

2017

PORT HILLS FIRE LESSONS LEARNT

CHRISTCHURCH CITY COUNCIL

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EXECUTIVE SUMMARY

1. This review sought to identify the lessons learnt from the Port Hills fire response and consider how these had been applied in subsequent events and in the day-to-day operations of the Christchurch City Council (CCC) Civil Defence Emergency Management (CDEM) team.
2. The purpose of the review was to improve future responses.
“We look back not to blame but to understand” (Mayor Lianne Dalziel)
3. The review focused on three core aspects of the Civil Defence response to the Port Hills fires:
 - Information flow to affected residents, the general public and the media
 - Information flow between key functions and agencies during the response
 - Declaration of the Local State of Emergency.
4. The review does not consider matters that were the subject of other reviews, including the origin and cause of the Port Hills fires and the firefighting response.
5. The Port Hills fires was one of the largest fire events in recent New Zealand history. As a result of the fires, seven homes within Christchurch City Council’s district were completely destroyed and a further two properties sustained loss of outbuildings. Significant infrastructure was either threatened or lost, including Christchurch Adventure Park, major power lines, communications infrastructure, the Sugarloaf tower, water supply pipes, commercial forest and regional parks and reserve land.
6. The sheer size and unpredictability of the fires; the physical distance between the Christchurch Emergency Operations Centre (EOC) and Selwyn EOC and the Incident Management Team (IMT); the number of agencies involved; the proximity of the fires to Christchurch; and the number of affected residents meant information flow was vital in the management of the response.
7. There were difficulties establishing processes for sharing information between the Selwyn IMT and EOC and Christchurch CDEM team and EOC, particularly in the initial days of the fire.
8. If the potential consequences of the two fires merging and the risk of evacuations had been considered and communicated to the Christchurch EOC earlier it would have enabled the EOC to inform residents that evacuations may be required. This would have allowed residents to prepare for evacuations, including making arrangements for pets and removing important possessions. It would also have enabled better planning and management of the evacuation and cordon processes.
9. Despite best endeavours, the information flow to affected residents and the wider public during the initial days of the fires was not always timely or sufficient and this created anxiety in the community. This was recognised and addressed (in the most part) by the end of the first week of the response. There was positive feedback from the public on the information flow for the period following the public meeting on Saturday 18 February.
10. The response to the Port Hills fires highlighted the following factors as key to effective information flow:

- Setting up an affected residents' register as soon as possible and prioritising communication with them.
 - Holding public meetings to share information 'face to face'.
 - Providing up-to-date information to those on cordons and at civil defence/welfare centres.
 - Forward-planning of all operations, such as evacuations and cordon re-entry, to remove the risk of inconsistent messaging.
 - Embracing social media and establishing processes and protocols in line with its fast-paced nature.
 - The provision of regular training in emergency management procedure to all Christchurch EOC volunteers and revision of the Christchurch EOC knowledge base and databases.
11. The Christchurch EOC should have been activated earlier and a declaration of a local state of emergency made sooner. The Mayor was advised at the time that a declaration was not necessary. The Mayor now believes she should have made the declaration earlier. The findings of this review suggest that the Mayor should have received earlier advice regarding a declaration.
12. The most significant effects of declaring a state of emergency were raising public awareness of the nature and potential danger of the fire and providing confidence that all available resources were being utilised to fight the fires. The Mayor has requested that the Ministry of Civil Defence clarify the legislative framework to make it clear that public confidence is a grounds for declaring a state of emergency.
13. The review acknowledges the work done by organisations and individuals during this incident. The significant contribution made by all involved in the fire response for the benefit of the community quickly became evident during the review process. The passion, willingness and commitment to working together shown by those involved to safeguard our community from future emergency incidents was admirable. Many of those who contribute to emergency responses to incidents like the Port Hills fires are volunteers.

