including iwi in simulated exercises. Our commitment is Fire and Emergency New Zealand recognises the status of Māori as tangata whenua and, as such, the importance of Māori communities as key stakeholders in Fire and Emergency's work. In order to build on the relationships that currently exist, we have launched a three-year programme of work, aptly named [Hiwa-i-te-Rangi](#).

As mentioned earlier in the report, the Tasman Fires Action Plan includes an action "to review and reform the coordination centres that clearly establishes the form, function and fit of NCC/RCC/LCC and ICC to supporting incident management" (refer to action 11.1 of the Tasman Fires Action Plan). This action, once completed, will contribute to addressing recommendation eleven of this review as it will consider how best to incorporate the role of iwi into our incident management teams and co-ordination centres. It is intended this action is completed by the end of 2021. Progress on this action will continue to be reported as part of the Tasman Fires Action Plan regular progress reporting.

Since the NZICC fire, the National Manager Kaupapa Māori now gets notified by the communication centres when a significant incident occurs. This acts as a trigger for the National Manager to determine to what extent iwi engagement is required and to make contact with the Officer in Charge. Key words such as marae, kura, urupā are mentioned during an incident then the National Manager will also be notified. We also expect that the IMT will make direct contact with already established local iwi/Māori networks for any incidents of relevance and importance to them. We have started building good relationships with iwi across the country and this will continue to be a work in progress. For example, in the Hawkes Bay we have partnered with Te Puni Kōkiri to develop a Marae Welfare and Resilience programme. This partnership project works alongside six marae throughout the Hawke's Bay District to enable them to stand up as a Welfare Centre during a significant event. The intention is for the programme to be community driven and that the whole community know they are welcome onto the marae (even in non-emergency situations).

We are also actively working with the National Emergency Management Agency on the development of the Coordinated Incident Management System guideline for iwi/māori representation in the response efforts of an incident and as the incident transitions to the recovery phase.

Proposed actions

11.1 Kaupapa Māori will be an intrinsic aspect of the induction and ongoing development programme for the new District, Group and Community Risk Manager positions. The intent is to build cultural capability and awareness with our new Service Delivery leaders to ensure iwi involvement is at the forefront of their minds across the four Rs of emergency management.

11.2 Establish a project to incorporate iwi engagement into response/recovery including:

- overlaying iwi boundaries in ICAD with Standard Operating Procedures and iwi contact details
- ensuring that when culturally significant site-based information is provided to Communication Centres our operators will know to notify iwi
- embedding cultural awareness, the importance and advantages of iwi involvement into the training of Officers in Charge and Incident Controllers.
- Early notification to ensure Iwi liaison is established early via an agreed automatic notification process when it meets an agreed level Nationally

Sections where no recommendations were made

Through the Terms of Reference of the Independent Review, Fire and Emergency asked the reviewers to look into other matters that the reviewers determined did not require a formal recommendation. This section provides commentary on some of the suggestions for improvements made in regard to these.

Policies and Procedures (TOR 2)

Based on their discussions with key people, the reviewers were of the view that compliance with our policies and procedures was good and they were applied appropriately. Where the reviewers identified a need to review, reinforce, or create policies these are identified in the relevant sections of the report and we have sought to address these in the respective sections of the Action Plan.

Connection with Coordination Centres (TOR 5)

The reviewers looked at the connections and coordination between the on-the-ground operations (IMT), our RCC and our NCC. The key findings revolved around the differences between operational and non-operational personnel in regard to access to systems and remuneration; and reinforced the findings of the Independent review into the Tasman fires that there needs to be better clarity on the interplay between IMT, RCC, and NCC. As reported elsewhere in this document, this work is underway.

Connection with NHQ (TOR 6)

Fire and Emergency asked the reviewers to comment on the connection with functions within Fire and Emergency's national headquarters including the National Communications Team and the Public Information Management (PIM) function and on the adherence to relevant policies.

