

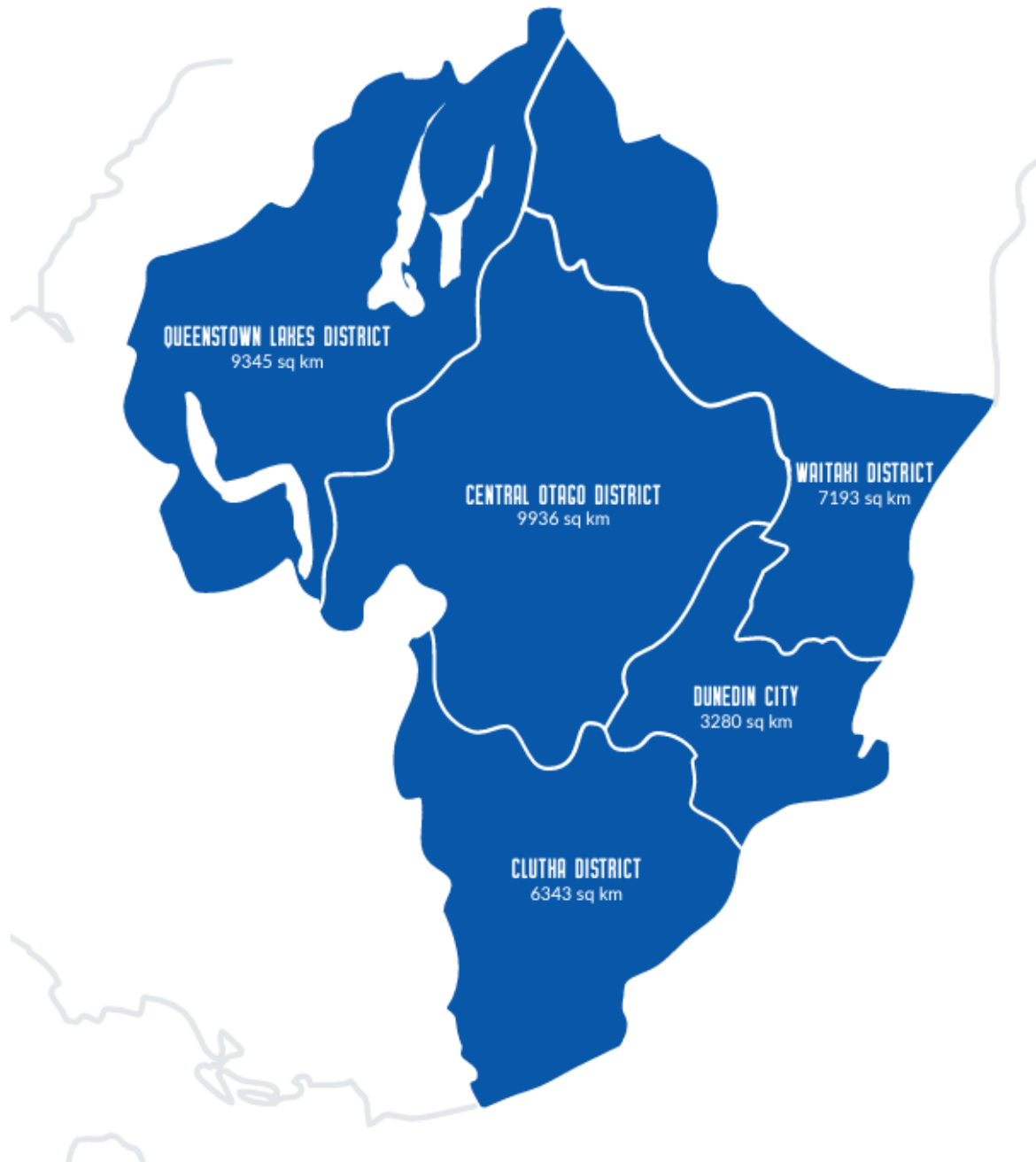


**Emergency
Management Otago**

Te Rākau Whakamarumaru Ōtākou

Otago Civil Defence and Emergency Management Joint Committee

Date: Thursday, 14th March 2024
Time: 3.00 PM
Venue: ORC Council Chamber
Level 2, Phillip Laing House
144 Rattray St, Dunedin



Otago Civil Defence and Emergency Management Joint Committee

Membership

Members

Gretchen Robertson	Chairperson, Otago Regional Council (Chairperson)
Jules Radich	Mayor, Dunedin City Council (Deputy Chairperson)
Tim Cadogan	Mayor, Central Otago District
Bryan Cadogan	Mayor, Clutha District Council
Glyn Lewers	Mayor, Queenstown Lakes District
Gary Kircher	Mayor, Waitaki District Council

Otago Civil Defence and Emergency Management Group - Joint Committee

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1. Karakia Timatanga - Opening

The meeting will be opened with a karakia.

2. Apologies

At the time the agenda closed there were no apologies received.

3. Minutes

3.1 Unconfirmed Minutes – Otago Civil Defence and Emergency Management Group – Joint Committee – 7th December 2023

Recommendations

That the Otago Civil Defence and Emergency Management Group – Joint Committee:

Confirms the minutes from the Otago Civil Defence and Emergency Management Group – Joint Committee meeting held on 7th December 2023.

Attachments

1. Otago Civil Defence and Emergency Management Group – Joint Committee Unconfirmed Minutes 7th December 2023 [**3.1.1** - 6 pages]



Otago Civil Defence and Emergency Management Group – Joint Committee

TERMS OF REFERENCE
(Created August 2023)

The Otago Civil Defence Emergency Management (CDEM) Group Committee, a joint committee which comprises elected representatives of local authorities within the region, was formed under the Local Government Act 2002 pursuant to section 12 of the CDEM Act 2002.

Members of the Group Joint Committee are the mayor or chairperson (or delegated councilor) from Waitaki District, Queenstown Lakes District, Central Otago District, Clutha District, Dunedin City, and the Otago Regional Council. Although Waitaki District falls within the boundaries of both Canterbury and Otago Regional Councils, the Waitaki District Council has elected under section 14(2) of the CDEM Act to be a member of the Otago CDEM Group. The Otago CDEM Group may invite observers to attend its meetings. The CDEM group exercises governance and determines CDEM policy for member authorities in relation to risk analysis, reduction, readiness, response, and recovery from emergencies.

The powers and obligations of members of the Otago CDEM Group are set out in section 16 of the CDEM Act. The functions of the CDEM group and its members, as detailed in section 17 of the CDEM Act, are to:

- identify, manage, and reduce relevant risks and hazards.
- ensure suitably trained and competent personnel for all CDEM Group roles are available.
- organise resources, services, and information for the Otago CDEM Group
- respond to and manage the effects of emergencies.
- carry out recovery activities.
- when requested, assist other CDEM groups if practicable.
- promote and educate the public on CDEM and its purpose.
- monitor and report on compliance with the CDEM Act
- develop, implement, monitor, and regularly review the Otago CDEM Group Plan
- participate in the development of the National CDEM Strategy and the National CDEM Plan, and
- promote all aspects of CDEM in the Otago region.

The Group will:

- provide strategic direction through the Otago CDEM Group Plan
- approve the Otago CDEM Group budget.
- approve and monitor the Otago CDEM Group annual work programmes.
- appoint Controllers and delegate powers as required,
- appoint a Recovery Coordinator

The CDEM Group should meet each quarter or as required. Procedure for the conduct of meetings will be in accordance with the Local Government Act.
Meetings are held in public.

A quorum will consist of three members.

A chair and a deputy will be elected, usually following local body elections.

Should the chair or deputy chair resign or otherwise not be available, a replacement will be elected at the next Otago CDEM Group meeting.

The Group will not be discharged by a local body election (section 12 of the CDEM Act).

Following a local body election, any previous delegations made by a local authority under section 13(4) of the CDEM Act must be renewed or rescinded.

In accordance with local government procedures, decisions made by the Otago CDEM Group are binding on all members.

In accordance with section 18(1) of the CDEM Act, the Otago CDEM Group may delegate any of its functions to a member of the Group, the Group Controller or other person. These delegations are made by a resolution at a CDEM Group meeting.

Common Civil Defence and Emergency Management Acronyms

CDEM	Civil Defence Emergency Management
CEG	Coordinating Executive Group
CIMS	Coordinated Incident Management System
COP	Common Operating Picture
D4H	Emergency Operations Platform
DIA	Department of Internal Affairs
ECC	Emergency Coordination Centre
GEM	Group Emergency Manager
EMA	Emergency Management Advisors
EOC	Emergency Operations Centre
FENZ	Fire and Emergency New Zealand
GIS	Geographic Information System
IMT	Incident Management Team
JC	Joint Committee
TLA	Territorial Local Authority
LUC	Lifelines Utility Coordination Group
MPI	Ministry of Primary Industries
MSD	Ministry of Social Development
NCC	National Coordination Centre
NCMC	National Crisis Management Centre
NEMA	National Emergency Management Agency
NEMDG	National Emergency Management Development Group
NZ - EMAT	NZ Emergency Management Assistance Team
RAG	Rural Advisor Group
R & R	Readiness and Response Group
SIG	CDEM Special Interest Group
WCG	Welfare Coordination Group
4Rs	Reduction, Readiness, Response and Recovery

3.1.1 Minutes of the Otago Civil Defence and Emergency Management Group, Joint Committee held in Council Chambers and via Zoom, Philip Laing House, Rattray St, Dunedin on 21st September 2023.

Minutes of the Otago Civil Defence Emergency Management Joint Committee Meeting held on 7 December 2023 at 3.00pm in the Council Chambers and via Zoom

Membership:

Gretchen Robertson	Chairperson, Otago Regional Council (Chair)
Jules Radich	Mayor, Dunedin City Council (Deputy Chair)
Tim Cadogan	Mayor, Central Otago District
Bryan Cadogan	Mayor, Clutha District Council
Glyn Lewers	Mayor, Queenstown Lakes District
Gary Kircher	Mayor, Waitaki District Council

In Attendance:

Sandy Graham	Chief Executive, Dunedin City Council
Peter Kelly	Chief Executive, Central Otago District Council
Richard Saunders	Chief Executive, Otago Regional Council
Steve Hill	Chief Executive, Clutha District Council
Mike Theelen	Chief Executive, Queenstown Lakes District
Alex Parmley	Group Manager, Waitaki District Council
Matt Alley	Regional Manager, CDEM
Kelly Taylor Covey	Minute Taker

Gretchen opened the meeting with a karakia.

1. APOLOGIES

Alex Parmley, Brian Cadogan and Steve Hill were apologies.

The apologies were accepted.

Moved: Gary Kircher

Seconded: Gretchen Robertson

CARRIED

2. ATTENDANCE

Gretchen Robertson, Richard Saunders, Sandy Graham, Tim Cadogan, Jules Radich, Gary Kircher, Glyn Lewers, Peter Kelly, Mike Theelen, Matt Alley, Paul Allen, Glenn Mitchell, Taylor Hendl, Mel Banks, John Mawhinney, Erica Andrews, Derek Shaw, Jason Michie, Simon Chambers, Ewan Graham, Paula Cathie and Kelly Taylor Covey (minute taker).

3. CONFIRMATION OF MINUTES

The minutes of the meeting held on 21 September 2023 were received and confirmed as a true and

correct record, with minor amendments.

Moved: Tim Cadogan

Seconded: Gary Kircher

CARRIED

4. ITEMS OF BUSINESS

4.1 Group Manager Report

Matt spoke to his report and gave a staffing update, advising that they have had to readvertise the Coastal Team Leader role as the candidate withdrew. All of the other vacancies had been filled. He commented on the Action Items and noted the Public Information Plan had been completed. The workshop was planned for next year. The Lifeline Protocol had been completed and circulated, and the Prioritisation piece was due to go to CEG.

There were comment on the Queenstown weather event and Glyn noted they had been caught short on Pims and had to bring in outside people to fill the spots. Had the event gone past a few days they would have struggled to staff them. It was also noted that one of the key issues for them was knowing whether to declare or not.

Recommendation

That the Joint Committee:

- 1) **Receives** the report.
- 2) **Notes** the information contained therein.

Moved: Tim Cadogan

Seconded: Jules Radich

CARRIED

4.2 Otago Readiness and Response Committee update

Glenn Mitchell spoke to the report, noting that this update normally would go to the CEG meeting that had been canceled. He reiterated that the Capability Strategy had been shared with members of the Readiness and Response Committee and endorsed by that group. He also noted feedback from local emergency service coordinating committees stating that there were staffing shortages in rural hospitals, which meant less capability in case of an emergency.

It was suggested that it would be worthwhile drawing the attention of the new Minister of Health to the problem and suggesting that they train more staff.

Recommendation

That the Joint Committee:

- 1) **Receives** the report.
- 2) **Notes** the information contained therein.

Moved: Gretchen Robertson

Seconded: Tim Cadogan

CARRIED

- 3) **Writes to the Minister of Health** noting the shortage of medical practitioners in less urbanised areas and asks that action be taken to address the issue.

Moved: Jules Radich

Seconded: Gary Kircher

CARRIED

4.3 Otago Lifelines update

Mel Banks spoke to the report and took it as read. She noted they had engaged with Toa Consulting for the review of the Lifelines Programme. That would be funded internally and would start in February next year. She also noted the initial scoping of work for the Alternative Communications Plan had begun, and that a review had been undertaken of the Otago Lifelines GIS in preparation for the AF8 Priority Routes and Critical Infrastructure Sites project.

Recommendation

That the Joint Committee:

- 1) **Receives** the report.
- 2) **Notes** the information contained therein.

Moved: Gretchen Robertson

Seconded: Tim Cadogan

CARRIED

4.4 Community Resilience update

Paul Allen spoke to the report and took it as read. He gave an update that the Otago Welfare Forum has now been successfully held, with 30 different agencies represented. He also noted that the report contained an update from the Queenstown welfare response to recent events, and that the TOR for the Welfare Coordination Group were also contained for viewing.

It was noted that Dunedin Neighbourhood Support was folding and would now be operating out of Waitaki district, and would leave a gap here. Paul also advised that there was one more quarter to report using the current system and that it would be changing after that.

Recommendation

That the Joint Committee:

- 1) **Receives** the report.
- 2) **Notes** the information contained therein.

Moved: Gary Kircher

Seconded: Jules Radich

CARRIED

4.5 Stakeholder Engagement update

Erica Andrews took the report as read. She gave an update on the final item, advising that the PIM forum had now been held with excellent representation and 55 people attending.

Recommendation

That the Joint Committee:

- 1) **Receives** the report.
- 2) **Notes** the information contained therein.

Moved: Gretchen Robertson

Seconded: Tim Cadogan

CARRIED

4.6 Training and Capability update

John Mawhinney spoke to the report and took it as read. One of the key points to note was that they had had a significant recruitment drive since the last meeting and were looking at processing 15 new people, and that by the end of next week they would have put through enough to increase their numbers to just under 90% of the target. There had also been an increase at ORC in our function lead level. The other key point was that they had held a significant level of training in the last few months and noted that at a national level there was appetite to bring training together in a more cohesive way across New Zealand.

Recommendation

That the Joint Committee:

- 1) **Receives** the report.
- 2) **Notes** the information contained therein.

Moved: Tim Cadogan

Seconded: Gary Kircher

CARRIED

4.7 Training and Capability Development Strategy

Matt Alley spoke to the report, advising that the Strategy was intended to formalise the approach taken to CDEM training and align it with sector standards. John advised the purpose of the Strategy was to align their training on a more consistent basis across the country, and that it was 3-yearly so that they could align it to their Group Plan and Community Resilience Strategy.

Recommendation

That the Joint Committee:

- 1) **Endorse** the proposed Training and Capability Development Strategy for the Otago CDEM Group.
- 2) **Approve** and adopt the strategy for the next three years.

Moved: Gretchen Robertson

Seconded: Gary Kircher

CARRIED

4.8 Finance update

Matt gave a quick update on the report. He noted that the activity codes around council support related to staff time, overheads and expenses and that they had defined those. He noted also that the external income stream can be used to pay external training providers as well.

There was a question about what the reserves arose from, and Matt advised that was from the

targeted rate and a carryover from previous years. It was queried if there was a policy on what to do with reserves if it got to a certain level, and Richard noted he will check if they have a policy on a reserves ceiling.

Recommendation

That the Joint Committee:

- 1) **Receives** the report.
- 2) **Notes** the information contained therein.

Moved: Jules Radich

Seconded: Gary Kircher

CARRIED

4.9 NEMA update

Simon Chambers spoke to the report, noting it was now slightly out of date. With the election they now had a new minister, titled the Minister of Emergency Management and Recovery. He advised their CE had met with him that week and spoke about their workplan for the year and the Emergency Management Bill that they were trying to get out before the election stopped the process. The CE was pushing for the Minister to put the Bill into the House but they haven't heard a decision yet as to whether he will accept the Bill as is or will want to start again on it.

It was noted that previous ministers had made their cellphone numbers available to mayors, and Simon agree that they will talk to the Minister about providing that.

4.10 Appointment of CODC Controller

Matt spoke to the report, noting that CODC were looking to appoint Gareth Robinson to the position of Local Controller.

Recommendation

That the Joint Committee:

- 1) **Approves** the appointment of Garreth Robinson as Local Controller for the Central Otago District Council.

Moved: Tim Cadogan

Seconded: Gary Kircher

CARRIED

5. CLOSURE

There was no further business and Gretchen Robertson closed the meeting with a karakia at 3.53pm.

4. Report Items

4.1 Managers Report

Prepared For: Otago CDEM Joint Committee

Activity: Group Manager Update

Author: Matt Alley

Date: 14^h March 2024

Staffing

At the time of writing this report, two vacancies remain, to be filled.

Unfortunately, the candidate for the Coastal Team Leader role has withdrawn his candidacy.

This role is being undertaken by Paula Cathie (Emergency Management Advisor – DCC) via a three-month secondment, due to end in March.

Regretfully we have also received a resignation from Ewen Graham, Emergency Management Advisor for Waitaki. This role is being actively recruited for at present.

Action Items

Source - Date	Action	Actioned By	Status
Joint Committee 08/06/2023	Complete a workshop with the Joint Committee, inviting Iwi and Emergency Services to discuss aspects of declaration and confirm a process for multiple district-city declarations.	EMO	In progress

A 1-hour workshop is proposed, starting at 2:00 pm on Thursday the 6th of June, (1 hour before the start of the next Joint Committee).

AF8

The attached document (AF8 Programme – work plan status update) provides a comprehensive update on the Alpine Fault Project (AFP), focusing on progress, challenges, and strategic insights. Our objective is to safeguard communities, infrastructure, and the economy from potential seismic events associated with the Alpine Fault. The collaboration between scientific research, government, community organizations, and international partners has been pivotal in advancing our mission.

The AF8 project is a multifaceted initiative aimed at enhancing understanding, preparedness, and resilience against the seismic risks posed by the Alpine Fault. Spanning research, community

engagement, and infrastructure development, the project's efforts are critical to mitigating the potential impacts of a major seismic event.

A detailed update is included that spans the three strategic focus areas:

- Raising Awareness
- Coordinating Intelligence
- Network and Collaboration

The Otago CDEM Group continues to support the project with Steer Group Support (Group Manager) and a financial contribution of 20k per year.

Our financial contribution is set to increase to 30k per year starting in the financial year 24-25. Cost increases over the last 8 years have largely been absorbed by the Southland CDEM Group. This increase has been budgeted for in the 24-34 LTP cycle.

Exercise Ru Whenua

A National (Tier 4) exercise 'Ru Whenua' is planned for June/July this year. The exercise will focus on a national response to an Alpine Fault seismic event. The exercise will transpire over three days and will focus on a sector activation, a sustained period of response and arrangements as we transition to recovery.

The Group ECC will be participating in the exercise with CDEM staff fulfilling all functional roles across the three days. There will be no requirement for Council EOCs to activate in support of this exercise.

Exercises for councils are planned for September/October this year and will focus on a mode of sustained response for an Alpine Fault rupture.

Otago Catastrophic Event Planning (CATPLAN)

A catastrophic natural hazard event affecting the Otago region would severely affect the region's communities, economy, and infrastructure.

The anticipated impacts of an Alpine Fault earthquake, or other significant seismic event, would also directly affect the ability of authorities to coordinate an effective response. Emergency staff could become casualties, find themselves isolated from their place of work or unable to communicate, and may need to prioritise caring for family and loved ones. Emergency management facilities could also be unsafe, with supporting infrastructure unavailable for extended periods.

The Otago Catastrophic Event Plan (CATPLAN) has been developed to assist emergency managers, and responding agencies prepare for a complex emergency scenario. The Otago CATPLAN provides direction to Emergency Management Coordination Centres and responding agencies in the initial stages of the response, so actions can be undertaken immediately without requiring specific direction from the Otago Group

Emergency Coordination Centre (GECC).

This plan outlines an agreed concept of operations to ensure the most effective use of scarce resources until a formal response structure can be re-established.

The Otago CATPLAN will be activated immediately following a major earthquake—or other unprecedented event—by the Emergency Management Group Controller or by default. In a *no-communications* environment, GECC staff and local EOC staff will assume that the plan is activated and attempt to establish a coordinated response.

The Otago CATPLAN covers the first week of the response. During this period, [Period](#) the GECC will develop a regional Action Plan based on the specifics of the event.

Eight support plans have been identified to support the delivery of the broader response effort. These plans are:

1. Command, Control, Coordination and Communication (C4)
2. Impact Assessment
3. Public Information Management (PIM)
4. Rapid Relief
5. Lifelines
6. Health
7. Welfare Delivery
8. Evacuation Contingency Plans (CONPLANS)

We are working hard to ensure our alignment with the National CATPLAN effort and the broader National Concept of Operations (CONOPs).

Recommendation

That the Otago CDEM Joint Committee

1. **Receives** this report
2. **Notes** the information contained within this report.
3. **Supports** a 1 Hour workshop on Emergency Declaration on the 6th of June 2024.



AF8 Programme – workplan status update

AF8 Steering Group Meeting – Thursday 29 February 2024

This AF8 workplan status update has been prepared for the AF8 Steering Group meeting on Thursday 29 February 2024. It includes all AF8 Programme activities and projects already agreed to and in progress with funding from the South Island EM Groups and science partners, and also deliverables agreed to under our co-funding and sponsorship agreements with the CDEM Resilience Fund and Toka Tū Ake EQC. See overarching documents for further detail.