THE REVIEW PROCESS

Terms of Reference

14. The review sought to identify lessons from the Port Hills fires response and consider how these had been applied in subsequent events and the operations of the CDEM team. The Terms of Reference of the review focused on the following questions:

Information flow to affected residents, the general public and the media

- What information was provided to affected residents, the media and public during the event, and was it sufficient and appropriate for each audience?
- What methods were used to identify and gather contact details of affected residents?
- Were residents whose property was destroyed contacted appropriately and in a timely manner?

Information flow between key functions and agencies during the response:

- What was the information flow between the fire response and Civil Defence Emergency Management at CCC during the event, and was it sufficient?
- What was the information flow between Christchurch EOC and CDEM team at CCC and the Mayor and Councillors of Christchurch City during the event, and was it sufficient?

Declaration of the Local State of Emergency

- Was the state of emergency declaration made in a timely fashion?

Not in Scope of the Review

15. The review excluded the following matters that were the subject of other reviews, including
- The origin and cause of the Port Hills fires (understood to be the subject of an investigation being jointly undertaken by Selwyn District Council and Department of Conservation);
 - The circumstances of a helicopter accident that occurred on 14 February 2017 in the course of the emergency response to the Port Hills fires (understood to be the subject of an investigation being undertaken by the Traffic Accident Investigation Commission);
 - Any aspects of the response to the Port Hills fires that are the principal subject of other reviews or investigations by agencies or organisations more closely connected with those matters (including by New Zealand Police, Traffic Accident Investigation Commission, Civil Aviation Authority, WorkSafe and / or the Coroner);
 - The fire response (understood to be the subject of a Port Hills Fires 2017 Operational Review, sponsored by the New Zealand Fire Service and National Rural Fire Authority and undertaken by an appointed review team).

Review Methods

16. The review involved qualitative and quantitative data gathering, including:
 - Interviews with key informants
 - Review of documents and records
17. The interviews included questions on the informants' perceptions regarding:
 - The information flow between the fire response and Civil Defence Emergency Management at CCC during the event, and was it sufficient?
 - The information flow between Christchurch EOC and CDEM team at CCC and the Mayor and Councillors of Christchurch City during the event, and was it sufficient?
 - The information that was provided to affected residents, the media and general public during the event, and was it sufficient and appropriate for each audience?
 - The effect of the State of Emergency Declaration, and whether it was made in a timely fashion.
 - Lessons from the Port Hills fire response.
18. The review also drew on feedback from residents provided to the Recovery Team and included in the Port Hills Fire Recovery Plan (developed jointly by CCC and SDC).

BACKGROUND

19. On Monday 13 February 2017, at about 5.30pm, a fire started in Early Valley Road on the eastern extreme of the Selwyn District. Just after 7pm, a second fire started further east on Department of Conservation (DOC) land on Marley's Hill next to the Summit Road above Christchurch City. The two fires merged into one devastating fire on Wednesday afternoon/evening which cut across the Selwyn District/Christchurch City boundary. Just after 6pm on Wednesday 15 February 2017, a Local State of Emergency was declared for seven days pursuant to the Civil Defence Emergency Management Act 2002 (Declaration). It was extended on 21 February 2017 for a further seven days until 1 March 2017.
20. The fire burned more than 1600 hectares of vegetation, claimed the life of a firefighter, injured three other people, and destroyed nine homes and two other structures. An estimated 450 homes were evacuated. At its peak there were up to 380 people on the ground and 14 helicopters and three fixed wing aircraft in the air battling the blaze plus around 100 people in a variety of support roles. The fire response teams, a number of them volunteers, worked tirelessly for very long hours in very difficult circumstances, over very difficult terrain. The cause of the fire is yet to be determined.
21. As the first fire had started in the Selwyn District, the Selwyn Rural Fire Authority assumed control in fighting the fire. The Selwyn and Christchurch rural fire teams worked together under the direction of the Selwyn Principal Rural Fire Officer. Fire brigades from New Zealand Fire Service, Rural fire brigades across the Canterbury region and national fire teams were all deployed to assist in fighting the fires. More than 36 agencies were reported to have been involved in the firefighting effort.
22. An Incident Management Team (IMT) was set up in Selwyn at the District Council office in Rolleston. The IMT was supported by a Civil Defence Emergency Operations Centre in Selwyn and Civil Defence Emergency Operations Centre at the Christchurch City Council's (CCC) Civic offices.
23. Residents affected by the Port Hills fires, Christchurch City Councillors and the Minister of Civil Defence expressed concerns regarding communications during the event, and the timing of the declaration. The Mayor of Christchurch announced at a public meeting held on 18 February that there would be a review, focusing on the information flow related to the Civil Defence response and the declaration process.