Feedback the reviewers received was complimentary of the communications support provided, particularly given the media, political, and public interest in this incident. Opportunities for improvements were made in regard to the need for clarity on when the National Communications and Engagement team should deploy and ensuring they have been provided with suitable equipment and clothing.

Since the NZICC fire we have created and appointed to a permanent communications position in Auckland, as suggested by the reviewers. This position has already shown its value at more recent incidents including a severe weather event in South Auckland. We have also appointed a permanent communications position in the South Island and have support available in our other two regions.

All current PIM and media personnel now have the appropriate equipment to undertake their role while on deployment. This is now standard practice and will be rolled out to new starters when they are onboarded.

During the 2020/2021 summer period the National Communications and Engagement directorate piloted deploying staff to incidents – erring on the side of deploying rather than not. The intention was to incorporate observations around the value of attending to inform the development of a set of triggers as to when the deployment of media personnel is required. This work is ongoing.

Finance (TOR 8)

The reviewers also looked into our financial management and processes. The reviewers found no evidence financial considerations had played any part in decision-making or resource-management. Decisions on resourcing were understood to be based on operational considerations.

The reviewers noted it would be unrealistic to expect Commanders working out of the Command Unit to be undertaking financial analysis during the incident. The reviewers encouraged Fire and Emergency to “keep thinking about how they incorporate financial management into operations – not to limit those operations, but to support options analysis and to be able to show afterwards why spending was justified”.

As an emergency organisation, which is publicly funded, it is vital we get the balance right between not limiting our operations and making sure we are being as prudent as possible, and spending is justified.

Financial management is included in the induction programme for our new District Manager positions to ensure our Districts are set up to better consider financial implications. We will also consider undertaking financial reviews for some significant, long duration events which have a financial materiality with a view to understanding lessons that can be applied to future incidents.

Input into the development of the action plan

The following people have contributed to developing the NZICC Action Plan (in no particular order):

Name	Position
Paul Turner	National Manager Response Capability
Esitone Pauga	Response Capability Advisory Manager
Ian Duncan	National and International Response Manager
Ian Pickard	National Manager People and Workforce Capability
Michael Balmer	Principal Advisor Recovery
Mike Moran	National Manager Fleet
Piki Thomas	Pou Herenga Māori / National Manager Kaupapa Māori
Simon Davis	Manager Fire Engineering
Murray Mitchell	Chief Information and Technology Officer
Kerry Stewart	Manager Content
Kate Hill	National Advisor Coordination Centres
Ashley Cornor	Senior Legal Counsel
Brian Keown	Acting Wildfire Manager
April Christie	Chief Advisor Safety, Health and Wellbeing
Rachael Thorp	National Manager People Services
Brigid Jamieson	Chief Advisor Volunteerism
Catherine Leckie	Principal Advisor Comms and Engagement
Gary Lockyer	Service Delivery Sector Partnerships
Chantel Kokich	Senior Special Projects Management Advisor
Jess Nesbit	Acting Community Partnerships Manager
Brian Saunders	Solutions Architect
John Sutton	Service Delivery Advisor
Kevin Dyer	Manager Region Training
Paul Manson	Policy and Doctrine Advisor
Ben Alton	Manager Officer Development
Alan Cleator	Training Programmes and National Training Centre Manager
Keith Pedley	National Advisor Ops, Fleet, and Equipment
Jackie Maher	Manager Media
Nicky Chilton	National Manager Comms and Engagement
Dr Trudy Geoghegan	National Hazardous Substances Advisor
Barry Schuurmans	Team Leader Management Accounting
Des Hosie	National Operations Advisor Continuous Improvement
Richard Twomey	Area Manager