Overarching documents:

- AF8 Programme Strategy 2022-25 [HERE](#)
- AF8 Resilience Fund application 2022-26 [HERE](#)
- Toka Tū Ake EQC AF8 Public Education sponsorship agreement 2022-25 [HERE](#)
- AF8 Steering Group Collaboration Agreement 2022 [HERE](#)

Workplan activities

Strategic Focus Area #1 – Raising Awareness	2
NCEA Level 1 Curriculum Resource co-design and development – Phase 3	2
A Lot On Our Plates (ALoop) co-produced social media campaign	3
Supporting Iwi-led initiatives across Te Waipounamu	3
Supporting and presenting AF8-related presentations and briefings	4
AF8 Communications & Engagement Framework - version 1	4
AF8 Consistent Messaging Guide – version 1	5
AF8 Public Education Toolkit scoping ahead of development – Phase 1	5
Strategic Focus Area #2 – Coordinating Intelligence	6
AF8 Science Data Sharing Strategy development and implementation	6
Design and build AF8 Research & Readiness Hub – Phase 1	6
AF8 Coordination Areas Project	7
AF8 Priority Routes Project – GIS Support	7
AF8 Intelligence Support Plan (ISP) development	8
Transferral of science research data from partners into the AF8 ArcGIS Online platform	8
Strategic Focus Area #3 – Networking & Collaborating	9
Reinforce leadership and administration of AF8 Response Planning Groups (RPGs)	9
Catastrophic event programme meetings with NEMA (AF8/Hik9)	9
Co-design a roadmap for coordinated response planning activities with NEMA Planning Team	10
Supporting Exercise Planning for the Tier 4 National Alpine Fault Exercise (Jun-Jul 2024)	10
Management and administration of AF8 Teams space, SharePoint and ArcGIS Online Platform	11

Workplan activity status update scale:

On track	Minor delays	Ongoing delays	No progress
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Strategic Focus Area #1 – Raising Awareness

Raising awareness and increasing understanding of the Alpine Fault hazard risks and consequences, and the AF8 Programme.

- A. To provide quality and consistent messaging to a wide range of audiences (including stakeholders and partners), communicated in a way that is accessible, understandable and actionable.
- B. To build capability in hazard risk communication in the regions to support South Island planning and preparedness activities.

Activity / Project	Starts	Due	Status
NCEA Level 1 Curriculum Resource co-design and development – Phase 3	Jul 2023	Jun 2024	On track
Description	Notes on status		
The Alpine Fault and Our Active Faults is an NCEA Level 1 Geography resource aligned to the new, New Zealand curriculum and designed to teach ākonga all about the Alpine Fault and our active faults, while also learning geospatial information system skills in ArcGIS Online.	<p>Pilot at Ashburton College was completed in December 2024. The resource has been updated over the summer and is now ready for use in schools. A media release and promotional packs for schools are being prepared.</p> <p>~30 schools have registered an interest at the time of writing</p>		
	Associated contracts and funding agreements		
	<ul style="list-style-type: none"> ▪ Toka Tū Ake EQC (funding agreement 2022-25) ▪ CDEM Resilience Fund (2023-24) 		
Task(s)	Critical Contributions		
<p>Remaining tasks:</p> <ol style="list-style-type: none"> 1. Complete comms plan: Send out promotional packs to schools and send out update to CDEM groups 2. Media release with Toka Tū Ake EQC 3. Monitoring feedback from schools 4. Project reporting to Toka Tū Ake EQC by June 2024 	<p>AF8 Programme partners:</p> <ul style="list-style-type: none"> ▪ Science partners – support with any science related content and promotion ▪ EM Groups – support in promotion and delivery in the regions ▪ NEMA – support in promotion 		
Output(s)	NCEA Curriculum Resource project is delivered as per EQC funding agreement and CDEM Resilience Fund contract.		
Potential risk(s)	Mitigation		
Ongoing changes and updates to the curriculum as part of the national NCEA change programme that require significant updates to the resource.	Stay in regular contact with education partners to stay up to date with the NCEA change programme progress and adapt accordingly.		

Activity	Starts	Due	Status
A Lot On Our Plates (ALoop) co-produced social media campaign	Jan 2024	Jun 2024	On track
Description	Notes on status		
ALoop is a co-produced social media campaign delivered in partnership with East Coast LAB. It aims to raise awareness of natural hazards such as earthquakes, tsunamis, liquefaction and landslides – specifically focussed on our major plate boundary hazards related to the Hikurangi subduction zone and Alpine Fault, and the potential risks they pose to New Zealanders.	<p>Campaign planning started with East Coast LAB in January 2024. Proposed dates for this campaign are 8 April to 17 May.</p> <p>Project team includes Georgia McCombe (ECLAB), Alice Lake Hammond (AF8) and Kate Boersen (Contractor)</p>		
Associated contracts and funding agreements			
<ul style="list-style-type: none"> Toka Tū Ake EQC (funding agreement 2022-25) 			
Task(s)	Critical Contributions		
<p>Campaign timeframes:</p> <ul style="list-style-type: none"> Planning and content development (Jan-Mar) – this will include sharing the comms plan with CDEM Groups and science partners to extend the reach of the campaign. Campaign running (Apr-May 2024) Reporting (Jun 2024) 	<p>AF8 Programme partners:</p> <ul style="list-style-type: none"> Science partners – support with any science related content, answers to audience questions, expert panel live stream and promotion. EM Groups – support promotion and delivery in the regions. NEMA – support in promotion and re-sharing where appropriate. 		
Output(s)	ALoop digital media campaign delivered as per EQC funding contract.		
Potential risk(s)	Mitigation		
<p>Co-production partner (ECLAB) becomes unavailable to collaborate with.</p> <p>An emergency event occurs, which makes delivering a public education campaign about other potential hazards at the same time inappropriate.</p>	<p>Regular communications with partner and campaign sponsor to ensure issues are resolved in a timely manner.</p> <p>Regular communications with partner and campaign sponsor to ensure effective and timely decision-making appropriate to the situation.</p>		

Activity	Starts	Due	Status
Supporting Iwi-led initiatives across Te Waipounamu	Jul 2023	Jun 2024	On track
Description	Notes on status		
<p>Working with Iwi to support and/or co-design marae and whanau preparedness and planning activities around Te Waipounamu.</p> <p>Current activities include:</p> <ul style="list-style-type: none"> Ngāi Tahu x AF8 co-designed film project Ngāi Tahu Tourism presentations 	<p>Film project is complete. A communication plans has been drafted. Waiting for sign-off by Ngāi Tahu leadership to be able to confirm a launch date. Ngāi Tahu Tourism operators have requested briefings, AF8 supporting alongside EM Groups.</p>		
Associated contracts and funding agreements			
<ul style="list-style-type: none"> CDEM Resilience Fund (2023-24) Toka Tū Ake EQC (funding agreement 2022-25) 			
Task(s)	Critical Contributions		
<p>Specific to Ngāi Tahu collab film project:</p> <ul style="list-style-type: none"> Co-produced comms plan and implementation. <p>Specific to Ngāi Tau Tourism presentations:</p> <ul style="list-style-type: none"> Confirm dates, liaise with EM Groups and deliver with science partners 	<p>AF8 Programme partners:</p> <ul style="list-style-type: none"> Science partners – support with any science related content EM Groups – support in promotion of film and support presentations in your region. NEMA – support in promotion of film. 		
Output(s) / measure(s)	Opportunities for collaborative projects with Iwi are identified and supported as per CDEM Resilience Fund contract.		
Potential risk(s)	Mitigation		
Demand for AF8 presentations at Marae and Iwi organisations can not be met by the AF8 Programme team.	Work with partners to identify opportunities for efficient delivery (i.e. combining trips to save on travel/time spent)		

Activity	Starts	Due	Status
Supporting and presenting AF8-related presentations and briefings	Jul 2023	Jun 2024	On track
Description	Notes on status		
Respond to presentation requests. Coordinate speakers for AF8-related briefings and presentations to a range of partners and stakeholders at every level (i.e. schools to central government). Report on engagement insights.	Ongoing – the more we talk about it, the more people want to know.		
Task(s)	Critical contributions		
Regular responses to requests. Regular reporting on engagement insights.	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – Supporting and presenting AF8-related presentations and briefings on request EM Groups – Supporting and presenting AF8-related presentations and briefings on request NEMA – Supporting AF8-related presentations and briefings 		
Output(s)	Requests for presentations are supported effectively, and engagement insights are coordinated and reported quarterly.		
Potential risk(s)	Mitigation		
No available speakers available for requested presentation or Demand for AF8 presentations cannot be met.	Manage expectation of requestees and look at alternative options		

Activity	Starts	Due	Status
AF8 Communications & Engagement Framework - version 1	Jul 2023	Jun 2024	On track
Description	Notes on status		
This Framework is designed to sit above the AF8 Consistent Messaging Guide, AF8 Public Education Toolkit (see below) and other initiatives (e.g. the AF8 Roadshow), outlining how these resources work together, offer guidance on how they can be applied, and outline the AF8 Programme’s role in supporting, facilitating, developing, and maintaining communications and engagement activities and materials.	Contractor is confirmed with a contract and project plan in place. Version 1 on track for June 2024		
Task(s)	Critical contributions		
<ul style="list-style-type: none"> First draft of version 1 ready for review by Public Ed & PIM RPG (April 2024) Refine based on feedback. Presented to AF8 science partners for review. Refine based on feedback. Presented to AF8 SG for final review and adoption. Jul 2024 onwards – Review and update alongside PIM response planning discussions (Version 2)	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – support with science content and links to science response arrangements (i.e. alignment with AESAP). Support with review and implementation. EM Groups – Support with review and implementation NEMA – Support with review and implementation 		
Output(s)	Version 1 of the Framework is completed by June 2024		
Potential risk(s)	Mitigation		
An external event impacts the ability of partners to provide critical contributions in time to meet the Jun 2024 deadline.	Regular communication with partners to ensure delays and issues can be resolved in a timely manner.		

Activity	Starts	Due	Status
AF8 Consistent Messaging Guide – version 1 (Readiness)	Jul 2023	Jun 2024	On track
Description	Notes on status		
This Guide is designed to provide a scientifically-informed and coordinated messaging to support Alpine Fault hazard risk related communication and engagement activities in readiness and response. It is intended to be a living document, updated as new information becomes available through research and planning activities.	Contractor is confirmed with a contract and project plan in place. Individual review session held with regional representatives. Version 1 on track for June 2024		
Task(s)	Associated contracts and funding agreements		
<ul style="list-style-type: none"> Messaging and content refined with Public Ed & PIM RPG First draft of version 1 ready for review by Public Ed & PIM RPG (March 2024) Refine based on feedback. Presented to AF8 science partners for review. Refine based on feedback. Presented to AF8 SG for final review and adoption. 	<ul style="list-style-type: none"> CDEM Resilience Fund (2023-24) 		
Output(s)	Critical Contributions		
<ul style="list-style-type: none"> Jul 2024 onwards – Review and update alongside PIM response planning discussions (Version 2) 	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – provide science advice and peer-review. Support development and implementation. EM Groups – provide regional input, support development and implementation. NEMA – provide national input, support development and implementation. 		
Version 1 of the Guide (Readiness) is completed by June 2024			
Potential risk(s)	Mitigation		
An external event impacts the ability of partners to provide critical contributions in time to meet the Jun 2024 deadline.	Regular communication with partners to ensure delays and issues can be resolved in a timely manner.		

Activity	Starts	Due	Status
AF8 Public Education Toolkit scoping ahead of development – Phase 1	Jul 2024	Jun 2025	On track
Description	Notes on status		
The AF8 Public Education Toolkit aims to provide a set of resources and materials that carry the agreed AF8 messaging (as per the AF8 Consistent Messaging Guide) to build capability in communicating risk and enabling preparedness and equip presenters to deliver audience-appropriate material relating to Alpine Fault Hazards.	Starts Jul 2024 when funding is available		
Task(s)	Associated contracts and funding agreements		
Before Jul 2024 – scoping continues as Framework and Guide are developed	<ul style="list-style-type: none"> Toka Tū Ake EQC (funding agreement 2022-25) CDEM Resilience Fund (2023-24) 		
Output(s)	Critical contributions		
	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – TBC EM Groups – provide regional input, support development and implementation. NEMA – provide national input, support development and implementation. 		
Version 1 of the Guide (Readiness) is completed by June 2024			
Potential risk(s)	Mitigation		
AF8 C&E Framework and Consistent Messaging Guide are severely delayed, which impedes the development of the Toolkit	Regular communication with partners to ensure delays and issues can be resolved in a timely manner.		

Strategic Focus Area #2 – Coordinating Intelligence

Coordinating intelligence for Alpine Fault earthquake response planning and preparedness.

- A. To build and coordinate a central knowledge-base to inform Alpine Fault planning and preparedness activities.
- B. To provide a conduit for the direct application of Alpine Fault related research into practice.

Activity	Starts	Due	Status
AF8 Science Data Sharing Strategy development and implementation	Jul 2023	Jun 2024	On track
Description	Notes on status		
A strategy for the coordinated sharing of Alpine Fault-related hazard risk research data between the AF8 Programme and its research partners. This strategy and its 4-Level sharing framework will also be applied to other (non-science) data, to ensure data in the AF8 Research & Readiness Hub (see next item) is shared securely and with the correct permissions.	Currently working with science partners to implement as part of the AF8 R&R Hub development and project/information that will be hosted in the hub.		
Task(s)	Associated contracts and funding agreements		
Review, refine and update 4-level strategy based on science partner feedback. Implement strategy in the development of AF8 R&R Hub site.	<ul style="list-style-type: none"> CDEM Resilience Fund (2023-24) 		
Output(s)	Critical Contributions		
AF8 Science Data sharing strategy is completed and implemented by June 2024.	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – provide input in the strategy and access to relevant science information to test it. 		
Potential risk(s)	Mitigation		
Further delays impede ability to deliver by June 2024.	Regular communication with partners to ensure delays and issues can be resolved in a timely manner.		

Activity	Starts	Due	Status
Design and build AF8 Research & Readiness Hub – Phase 1	Jul 2023	Jun 2024	On track
Description	Notes on status		
The AF8 Research & Readiness (R&R) Hub will act as a coordinated information point for Alpine Fault hazard related science and inter-regionally focussed AF8 planning products (e.g. Priority Routes Project led by the AF8 Lifelines RPG). It will enable information sharing and populate with AF8-related information from science partners and AF8 Planning products	Framework in place and Hub site structure built. We will begin to populate the hub alongside the new science updates coming through as part of the Ex Rū Whenua scenario development.		
Task(s)	Associated contracts and funding agreements		
Bring new science data into the hub with support of AF8 Science partners. Develop hub content to support user experience, acknowledge sources and outline data sharing and access levels.	<ul style="list-style-type: none"> CDEM Resilience Fund (2023-24) 		
Output(s)	Critical Contributions		
AF8 Research & Readiness Hub (Phase 1) is complete and launched by June 2024	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – provide access to science (as per strategy) and support development. 		
Potential risk(s)	Mitigation		
Delays to transfer of science data (above) could impede launch of R&R Hub.	Regular communication with partners to ensure delays and issues can be resolved in a timely manner.		

Activity	Starts	Due	Status
AF8 Coordination Areas Project	Jul 2023	Jun 2024	On track
Description	Notes on status		
This project will research, scope and co-design a guide and technical methodology for Coordination Areas (aka 'sectors') between CDEM Groups, NEMA and partner agencies in New Zealand.	Case Study outputs and learnings are being put into the project Guidance document, Technical Methodology, and dataset.		
	Associated contracts and funding agreements		
	<ul style="list-style-type: none"> CDEM Resilience Fund (2023-24) EMS funding for Southland Case Study (2023-24) 		
Task(s)	Critical Contributions		
<ul style="list-style-type: none"> February: Southland Case Study complete February-June: Case Study completion in each region of Te Waipounamu. March-May: AF8 Coordination Area doctrine review with EM Groups, Project Reference Group, science partners, Iwi and partner agencies. June: Finalise and share doctrine and dataset publicly on the AF8 Research & Readiness Hub June: FENZ implement concept into their Common Operating Picture and work practice. June: present doctrine and dataset to INSARAG (International Search and Rescue Advisory Group) for review and consideration. 	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – Provide science advice where necessary. EM Groups – provide inter-regional input into guide development and support with the identification of case study areas. AF8 Intelligence RPG – provide support for development of doctrine and peer review deliverables. Implement into regional emergency management intelligence systems. FENZ – FENZ staff and USAR specialists provide support in the project reference group. NEMA – support guide development and provide central government input where required. 		
Output(s)	AF8 Coordination Areas guideline, technical methodology and data set hosted and shared via the AF8 R&R Hub – Version 1		
Potential risk(s)	Mitigation		

Activity	Starts	Due	Status
AF8 Priority Routes Project – GIS Support	Jul 2023	Jun 2024	On track
Description	Notes on status		
Led by the AF8 Lifelines RPG – Eight regional workshops will be delivered over February and March 2024 to identify the default priority routes for restoration following a disaster using the AF8 Scenario. These workshops are run by the project team and hosted by regional representatives.	GIS account and licencing in place. Data transfer underway.		
	Associated contracts and funding agreements		
	<ul style="list-style-type: none"> CDEM Resilience Fund (2023-24) – hosted by EM Canterbury 		
Task(s)	Critical Contributions		
<p>The AF8 Programme is providing GIS support to the project, including hosting data and development of outputs/tools.</p> <ul style="list-style-type: none"> Supporting the coordination of inter-regional planning meetings and project development. Supporting 8 regional workshops from Feb-March 2024. Supporting the development of Geospatial outputs/tools 	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – participation in meetings as needed, support with science maodelling. EM Groups – regional representatives enabled to attend meetings and represent their region NEMA – provide support and leadership in Catastrophic Event planning. 		
Output(s)	Project outputs and associated materials are hosted on the AF8 R&R Hub for use in Alpine Fault planning.		
Potential risk(s)	Mitigation		
GIS contractor becomes unavailable during project timeframe	Regular communication with project leads and contractor to ensure minimal disruption to project outcomes.		

Activity	Starts	Due	Status
AF8 Intelligence Support Plan (ISP) development	Jul 2023	Jun 2024	On track
Description	Notes on status		
Led by the AF8 Intel RPG – The AF8 Intelligence Support Plan (ISP) for the South Island / Te Waipounamu collects priority information from the regions that they believed is critical for surge support coming into their region to help in regional Intelligence Coordination, and what they would want to know if they were supporting other regions as outlined in the AF8 SAFER Framework.	AF8 has supported the AF8 Intel RPG in the collection of information from the regions and is now working with NEMA and partner to include national priority information in the plan.		
Task(s)	Critical Contributions		
<ul style="list-style-type: none"> Working with NEMA and partner agencies to collect their priority information for Intel support and incorporating it into the plan Increase the information for the regions and the South Island AF8 SAFER context. <p>To be reviewed annually by the AF8 Intel Group RPG.</p>	<p>AF8 Programme partners:</p> <ul style="list-style-type: none"> EM Groups – regional representatives enabled to attend meetings, represent their region and provide information and feedback on the ISP development. NEMA – provide support, information and feedback on ISP development, including national information in the plan 		
Output(s)	The AF8 ISP is shared to NEMA and Emergency Management Groups via Microsoft Teams and the AF8 Research & Readiness Hub.		
Potential risk(s)	Mitigation		
Further delays impede ability to deliver by June 2024.	Regular communication with partners to ensure delays and issues can be resolved in a timely manner.		

Activity	Starts	Due	Status
Transferral of science research data from partners into the AF8 ArcGIS Online platform	Jul 2023	Jun 2024	On track
Description	Notes on status		
Transfer of all relevant science research data relevant to the Alpine Fault into the AF8 AGOL (AF8 Research & Readiness Hub) as per AF8 Science Data Sharing Strategy, including: emerging research, published research and agreed GIS layers.	Science data transfer is anticipated to begin with the new science updates coming through as part of the Ex Rū Whenua scenario.		
Task(s)	Critical Contributions		
<ul style="list-style-type: none"> February: New science data complete March-April: Transferral of new science to AF8 R&R Hub April-May: Transferral of any other science data relevant for AF8 planning to the AF8 R&R Hub 	<p>AF8 Programme partners:</p> <ul style="list-style-type: none"> Science partners – enable transfer of relevant science information to the AF8 AGOL as agreed. 		
Output(s)	All science research data available to be shared is transferred to AF8 AGOL platform and assigned sharing level permissions as per strategy.		
Potential risk(s)	Mitigation		
Further delays impede ability to deliver by June 2024.	Regular communication with partners to ensure delays and issues can be resolved in a timely manner.		

Strategic Focus Area #3 – Networking & Collaborating

Supporting networks for ongoing collaboration and advocating for a coordinated approach to readiness and response planning for an Alpine Fault earthquake.

- A. To support relationships and networks for ongoing collaboration.
- B. To support South Island EM Group planning for the next severe Alpine Fault earthquake at an inter-regional level.

Activity	Starts	Due	Status
Reinforce leadership and administration of AF8 Response Planning Groups (RPGs)	Jul 2023	Jun 2024	On track
Description	Notes on status		
The AF8 RPGs meet monthly to progress Alpine Fault and Catastrophic Event planning. Membership includes representatives from the SI CDEM Groups, NEMA and Science partners. These groups are regionally-led, nationally supported and inter-regionally coordinated.	New ToRs have been developed in alignment with NEMA CatPlan engagement plan. To be reviewed by AF8 SGM in February, for implementation in March/April.		
	Associated contracts and funding agreements		
	<ul style="list-style-type: none"> ▪ CDEM Resilience Fund (2023-24) 		
Task(s)	Critical Contributions		
<ul style="list-style-type: none"> ▪ ToRs signed off and implemented ▪ Working with NEMA CatPlan team and RPG members to identify and prioritise common ground and collaborative pieces of work to progress. ▪ Inform and development of the AF8-NEMA CatPlan Planning Roadmap (see item on next page) to guide ongoing RPG engagement activities that support planning. 	AF8 Programme partners: <ul style="list-style-type: none"> ▪ Science partners – participation in meetings as needed, support and funding for in-person workshops. ▪ EM Groups – regional representatives enabled to attend meetings, represent their region and contribute to common goals. ▪ NEMA – provide support and leadership in Catastrophic Event planning. 		
Output(s)	Leadership/governance is confirmed by AF8 Steering Group, regular RPG meetings are held monthly and administration provided as per approved ToRs.		
Potential risk(s)	Mitigation		
Growing uncertainty around RPG leadership and governance structure has the potential to disrupt current progress.	Regular communication with AF8 Steering Group to ensure delays and issues can be resolved in a timely manner.		