FINDINGS OF THE REVIEW

24. This review sought to identify lessons from the response and consider how these had been applied in subsequent events and in the day-to-day operations of the CDEM team.
25. The review considered the three areas of focus of this review:
 - 1) Information flow to affected residents, the general public and the media
 - 2) Information flow between key functions and agencies during the response
 - 3) Declaration of Local State of Emergency.
26. The review also considered the lessons were learnt from the response to the Port Hills fires and how these lesson have been applied in the subsequent events or CDEM activities.

1. INFORMATION FLOW TO AFFECTED RESIDENTS, GENERAL PUBLIC AND MEDIA

27. The review considered a number of aspects of the information provided to residents, the general public and the media.

Key Observations

28. A Public Information Management (PIM) team was established in line with the Coordinated Incident Management System (CIMS). This team was responsible for issuing public warnings and updates, dealing with media, as well as social media and the call centre.
29. For the initial period the Selwyn PIM team managed the communication with residents and media.
30. After the declaration it was agreed that Christchurch PIM team would manage the media communication and communication with Christchurch residents. The Selwyn PIM continued to be responsible for gathering and providing information to the Christchurch team. Other agencies were also providing information to the media and public through various channels.
31. Interviews and records indicate that a range of methods were used by Christchurch PIM to communicate to the residents, the general public and the media during the event.

'Newslines'

32. 'Newslines', the CCC's digital news channel, provided rolling updates from 13 February (before the Christchurch EOC was activated)¹ until 2 March. Seventeen stories were published. There was one main story that was regularly updated as new information came forward (up to 80 times) including hourly in line with the email updates sent to residents. Alerts were also sent to journalists advising them of the updates.

¹ On Monday 13 February and Tuesday 14 February (before the EOC was activated) CCC's Editorial Team posted information provided by SDC on 'Newslines'.

33. Radio announcer 'ad libs' ran from 3pm on Wednesday 15 February across NZME stations and Mediaworks stations with the message to go to ccc.govt.nz/newsline. The Civil Defence web page was linked to 'Newsline' and Civil Defence and CCC social media pages shared the same content.
34. The review was provided with the following 'Newsline' statistics for 13 February to 2 March from the CCC Editorial Team:
- Total page views: 249,893 (compared with a total of 243,911 page views during the whole of 2016). This included:
 - Mobile phone page views: 135,471 (54% of total page views).
 - Direct page views: 26,023 (page views from hyperlinks and e-newsletter updates that were sent to residents).
 - Average time on pages: 3 minutes, 41 seconds.
 - Facebook, Google and Direct links referred people to 'Newsline'. The review was provided with the following statistics regarding referral to the general fire update story on 'Newsline':
 - Facebook for mobile: 58,495
 - Facebook (desktop site): 16,470
 - Google: 53,003
 - Direct: 17,153
35. These statistics indicate that there was significant media and public interest in the Port Hills fires, however, many of the affected residents reported that the information provided in the initial phase of the response was inadequate and confusing and left them feeling vulnerable.²

Social Media

36. A lot of enquiries were made via social media. It was felt by a number of those interviewed that the management and assignment of these queries proved a challenge due to the fast-paced nature of social media and the resource available in the Christchurch EOC. Some people spoken to felt a more streamlined approach should be developed for verifying information to be published through social media.