Name	Position
Geoff Purcell	Area Manager
Murray Binning	Area Manager
Vaughan Mackereth	Assistant Area Manager
Mike Shaw	Principal Advisor Fire Risk Management
Rebecca Scott	Chief Advisor – Organisational Strategy and Capability Development
Rebecca Kearns	Chief Advisor – Service Delivery
Lucy Cotterill	Chief Advisor – Office of the Chief Executive
Joss Debreceny	Chief Advisor – People
Zoe Mounsey	Chief Advisor – Finance and Business Operations
Jim Stuart-Black	Chief Advisor – Organisational Strategy and Capability Development
David Guard	Region Manager Ngā Tai ki te Puku
Ron Devlin	Region Manager Te Hiku
Bruce Stubbs	Region Manager Te Ūpoko
Mike Grant	Region Manager Te Kei
Paul Henderson	Region Manager Te Ihu
Sid Wellik	Chief Legal Advisor
Cathryn Moriarty	National Manager Strategy and Performance
Steve Rout	Management Accountant

Appendix one – Accountability and Timelines

#	Action	Accountability	Timeline	Confirmed funding*
1.1	Research other jurisdictions' approaches to issues with buildings under construction to find effective and efficient strategies which could work (or be adapted to work) in the New Zealand context	National Manager Response Capability (Response Capability Advisory)	December 2022	Yes
1.2	Engage with Local Authorities on the work they already undertake relating to health and safety matters on construction sites to attempt to include firefighting risks as part of this.	District Managers	October 2022	Yes
1.3	Work with the construction industry to incorporate fire risks into their site safety reports. The New Zealand Construction Industry Council is interested in working with us on producing a Code of Practice on construction site safety that would provide specific guidance.	National Manager Risk Reduction (Fire Engineering)	March 2022 (note this is dependent on the timing of the release of the Fire and Emergency Operations Design Guide)	Yes
1.4	Work with MBIE in attempt to influence updating the Building Act (Clause F5) to include fire safety during construction.	National Manager Risk Reduction (Fire Engineering)	March 2022 (note this is dependent on the timing of the release of the Fire and Emergency Operations Design Guide)	Yes
1.5	Develop a protocol and a recurring task in SMS to remind crews to undertake a familiarisation visit when a building under construction/alteration/deconstruction, known to Fire and Emergency engineers, reaches a certain threshold.	National Manager Risk Reduction (Fire Engineering)	March 2023 (note this is dependent on the introduction of an ICTS document management system)	Yes
1.6	Incorporate guidance and information on buildings under construction in to RD2 – Operational planning documents when undertaking the next review	National Manager Response Capability (Response Capability Advisory)	June 2023	Yes
1.7	SRZs will be loaded into ICAD in our Communication Centres to enable predetermined attendance to be assigned based on the risk identified for particular sites.	District Managers	TBC	Yes

#	Action	Accountability	Timeline	Confirmed funding*
2.1	Research other jurisdictions approaches and undertake a literature review to identify possible thresholds for identifying when an urban incident may become a long duration event that could work, or be adapted to work, in a New Zealand context.	National Manager Response Capability (Response Capability Advisory)	December 2022	Yes
2.2	Planning and intelligence for multi-day incidents will be incorporated into the TAPs training programme to Senior Firefighter rank to ensure that duration of incidents is incorporated in to thought processes as firefighters progress through the rank structure.	National Manager People and Workforce Capability	December 2022	Yes
2.3	Incorporate identification of long duration events and setting up appropriate command and control facilities into command and control training.	National Manager People and Workforce Capability	December 2022	Yes
2.4	Incorporate identification of long duration events and setting up appropriate command and control facilities in the development of a new Command and Control manual.	National Manager Response Capability (Response Capability Advisory)	June 2023	No
2.5	Include competency for identification of and managing multi-day events in the development of the Technical Competency Framework for Fire Commander and Assistant Fire Commander ranks.	Region Manager Ngā Tai ki te Puku / National Manager People and Workforce Capability	July 2023	Yes
3.1	Review the Officer notebooks and through this work include the role and responsibilities of a Sector Commander and a Water Supply Officer.	National Manager Response Capability (Response Capability Advisory)	TBC – timing will be dependent on when the new Command and Control Manual is completed.	No
3.2	Review the Executive Officer training modules and through this work include the role and responsibilities of a Sector Commander.	National Manager People and Workforce Capability	December 2022	Yes
3.3	Review existing, relevant training materials that have been developed and look to collate, update and implement proposed changes. For example, there has been some work completed previously on a new command and control technical manual which has not been launched.	National Manager People and Workforce Capability	TBC	Yes
3.4	Develop the requirements for training on sector command and implement training accordingly.	National Manager Response Capability (Response	Stage 1 December 2022	No