Activity	Starts	Due	Status
Catastrophic event programme meetings with NEMA (AF8/Hik9)	Jul 2023	Jun 2024	On track
Description	Notes on status		
Attend meetings as required to support the development of Catastrophic Event programmes (i.e. ECLAB, AF8)			
	Associated contracts and funding agreements		
	<ul style="list-style-type: none"> ▪ CDEM Resilience Fund (2023-24) 		
Task(s)	Critical Contributions		
	AF8 Programme partners: <ul style="list-style-type: none"> ▪ NEMA – Scheduling and administration of meetings 		
Output(s)	Attend monthly meetings hosted by NEMA		
Potential risk(s)	Mitigation		

Activity	Starts	Due	Status
Co-design a roadmap for coordinated response planning activities with NEMA Planning Team	Jul 2023	Jun 2024	Ongoing delays
Description	Notes on status		
The AF8-NEMA/CatPan Roadmap aims to guide inter-regional planning in alignment with national planning – primarily focusing on common planning goals arising from the CatPlan Programme.	Ongoing delays due to prolonged decision-making period regarding leadership and governance of planning work.		
	Associated contracts and funding agreements		
	<ul style="list-style-type: none"> CDEM Resilience Fund (2023-24) 		
Task(s)	Critical Contributions		
Roadmap to be redeveloped once ToRs and associated details are approved AF8 SGM. AF8 RPGs to inform development of the AF8-NEMA CatPlan Planning Roadmap.	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – Support with science advice where required. EM Groups – Provide inter-regional input and agree priority goals to inform Roadmap development NEMA – Provide central government input and guidance on priority goals to inform Roadmap development 		
Output(s) / measure(s)			
AF8-NEMA Planning Roadmap is completed and approved for implementation by AF8 Planning Partners (CDEM and NEMA) as per CDEM Resilience Fund contract.			
Potential risk(s)		Mitigation	
If delays continue into the new year, delays in planning progress are likely.		Regular communication with AF8 Steering Group to ensure delays and issues can be resolved in a timely manner.	

Activity	Starts	Due	Status
Supporting Exercise Planning for the Tier 4 National Alpine Fault Exercise (Jun-Jul 2024)	Jul 2023	Jun 2024	On track
Description	Notes on status		
Attend regular meetings of the AF8 Scenario Working Group and support the translation and application of new/updated science.	Currently working with AF8 science partners and NEMA CSA on delivery of new science developed for Ex Rū Whenua.		
	Associated contracts and funding agreements		
Task(s)	Critical Contributions		
Support the translation and application of new/updated science. Transfer science data to AF8 R&R Hub Ensure AF8 Scenario updates are available for use beyond the exercise (i.e. AF8 and catastrophic event planning)	AF8 Programme partners: <ul style="list-style-type: none"> Science partners – Attend meetings / schedule meetings EM Groups – 1x Group Manager representative to attend meeting NEMA – Attend meetings / schedule meetings 		
Output(s) / measure(s)			
Assist NEMA with their development of Tier 4 exercise eg. AF8 Scenario Working Group meetings			
Potential risk(s)		Mitigation	

Activity	Starts	Due	Status
Management and administration of AF8 Teams space, SharePoint and ArcGIS Online Platform	Jul 2023	Jun 2024	On track
Description	Notes on status		
<p>The AF8 Teams space, SharePoint and ArcGIS Online platforms are designed to enable inter-regional and inter-agency collaboration on our common goals.</p> <p>AF8 Team – 110+ members (SI EM, Science, NEMA and relevant partner agency reps).</p> <p>7x private teams (AF8 Science, Lifelines, Public Ed & PIM, Intel, Welfare, Staff, and Steering Group).</p>	<p>The AF8 Teams space has undergone an upgrade over January-February. The space now has one overarching AF8 Team with 110+ members, this is supported by 7 private groups to enable inter-regional collaboration in specialist areas.</p>		
Task(s)	Associated contracts and funding agreements		
<p>Manage memberships and maintain technical set-up.</p> <p>Share meeting recordings</p> <p>Document management and permissions</p>	<p>AF8 Programme partners:</p> <ul style="list-style-type: none"> EM Groups – Updates on staff changes to ensure membership is up to date NEMA – Updates on staff changes to ensure membership is up to date 		
Output(s) / measure(s)	Critical Contributions		
AF8 Teams space, SharePoints and AGOL are maintained to enable collaboration, keep a record of collective work and ensure a secure space for information sharing between partners.			
Potential risk(s)	Mitigation		

4.2 Otago Lifelines Update

Prepared For: Otago CDEM Joint Committee

Author: Mel Banks

Date: 14th March 2024

PURPOSE_

The final report is to inform the Joint Committee (JC) of the activity undertaken at the Otago Lifeline Utilities Group meeting on 22 February 2024.

EXECUTIVE SUMMARY

The Otago Vulnerability and Interdependency Assessment commenced on 22 February, facilitated by Toa Consulting. The workshop was held in place of the quarterly Otago Lifeline Utilities Group meeting where all utilities and some invited emergency services were required to work through 3 hazard scenarios for the Otago region. The hazards were Wildfire, Severe weather, and Large Seismic event (AF8).

Due to the unavailability of some group members, Toa Consulting will engage individually with absent members to capture their vulnerability and interdependencies for the 3 hazard scenarios. Delivery of the Otago Vulnerability and Interdependency Assessment 2024 is expected by June 2024.

Alpine Fault Magnitude 8 (AF8) Priority Routes workshops commenced on February 27 in Dunedin for Coastal Otago District Councils, Ports, NZTA and roading contractors. The Inland Otago workshop was held in Alexandra on February 29 with Inland Otago District Councils, NZTA and roading contractors. The next workshop will be held online on April 17 to bring all the South Island workshop attendees together to “truth check” the maps and ensure they match up across borders. Delivery of the AF8 Priority Routes end product expected by June 2024.

RECOMMENDATION

That the Otago CDEM Joint Committee:

Receives this report.

Notes the update from the Otago Lifeline Utilities Group (minutes).

BACKGROUND

The Otago lifelines program exists and is owned by the members of the Otago Lifeline Group, in alignment with sections 59 and 60 of the Civil Defence Emergency Management Act 2002. The group meets quarterly to enhance the connectivity of lifeline utility organisations across agency and sector boundaries to improve critical infrastructure resilience as per the Otago Lifelines Group ToR.

The membership of the group consists of representatives at a regional level from:

- Emergency Management Otago
- Regional and District Councils

- Electricity
- Telecommunications
- 3 Waters
- Transport
- Roding
- NEMA

CONSIDERATIONS

Strategic Framework and Policy Considerations

The Otago Lifelines Group is in alignment with the Otago Group Plan.

Financial Considerations

Costs associated with attending and contributing to committee meetings are met by participating agencies.

Significance and Engagement

Engagement with members of the committee is active and ongoing after a period on reduced activity due to staffing capacity.

Legislative and Risk Considerations

The Otago CDEM Group operate under the provisions of the CDEM Act 2002 and the Health and Safety at Work Act 2015 Act. The Otago Lifelines Group is in alignment with these provisions.

Climate Change Considerations

No matters arising.

Communication Considerations

No matters arising.

ATTACHMENTS

Otago Lifeline Utility Group Meeting Minutes 22 Feb 2024, yet to be approved by Group Chairperson.

Otago Lifelines Group Meeting

DATE & LOCATION:

22 February 2024, Cromwell Presbyterian Church

MEETING TIME:

09:00am-3:00pm

Attendees

Glyn Lewers (Mayor QLDC, Chair)	Nic McQuillan (FENZ)	Mark Tynan (One)
Mel Banks (Otago CDEM)	Andy M-E (Otago CDEM)	Derek Shaw (Otago CDEM)
Jim Tetlow (Toa Consulting)	Peter Standring (NZTA)	Jacqui Lambeth Otago CDEM)
Todd Trotman (Network Waitaki)	Andrew Welsh (ORC)	Matt Alley (Otago CDEM)
Teresa Simcox (Toa Consulting)	Andrew Cunningham (SDHB)	Tim Van Woerden (ORC)
Vanessa Naidoo (DCC)	Shann Ross (Aurora)	Jen Simon (ORC)
Nicole Felts (NZTA)	Wayne Smith (Chorus)	Claire Charleton (Otago CDEM)
Darren Brown (Transpower)	Louis Perenara (Chorus)	Paula Cathie (Otago CDEM)
Ross Buchan (Port Otago)	Mark Mawhinney (FENZ)	Tash Black (Otago CDEM)
Cynthia Wilson (DCC)	Vanessa Dalton (DCC)	Courtenay Jamieson (Otago CDEM)
Mark Renalson (WDC)	Bobby Lamont (FENZ)	

Apologies

Glenn Mitchell (Otago CDEM)	Jean-Luc Payan (ORC)	Malcom Johnstone (NEMA)
Bill Nicoll (QLDC)	Jessica Cotton (Aurora)	Ann Conroy (ORC)
John Coutts (DCC)	Matt Settle (Aurora)	Paul Lloyd (Meridian)
Juliet Breen (QT Airport)	Simon Robinson (ORC)	Richard McKey (Contact)
Michael Tannock (NZTA)	James Knapp (FENZ)	Shane Watson (Network Waitaki)

Minutes

With approval from chairperson Mayor Glyn Lewers, the February meeting of the Otago Lifeline Utilities Group took the opportunity to hold a workshop to review the Otago Vulnerability and Interdependencies Assessment. The workshop covered 3 scenarios, Wildfire, Severe Weather and Large Seismic event; participants were asked to provide input on how their utility would be affected. The workshop was facilitated by Toa Consulting following sector updates.

Welcome:

- Glyn Lewers Mayor QLDC and Chairperson welcomed everyone to the meeting.
- Jim Tetlow of Toa Consulting also welcomed and gave an overview of how the workshop would be run.
- Matt Alley also welcomed all and provided context to the Vulnerability Assessment 2024.

Apologies:

- The apologies were not provided in the meeting, though Mel Banks had captured these and are incorporated in the minutes.

Minutes:

- Minutes and actions from the November meeting were not addressed in the February meeting. The two actions from the November meeting have been addressed and closed out.

Otago Lifeline Utilities Updates:

Update to focus on projects and learnings from recent responses.

QLDC: Mayor Glen Lewers

September weather update:

- Crypto outbreak just before weather event. 2 communications people were already stood up for messaging and social media updates.
- Maxed out communication personal by day 2 of weather event.
- Glenorchy warning of overtops, slips in Fernhill and Sunshine Bay. Luggate campers moved due to rising river.
- Albert town water treatment plant was put on standby.
- Debris flow Gorge Rd, evacuation of residents.
- Land and forestry slash slip down Brecon St.
- Very localised in QLDC.
- Locals/business's got annoyed.
- Burn out of people, not attainable if the event duration went longer.

Otago CDEM: Matt Alley

September weather update:

- Accommodated over 100 people.
- SoE enforced for 1.5 days.
- Needed to gain a risk profile of the slip on the hill.

CDEM update:

- Strategy for training and capability, response training, training to the community.
- Community resilience work, ~60 groups.
- CATPLAN (AF8)

Ru Whenua National Exercise:

- 1st Day, 12 June: Action, air space, critical supplies.
- 2nd Day, 26 June: Sustained response, welfare services, critical supplies into communities. Needs assessment.
- 3rd Day, 10 July: Transition phase. Regional co-ordination exercise.
- Sept/Oct multi agency regional CDEM response.

FENZ: Bobby Lamont, Nic McQuillan & Mark Mawhinney

- FENZ played a huge part in Cyclone Gabriel air operations.
- Working on increasing community resilience.
- FENZ are increasing the number of Starlink's in Otago.
- Focus on the built environment, movement of people i.e., in Queenstown.

Chorus: Louis Perenara

- Response to the September QLDC weather event – Muddy Creek bridge washout.
- Building resilience and redundancy.
- New fiber from Timaru to Omarama/Lindis Pass.
- Proactive maintenance.
- Most of Chorus's main sites have a generator and tested every Tuesday morning and refilled monthly.
- All the exchanges have generator and battery backups. Solar set-up at localised cabinets and battery backup. These are monitored by alarm.

NZTA: Peter Standring and Nicole Felts

- Muddy Creek slip in the September weather event. Location is a mountainous area and prone to slips, NZTA engaging with ORC to improve the network.
- A lot of pinning and mesh (Nevis Bluff).
- Priority list of where the funding needs to go for roading (CODC and QLDC is a high priority).
- Mass block wall work on Devils Staircase.
- Shelving in Cromwell gorge.
- Resilience study Frankton-Kingston.
- Communications, tourism, school holidays, people. Mass coordination.
- Beaumont bridge now complete.
- Mahino SH1: Raising the road.
- SH88 cruise ship plan. DCC detour tool.

Network Waitaki: Tod Trottman

- Decarbonisation load moving over to electricity from coal. Putting more pressure on the network.
- Maturity assessment process.
- Upgrade communications to digital network

DCC Roading: Cynthia Wilson

- All assets captured and mapped.

DCC Water: Vanessa Naidoo

- Highlighting risk.
- Response and recovery focus at the Musselburgh plant.
- Dams' safety emergency action plans, scenario testing.
- Drinking water contamination in flood. Working with Te Whatu Ora.
- How to follow CIMS in a response. Determining what are DCC responsibilities in a response.

One: Mark Tynan

- Single points of failure, risk register.
- Tracking events.
- Phase out of 2G,3G networks over the next few years.
- SpaceX October 2024 for text services (will be interesting to see how it works on the ground).
- Copper phase out on the ground.

DCC Transport: Vanessa Dalton

- Working with NZTA, making sure the network is usable for heavy's (heavy vehicles/trucks).

Te Whatu Ora: Andrew Cunningham

- Power outages needing generators (issues with sub sized generators and fuel supplies on site.)
- Upgrading some generators from 300kva to 500kva with 5 days of onsite fuel.
- Crypto/failure of water supply. Potable water is importable for health centers.
- Cat-plan with MoH.
- Moving practitioners to where they are required in emergencies.

Transpower: Darren Brown

- Frankton transformer upgrade.
- Risk mitigation, contingency plan Cromwell to Frankton.
- Long lead times investigated.
- Clyde half-life refurbishment.
- LIDAR scanning of vegetation around lines for better understanding of risks.
- Tap change in Halfway Bush, temporary fix in place. 1 more month until full restoration.

Aurora Energy: Shaan Ross

- RMA
- Large outages in Central Otago in Jan 2024, investigations underway into the cause of these.
- EDB section create a SITREP so all can input on the same platform.

WDC 3 Waters: Mark Renalson

- Upgrade of a plant.
- Oamaru water strategy/water resilience/wastewater/pump stations and storm water inundation to pump water away.
- Detour route mappings and mappings of critical infrastructure with key service providers. Improving resilience. Bridge infrastructure.

Port Otago: Ross Buchan

- Closed off the last historic wall to make the basin more resilient.
- Radio upgrade.
- Cruise ship response in conjunction with DCC and NZTA, ppl not being able to return to cruise ships.

ORC Natural Hazards: Tim Van Woerden

- Regional scales to natural hazards, how many people/buildings are exposed.
- Review of all mapping to see if there are any gaps.

MEETING CLOSED:

14:50pm 22 February 2024

Next meeting to be confirmed.

4.3 Community Resilience Update

Prepared For: Otago CDEM Group Joint Committee

Activity: Community Resilience update

Author: Paul Allen

Date: 14th March 2024

PURPOSE

To update Otago's CDEM Joint Committee on the current state of Community Resilience activity

EXECUTIVE SUMMARY

Community engagement and interactions with Community Response Groups over the Christmas/New Year holidays have been limited but have started again in the January and February period. This time of year, is community event season, these are a great tool for promoting and recruiting for Community Response Groups and for promoting Community Resilience.

Currently working with the Welfare Coordination Group and the Rural Advisory Group to embed the new Terms of Reference. This has included ensuring core members have representation and input into the groups.

Changes in activity recording systems are being implemented. This new system will improve both the recording and reporting of activity with Community Response Groups.

Recommendation

That Otago CDEM Group Joint Committee

Receives the report and notes the current state of Community Response networks.

Notes the update from the Welfare Coordination Group (minutes).

BACKGROUND

Community engagement activity accounts for a significant proportion of Emergency Management Otago's (EMO) time and resources.

This engagement occurs within formalised structures such as elected officials, religious organisations, and formal volunteer networks. Informal structures, community groups and individuals, and professional stakeholders.

DISCUSSION

Community Response Groups

There are currently approximately 67 Community Response Groups across Otago, some of these have been well-established for a few years now and have operated through emergency events and exercises. While some are small or early in the process of establishing. In January and February, there were 10 engagements with Community Response Groups across the region.

The charts below (Appendix A) now reflect the number, size, and stage of Community Response Groups in each Territorial Authority as of 31 December, there has been no change to this since the previous report.

It is worthwhile noting that although some groups are only part way through the Forming/Training/Operational pathway, they have been activated in exercises and events in the past. We are in a transition to a new reporting tool, which is better able to record and report engagements and break down activity across the Region and within each Territorial Authority. This process is currently being updated by the district-based staff.

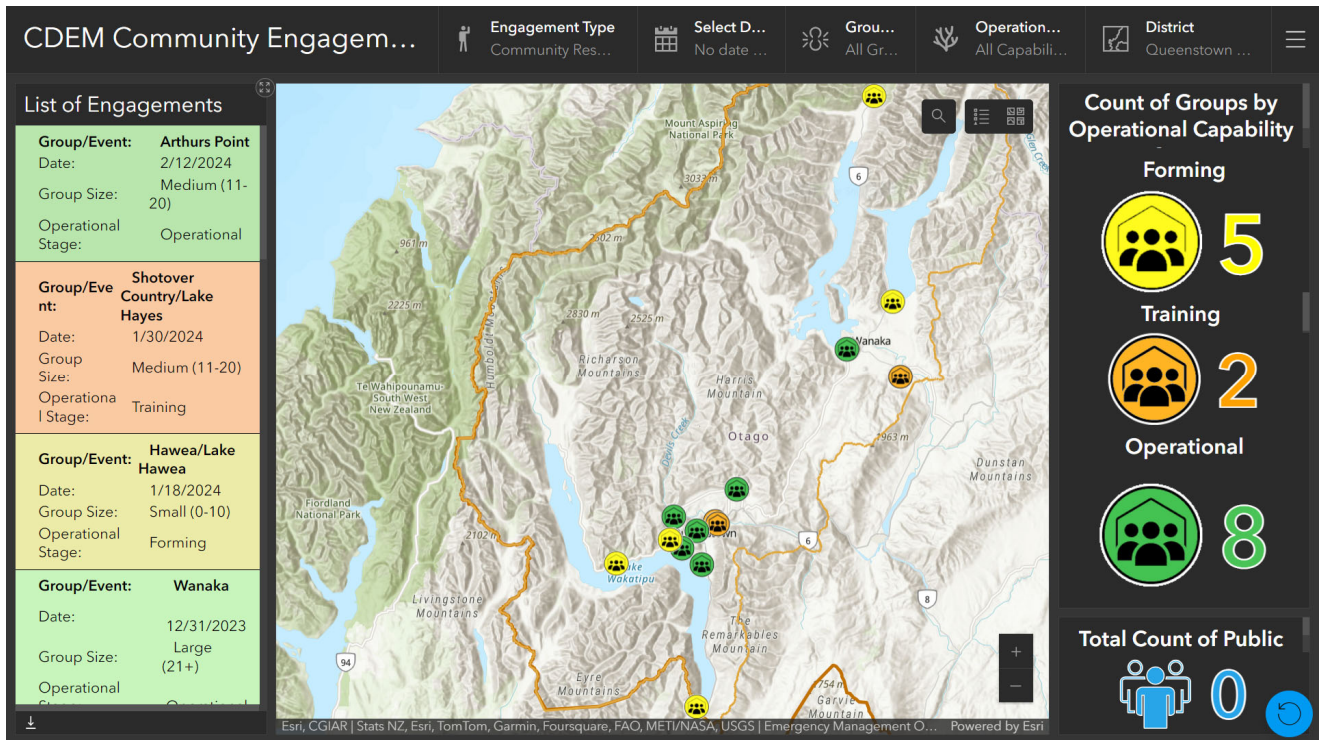


Figure 1 – Screenshot of new GIS tool used to track community engagement activity.

Terms of Reference Review

The Otago Welfare Coordination Group Terms of Reference and the Rural Advisory Group Terms of Reference have been updated and adopted.

Welfare Coordination Group

The last meeting was held in February.

A presentation was received from Te Whatu Ora regarding how they respond in emergencies. This presentation highlighted the extent of their coverage including South Canterbury, Otago, and Southland. They have recently appointed Emergency Management Officers in each of those respective regions. Their focus will be on the Te Whatu Ora continuation of operation during emergencies while working with the three CDEM Groups with the delivery of health services that are needed in responses. Also highlighted was the need for appropriate liaison from CDEM in the Te Whatu Ora EOC/ECC.

Minutes are included below.

Otago Welfare Manager Meetings

Regular meetings have been scheduled and held with local Welfare Managers and alternates. The aim of these is to build relationships across Otago with other Welfare Managers and to raise and discuss any issues, needs, resources, any activations, etc. Noting that the only attendees for this meeting have been from Central Otago, and Clutha Districts, with apologies from Dunedin received.

CONSIDERATIONS

Strategic Framework and Policy Considerations

No matters arising.

Financial Considerations

No matters arising.

Significance and Engagement

No matters arising.

Legislative and Risk Considerations

No matters arising.

Climate Change Considerations

No matters arising.