Public Meetings

37. The first public meeting was held in Governor's Bay on 15 February.
38. A further public meeting was held in south Christchurch on Saturday 18 February which 450-550 people attended. Fire, Police, Canterbury District Health Board (CDHB) and the Mayor of Christchurch all spoke at the meeting. Those at the meeting signalled their support for those involved in the firefighting effort. The meeting also highlighted the community frustration with the lack of information. Community members felt let down by the lack of dedicated information. The Mayor took responsibility for this and committed to this review. The Mayor also committed to regular hourly updates which were implemented immediately following the meeting.

² Port Hills Fires Recovery Plan, June 2017 prepared by Christchurch City Council.

39. A series of public street meetings were held to provide up-to-date information about the fire (status and ongoing risks), and to help residents and landowners access further information and assistance if necessary. These were held on Thursday 23 February at all 3 cordons; Hoon Hay Valley Road, Worsleys Road and Kennedy's Bush. Senior representatives from the firefighting response spoke at the meetings. Interviewees reported that these meetings were also a success.
40. Many of those interviewed, including the Mayor, spoke of the value of having firefighting experts address affected residents at the public meetings. This appeared to boost public confidence in the response. The Mayor observed that communication with residents along the Port Hills in the initial stages of the fire should have warned of the risks and the possibility of evacuations.

Customer Services at CCC

41. The Customer Service Teams at Christchurch City Council managed a large volume of calls during the event. They also called residents on behalf of the EOC Welfare function.
42. The critical role played by the Customer Service Teams and their very professional approach was highlighted by some of those interviewed. It was noted how quickly Customer Services established a team to call residents on behalf of the Welfare function.
43. Information flow from the EOC to the CCC contact centre, helplines and reception personnel is important as these teams provide initial responses to specific queries from concerned residents. Interviewees perceived the following barriers to this flow of information during the fires:
 - Some commented that it was unclear at times who the contact centre's point of contact was in the EOC.
 - It was difficult to contact affected residents on behalf of the Welfare team before the affected residents register was established

Residents' Register

44. A residents' register was established within two days of the EOC being activated, giving people the ability to subscribe for updates initially by telephoning the main CCC number, then through an online form. Registering meant the PIM team was able to send updates direct to people's nominated email address or by text to a mobile phone number. Registrations were promoted via media, social media, CCC and Civil Defence websites and in 'Newslines' updates. Eighty registrations were collected by Friday night (17 February). Registrations continued after the public meeting on the Saturday. At the meeting, a commitment was made to send hourly updates and the first of these was sent to affected residents on the register at 11am on Saturday 18 February. A total of 89 updates were sent to residents from 18 February to 2 March.
45. Positive feedback was received about the email and text communication received by affected residents once the register was created. The register enabled people to be contacted to advise them on pressing issues, such as how and when they could gain access to their properties for the purpose of collecting critical items and checking on animals.

46. Many interviewed felt that ideally the affected residents register should have been created earlier as this may have enabled information to be communicated directly to affected residents in the early (and arguably most significant) days of the event.

Contact with residents whose property was destroyed

47. There was a perceived lack of communication with those who lost their homes. This group of people commented that no one communicated with them from Civil Defence until the public meeting on the Saturday (18 February), days after their houses had been destroyed. The Police reported that they did not have an adequate means to identify and notify those who had lost properties until the affected residents' register was established.
48. Many interviewed observed the establishment of a Recovery Team was a positive initiative. The Recovery Team met with residents whose properties were destroyed. The team maintained 'one-on-one' relationships with the families who lost their homes through assigning two CCC staff members to act as Liaison Managers to provide one point of contact into CCC and to the other agencies that are able to provide support.

Information regarding Evacuations and Cordons

49. Interviews identified that the risk of evacuations was not communicated to the Christchurch EOC so it did not inform residents that evacuations may be required. Early warning would have enabled residents to prepare for evacuations, including making arrangements for pets and removing important possessions. Residents should have been provided with information regarding the volatility and complexity of the fire, the potential for wind changes and the impact of the two fires coming together.
50. Interviewees also observed that the information provided at cordons and checkpoints was inconsistent. In some cases residents claimed to have seen information elsewhere (for example, on CCC and SDC websites and via social media), about which the people at the cordons had no knowledge. In some occasions this delayed residents gaining access to their homes.