#	Action	Accountability	Timeline	Confirmed funding*
		Capability Advisory) / National Manager People and Workforce Capability	Stage 2 June 2023	
3.5	Incorporate sector command in the development of a new Command and Control manual.	National Manager Response Capability (Response Capability Advisory)	TBC - Timing will be dependent on prioritisation decisions for action 3.4	No
3.6	Incorporate crew accountability into the major industrial incident exercise that Fire and Emergency will hold in 2022/2023 (as part of the government's National Exercise Programme).	National Manager Response Capability (Response Capability Advisory)	June 2023	No
4.1	Undertake a stocktake of technological solutions that have been or will be implemented internationally to address accountability challenges.	National Manager Response Capability (Response Capability Advisory)	March 2023	No
4.2	Develop guidance regarding systems/methods to take "respite" within hot zones for trial in Auckland.	National Manager Response Capability (Response Capability Advisory) / Project Lift Workstream Leads	December 2022	No
4.3	Accountability will be incorporated into regular exercises at a local level, including inter-agency and inter-station/brigade exercises.	District Managers	This will be ongoing but will be incorporated in 2022 calendar year	Yes
5.1	Complete the review of the Aerial Strategy.	National Manager Fleet	March 2022	Yes
6.1	Group Managers are to make sure that the high-rise competency for relevant brigades is turned on in OSM to ensure that they train to and maintain this competency and to provide assurance that this is the case.	District Managers	April 2022	Yes
7.1	Incorporate the role of liaison officers in the implementation of AIIMs and ensure it aligns with the CIMS system used for multi-agency national incidents and with the definition developed by the Incident Management Reference Group.	National Manager Response Capability (Response Capability Advisory)	December 2022	No

#	Action	Accountability	Timeline	Confirmed funding*
7.2	Incorporate the Liaison Officer role in to interagency exercises. Learning from these exercises about threshold triggers and CIMS/AIIMS roles will be considered in the work to move to AIIMS.	National Manager Response Capability (Response Capability Advisory)	December 2022	No
7.3	Group and District Manager inductions will reinforce they are empowered, enabled and encouraged to establish and maintain relationships at a local level, which should make liaison activities easier when incidents happen.	Region Managers	October 2022	Yes
7.4	New formal arrangements will outline how we will operate in an emergency situation: i.e. the use of the CIMS or AIIMS model and that a liaison officer from that agency needs to be established.	National Manager Response Capability (Response Capability Advisory)	This will be ongoing as formal arrangements are negotiated / renewed	Yes
7.5	Review the Officer notebooks and through this work include the role and responsibilities of a Liaison Officer.	National Manager Response Capability (Response Capability Advisory)	TBC – timing will be dependent on when the new Command and Control Manual is completed.	No
7.6	Incorporate liaison activities in the development of a new Command and Control manual.	National Manager Response Capability (Response Capability Advisory)	TBC	No
7.7	Develop a Recovery Manager/Liaison Officer pack, similar to the Safety Officer pack, which includes all of the information and tools needed to undertake the role.	National Manager Community Readiness and Recovery (Principal Advisor Recovery)	TBC – timing will be dependent on when the new Command and Control Manual is completed.	No
8.1	Undertake a stocktake of the capability/capacity of relevant agencies in New Zealand to undertake atmospheric monitoring with a view to developing MoUs.	National Manager Response Capability (Response Advisory Manager)	TBC – this will be completed as part of the Carcinogen Control project	Yes
8.2	Discuss with our monitoring agency (Department of Internal Affairs) the need for a policy decision on ownership and responsibility for atmospheric monitoring.	National Manager Strategy and Performance	April 2022	Yes