Communication Considerations

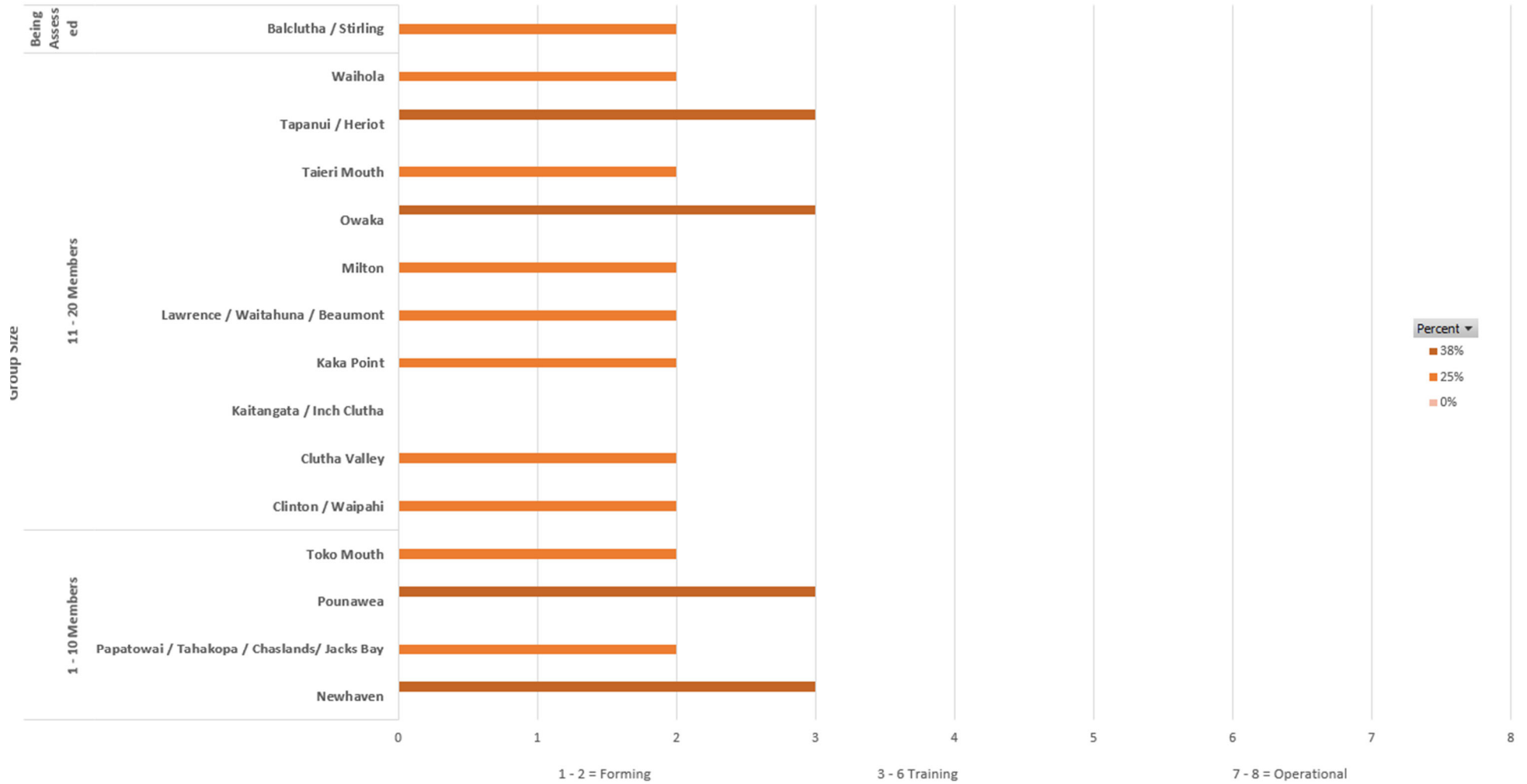
No matters arising.

ATTACHMENTS

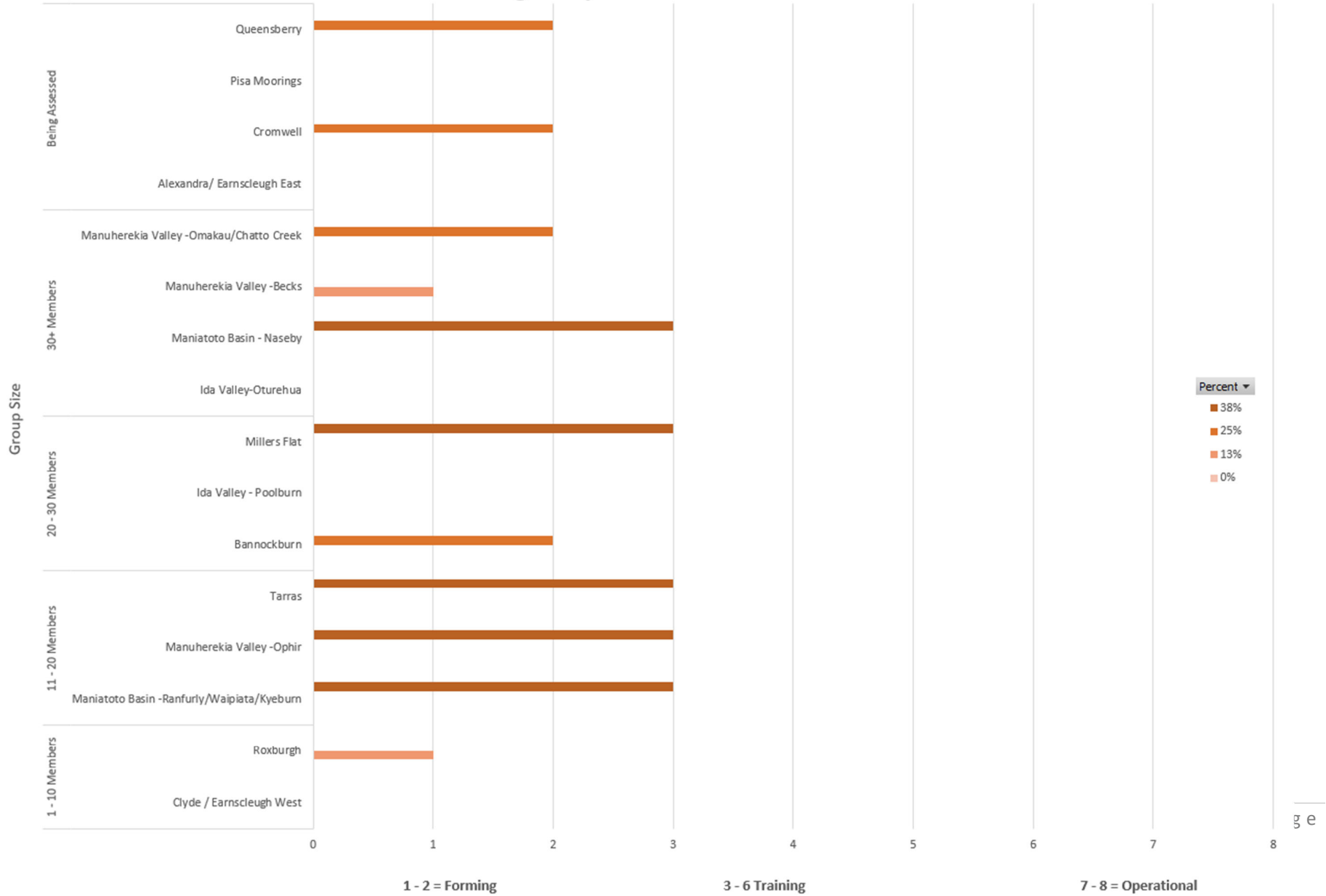
Appendix A – Community Response Group Tracker

Appendix A – Community Response Group Tracker

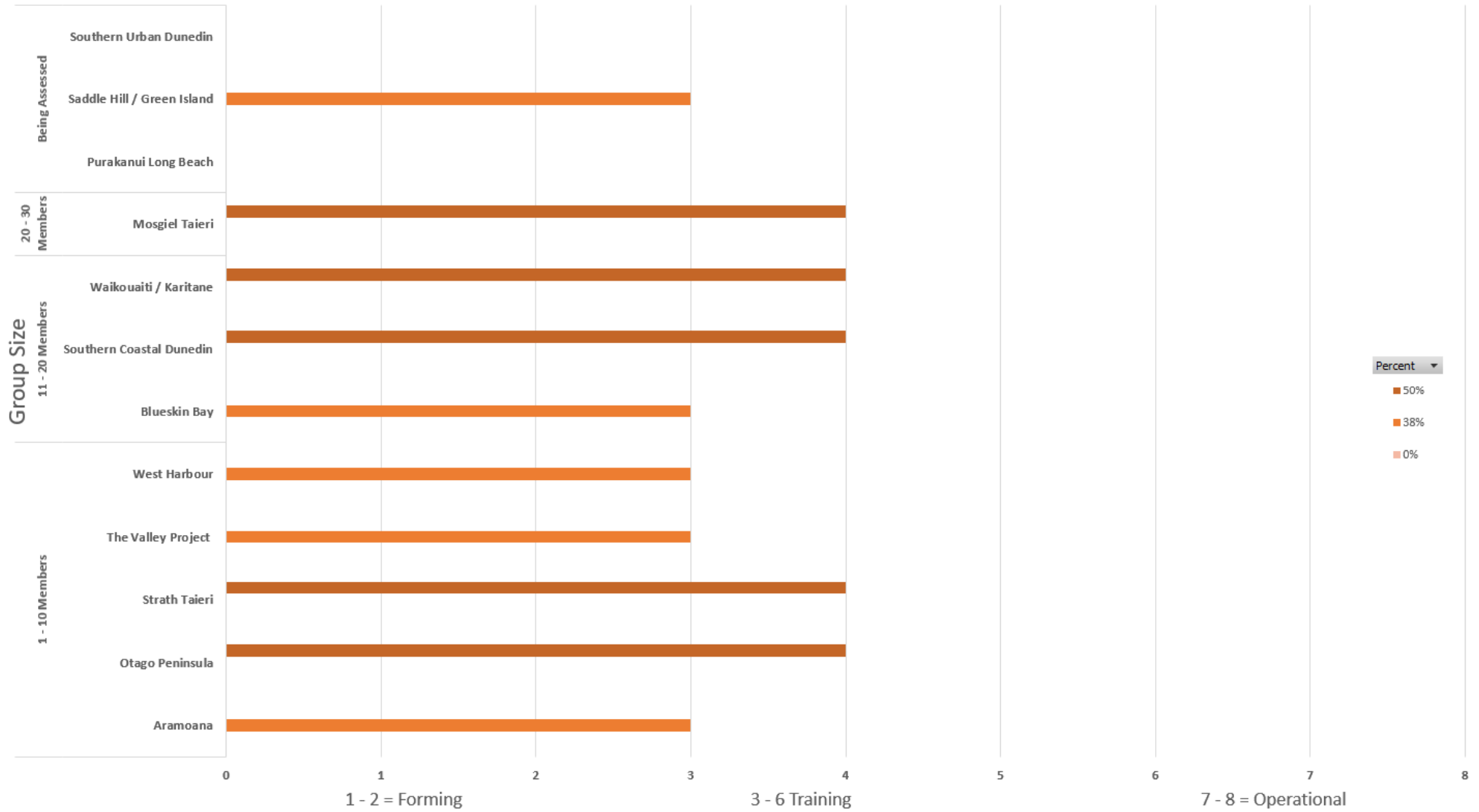
Percentage of operational readiness - CDC



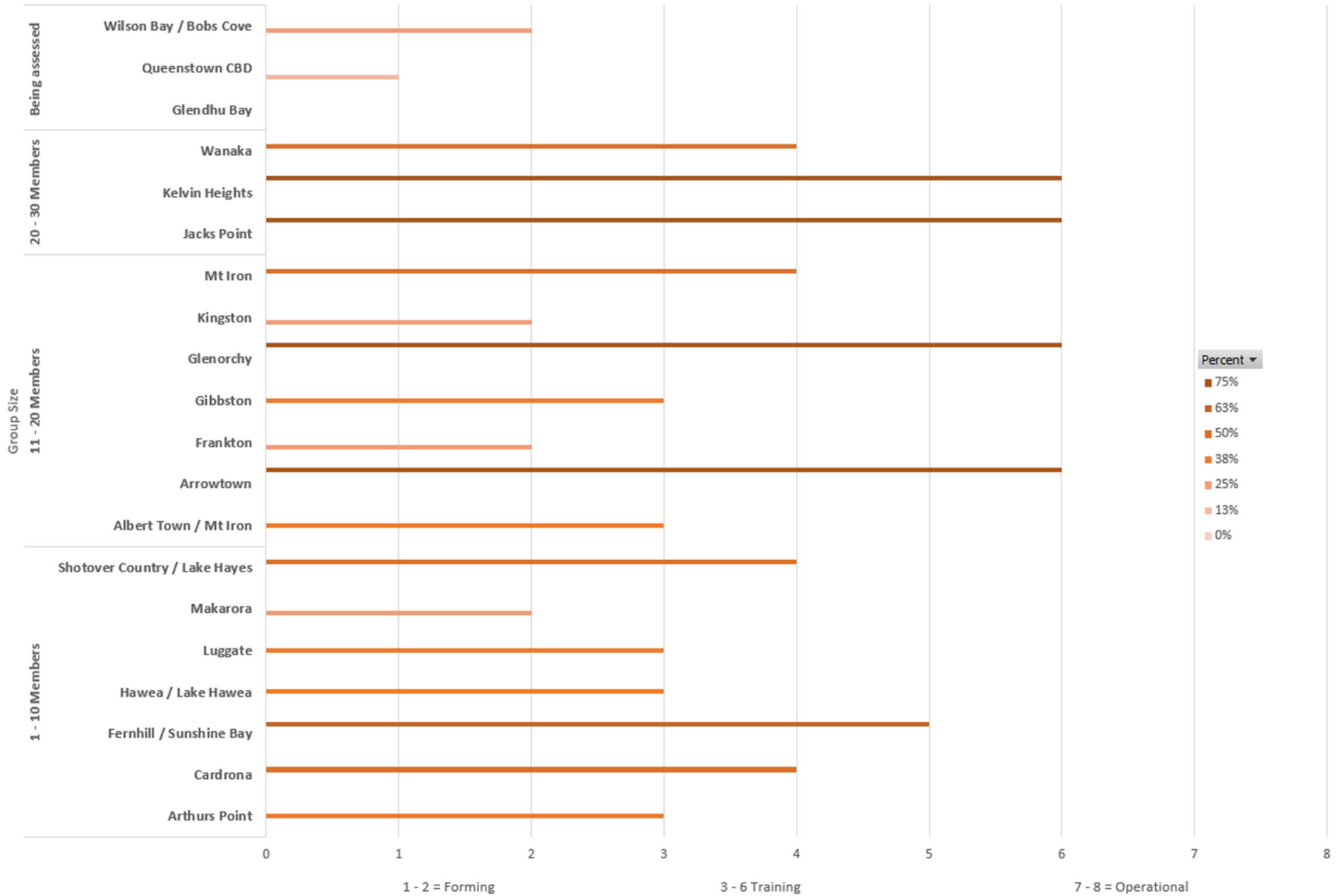
Percentage of operational readiness - CODC



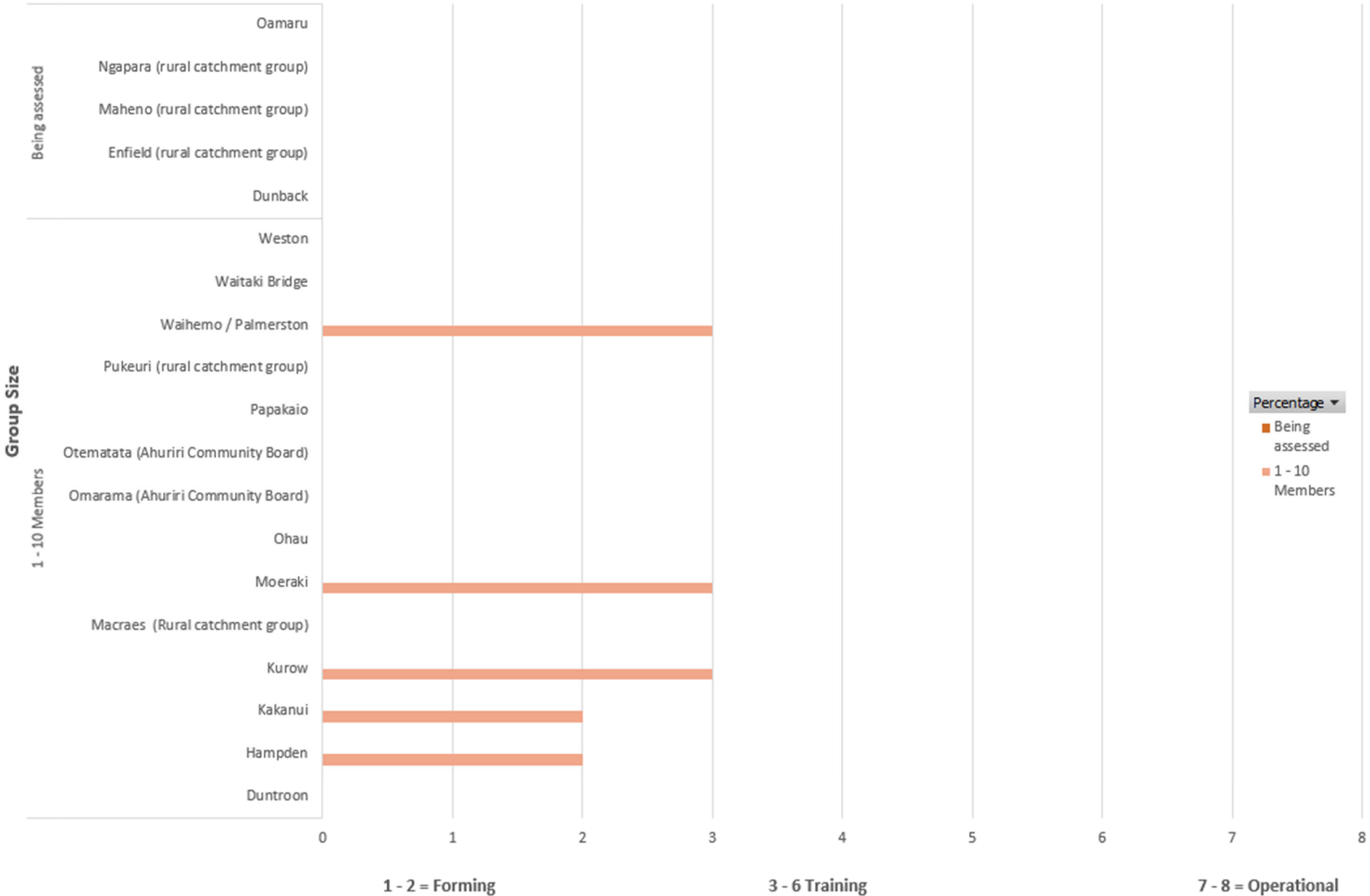
Percentage of operational readiness - DCC



Percentage of operational readiness - QLDC



Percentage of operational readiness - WDC



Otago Welfare Coordination Group

DATE & LOCATION:

8 February 2024 via Teams

MEETING TIME:

10:00am (10:00hrs)

Attendees

Paul Allen (Chair)	Ana Faatoia (NEMA)	Andrew Cunningham (Te Whatu Ora)
Chris Brooker (EMO)	Cindi Mouakrere (OT)	Claire Charleton (EMO)
Courtenay Jamieson (EMO)	Daniel Leslie (Public Health)	Erica Andrews (EMO)
Glyn Saunders (MPI/RAG)	Heather Newbury (MPI)	Jacqui Lambeth (EMO)
Jamie Ruwhiu (TRoNT)	Lina Lastra (Min Ethnic Communities)	Marianna Brook (ORC alt WM)
Maxine O'Neil (Min of Ed)	Mel Banks (EMO)	Michael Knowles
Paula Cathie (EMO)	Paula Penno (CODC)	Steve King (Red Cross)

Minutes

Opening karakia

Paul Allen

Previous Minutes

- Attached

Topics for Discussion

Te Whatu Ora

Andrew Cunningham – *Te Whatu Ora*

- Role of Te Whatu Ora in an activation – their processes and how they work with Activated EOC/ECC
- PowerPoint Presentation to be circulated.

NEMA Update

Ana Faatoia

- Note that Alex Hogg has resigned her roles at NEMA.
- Welfare Sub-cluster groups being set up nationally to support regional welfare sub-clusters.
- Catastrophic Planning under way again.

Emergency Management Otago Update

Paul Allen

- **Terms of Reference WCG and RAG (Attached)** The WCG Term of Reference to be presented to CEG
- **Structure and agenda template for future WCG Meetings**

1 **Open with Karakia**

2 **Welcome**

- 3 Presentation/guest speaker**
Presentation from a Sub-cluster lead agency on their role in an activation or other welfare focused topic
- 4 Ngāi Tahu Update**
- 5 Emergency Management Otago Updates**
- 6 Welfare Sub-Cluster Updates**
This are for the lead agency to provide a quick update on their area of focus.
 - Shelter and Accommodation
 - Household Goods and Services
 - Inquiry
 - Psychosocial Support
 - Financial Support
 - Care and Protection of Children and Young People
 - Animal Welfare
- 7 Rural Advisory Group Update**
- 8 Group ECC Welfare Function Update**
 - Needs Assessment
 - Welfare Delivery
 - Training
- 9 General Business**
- 10 Dates of next meeting**
- 11 Close with Karakia**

Ngāi Tahu

Progression is being made in establishing emergency pods based at the three papatipu Rūnaka

- Kati Huirapa Runaka ki Puketeraki
- Te Rūnanga o Ōtākou
- Te Runanga o Moeraki

And also

- Araiteuru Marae based in Wakari, Dunedin.

These pods will be adapted to what is going to be needed, for example at Araiteuru Marae a generator is being installed. Discussion with Emergency Management Otago about content of the pods.

He was talking about the Minister for Emergency Management visiting Canterbury group and meeting with their Mayors and Chairs with Iwi. Jamie suggested that a similar invite be beneficial.

Marianna Brook (wearing the BAU hat) was talking about we should have a similar visit here in Otago aligning it with a JC meeting and making sure we include Mana Whenua and that she could help with coordination of that visit.

Rural Advisory Group Update

- Drought monitoring is continuing.
- Terms of Reference for Rural Advisory Group attached.
- Membership of RAG has been reviewed in line with the Terms of Reference and is currently being updated.

Agency Updates

- **Te Whatu Ora**

- Internal Planning
- Support agency group planned for this month.
- Big push for catastrophic Planning

- **Oranga Tamariki**

- Welcome to Cindi Mouakarere from Oranga Tamariki on behalf of Rachael Galway (Regional Manager) and Claire Reynolds (Site Manager)

- Ministry for Primary Industries

- Red Cross

- **Min of Ethnic Affairs**

1. Information about accessing language support

We have added a new languages dropdown tab appearing in the top right-hand corner on our website. This makes all our information in different languages more easily accessible to our communities, removing English proficiency as a barrier to finding our information.

There has been a refresh to the landing pages for each language, and new information on the website that has just been published, we have information about accessing language support when calling government agencies, Cyclone Gabrielle and Auckland flooding support, our health videos and some other posters and resources.