Information to residents prior to the event

51. Feedback from the public meetings suggest that most residents were alerted to the fire restrictions on the Ports Hills prior to the fire. However, some residents reported that they were unaware that they lived in a rural fire area and the risks associated with that. Other residents were very aware of the fire risk and had a number of strategies to protect their properties.

Overall Feedback on the Communications

52. Those interviewed for this review suggested that despite best endeavours, the information flow to affected residents and the wider public during the initial days of the fires was not always timely or accurate and this created anxiety in the community. This was recognised and addressed (in the most part) by the end of the first week of the response. There was positive feedback from the public on the information flow for the period following the public meeting on Saturday 18 February.

53. The Independent Operational Review prepared for FENZ identified that the rapid escalation of the incident placed significant pressure on the PIM teams. The Review also identified that the struggle to get timely information from the fire ground challenged the PIM teams' ability to provide new and accurate public information.

2. INFORMATION FLOW BETWEEN DIFFERENT TEAMS AND AGENCIES DURING THE FIRE RESPONSE

54. The sheer size and unpredictability of the fires; the physical distance between the Christchurch EOC and Selwyn EOC and the IMT; the number of agencies involved; the proximity of the fires to Christchurch; and the number of affected residents meant information flow was of vital importance in the management of the response. These factors also created barriers to the information flow.

Key Observations

Information between the IMT and Selwyn EOC and CDEM team at Christchurch City Council, Christchurch EOC and Civil Defence Emergency Management Group

55. Communication links and information flow were of particular importance in this emergency response. Of concern to many interviewees were the difficulties establishing information flow between the Selwyn IMT and EOC and Christchurch CDEM team and EOC, particularly in the initial days of the fire.
56. The following observations about problems associated with the information flow between Selwyn and Christchurch were made by those interviewed for this review:
- The physical distance between the fire response teams at Early Valley Road and Princess Margaret Hospital (ICP) and the IMT and Selwyn EOC presented challenges to the information flow. This in turn presented difficulties to the information flow between Selwyn and Christchurch.
 - Information did not appear to be getting through to the CCC CDEM team from the IMT or EOC at Selwyn. There were periods early in the fire event when few updates were provided to CCC. This may have contributed to a lack of consistency in the messaging between the two different EOCs and the public and affected residents.
 - The Christchurch EOC experienced difficulty in getting information from the fire modellers situated in Selwyn regarding where the fire front was at any one time and possible scenarios with respect to the fire's behaviour in the event of a change in weather conditions. As a consequence it was unable to advise residents that they should prepare for evacuations.
 - It was difficult to get information on specific properties. The firefighters were too busy fighting fires to relay information back to Christchurch EOC. On occasions information was going to Selwyn EOC but not flowing to Christchurch EOC which had the larger audience to reach.
 - At times there were difficulties establishing the authenticity of the information coming into the Christchurch EOC. An example of this was when the information came in to say that a certain number of houses had been destroyed. This information was queried by three different people before being released, only to then be found to be incorrect.
57. Those interviewed noted that a number of processes were put in place to improve the information flow between Selwyn IMT and EOC and the Christchurch EOC during the event:
- The Principal Rural Fire Officer (Christchurch) was initially appointed the Planning Intelligence Manager of the IMT. He then transitioned to the role of

Rural Fire Liaison Officer and created a link between the IMT and CDEM team at CCC (and then the Christchurch EOC), providing Situation Reports, Incident Action Plans and physically attending meetings.