#	Action	Accountability	Timeline	Confirmed funding*
8.3	Issue general public safety information around what to do around smoke: e.g. turning off air conditioning units, shutting windows, etc.	National Manager Response Capability (Specialist Response Manager) / National Manager Comms and Engagement	June 2023	Yes
9.1	Collate existing documents and tools (policies, procedures, training) together into a safety and wellbeing at incidents policy which incorporates fatigue management, catering (incl. special dietary requirements), toilets, BA training, etc. This policy will include triggers for when welfare needs to escalate.	National Manager Response Capability (Response Capability Advisory Manager) / National Manager People Experience (Health and Safety) / Chief Advisor HSW	TBC – work will commence once action 9.2 has been completed.	No
9.2	Review the fatigue management policy with a view to making the policy the overarching doctrine for fatigue management. This will incorporate some of the suggestions made in the report for example shift lengths, BA procedures, work rest guidelines, returning safely home or to station after long duration events, ongoing wellbeing support etc.	National Manager Response Capability (Response Capability Advisory Manager) / National Manager People Experience (Health and Safety) / Chief Advisor HSW	Will commence in 2023	No
10.1	Incorporate recovery in the development of a new Command and Control manual to ensure that recovery is considered from the outset of an incident.	National Manager Response Capability (Response Capability Advisory) / National Manager Community Readiness and Recovery (Principal Advisor Recovery)	TBC	No
10.2	Produce a framework for what “recovery” is for Fire and Emergency.	National Manager Community Readiness and Recovery (Principal Advisor Recovery)	December 2021	Yes
10.3	Provide guidance to personnel on tactics to improve immediate and short-term recovery outcomes.	National Manager Community Readiness and Recovery (Principal Advisor Recovery)	June 2022	Yes

#	Action	Accountability	Timeline	Confirmed funding*
10.4	Produce a pro-forma handover form.	National Manager Community Readiness and Recovery (Principal Advisor Recovery)	Pilot within 1 district to commence by March 2022	Yes
10.5	Educate Officers in Charge (OIC), Incident Controllers, and the wider organisation on the importance of recovery as a function and provide practical training in accordance with the framework developed in 10.2.	National Manager Community Readiness and Recovery (Principal Advisor Recovery)	June 2022	Yes
10.6	The position of Deputy Incident Controller Recovery will be considered as part of the intended work to move to AIIIMs.	National Manager Response Capability (Response Capability Advisory)	December 2022	No
11.1	Kaupapa Māori will be an intrinsic aspect of the induction and ongoing development programme for the new District, Group and Community Risk Manager positions. The intent is to build cultural capability and awareness with our new Service Delivery leaders to ensure iwi involvement is at the forefront of their minds across the four Rs of emergency management.	Region Managers / National Manager Kaupapa Māori	October 2023	Yes
11.2	Establish a project to incorporate iwi engagement into response/recovery including: <ul style="list-style-type: none"> - overlaying iwi boundaries in ICAD with Standard Operating Procedures and iwi contact details - ensuring that when culturally significant site based information is provided to Communication Centre our operators will know to notify iwi - embedding cultural awareness, the importance and advantages of iwi involvement into the training of Officers in Charge and Incident Controllers - Early notification to ensure iwi liaison is established early via an agreed automatic notification process when it meets an agreed level Nationally 	National Manager Community Readiness and Recovery (Principal Advisor Recovery) with support from National Manager Kaupapa Māori	TBC	No

*Yes indicates that funding has been received through the organisation's prioritisation process or will be completed using business as usual funding. No indicates that completion of this action will be subject to funding being approved in out-years.