If you're interested in checking it out, the links to all the languages are here:

[Arabic | عربي](#)

[简体中文 | Chinese \(Simplified\)](#)

[繁體中文 | Chinese \(Traditional\)](#)

[Farsi | فارسی](#)

[Français | French](#)

[ગુજરાતી | Gujarati](#)

[हिन्दी | Hindi](#)

[Bahasa Indonesia | Indonesian](#)

[日本語 | Japanese](#)

[ភាសាខ្មែរ | Khmer](#)

[한국어 | Korean](#)

[Português | Portuguese](#)

[ਪੰਜਾਬੀ | Punjabi](#)

[Af-Soomaali | Somali](#)

[Español | Spanish](#)

[Tagalog](#)

[தமிழ் | Tamil](#)

[ภาษาไทย | Thai](#)

[Urdu | اُردو](#)

[Tiếng Việt | Vietnamese](#)

2. “Unlocking Language Barriers” – Translation guidance

We also have published our translation guidance ‘Unlocking Language Barriers’ on the MEC website. You can find the guidance in both HTML and PDF here:

<https://www.ethniccommunities.govt.nz/resources-2/guides-and-how-tos/unlocking-language-barriers>

The guidance:

offers practical advice and information on translation processes

provides language data to support decision making around translations

investigates the media consumption habits of some of New Zealand's ethnic communities.

3. List of Greetings in Other Languages

Our Ministry is also now showcasing a List of Greetings in Other Languages on our website. This is a big step in our ongoing efforts to encourage understanding and connections between different communities.

These spoken greetings can be used to connect with ethnic communities and support initiatives for inclusivity in Aotearoa New Zealand. Please follow this link for more information: [Greetings in other languages | Ministry for Ethnic Communities](#)

Ministry of Education

- Currently working on updating contact lists for all school principals.

Round the Districts

- **Waitaki-**
 - Exercise successful held late last year with Welfare Function being proactive in the event.
 - Building relationships with communities and groups
 - A number of projects underway
 - Ewen Graham has left Emergency Management Otago and the Emergency Management Advisor position has been advertised.
- **Dunedin**
 - Building relationships with Communities, community groups and other agencies such as MSD
- **Clutha**
 - Working Pacifica communities
- **Central Otago**
 - Training booked in both Alexandra and Cromwell for our Welfare team.
- **Queenstown**
 - Training Emergency Operation Centre team
 - Engaging with Community Response Groups

General Discussion

- None

Next Meetings:

- Thursday 2 May 2024 WCG
- Thursday 1 August 2024 WCG
- Thursday 7 November 2024 Otago Welfare Forum

Closing Karakia

Paul Allen

MEETING CLOSED: 11:05

4.4 Stakeholder Engagement Update

Prepared For: Otago CDEM Group Joint Committee

Activity: Stakeholder Engagement

Author: Erica Andrews

Date: 14th March 2024

PURPOSE

This report is to inform JC of public education and engagement activities undertaken from July to January and advise of upcoming activities from September to February.

RECOMMENDATION

That the Otago CDEM Group Joint Committee:

Receives this report.

EXECUTIVE SUMMARY

Public education, engagement, collaboration and communication with our partner agencies, stakeholders and communities form an important part of the work that Emergency Management Otago delivers to support the preparedness of individuals, communities, and businesses.

DISCUSSION

Recent activity by District July – January 2024

District	Activity
Waitaki	<ul style="list-style-type: none">• Clued Up Kids• Grey Power presentation• Network Waitaki meeting• Neighbourhood Support meeting• Long Service Awards• Oamaru Pasifika Group presentation• Hampden Community Energy Inc. presentation• Aged Residential Care workshop
Dunedin City	<ul style="list-style-type: none">• Otago Taieri A & P show• Brighton Gala Day• Mosgiel Boys Brigade EOC visit• Trinity College EOC visit x 4• Mosgiel Scout Group talk• Mornington Scout Group EOC visit• AREC branch members Alt comms meeting• Little Citizens Lock Down Drill
Clutha	<ul style="list-style-type: none">• Balclutha Kindergarten meeting• FENZ meeting re fire risk• Telford Polytech meeting
Central Otago	<ul style="list-style-type: none">• Ranfurly 125th celebrations• Alexandra Community house presentation• Aurora Energy meeting re CODC Hubs• Fulton Hogan /Aspiring Highways/Waka Kotahi presentation• Atentis Sensor Mt Iron drop-in session• Tarras/Bendigo Loop residents meeting• Cromwell Neighbourhood Support meeting• Dunstan High School Interview

	<ul style="list-style-type: none"> • FENZ meeting re fire risk
Queenstown Lakes	<ul style="list-style-type: none"> • Food Resilience Summit Meeting • MPI & Central Otago Wine Growers Association meeting • Wanaka SAR meeting • Downer meeting • TORQUE meeting • Arthurs Point CRG information evening

Upcoming activity:

CODC - Clued up Kids 2nd May

Preparedness Survey

AskYourTeam has been selected as the provider of the platform for the EMO preparedness survey, to be undertaken in Q3. This platform allows EMOs to generate various surveys throughout the year, supports multiple channels, and creates online reporting and analytics.

The 2024 survey opens on 15th April, closing 3rd May. Promotional activities are planned for all districts and includes posters, bookmarks with QR Codes, newspaper advertising, online media activity and Apps advertising.

ShakeOut

Over 26,000 across Otago signed up and participated in Shakeout on 19 October. Emergency Management Advisors joined Council teams to drop, cover, and hold.

Resilient Otago radio series

The final episode of the Resilient Otago radio series aired at the end of November. Ten episodes were written and produced over the past year covering hazards, and personal & community preparedness. All recordings are available as podcasts and shared across our channels. Thanks to OARFM and the many participants for supporting this mahi.

Public Alerting Arrangements

Feedback has been received and operational alerting arrangements are now finalised. An Emergency Mobile Alert was sent out from the Group office to support the recent declaration at QLDC.

Otago Southland PIM forum

The 2023 PIM forum was held on November 16 at the Otago Museum. This year’s theme was “Enhancing Operational Capability”, and we were thrilled to have several SMEs presenting to the delegates.

56 people registered and attended with representatives from the below agencies and organisations joining us for the day:

- Dunedin City Council
- Central Otago District Council
- Clutha District Council
- Waitaki District Council
- Otago Regional Council
- Fire and Emergency NZ
- Aurora Energy

- Kainga Ora
- Otago University
- Emergency Management Otago
- Enterprise Dunedin
- Environment Canterbury
- Environment Southland
- NEMA
- National Public Health Service
- Southland Rural Support Trust
- Waka Kotahi
- Ministry of Social Development
- Southroads

Welcome address	Gretchen Robertson, EMO Joint Committee Chair
(In) Accessible information when people need it the most	Jaime Campbell Briony Tustanowski Ministry of Social Development
Geospatial intelligence for PIM	Jo Paterson, AF8 Gareth Andrews Otago Regional Council Ingrid Darragh Otago Regional Council
Old-school PIM in a digital world	Lisa Glass, Bay of Plenty CDEM
Wellbeing in the world of PIM	Rachel Thornton, Emergency Management Canterbury
Media Stand-ups	Rachel Kelleher Auckland EM Controller
Web response tools	Pete Lister Effect.
Working with media	Jo Galer, Otago Regional Council Simon Hartley, Otago Regional Council
Together we can achieve more	Regional Public Service Team

CONSIDERATIONS

Strategic Framework and Policy Considerations

National Disaster Resilience Strategy, Otago Group Plan, EM Otago Annual Plan, and the Community Resilience Strategy drive these activities.

Financial Considerations

N/A

Significance and Engagement

Engagement with stakeholders, communities, individuals, businesses, and other organisations is ongoing to support building resilience communities.

Legislative and Risk Considerations
N/A

Climate Change Considerations
N/A

Communication Considerations
N/A

ATTACHMENTS
N/A

4.5 Training and Capability Update

Prepared For: Otago CDEM Joint Committee

Author: John Mawhinney

Date: 14th March 2024

PURPOSE

This paper outlines the training and capability status of CDEM Otago for the first two quarters of the 2023-24 financial year. It also includes training undertaken up to the start of February 2024.

EXECUTIVE SUMMARY

Training for the year is underway. We are about to deliver the 'CIMS Basic' course that we have designed. This is a new course that will give ECC & EOC team members a foundation understanding of the Coordinated Incident Management System. The course is one of three introductory courses that make up our Foundation training trifecta. These are ITF Foundation, D4H Intro & CIMS Basic. Once a new team member has completed the three courses, they are then signed off to be able to attend the ECC/EOC in response.

Emergency Management advisors have been creating annual training calendars in line with the new Training & Capability strategy and training pathway guidelines. This will increase the frequency and consistency of training for ECC/EOC staff in short sharp bite-size chunks that are more manageable for staff and their other BAU commitments.

Auditing and updating of the ECC staffing data in the D4H dashboard is about to begin. This is to ensure that the data we have on the ECC team is accurate for response and reporting purposes. A review of the setup and layout of the ECC D4H dashboard will also be undertaken to better align it with our Training Strategy and pathway. A similar process will occur with the D4H dashboards of the other five Otago TAs.

The first of three concentrated training weeks this year, with Gerard Moore from Moorebrook Consulting, occurs in the middle of March. Four of the five days will be running a range of CIMS-based courses for ECC/EOC staff from across the Otago region. One day is dedicated to Facilitator training with the Emergency Management Otago staff. The focus of this year's training is further developing the skills of Emergency Management Otago staff.

The chart below shows staffing levels across the region. This represents the minimum level of training required to be signed off as an EOC/ECC team member.

RECOMMENDATION

That the Otago CDEM Group Joint Committee:

Receives this report.

Notes the current training capability of the respective councils in Otago.

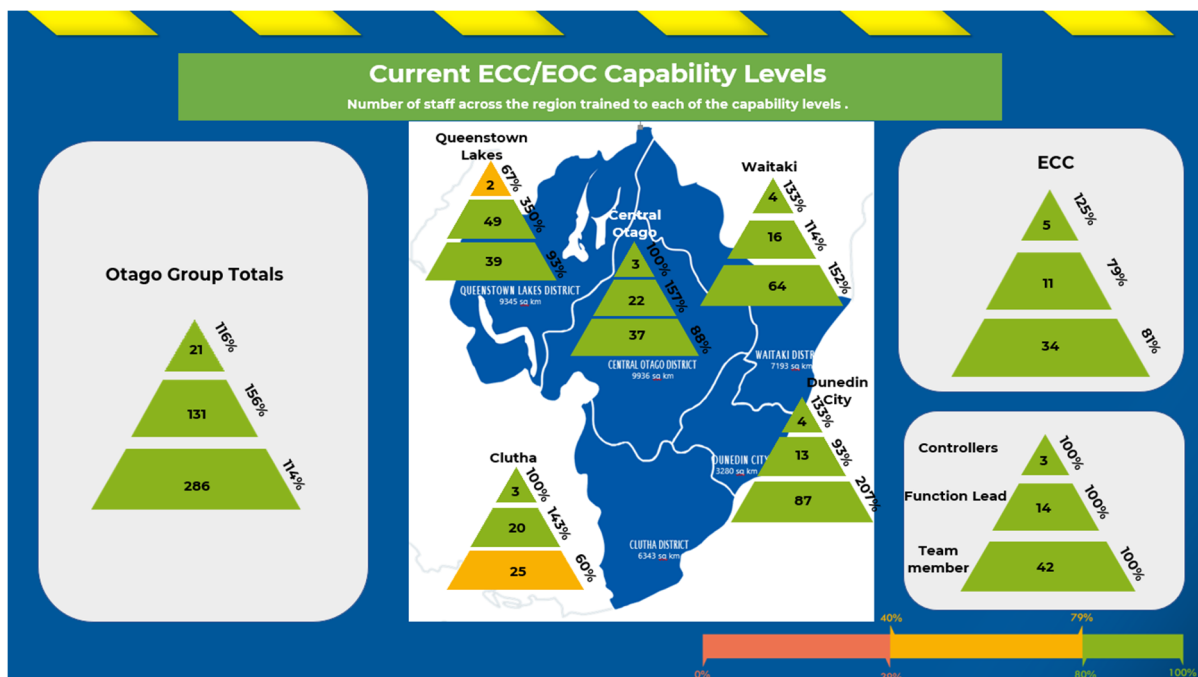
Training Overview

Key:

Foundation Skills Training = ITF (Integrated Training Framework), D4H

Function Skills Training = Function Specific, CIMS, IMT (Incident Management Team), EOC Exercise

	TOGF#		FRGF#		EGF#		GFF#		JHFF#		ZGF#	
	#	%	#	%	#	%	#	%	#	%	#	%
ITF Training	8	64	4	9	7	53	4	43	<	66	49	88
Function Skills Training	49	8	<	8	9	44	8	76	55	438	;	99



Strategic Framework and Policy Considerations

No matters arising.

Financial Considerations

No matters arising.

Significance and Engagement

No matters are arising from this plan.

Legislative and Risk Considerations

No matters arising.

Climate Change Considerations

No matters arising.

Communication Considerations

No matters arising.

4.6 Finance Update

Prepared For: Otago CDEM Group Joint Committee

Activity: Finance Update

Author: Matt Alley

Date: 14th March 2024

PURPOSE

This paper provides an update on financial activity as it relates to the Otago CDEM Group.

EXECUTIVE SUMMARY

Income for the year to date has largely tracked as expected with a slight variance of -\$11,395.65.

Expenditure is tracking as expected across direct operational costs.

District support budgets are generally tracking under expected levels largely due to current vacancies.

Finance (July 23– January 24)

		FY Budget	Actual (YTD)	Budget (YTD)	Variance
Income	Targeted Rate	3,336,000.00	1,957,395.65	1,946,000.00	(11,395.65)
	Ace Fund		35,000		
	Total	3,336,000.00	1,992,395.65	1,946,000.00	(46,395.65)
Expenditure	Operations		163,882	171,122	-7,240
	Public Education		3,746	20,416	-16,670
	AF8		12,553	11,669	884
	Forums		7,217	8,750	-1,533
	Community RP's		14,542	8,750	5,795
	Training		9,988	11,669	-1,681
	ORC Staff Training		5,372	-	5,372
	Group Activity		842,735	739,990	102,745
	CDC Support		123,357	138,856	-15,499
	CODC Support		205,736	214,514	-8,778
	DCC Support		211,601	253,110	-41,509
	QLDC Support		286,637	321,774	-35,137
	WDC Support		123,717	148,998	-25,281
	National Support		648	-	-648
	Total		2,011,733	2,049,621	37,888
	Reserve	127,261			

Finance (Direct Costs) 23/24 Budget

	Category	Activity	Budget	Actual (YTD)	Total
Expenditure	Operations	D4H Platform	65,000.00	37,954	203,719
		Repeater Network	27,300	15,973	
		Radio Leases	10,886	6,351	
		ECC IT	16,000	9,181	
		GIS Licencing	2,386	2,800	
		Website Upgrade	35,000	5,670	
		Carpark Leases DCC	4308	2,340	
		Uniforms / PPE	6,000	4,215	
		Starlink x 3	6120	1,777	
		Collateral	15,000	-	
		Gets Ready	15,000	5,635	
		OAR Radio	719	-	
	Public Education	BCP Roadshow	15,000	-	35,000
		Annual Survey	20,000	14,750	
		Clued up Kids		2,540	
	Training	Staff Development	20,000	1,001	20,000
	Forums	Lifelines, WCG & PIM	15,000	7,217	15,000
	Community RP's	Design & Print	15,000	14,452	15,000
	Mana Whenua Support	EM Project	88,176	-	88,176
	AF8	Project Contribution	20,000	12,553	20,000
	Total		396,895	144,409	396,895

CONSIDERATIONS

Strategic Framework and Policy Considerations

No matters arising.

Financial Considerations

No matters arising.

Significance and Engagement

No matters arising.

Legislative and Risk Considerations

No matters arising.

Climate Change Considerations

No matters arising.

Communication Considerations

No matters arising.

4.7 Wildfire – Roles and Responsibilities

Prepared For: Otago CDEM Joint Committee

Activity: Wildfire Roles and Responsibilities

Author: Matt Alley, Group Manager – Emergency Management Otago

Jean-Luc Payan, Manager – Natural Hazards (ORC)

Ann Conroy, Team Leader – Natural Hazards (ORC)

Simon Robinson, Team Leader – Natural Hazards (ORC)

Date: 14th March 2024

PURPOSE

- [1] To inform the Otago CDEM Joint Committee of the Wildfire risk for Otago and to confirm roles and responsibilities for managing that risk.

EXECUTIVE SUMMARY

- [2] Wildfires are defined as unplanned and uncontrolled fires. The term includes grass fires, forest fires, and scrub fires be they human-caused or natural in origin¹.
- [3] Common effects of wildfires include loss of life and property, health impacts of smoke and fire, economic and ecosystem services losses, and contamination of water air and soil.
- [4] Wildfire is listed as a known hazard in the Otago Civil Defence and Emergency Management Group Plan. It is described as ‘Vegetation fires are an annual hazard across many areas of Otago. They most commonly occur in summer and autumn but are a potential risk at any time – particularly in the “Red Zones” around Queenstown Hill and Mt Iron in Wanaka, where a total fire ban is in place year-round. The drier areas of Central Otago and Strath Taieri are also at risk.’²
- [5] Recent international and national events have heightened community awareness of the threat of wildfire, and interest in how the risk is managed in Otago.
- [6] Based on the National Climate Change Risk Assessment³, on average, all climatological measures of wildfire risk will increase across New Zealand by the end of the century. The Otago Climate Change Risk Assessment⁴ (OCCRA) considered and described the fire weather and wildfire hazard on the five domains selected for the assessment: natural environment, built environment, economic, human and governance. OCCRA has highlighted that the risk of increased fire weather will increase over time for the natural environment, built environment and economic domains.
- [7] The management of wildfire across the 4Rs framework (Reduction, Readiness, Response and Recovery) is not clearly defined or contained in a single piece of legislation, but rather across a broad range of instruments, including, but not limited to; Civil Defence and Emergency Management Act 2002, National Plan Order 2015, Conservation Act 1987, Defence Act 1990, and the Resource Management Act 1991. Further, decisions made under other instruments, such as the Biosecurity Act 1993 and the National Policy Statement on Indigenous Biodiversity, play a part in risk management (e.g., control of wilding conifers).
- [8] Fire and Emergency New Zealand (FENZ), the Otago Civil Defence and Emergency Management (CDEM) Group, and the Department of Conservation and Local Authorities all have a role to play in

¹ New Zealand Wildfire Threat Analysis – workbook documentation for national rural fire authority, National Rural Fire Authority, November 2011

² Otago CDEM Group Plan 2018-2028

³ National Climate Change Risk Assessment for New Zealand – Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa: Technical report – Pūrongo whaihanga. Wellington: Ministry for the Environment, 2020.

⁴ Otago Climate Change Risk Assessment, prepared by Tonkin and Taylor for Otago Regional Council, March 2021 Safety and Resilience Committee - 8 February 2024

the Reduction, Readiness, Response and Recovery (4Rs) from the risk and occurrence of wildfire events.

- [9] The Fire and Emergency Act 2017 defines FENZ's main functions as lead Response agency for fire. What is not as clear are the roles and responsibilities across the Reduction, Readiness, and Recovery phases.
- [10] This report provides an overview of the wildfire risk for Otago and ORC's responsibilities for managing that risk. Given the complexity of the situation, this report recommends that ORC, through its membership of the Otago CDEM Group, promote discussion amongst the Group on current and future wildfire risk including member roles and responsibilities for managing that risk.

RECOMMENDATION

That the Otago CDEM Joint Committee:

Receives this report.

Requests that the Readiness and Response Committee define roles and responsibilities for Wildfire risk in Otago across Reduction, Readiness, Response and Recovery (4Rs), and furnish a report back to the Joint Committee that defines the above.

BACKGROUND

Wildfire hazard

- [11] Wildfires are defined as unplanned and uncontrolled fires. The term includes grass fires, forest fires and scrub fires be they human-caused or natural in origin.
- [12] Common effects of wildfires include loss of life and property, health impacts of smoke and fire, economic and ecosystem services losses, and contamination of water air and soil.
- [13] Wildfire hazard varies with weather conditions (e.g., wind, relative humidity, precipitation, temperature), amount and condition of fuel (e.g., dry/wet vegetation) and the physical environment (e.g., topography, presence of barriers).
- [14] FENZ utilise their website and social media feeds to inform the public about the wildfire risk and events. Emergency Management Otago supports and augments this both at times of heightened risk and response. Locally Councils also support via social media feeds and their websites. Wildfire hazard in the Otago area
- [15] Because of the different fire hazard conditions that exist in different parts of Otago, FENZ has divided the region into several different zones (Figure 1).⁵ The boundaries of these zones have been determined by their climatic features to allow for appropriate fire control measures to be applied locally. These zones are not linked to territorial authority boundaries (i.e., the Otago area defined by FENZ differs from the area administered by the Otago Regional Council).