- A CCC Liaison Officer was sent to Selwyn EOC to help with information flow around operations such as cordon management, access and boundaries and fire safety risk. The Liaison Officer attended the Selwyn EOC morning briefings and fed information back to the Christchurch EOC.
 - A Christchurch EOC Local Controller visited the Selwyn EOC on a number of occasions and a Selwyn EOC Local Controller visited the Christchurch EOC on several occasions.
 - PIM support from the Christchurch EOC was sent to the Selwyn EOC from early afternoon on Wednesday 15th February.
 - PIM support from the Canterbury Civil Defence Emergency Management Group³ was sent to the Selwyn EOC after the Declaration was made to relay information back to a Group representative providing support within the Christchurch EOC.
58. The Mayor of Selwyn noted that he and Christchurch Mayor were in contact early on the afternoon of Wednesday, and on a regular basis from that point on.
59. Those interviewed believed that these initiatives had a positive impact on the information flow.

Information flow between key agencies involved in the civil defence response

60. As with most civil defence emergencies, this was a multi-agency response involving the Police, CCC, SDC, fire services, CDHB, Medical Officer of Health, Orion and various welfare services. Overall the agencies worked well together and shared relevant information well.
61. One area of difficulty observed by those interviewed was getting information to cordons from the Christchurch EOC which on occasions resulted in confusion at cordons.

Information flow within the Christchurch EOC

62. Most of those interviewed felt that information within the Christchurch EOC was flowing appropriately between the various functions. However, some interviewees did perceive there some lack of knowledge within the Christchurch EOC around the roles and responsibilities of each function. As a result there was occasionally confusion about who held responsibility for the task. The PIM and Welfare functions' confusion over who held responsibility for creating a register of affected residents and responsibility for responding to specific enquiries from affected residents via social media were examples provided.
63. The PIM function is a critical function in the EOC and is responsible for a significant amount of work. Some felt that a larger pool of people trained in PIM would have helped ensure all audiences were reached from the outset of the event, especially given the demands of social media. Some concerns were expressed that normal business

³ The Canterbury Civil Defence Emergency Management Group is a partnership of local authorities, emergency services and other organisations tasked with ensuring the effective delivery of civil defence emergency management in Canterbury

processes overrode EOC operations within the PIM function of the EOC, for example sign-off processes.

Information provided to the Mayor and Councillors of Christchurch City during the event

64. From midway through the first week the Mayor and Councillors received regular updates and briefings on the event. Some interviews suggested that the Mayor and Councillors should have received advice about the response and declaration process earlier in the event, for example some suggested that:
- Briefings earlier in the event would have given the Councillors greater assurance and understanding. If they had access to the same information as the Mayor they may have understood why a state of emergency was not declared earlier in the week.
 - After the declaration was made, regular briefings were organised for the Councillors. The Councillors reportedly found the briefings from the fire response teams and civil defence staff very informative.

3. DECLARATION OF LOCAL STATE OF EMERGENCY

65. The review sought to identify whether the declaration was made in a timely fashion.

Key Observations

66. Around 17:00 hrs on Wednesday 15 February, the Mayors of Selwyn and Christchurch City Council agreed to declare a civil defence emergency to support the emergency services. At 18:05hrs on Wednesday 15 February, a state of emergency was declared for a period of seven days pursuant to the Civil Defence Emergency Act 2002. This was extended for a further seven days on 21 February 2017 until 1 March 2017. The Mayor of Christchurch made the declaration in her capacity as chairperson of Canterbury Civil Defence Emergency Management Group.
67. A number of those interviewed were of the opinion that the declaration did not have any direct bearing on the firefighting effort as they had sufficient resources available and adequate powers under the Fire Service Act and Forest & Rural Fires Act 1977. However, many observed that there was value in the declaration because it generated greater media reporting of the fire and increased public confidence in the emergency response effort. It also meant post-event recovery processes were initiated.
68. Some of those interviewed suggested that a declaration should not have been necessary to lift the profile of the fire and increase public confidence. They believed that this could have been achieved by providing the public with key information on the fire and the associated risks in an effective way from the outset.
69. Feedback received from affected residents at meetings held after the fires confirmed that the declaration brought comfort. Some residents felt the declaration should have been made earlier.
70. The evidence indicates that the Mayor was advised that a declaration was not necessary. The Mayor now believes she should have made the declaration earlier. She believes that a state of emergency should have been called on Tuesday afternoon and residents in surrounding areas should have been warned that they may be called on to evacuate.
71. The findings from this review suggest that the Mayor should have received earlier advice regarding a declaration of a state of emergency. The declaration helped raise public awareness of the nature and potential danger of the fire and provided confidence that all resources were being brought to bear on fighting the fire.
72. The Mayor has subsequently requested that the Ministry of Civil Defence clarify the legislative framework to make it clear that public confidence is a grounds for declaring a state of emergency.