⁵ Fire plan for local area – Otago, Te Kei, 25 November 2020

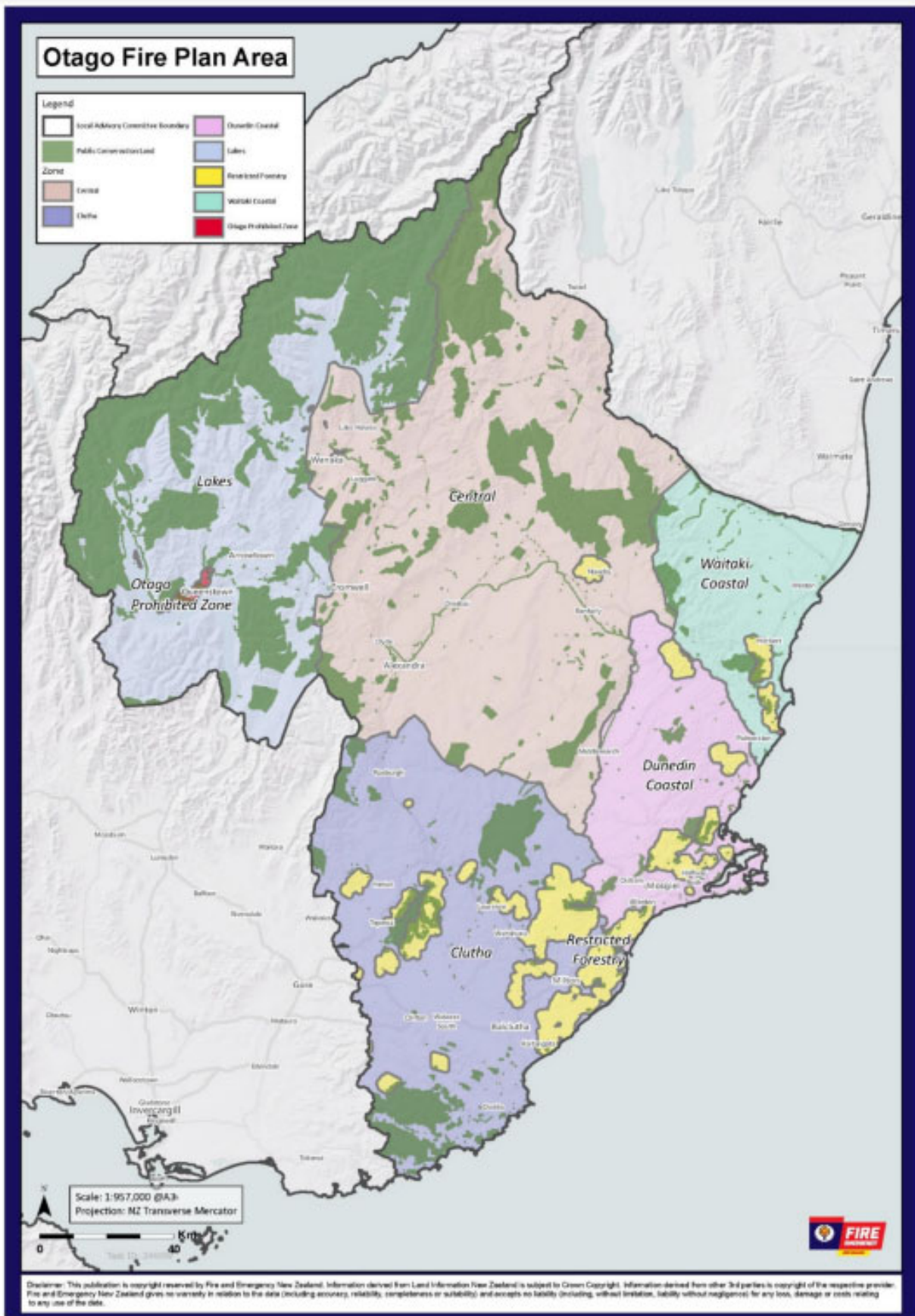


Figure 1. Otago Fire Plan Area showing the different zones defined by FENZ based on their climatic features.

[16] On average, the Otago area (as defined by FENZ) experiences 14.2 days⁶ of “very high” to “extreme”

⁶ Fire plan for Otago, Te Kei, 2021-2024, Fire and Emergency New Zealand, July 2021

fire danger⁷ with the following variabilities for each zone:

- Central zone: 34.8 days
- Clutha zone: < 1 day
- Coastal zone (Dunedin Coastal and Waitaki Coastal): 6.4 days
- Lakes zone: 11.7 days

[17] Wildfires in the Otago area are not infrequent and are triggered by a variety of causes (Table 1)

⁷ The fire danger rating is provided by FENZ. It is calculated using a combination of four weather variables (wind speed, relative humidity, temperature and 24-hour rainfall), and a description of fuel moisture and fire behaviour. This rating system has five categories: Low, Moderate, High, Very High and Extreme. The two highest categories “Very High” or “Extreme” represent a significant risk for large wildfire outbreaks that may require considerable control efforts (Fire Risk Assessment, NIWA, 2017)

Table 1. Known fire in recent history (until 2020) for the Otago area (from Fire plan for Otago, Te Kei, 2021-2024, Fire and Emergency New Zealand, July 2021)

Year	Fire	Cause
1999	Alexandra/Fruitlands	Powerlines
2005	Closeburn; 150 ha	Fireworks
2006	Remarkables; 600 ha	Escaped prescribed burn
2010	Mount Allan; 800 ha	Forestry operations - Chainsaw
2012	Berwick forest; 30 ha	Powerlines
2014	Northburn	Prescribed burn, Fatality
2014	Wilson's Bay; 3 ha	Powerlines
2015	Aurum Terrace	Campfire – Red Zone
2015	Stoneburn; 100 ha	Powerlines
2015	Waitaki rail fires	Train
2016	Waitaki Island; 72 ha	Suspicious
2017	Rat Point; 300 ha	Campfire
2018	Burnside industrial fire	Incorrect Disposal of ashes
2018	Mount Aspiring- Wanaka Road; 191 ha	Disposal of embers from BBQ
2019	Cornish Point	Explosives
2019	Dunback; 10 ha	Powerlines
2019	Duntroon; 10 ha	Escaped unpermitted burn
2019	Flagstaff	Suspicious
2019	Mount Pisa	Escaped prescribed burn - Unpermitted
2019	Mountain Track Road; 30 ha	Escaped burn
2019	Old Dunstan Road (Te Papanui) – 5400 ha	Suspicious
2019	Skippers	Unattended burn pile
2019	Waipiata	Dry lightning
2020	Ben Lomond – 1000 ha	Escaped prescribed burn
2020	Gold Bar Road; 100 ha	Escaped burn
2020	Hyde-Middlemarch; 80 ha	Camp cooker
2020	Lake Ohau; 5000 ha	Under Investigation
2020	McKenzie Road (Livingstone); 620 ha	Powerlines
2020	Pringle Gully Road; 10 ha	Escaped unpermitted burn
2020	Waipori Falls	Powerlines

[18] Figure 2 and Figure 3 summarise the number of wildfires and area burnt during the 2019/20 and 2020/21 wildfire seasons (October to April, most recent seasons reported on). This is the most up-to-date information available.

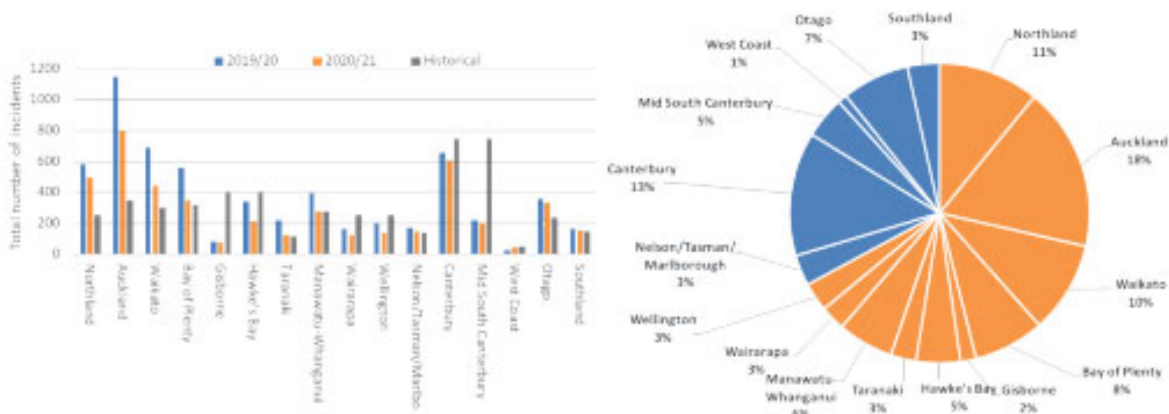


Figure 2. Total number of wildfires by area, for the 2019/20 and 2020/21 wildfire seasons and the 30-year historical average (left); proportionally for 2020/21 season (right), where blue represents the South Island and orange the North Island (from New Zealand Wildfire Summary, 2020/21 Wildfire Season update, SCION)

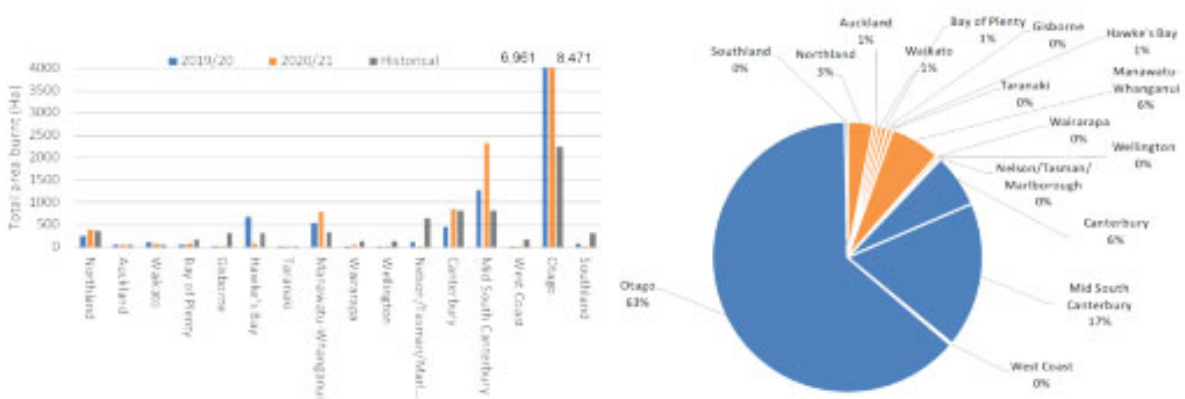


Figure 3. Total area burnt by area, for the 2019/20 and 2020/21 wildfire seasons and the 30-year historical average (left); proportionally for 2020/21 season (right), where blue represents the South Island and orange the North Island (from New Zealand Wildfire Summary, 2020/21 Wildfire Season update, SCION)

- [19] During the 2020/21 wildfire season, the Otago area (as defined by FENZ) accounted for 7% of the total number of wildfires in the country and 63% of the total area burnt. The figures for Otago are heavily influenced by the Lake Ohau Village wildfire (October 2020, 5000 ha burnt). The Lake Ohau area is included in the Otago area as defined by FENZ. Mid-South Canterbury and Otago areas experienced the greatest area burnt in the country in 2020/21, mainly due to very large individual wildfire events occurring in each of these areas.
- [20] Table 2 summarises the number of wildfires and area burnt during the 2019/20 and 2020/21 wildfire seasons for each zone within the Otago area.

Table 2. Total number of wildfires and area burnt in the Otago area by district for the 2019/20 and 2020/21 wildfire seasons (from New Zealand Wildfire Summary, 2020/21 Wildfire Season update, SCION)

Zones	2019/20	2020/21	2019/20	2020/21
	Number of fires	Number of fires	Area burnt (ha)	Area burnt (ha)
Central Otago District	66	52	202	24
Clutha District	43	50	37	88
Dunedin City	120	110	5,162	285
Queenstown-Lakes District	47	52	1,331	790
Waitaki District	85	67	229	7,285
<i>Otago (total) *</i>	<i>361</i>	<i>331</i>	<i>6,961</i>	<i>8,472</i>

* On average, Otago experiences approximately 240 wildfires annually, and a total area burnt of approx. 2,240 ha (based on 30 years of historical records, 1991/92 – 2020/21).

Consequence of wildfires in the Otago area

[21] Land use for meat or wool production, conservation land and land use for dairy experienced the greatest impact by wildfires during the 2020/21 wildfire seasons (Table 3).

Table 3. Area burnt by land use category in the Otago area (from New Zealand Wildfire Summary, 2020/21 Wildfire Season update, SCION)

Fire season	Dairy Area (Ha)	Arable Area (Ha)	Meat/Wool Area (Ha)	Forestry Area (Ha)	Horticulture Area (Ha)	Conservation Area (Ha)	Others Area (Ha)
2019/20	74	2	615	50	1	5,192	1,027
2020/21	1,264	0	4,471	213	0	2,247	277

- [22] Urban/rural interfaces are areas where homes and other structures are near forest, bush, scrub or grasslands. Properties in these areas are at greater risk of wildfire due to the increased presence of nearby vegetation.
- [23] FENZ has identified special risk locations within the Otago area where fires in these areas in moderate or higher fire conditions will exhibit very high fire intensity and will threaten lives, homes and important conservation and investment values⁸, including but not limited to:
- Mount Iron (high-risk rural/urban interface)
 - Queenstown Red Zone (high-risk rural/urban interface)
 - Albert Town Recreation Reserve (high-risk rural/urban interface)
 - Shag Point (high-risk rural/urban interface)
 - Ruby Island (high-value conservation areas)
 - Stevensons Island (high-value conservation areas)
 - Mou Waho (high value conservation areas)
 - Mou Tapu Island (high value conservation areas)
 - Pig and Pigeon Island (high value conservation areas)
 - Coronet Forest (high value forest)
- [24] The Regional Wilding Conifer Control Cost Benefit Analysis commissioned by ORC considered the costs and benefits of reduced wildfire risk and hazard for Otago, including potential effects of future climate change⁹. The benefits from reduced fire risk are estimated to be \$83.5M under the maximum

⁸ Fire plan for Otago, Te Kei, 2021-2024, Fire and Emergency New Zealand, July 2021

⁹ Regional Wilding Conifer Costs Benefit Analysis and Business Case, Report to Environmental Implementation Committee, Report No. OPS2226, 8 November 2023.

investment option¹⁰. Future climate change accounts for half of the avoided fire risk costs.

Change in the wildfire risk in the Otago area Climate change effects

- [25] Based on the National Climate Change Risk Assessment¹¹, on average, all climatological measures of wildfire risk will increase across New Zealand to the end of the century. The four main drivers of wildfire are all expected to change to promote an increase in wildfire risk:
- increased temperature
 - decreased relative humidity
 - increased wind speed
 - decreased rainfall
- [26] Recent research¹² is indicating that, “on average fire risk will increase, both in season length of fire weather conditions and the intensity of fires that may take hold, until at least mid-century, regardless of climate mitigation efforts. The highest fire dangers have been found in the seasonally drought-prone and arid locations of Aotearoa New Zealand. For many regions, it was found that compared to the last two decades the fire risk is expected to become appreciably worse through the rest of the century. For the first time, it has been predicted that conditions that led to the devastating ‘Black-Summer’ fires in Australia will occur every 3-20 years in areas of the Mackenzie Country, Central Otago and Marlborough”.
- [27] The Otago Climate Change Risk Assessment¹³ (OCCRA) considered and described the fire weather and wildfire hazard on the five domains selected for the assessment: natural environment, built environment, economic, human and governance. The rating of the risk is presented in the tables below.

¹⁰ 0 Benefits and Costs of Additional Investment in Wilding Conifer Control in the Otago Region, Sapere, Prepared for Boffa Miskell on behalf of Otago Regional Council, 12 October 2023.

¹¹ National Climate Change Risk Assessment for New Zealand – Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa: Technical report – Pūrongo whaihanga. Wellington: Ministry for the Environment, 2020

¹² Adapting and mitigating wildfire risk due to climate change: extending knowledge and best practice, SCION, July 2021

¹³ Otago Climate Change Risk Assessment, Prepared by Tonkin and Taylor for Otago Regional Council, March 2021

Table 4. Risk rating or description for the selected domains (built environment, economic, natural environment, human and governance) as assessed by the Otago Climate Change Risk Assessment. Fire weather risks are shown in blue boxes. The fire weather risk was not rated for the human and governance domain.

Risks	Risk Rating* (highest per category)		
	Present	2040	2090
B1 Risk to buildings and open spaces from climate change hazards including inland and coastal flooding, coastal erosion, and sea level rise and salinity stress	H	E	E
B2 Risk to flood management schemes from inland and coastal flooding, and sea level rise and salinity stress	M	E	E
B3 Risk to water supply infrastructure and irrigation systems due to drought, fire weather, flooding and sea level rise and salinity stress	H	E	E
B4 Risk to stormwater and wastewater networks from increased temperature, sea level rise and salinity stress, extreme weather events and flooding	H	H	E
B5 Risks to linear transport (roads and rail) from flooding, coastal erosion, extreme weather events and landslides	M	E	E
B6 Risk to airports and ports from flooding and extreme weather events	M	E	E
B7 Risk to solid waste (landfills and contaminated sites) to flooding and sea level rise and salinity stress	M	E	E
B8 Risks to electricity (generation, transmission and distribution) networks from changes in rainfall, extreme weather events and flooding	M	H	E
B9 Risks to telecommunications infrastructure due to sea level rise and salinity stress and extreme weather events	L	M	H

*Highest risk rating per category and hazard relationship highlighted (L=low, M=medium, H=high, E= extreme). Refer to individual risk discussions for detailed, hazard specific ratings.

Built environment domain

Risk No.	Risk statement	Exposure			Vulnerability				Risk		
		Present	2040	2090	Sensitivity			Adaptive Capacity	Present	2040	2090
					Present	2040	2090				
B3.1	Risk to municipal water supply due to drought.	M	H	E	H	H	H	L	H	E	E
B3.2	Risk to municipal water supply due to inland flooding.	M	H	E	M	M	H	L	M	H	E
B3.3	Risk to municipal water supply due to sea level rise and salinity stress.	L	M	H	M	M	M	L	L	M	H
B3.4	Risk to rural water supply due to drought.	M	H	E	M	M	M	L	M	H	E
B3.5	Risk to rural water supply due to increased fire weather.	L	M	H	L	H	H	L	L	H	E
B3.6	Risk to irrigation systems due to drought.	M	H	H	M	M	H	M	M	M	H

Built environment domain

Risk No.	Risk statement	Exposure			Vulnerability				Risk		
		Present	2040	2090	Sensitivity			Adaptive Capacity	Present	2040	2090
					Present	2040	2090				
B8.1	Risk to generation due to change in rainfall.	L	M	H	L	L	M	L	L	M	H
B8.2	Risk to generation due to reduced snow and ice.	L	M	M	L	L	M	L	L	M	M
B8.3	Risk to distribution due to increased fire weather.	M	H	E	H	H	H	M	M	H	E
B8.4	Risk to distribution due to coastal flooding.	L	M	H	H	H	H	M	L	M	H
B8.5	Risk to distribution due to inland flooding.	L	M	H	H	H	H	M	L	M	H
B8.6	Risk to distribution due to extreme weather events.	L	M	H	H	H	H	M	L	M	H

Built environment domain

Risk No.	Risk statement	Exposure			Vulnerability				Risk		
					Sensitivity			Adaptive Capacity			
		Present	2040	2090	Present	2040	2090	Constant	Present	2040	2090
B9.1	Risk to telco assets due to extreme weather events.	L	M	H	M	M	M	H	L	L	M
B9.2	Risk to telco assets due to increased fire weather.	L	M	H	H	H	H	M	L	M	H
B9.3	Risk to telco assets due to sea level rise and salinity stress.	L	M	H	M	M	M	H	L	L	M
B9.4	Risk to telco assets due to inland flooding.	L	M	H	L	L	L	H	L	L	M

Built environment domain

Risks	Risk Rating* (highest per category)		
	Present	2040	2090
E1 Risks to the livestock farming sector from climate change hazards including drought, increased fire weather, inland flooding, and increased landslides	M	H	E
E2 Risks to horticulture and viticulture from climate change hazards including temperature, drought, changing rainfall patterns and extreme weather	M	H	E
E3 Risks to the forestry sector from climate change hazards including temperature, drought, fire and extreme weather	L	M	E
E4 Risks to the fisheries and aquaculture sector from climate change hazards including marine water temperature and water quality	L	M	E
E5 Risks to primary sector supply chains from climate change hazards including inland flooding, coastal flooding and increased landslides	M	H	E
E6 Risks to cost of doing business from climate change hazards including coastal and inland flooding, landslides, and extreme events	M	H	E
E7 Risks to the tourism sector from climate change hazards including higher temperatures, reduced snow and ice, inland and coastal flooding, landslides and erosion	M	H	E

* Highest risk rating per category and hazard relationship highlighted (L=low, M=medium, H=high, E= extreme). Refer to individual risk discussions for detailed, hazard specific ratings.

Economic domain

Risk No.	Risk statement	Exposure			Vulnerability				Risk		
					Sensitivity			Adaptive Capacity			
		Present	2040	2090	Present	2040	2090	Constant	Present	2040	2090
E1.1	Risk to sheep, beef and deer farming due to drought.	M	M	H	M	H	H	L	M	H	E
E1.2	Risk to sheep, beef and deer farming due to increased fire weather.	L	M	M	M	H	E	M	L	M	H
E1.3	Risk to sheep, beef and deer farming due to inland flooding.	M	H	H	M	M	H	M	M	M	H
E1.4	Risk to sheep, beef and deer farming due to increasing landslides and soil erosion.	M	H	E	M	H	H	M	M	H	E
E1.5	Risk to sheep, beef and deer farming due to higher temperature.	L	M	H	L	L	M	M	L	L	M
E1.6	Risk to dairy farming due to drought.	L	M	H	M	M	H	L	L	M	E
E1.7	Risk to dairy farming due to inland flooding.	M	H	E	M	M	H	L	M	H	E
E1.8	Risk to dairy farming due to increasing landslides and soil erosion.	L	M	H	L	M	H	M	L	M	H
E1.9	Risk to dairy farming due to higher temperature.	L	M	H	L	L	M	M	L	L	M

Economic domain

Risk No.	Risk statement	Exposure			Vulnerability				Risk		
					Sensitivity			Adaptive Capacity			
		Present	2040	2090	Present	2040	2090		Constant	Present	2040
E3.1	Risk to forestry due to higher temperature.	L	M	H	L	M	M	M	L	M	M
E3.2	Risk to forestry due to drought.	M	H	E	L	M	H	M	L	M	E
E3.3	Risk to forestry due to increased fire weather.	L	M	M	M	H	E	M	L	M	H
E3.4	Risk to forestry due to extreme weather events.	L	M	H	M	M	H	M	L	M	H

Economic domain

Risks	Risk Rating* (highest per category)		
	Present	2040	2090
N1 Risks to the terrestrial ecosystems from increasing temperatures, changes in rainfall and reduced snow and ice.	H	E	E
N2 Risks to the freshwater (rivers and lakes) ecosystems from increasing temperatures and extreme weather events.	M	H	E
N3 Risks to the coastal and marine ecosystems from climate change hazards including ocean acidification and marine heatwaves.	L	H	E
N4 Risks to coastal, inland and alpine wetland ecosystems from drought, higher temperatures, changes in rainfall and reduced snow and ice.	H	E	E
N5 Risks to Otago water quality and quantity from changes in rainfall, higher temperatures, flooding, drought and reduced snow and ice.	M	E	E
N6 Risks to native ecosystems posed by increasing threats from invasive plants, pests and disease due to climate change.	M	M	E

*Individual risk rating per category and hazard relationship highlighted. Refer individual risk discussions for detailed ratings.

Natural environment domain

Risk No.	Risk statement	Exposure			Vulnerability				Risk		
					Sensitivity			Adaptive Capacity			
		Present	2040	2090	Present	2040	2090		Constant	Present	2040
N1.1	Risk to native ecosystems and species due to higher temperature.	L	M	H	L	H	E	M	L	M	E
N1.2	Risk to native ecosystems and species due to change in rainfall.	L	M	H	L	H	H	M	L	M	H
N1.3	Risk to native ecosystems and species due to drought.	M	M	H	L	M	H	M	L	M	H
N1.4	Risk to native ecosystems and species due to increased fire weather.	L	M	M	L	M	H	L	L	M	H
N1.5	Risk to montane and hill country environments due to drought.	M	M	H	L	M	H	M	L	M	H
N1.6	Risk to montane and hill country environments due to increased fire weather.	L	M	H	L	M	H	M	L	M	H
N1.7	Risk to montane and hill country environments due to change in rainfall.	L	M	H	L	M	M	M	L	M	M
N1.8	Risk to alpine and high country environments due to reduced snow and ice.	M	H	E	M	H	E	L	M	E	E
N1.9	Risk to alpine and high country environments due to extreme weather events.	L	M	H	L	L	M	L	L	M	H
N1.10	Risk to alpine and high country environments due to higher temperature.	M	H	E	M	H	E	L	M	E	E
N1.11	Risk to alpine and high country environments due to change in rainfall.	M	H	E	H	E	E	L	H	E	E

Natural environment domain

Risks	
H1	Risks to Kāi Tahu sites, identity and practices, and non-Kāi Tahu cultural heritage sites, due to climate change.
H2	Risks to community cohesion and resilience from climate change.
H3	Risk to mental wellbeing and health from climate change.
H4	Risk to physical health due to climate change.
H5	Risk to increased inequities and cost of living due to climate change.

Human domain

Risks	Local vs central government influence	
G1	Risk that existing planning, decision making, and legislative frameworks are inadequate for responding to long-term climate change risks and result in maladaptive responses, and potential liability.	Combination of local and central influence.
G2	Risk of local authorities lacking capacity to effectively respond to climate change.	Local direct influence.
G3	Risk that the national, regional and local governance/institutional structures for managing climate change are inadequate.	Combination of local and central influence.
G4	Risk that a low level of community awareness and engagement hinders communication of climate risk and uncertainty, and leads to de-prioritisation.	Local direct influence.
G5	Risk that climate change will result in increasing damage costs, with insufficient financing for adaptation and risk reduction.	Combination of local and central influence.
G6	Risk that public services will be impacted by climate change.	Combination of local and central influence.

Governance domain

- [28] For the built environment domain, the risk due to increased fire weather to the rural water supply, electricity distribution and telecommunication assets has been identified in the OCCRA. The risk is rated as high for the mid-century and extreme for the end-of-century time horizons for the rural water supply and electricity distribution. It is rated as medium for the mid-century and high for the end-of-century time horizons for the telecommunication asset.
- [29] For the economic domain, the risk due to increased fire weather to sheep, beef and deer farming, and forestry has been identified in the OCCRA. The risk is rated as medium for the mid-century and high for the end-of-century time horizons for both elements at risk.
- [30] For the natural environment domain, the risk due to increased fire weather to native ecosystems and species and to montane and hill country environments has been identified in the OCCRA. The risk is rated as medium for the mid-century and high for the end-of-century time horizons for the native ecosystems and species. It is rated as medium for both time horizons for the montane and hill country environments. Safety and Resilience Committee - 8 February 2024
- [31] The risk specific to increased fire weather has not been rated for the human and governance domains. The risk is qualitatively described and has been incorporated in wider elements at risk. For example, for the human domain, the risk of being injured by fire is described under the risk to

physical health due to climate change element (risk H4 in the table above).

- [32] OCCRA has also identified research gaps around wildfire, the impact of climate change on wildfire and factors specific to Otago.

Land use change effects

- [33] Wildfires on the margins of urban areas in New Zealand are becoming more common¹⁴. Land use at the rural/urban interface is changing as subdivisions are developed. This is increasing the number of people and homes in the rural/urban interface, increasing the risk of wildfires starting, and increasing the risk of fires spreading into suburban areas. In Otago, this is the case for example for the Mount Iron area near Wānaka.
- [34] Managing the wildfire risk in those areas requires more focus from the relevant organisations.

DISCUSSION

- [35] New Zealand's approach to emergency management (including the management of the wildfire risk) is based on four activities: reduction, readiness, response, and recovery (the '4Rs'¹⁵).
- [36] Reduction aims at Identifying and analysing long-term risks to human life and property from hazards; taking steps to eliminate these risks if practicable, and, if not, reducing the magnitude of their impact and the likelihood of their occurring.
- [37] Readiness aims at developing operational systems and capabilities before a civil defence emergency occurs, including self-help and response programmes for the public, and specific programmes for emergency services, lifeline utilities and other agencies.
- [38] The response is the series of actions taken immediately before, during or directly after a civil defence emergency to protect and preserve lives, prevent, or limit injury, reduce damage to land or property, and to help people and communities begin recovery.
- [39] Recovery is the coordinated efforts and processes to bring about the immediate, medium-term, and long-term holistic regeneration of a community following a civil defence emergency.
- [40] By its nature, the management of the wildfire risk within the full range of the "4Rs" requires multiple agencies to be involved with varying levels of responsibilities, either mandatory or discretionary.
- [41] The management of wildfire across the 4Rs framework is not clearly defined or contained in a single piece of legislation, but rather across a broad range of instruments, including, but not limited to; Civil Defence and Emergency Management Act 2002, National Plan Order 2015, Conservation Act 1987, Defence Act 1990, and the Resource Management Act 1991. Further, decisions made under other instruments, such as the Biosecurity Act 1993 and the National Policy Statement on Indigenous Biodiversity, play a part in risk management (e.g., control of wilding conifers).
- [42] FENZ is, under current legislation, the principal agency responsible for managing wildfire risk throughout New Zealand. Under the Fire and Emergency New Zealand Act, FENZ is the body with responsibility for managing the prevention and suppression of wildfires. However, other organisations, such as the Otago Civil Defence and Emergency Management (CDEM) Group, the Department of Conservation and local authorities all have a role to play in the '4Rs' from the risk and occurrence of wildfire events.

Otago Councils

- [43] As landowners or occupiers and asset owners, Otago Councils have liabilities and obligations to consider the fire hazard under different legislation. This is also applicable when conducting work operationally (e.g., using vehicles and engaging contractors to use machinery).
- [44] Councils, however, do not have any powers or obligations under the FENZ Act (unless served by FENZ

¹⁴ Preparing homeowners and communities in the rural-urban interface for increasing wildfire risk, SCION June 2021 https://www.ruralfireresearch.co.nz/_data/assets/pdf_file/0004/78664/RFR_tech_note_45.pdf

¹⁵ <https://www.civildefence.govt.nz/cdem-sector/the-4rs>

with a notice to cut firebreak or remove fire hazard, refer to the previous paragraph).

- [45] Fire is included in the definition of natural hazards in the Resource Management Act¹⁶ (RMA): “natural hazard means any atmospheric or earth or water-related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment”.
- [46] The RMA makes the management of significant risks from natural hazards a matter of national importance and requires regard to be given to the effects of climate change. It places high value on natural resources which can be adversely affected by wildfire, including natural character, natural features and landscapes, indigenous biodiversity, historic heritage and the relationship of Māori, their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.
- [47] There are no directly applicable national planning instruments related to wildfires. Consultation on the Proposed National Policy Statement for Natural Hazards Decision Making (NPS-NHD) did not make express reference to wildfire. Still, it did seek feedback on which natural hazards should be in the scope of the proposed NPS-NHD¹⁷.
- [48] At a regional level, the partially operative Otago Regional Policy Statement (RPS) 2019 and the proposed Otago Regional Policy Statement 2021 (as notified) cover natural hazards and climate change and share the same definition of natural hazards as the RMA. The proposed RPS mentions the potential effect of climate change on wildfires. The Hazards and Risks section contains policies and methods related to natural hazards (including wildfire) but does not have specific policies or methods for wildfire.
- [49] Section 35 of the RMA (Duty to gather information, monitor, and keep records) requires that every local authority shall keep reasonably available at its principal office, information which is relevant to the administration of policy statements and plans, the monitoring of resource consents, and current issues relating to the environment of the area, to enable the public—
(a) to be better informed of their duties and the functions, powers, and duties of the local authority; and
(b) to participate effectively under this Act.
- [50] More specifically for natural hazards information, the RMA requires that the information to be kept by a local authority shall include records of natural hazards to the extent that the local authority considers appropriate for the effective discharge of its functions.
- [51] To fulfil this RMA requirement, since 2011, ORC has made natural hazard information easily accessible to the public through the Otago Natural Hazards Database¹⁸. The database does not presently include information on wildfire hazards.
- [52] ORC is undertaking a natural hazard risk assessment work programme, designed as a review and high-level assessment of natural hazard risks for the full Otago region¹⁹. The purpose of the natural hazards risk assessment is to work towards a comprehensive, regional-scale, spatial understanding of Otago’s natural hazards and risks. The wildfire risk was not included in the first iteration of the risk assessment as the assessment has focused on the more significant hazards. It will be added to the next iteration of the assessment which is presently underway.
- [53] Long-term and annual plans (as defined in the Local Government Act 2002) can, but are not required,

¹⁶ Resource Management Act, version as at 24 August 2023 – Part 1 Interpretation and application

¹⁷ Ministry for the Environment. 2023. Proposed National Policy Statement for Natural Hazard Decision Making: Discussion Document. Wellington: Ministry for the Environment.

¹⁸ <https://maps.orc.govt.nz/portal/apps/MapSeries/index.html?appid=b24672e379394bb79a32c9977460>

¹⁹ Otago Region Natural Hazards Risk Assessment, Report to Safety and Resilience Committee, Report No. OPS2305, May 2023

to provide for wildfire prevention and response. ORC's 2023-24 Annual Plan and 2021-31 Long Term Plan do not specify a level of service or performance measure for managing wildfire risk.

- [54] Wildfire is listed as a known hazard in the Otago CDEM Group Plan where it is defined as 'Vegetation fires are an annual hazard across many areas of Otago. They most commonly occur in summer and autumn but are a potential risk at any time – particularly in the "Red Zones" around Queenstown Hill and Mt Iron in Wanaka, where a total fire ban is in place year-round. The drier areas of Central Otago and Strath Taieri are also at risk.²⁰
- [55] The Otago CDEM Group must be planning and preparing for emergencies involving wildfire and be capable of implementing necessary responses if serious wildfire events occur. The Otago CDEM Group does not have a policy that defines roles and responsibilities across the 4Rs framework for managing this hazard and there is no specific wildfire risk management plan. Under the Group's Partnership Agreement, ORC has responsibilities for hazard and risk management.
- [56] In its description of the pest and adverse effects of wilding conifers, the Otago Pest Management Plan 2019-2029 states²¹; "wilding conifers can also increase the risk posed by wildfires". There are no rules in the Plan that expressly seek to achieve a reduction in fire risk. The good neighbour rules are intended to control the spread of trees between properties rather than control the spread of fire.
- [57] The Otago Regional Wilding Conifer Strategy 2023-2029²² states that the "adverse effects resulting from wilding conifer infestation include ... increasing the risk of wildfire". The strategy and implementation plan do not include objectives and actions specific to wildfire risk. However, many of the actions will have an indirect effect on risk reduction such as the regional surveillance programme and the creation of spatial records for infestation areas, along with ORC's delivery of the Otago part of the National Wilding Conifer Control Programme²³.
- [58] As noted above, the costs and benefits of reduced wildfire risk and hazard, including potential effects of future climate change were incorporated into the Regional Wilding Conifer Control Cost Benefit Analysis.

Clarifying and confirming roles and responsibilities

- [59] As noted above, responsibility for managing wildfire risk is shared across organisations. Given the complexity of the situation it is recommended that the Otago CDEM Group, promote discussion amongst the Group on current and future wildfire risk including member roles and responsibilities for managing that risk across the 4Rs'. This will enable members of the Group to identify any gaps in how the risk is being managed, and the steps that need to be taken to address that.

CONSIDERATIONS

Strategic Framework and Policy Considerations

- [60] This paper is proactively considering the wildfire risk regarding the Otago CDEM Group's Strategic Direction intending to include defined roles and responsibilities as a part of the review to the Otago Group Plan.

Financial Considerations

- [61] No specific budget is allocated in the current annual plan and draft 2024-2034 Long Term Plan.

Significance and Engagement

- [62] Not applicable

²⁰ Otago CDEM Group Plan 2018-2028

²¹ p44.

²² Wilding Conifer Strategy and Implementation, Report to Environmental Implementation Committee, Report No. OPS2306, 11 May 2023.

²³ The New Zealand Wilding Conifer Management Strategy 2015-2030 states that wilding conifers can increase the risk of wildfires.

Legislative and Risk Considerations

[63] Refer to the Discussion section.

Climate Change Considerations

[64] Refer to the Background section.

Communication Considerations

[65] Refer to the Discussion section.

NEXT STEPS

[66] This matter will be brought to the Otago CDEM Coordinating Executive Group for discussion and direction to their Readiness and Response Subcommittee.

[67] The Readiness and Response Subcommittee will workshop the roles and responsibilities as they relate to Wildfire risk in Otago and furnish a report defining the above to the Otago CDEM Joint Committee.

ATTACHMENTS

Nil

4.8 Otago Rain Radar – Rainfall Analysis and Nowcasting Service

Prepared For: Otago CDEM Group Joint Committee

Activity: Otago Rain Radar – Rainfall Analysis and Nowcasting Service

Author: Jean-Luc Payan, Manager Natural Hazards

Matt Alley, Group Manager – Emergency Management Otago

Date: 14th March 2024

PURPOSE_

- [1] To describe developments in the utilisation of the MetService Otago weather radar data to inform the ORC flood response.

EXECUTIVE SUMMARY

- [2] Metservice completed the installation of the Otago weather radar in December 2020.
- [3] The radar data can be used to estimate the location and severity of precipitation within the area of coverage of the radar equipment. It can also be used to estimate where the rain is likely to go next and how quickly (“nowcasting”).
- [4] Reliable information about the timing, location, and intensity of rainfall over large areas is extremely important to inform ORC and Emergency Management Otago flood response.
- [5] The rain radar data complements a range of data and information used by the ORC to inform and guide decisions during responses to potential or actual heavy rainfall events. Data from meteorological radar can be used in combination with rain gauge measurements to estimate rainfall accumulations over large areas.
- [6] ORC has been using the radar data qualitatively. After nearly three years of operation, enough data is available to be able to extract quantitative observed rainfall amount estimations derived from the Otago radar.
- [7] The radar data provided by Metservice needs to be processed to extract the quantitative estimates of rainfall variability. This requires specialised data processing abilities. Weather Radar New Zealand/Mott MacDonald has been commissioned by ORC for this service.
- [8] The radar data and information are now used operationally by ORC to improve and inform the flood response. The available data and information are valuable, but there still exists a gap in coverage in Queenstown-Lakes and Central Otago; areas that are experiencing rapid urbanisation. Filling this gap would assist with managing pluvial flooding risk in Queenstown, Wanaka, Luggate, Cromwell, Clyde, Alexandra, and Roxburgh.

RECOMMENDATION

That The Otago CDEM Joint Committee:

Receives this report.

Requests that the Group write to the relevant Minister (Minister of Transport) requesting weather radar coverage for Queenstown Lakes and Central Otago.

BACKGROUND

- [9] MetService completed the installation of the Otago weather radar in December 2020. The radar site, located near Hindon (25 kilometres northwest of Dunedin, Figure 1) and 750 meters above sea level, provides excellent coverage of Dunedin City, the lower Taieri and the lower Clutha River catchments, and coastal Otago from the Catlins to the Waitaki.

[10] The \$3 million radar is the tenth in the national network of weather radar owned and operated by MetService (Figure 1). The radar data can be used to estimate the location and severity of precipitation within the area of coverage of the radar equipment (i.e., where, and how much rain is currently falling and has recently fallen). It can also be used to estimate where the rain is likely to go next and how quickly. The Otago radar uses the latest dual polarisation technology which can identify different types of precipitation, be it rain, hail, or snow.



Figure 1 – MetService National Radar Coverage (left)²⁴ and the Otago Radar (right).²⁵

[11] The rain radar data complements a range of data and information used by the ORC to inform and guide decisions during responses to potential or actual heavy rainfall events:

- Hydrological observations from ORC, other organisation monitoring networks, and the community – on-the-ground rain gauges, lake water level stations, and river flow and water level stations.
- On-the-ground observations made by various ORC operational teams and related to rivers, lakes, and coastal processes during heavy rainfall events.
- Knowledge and experience gained from assessments of past flood events.
- Weather forecast from Metservice based on meteorological models²⁶.
- River flows and water levels forecast derived from flood forecasting models operated by ORC for selected catchments in the region.

[12] Aside from its forecasting value to Metservice meteorologists, real-time radar data is of great

²⁴ Image sourced from <https://www.nss.govt.nz/contents/otago-weather-radar-now-live/>

²⁵ Image sourced from <https://www.odt.co.nz/news/dunedin/3m-weather-radar-powered-andscanning>

²⁶ Part of the Standard Agreement For Deliverables – Regional Councils, 2016

importance to ORC flood response teams, emergency management staff, and the coastal Otago community, to plan, prepare, and make decisions based on the likely impact of weather.

- [13] ORC has been using the radar data qualitatively (identify the location of light, moderate, and heavy rain) to inform the flood response. After nearly three years of operation, enough data is available to be able to extract quantitative observed rainfall amount estimations derived from the Otago radar. This requires specialised data processing abilities.
- [14] This paper describes developments in the utilisation of the MetService Otago weather radar data to inform the ORC flood response.

DISCUSSION

- [15] MetService describes the functioning of meteorological radar as follows²⁷: “Meteorological radar works using the backscattering of microwave energy from water or ice particles. The radar sends out pulses of microwave energy and then listens for returning signals of energy reflected off a target, such as rain droplets. Microwave energy travels at the speed of light. Using very accurate measurement of the time when the pulse is sent and the reflected energy received, the distance to the target is determined. As the direction the radar dish is pointed is known, it enables the knowledge of the direction and distance to the location of the rain or hail. Radars rotate 360 degrees as they send out pulses, to get information in all directions”.
- [16] Reliable information about the timing, location, and intensity of rainfall over large areas is extremely important to inform ORC and Emergency Management Otago flood response. For regional authorities such as ORC, the large area managed means it is difficult, if not impossible, to deploy and maintain sufficient rain gauges to adequately capture the spatial variability of rainfall.
- [17] Data from meteorological radar can be used in combination with rain gauge measurements to estimate rainfall accumulations over large areas.
- [18] The radar data provided by MetService needs to be processed to extract the quantitative estimates of rainfall variability. ORC does not have the capability and experience to process this data. This is a very specialised and specific service with very few providers in New Zealand.
- [19] In 2022, MetService and Weather Radar New Zealand/Mott MacDonald were approached to discuss the provision of this service for ORC. At the time, MetService could not provide the full service and specifications required by ORC and Weather Radar New Zealand/Mott MacDonald has been commissioned by ORC for this service. Weather Radar New Zealand/Mott MacDonald have been working with other local authorities (e.g., Auckland and Wellington) to deliver a similar service. ORC will benefit from this experience.
- [20] The main components of the service are:
- Real-time spatial rainfall estimates: this provides frequent (less than 10 minutes frequency) quantitative estimates of rainfall amounts and location for much of the region at 1x1 km pixel resolution generally, with a finer resolution (500x500 m pixel) for coastal and urban areas closer to the radar.
 - Radar “nowcasting”: this provides short-term (0 - 2 hours) forecasting of future rainfall location and

²⁷ <https://blog.metService.com/radar>

amounts. Radar nowcasting takes in recent observations of approaching rainfall and extrapolates forward in time using the observed motion of the rain field. This allows more accurate and better-localised predictions of where rain will occur.

- [21] The processed data is now available internally through an Internet-based platform (Figure 2). The platform allows access to real-time data, nowcasting information, and historic (past event) data.

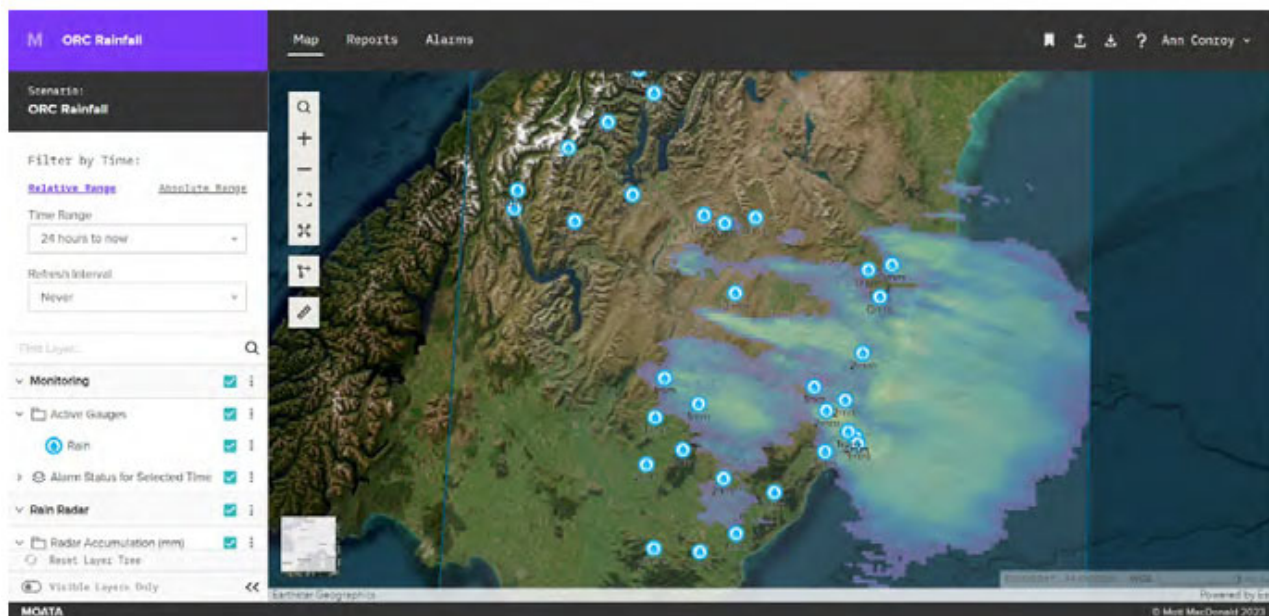


Figure 2 – Snapshot of Moata Platform, showing spatial distribution of rainfall from radar data (blue shading). The blue points are the locations of on-the-ground rain gauge locations used in calibration of radar data.

- [22] ORC flood response team received training on the use of the data and platform in September 2023 and the data and information is now used operationally to improve and inform the flood response.
- [23] It is important to note that rainfall data derived from radar is not aimed to replace the on-the-ground rainfall stations. Both observation methods complement each other: the accuracy of radar-derived rainfall data relies on a calibration process using ground Safety and Resilience Committee 9 November 2023 - MATTERS FOR CONSIDERATION 204 Safety and Resilience Committee 2023.11.09 observations from rainfall stations. The density of the rainfall station network will influence the accuracy of the radar data.
- [24] At longer ranges, radar measurements are necessarily made high aloft (because of limitations associated with the curvature of the earth), often "overshooting" cool and frozen rain processes typical of the South Island entirely. Under these conditions, the radar is unable to measure the rain as it sneaks in underneath. In addition, NZ radars operate at C-band frequencies which are attenuated by rain-reducing signal power. At longer range, there is an increasing chance that the returned signal drops below the noise floor (detection limit) of the radar hardware, and no measurements can be made. In practice, these effects combine to a "rule of thumb" that 100 km is a suitable maximum range for rain radars. However, this is strongly impacted by climate and site selection. Otago is challenging with its extreme topographic variability and cooler climate. Weather Radar New Zealand is analysing the radar data archive (since 2020) and will be able to provide some more specific guidance about the maximum reliable range in due course.

- [25] Weather Radar New Zealand advises that for Quantitative Precipitation Estimation (QPE) to cover all of Otago reliably, additional remote sensing would be required from a national coverage perspective. This is not an exceptional situation, probably the MetService network could be regarded as about 40% complete, for rain radar.
- [26] Table 1 shows some of the benefits and limitations of Otago rain radar for ORC, as advised by Weather Radar New Zealand.

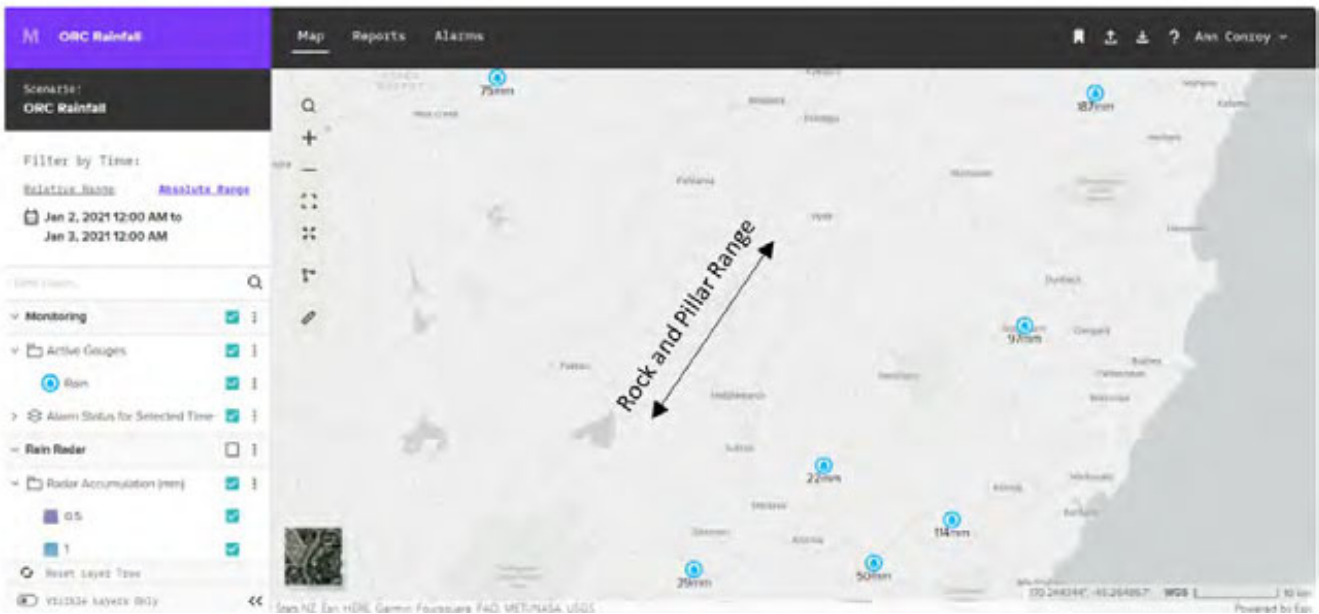
Table 1 Weather Radar New Zealand – advice on benefits and limitation

Benefits	<ul style="list-style-type: none"> • Rain radar provides a well-proven solution to the rainfall monitoring and short-term rainfall forecasting requirements of regional councils. • Rain gauge measurements are not suitable for preparing spatial estimates of rainfall required for hydrological purposes due to the complex scaling characteristics of rainfall processes. A gauge density of 1 gauge/4km² is desirable. However, with the Otago region being 32 000km², this would require 8 000 gauges. • Otago radar can yield spatial estimates of rainfall at 1x1 km pixel resolution and 1-minute time intervals over most of the eastern Otago region and is regarded as the most appropriate approach for measuring rainfall over scales from 100m to 200km (with deteriorating quality far from the radar, e.g., >~100km) • Rain radar reduces flood forecasting uncertainty: by directly observing the location of rainfall with radar, and verifying results against the local rain gauge network, better estimates of the amount of rainfall falling in ungauged parts of the catchment can be obtained. While rain gauges are deemed useful for longer accumulation times and light-to-moderate rain events, they struggle to properly characterise high-intensity / short-duration events any distance from rain gauges, something for which rain radar offers a major advantage, with near real-time data, hence enabling immediate responses to changing weather conditions, such as flash floods. • Installing and maintaining rain gauges is something that typically occurs Safety and Resilience Committee 9 November 2023 - MATTERS FOR CONSIDERATION 205Safety and Resilience Committee 2023.11.09 at ORC cost, while the radar is funded mostly from central government funds. ORC's contribution is relatively minor and low risk.
Limitations	<ul style="list-style-type: none"> • Deteriorating quality far from the radar, e.g., >~100km <ul style="list-style-type: none"> - The quality of the QPE (Quantitative Precipitation Estimation) is highest when the radar can measure close to the ground, without signal attenuation, and well above the noise floor of the transceiver system. At longer ranges, measurements are necessarily made high aloft (because of limitations associated with the curvature of the earth), often "overshooting" cool and frozen rain processes typical of the South Island entirely. Under these conditions, the radar is unable to measure the rain as it sneaks in underneath. - NZ radars operate at C-band frequencies which are attenuated by rain-reducing signal power. At longer ranges the power reflected from targets,

	<p>and raindrops, also reduces according to the inverse distance law, so in combination with attenuation, there is an increasing chance that the returned signal drops below the noise floor (detection limit) of the radar hardware and no measurements can be made.</p> <ul style="list-style-type: none"> • Away from radar and in mountainous regions radar coverage may still be limited or not suitable for its use due to the physics nature of remote sensing - attenuation of the signal, ground clutter, etc. • Radar QPE (Quantitative Precipitation Estimations) is the result of a series of calibrations, adjustments, and analysis, where rain gauges are ultimately used for cross-validation in a leave-one-out approach to assessing for the validity of the QPE radar, which means that in areas with few ground observational data, and/or in remote and mountainous regions, radar data use may be limited (attenuation of the signal, ground clutter, etc) • Single point of failure: factors like power outages or hardware failures can result in a complete loss of radar data or functionality.
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[27] Radar rainfall data is available from December 2020 to now. Examining significant past events during this period can help to illustrate the benefits of combining rain gauge and radar rainfall. For example, a rainfall event occurred in early January 2021, leading to flooding in Middlemarch, among other impacts. The rain gauge network by itself (Figure 3 top) is not enough information to understand the event, but the rain gauge observations (combined with the radar rainfall estimates), significantly improve our understanding of the spatial distribution of high rainfall totals (Figure 3 bottom), including along the Rock and Pillar Range above Middlemarch (Figure 3 next page).

Figure 3 – Snapshot of Moata Platform, showing 24-hour rainfall totals for the 2nd January 2021 rainfall event. The top image shows the observations from on-the-ground rain gauges. The bottom image adds the spatial distribution of rainfall from calibrated radar data (dark grey areas are >100 mm).



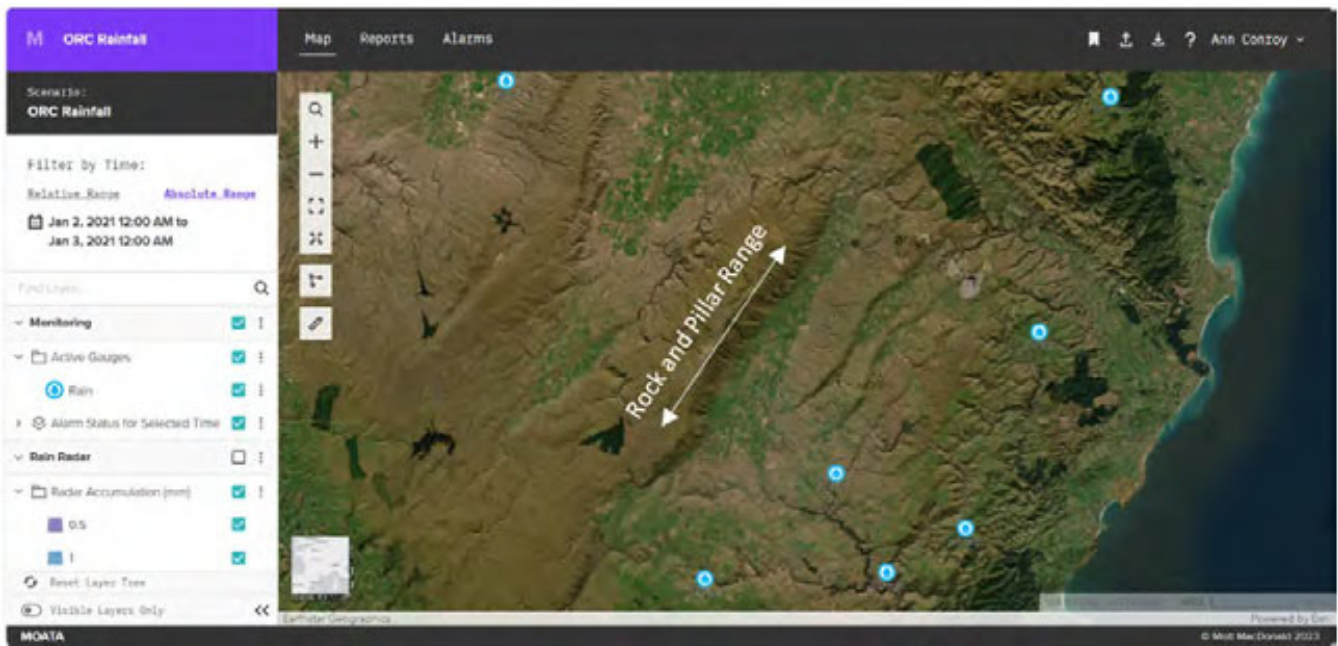


Figure 3, The last figure shows the correlation between the landscape and the distribution of high rainfall, such as along the Rock and Pillar range.

CONSIDERATIONS

Strategic Framework and Policy Considerations

[28] Additional Radar coverage will assist the management of ORC flood protection infrastructure and Emergency Management Otago response to events.

Financial Considerations

[29] The cost to set up the service for the first year (2022-2023) is approximately \$120,000 (excl. GST). The annual cost of running the service is estimated to be approximately \$69,000. This has been budgeted in the 2021-2031 and 2024-2034 ORC LTPs, no additional cost to the CDEM Group is anticipated.

Legislative and Risk Considerations

[30] The provision of this service is important to support Council functions defined in the Resource Management Act, the Soil Conservation and Rivers Control Act, and the Civil Defence Emergency Management Act.

Climate Change Considerations

[31] The provision of this service assists in the adaptation to climate change.

Communication Considerations

[32] The qualitative radar data is already available on the MetService website²⁸.

[33] Historic quantitative data is available on request. At this stage, it is not planned to make the real-time quantitative data and nowcast information available to the public as this requires specialist interpretation. This will be revisited in the future as ORC tests the use of the data over a longer period and identifies potential enhancements to the service and products. Currently, it is proposed to investigate the feasibility of allowing public access to this data in 2027-2028 as part of the proposed 2024-2034 LTP.

NEXT STEPS

[34] Continue the use of rainfall data derived from radar and regularly investigate its accuracy and potential improvements.

[35] Request that the government provide weather radar coverage for Queenstown-Lakes and Central Otago.

ATTACHMENTS

²⁸ <https://www.metservice.com/maps-radar/rain/radar?range=300&tab=real-time>

4.9 Appointment of Local Controllers – Dunedin City Council

Prepared For: Otago CDEM Group Joint Committee

Activity: Appointment of Local Controllers for the DCC

Author: Matt Alley – Group Manager, Emergency Management Otago

Date: 14th March 2024

PURPOSE

To appoint Scott MacLean (General Manager Climate and City Growth) and Leanne Mash (Deputy CEO, GM Business and Community Engagement) as Local Controllers.

EXECUTIVE SUMMARY

The Civil Defence Emergency Management Act 2002 empowers this committee to appoint local controllers enabling this person to carry out functions defined in the Act.

Section 27, CDEM Act 2002 - Appointment of Local Controllers

- (1) A Civil Defence Emergency Management Group may appoint 1 or more persons to be a Local Controller, and direct that person or persons to carry out any of the functions and duties of, or delegated to, the Group Controller of the Group and to exercise the powers of Controllers in the area for which the Group Controller is appointed, including, but not limited to, the powers in sections 86 to 94.
- (2) Despite anything in subsection (1), a Local Controller must follow any directions given by the Group Controller during an emergency.

RECOMMENDATION

That the Otago CDEM Group Joint Committee:

- a) Approves the appointment as alternate Local Controller of Scott MacLean.
- b) Approves the appointment as alternate Local Controller of Leanne Mash.

DISCUSSION

Presently the Dunedin City Council has five appointed local controllers:

- Sandy Graham
- Robert West
- John Christie
- Jeanette Wikaira
- Chris Henderson

The formal process for Dunedin City Council in formalising the appointment of Local Controllers is for the Council to recommend to the Otago Civil Defence Emergency Management Group the appointment of the proposed Local Controllers, with the formal appointment being made by the Group under the Civil Defence Emergency Management Act 2002, section 27(1).

This requires a recommendation from Dunedin City Council to the Group Controller, to enable inclusion on the agenda for the Otago CDEM Joint Committee.

The appointment of additional Local Controllers meets the need for succession planning and avoids

risks associated with the absence of more than one Local Controller at any one time, or when there is a prolonged response to an emergency event.

Powers of Local Controllers in a state of emergency:

Section 86: Evacuation of premises and places

This section provides the power for mandatory evacuation if necessary for the preservation of human life. In practice, during a state of emergency, the Controller orders evacuation, and the emergency services will carry it out.

Section 87: Entry on premises

A Controller, member of the police, or authorised person may enter any premises or place if necessary for saving a life, preventing injury, rescuing/removing persons, or carrying out any urgent measure for relief of suffering. For example, if the Controller wishes to put evacuees into a place of safety because of a storm, and a hall is locked, the Controller (or someone delegated by the Controller) could break into the premises.

Section 88: Closing roads and public places.

A Controller may totally or partially close roads and public places to prevent or limit the extent of an emergency (e.g., closing a beach if a tsunami is approaching). This section is an 'enabling tool'. State Highways are generally closed by Transit NZ. Other agencies also have the power to close roads (e.g., NZ Police, and NZ Fire Service). Because a Controller can partially close a road as well as close it, they can specify that the road is only open to high clearance four-wheel drive vehicles, for example.

Section 89: Removal of aircraft, vessels, vehicles, etc.

A Controller may remove from any place any vessel or vehicle and may break into the vessel or vehicle to do so, to prevent or limit the extent of the emergency. For example, if the Controller wants to use a landing stage or an airstrip, and a ship or aircraft is blocking the way, the Controller can have the ship (by asking the Harbour Master) or aircraft removed. Section 91 can be used in conjunction with this power, by requesting someone to move a vessel or vehicle.

Section 90: Requisitioning powers

A Controller may direct those resources (not human) to be placed under their or another person's control or direction. For example, if building equipment (such as a digger for earthmoving) is required in the response and there is no formal contract with that company, the Controller can requisition the equipment, but not the driver. The Controller must provide the owner with a written statement detailing the property and under whose control it is being taken. It is important to note that requisition is not a free use of resources and that the owners of any equipment can apply for compensation (see section 107 of the CDEM Act).

Section 91: Power to give directions.

The Controller can direct a person to stop an activity causing or contributing to an emergency (e.g. a radio station that is scaremongering). However, if the Controller wishes a person to do something (as opposed to stop doing something), they can request them to do so, but cannot force them to (e.g., requesting the driver of a requisitioned digger to assist the response team by driving the digger).

Section 92: Power to carry out inspections, etc.

The Controller or another authorised person has various powers relating to property. For example, the Controller could direct the destruction of a house to divert floodwaters. In a public health emergency, where property needs to be destroyed or disinfected, for example, the Public Health

Officer also has those powers, under the Health Act 1956.

Section 93: Person exercising emergency powers to provide proof of identity.

Anyone exercising any powers authorised by the CDEM Act must provide proof of identification.

Section 94: Contracts in urgent cases

Outside emergencies, entering contracts for local authorities go through the appropriate channels and approvals. However, in a declared emergency, contracts can be created immediately and reported back to the CDEM Group (e.g., hiring a media agency to provide public information beyond the abilities of the local authority).

CONSIDERATIONS

Strategic Framework and Policy Considerations

No matters arising.

Financial Considerations

No matters arising.

Significance and Engagement

No matters arising.

Legislative and Risk Considerations

No matters arising.

National Emergency Management Agency Update

Otago CDEM Group Joint Committee

14 March 2024

NEMA Update

1. **Minister for Emergency Management and Recovery - Hon Mark Mitchell**

NEMA's Briefing to the Incoming Minister (BIM) has been proactively released on the DPMC website:

[Proactive Release: BIM for Emergency Management and Recovery](#).

2. **National Exercise Rū Whenua**

The exercise will be led by NEMA and conducted over three dates in 2024; 12 June, 26 June, and 10 July 2024, with accompanying lead-up activities taking place prior to the main exercise days. Your CDEM Group has been invited to participate in the main exercise.

3. **Catastrophic Planning (CATPLAN)**

NEMA have produced the first draft of an operational, hazard-agnostic National CATPLAN handbook. This guides the National Controller on how to coordinate response actions across government and stakeholders, in the event of a natural hazard catastrophic emergency. This identifies gaps that exist both for catastrophic events and for lower-impact events. To address some of these gaps, NEMA has prioritised four areas of work in 2024:

- Rapid Relief – developing a national rapid relief framework, population needs-based assessment and options for mass shelter.
- Logistics – developing a national movement Concept of Operations, including movement prioritisation across government.
- Intelligence – developing a national information collection plan and improve reporting requirements in readiness and response.
- International Capabilities – improving our integration of international teams including our national reception and departure centre capability.

NEMA has begun the external engagement phase with partner agencies, consisting of three virtual (Microsoft Teams) roadshows, detailing the programme to date and how NEMA will engage across the wider system. The engagement will result in a significantly more robust handbook.

4. **Māori Emergency Management Practitioners Pānui**

Te Kāhui Mataara (NEMA's Māori Strategy) sent the first regular communication to Māori emergency management practitioners around Aotearoa. This pānui will be sent every 6 months, with updates from all levels on what is happening relevant to Māori emergency management practitioners. For further information and to subscribe to the pānui, go to the website [Get the latest about Te Kāhui Mataara \(confirmsubscription.com\)](#) or email tekahumataara@nema.govt.nz.

Emergency Management Bill

5. The Government reinstated the Emergency Management Bill after the 2023 general elections. The Bill recommenced at the select committee stage. Before the Christmas period, Parliament re-set all the dates for select committees to report back to the House on bills.

6. For the Emergency Management Bill, the Governance and Administration Select Committee is now due to report back by 19 December 2024. The Committee will decide its timetable for considering the Emergency Management Bill (including when it schedules oral hearings) to meet the December report back. It could be several months before the committee schedules oral hearings.
7. The report back extension means that the Government will have time to consider whether to make changes to the Bill in light of the Government Inquiry into the North Island Severe Weather Events, as well as any other changes to reflect the Government's policy priorities and to address matters raised by submitters. All the submissions received by the select committee are available on line at [Emergency Management Bill \(bills.parliament.nz\)](https://bills.parliament.nz).

CDEM Resilience Fund

8. Applications for the fund closed on Monday 19th February. A reduced budget of \$689,000 (excluding GST) was available due to pre-approved multi-year projects. The resilience fund aligns with CDEM Group Plans and the National Disaster Resilience Strategy priorities to enhance Aotearoa New Zealand's hazard risk resilience through the development of local and regional capability and practices. For the 2024/25 financial year, preference will be given to projects that are linked to increasing Aotearoa's readiness to catastrophic events such as Hikurangi.

NZ Red Cross Hazard App

9. NZ Red Cross is discontinuing the Hazards App at the end of June this year. A survey was facilitated by NEMA and revealed the focus of concern was around alerting, specifically the use of the App as a mechanism to issue Emergency Mobile Alerts in areas with no working cellular connectivity.
10. There is now the ability to send Emergency Mobile Alerts from satellite directly to mobile. While experimental, NEMA can issue Emergency Mobile Alerts as the finer details and contractual terms are being finalised.
11. NEMA acknowledges a gap in the hazards and alerting space that would allow for both the public, system, and sector to understand what risks are relevant to them at any given time and match it with an appropriate response. To address this directly, NEMA is working on the foundations of a mechanism that would deliver this capability.
12. NEMA continues to encourage communities to be personally prepared, aware of surroundings, and not waiting for official messaging, for example, during a long or strong earthquake. NEMA continues to work alongside CDEM Groups and the NZ Red Cross through this process.

COVID-19 NZ Royal Commission of Inquiry Submissions

13. Public submissions to the COVID-19 Inquiry opened on 8 February 2024 and will run until 24 March 2024. The process will be supported by a national public awareness campaign which began on 11 February. The overall campaign call to action is to "Look back to move forward" [Royal Commission of Inquiry into COVID-19](#).

National Recovery Practitioner's Hui

14. A cohort of over thirty regional and national recovery practitioners met in January for a National Recovery Practitioner's hui. The hui consisted of representatives from NEMA, the Cyclone Recovery Unit and Group Recovery Managers and was hosted by Canterbury CDEM.

15. The group collectively discussed how to strengthen recovery capability and capacity, develop, and enhance connections between recovery practitioners, and align our 2024 work programmes and priorities.

Rochelle Faimalo | Senior Regional Emergency Management Advisor
National Emergency Management Agency | Te Rākau Whakamarumarū.