4. LESSONS LEARNT

73. A number of lessons were identified from the response to the Port Hills fires. This section examines if, and how, these lessons were applied in the subsequent state of local emergency for the Christchurch floods in July 2017.

Communication with affected residents

74. A key lesson from the Port Hills fires was the need to focus on communicating with the affected residents throughout the event. This was applied in the subsequent flooding event in July 2017 and was evident in the EOC action plans and in the EOC communications.
75. In the subsequent event the CDEM Duty Officer and Controller enlisted the support of PIM, as soon as the Duty Officer began to monitor the event. This enabled consistent messaging to residents, the general public, CCC contact centre and elected members from the outset.
76. CCC Public Information and Participation team ensured that there was regular information on the CCC website prior to the event, as well as using an existing database to send material directly to residents. This established a process which was able to be continued by the PIM during the event and after the declaration. This also meant that residents and wider public knew exactly where to go to get the most up-to-date information. In future events the website will indicate when residents can expect the next update.
77. The involvement of the Customer Service Team at CCC was identified as critical during the fire event. In the subsequent event processes were established at the beginning of the event to ensure good information flow. The Team Leader from the Customer Services Team attended the EOC meetings which helped ensure that the Contact Centre, reception personnel and helpline personnel at CCC had the latest information and key messages to share with the public and affected residents. This also ensured that the EOC heard directly from the contact centre about the issues that were concerning residents.
78. The early establishment of an affected persons' register was identified as crucial in enabling effective communication with affected persons. This was treated as a priority in the subsequent emergency response. However, a lesson learnt from this subsequent event was the need to separate the registration of directly affected residents from other interested residents. The CDEM team is investigating ways to improve this tool for future events.
79. In the subsequent flooding event the Mayor acted as the primary media spokesperson during that event. Most people believed that this was an advantage as the Mayor is a known and trusted spokesperson and therefore the public had a higher degree of confidence in the messages provided.

Early warning of possible evacuations

80. A key lesson learnt from the fire response was the need to provide residents with early warnings about possible evacuations so they can prepare for the possibility of evacuation.

81. Little notice was given to residents in the subsequent flooding event. CDEM should be particularly mindful of this in future events.

Consistent messaging

82. The need for consistent messaging to residents was highlighted in the Port Hills fires. In the subsequent flooding event there was accurate, consistent and informative messaging given to everyone on the ground, including CDEM response teams, contractors and Police. The same messaging was communicated to the CCC Customer Contact Centre. This meant that residents received the same information from each person they spoke to.
83. Both the fire event and the flooding event suggest there is a need to explore technology options to link information from the EOC to field staff and civil defence centres and also to identify and communicate directly with affected residents.

Deployment of Response Teams

84. The need to have people on the ground who are able to liaise with residents was a key lesson from the fire event. In the July 2017 floods the CDEM mobilised its Community Response teams on the first evening and these teams continued to be deployed over the weekend. They were augmented by CCC staff on the Sunday. The teams were well briefed and were able to provide clear and consistent information directly to affected residents. They also provided information back from the field to the EOC.
85. Both the fire event and the flooding event suggest there is a need to explore technology options to convey information from the response teams to the EOC.

Community preparedness

86. The Port Hills fires highlighted the need for regular public education programmes for those living in a rural environment. Public education should include what mitigation measures individuals should undertake to reduce the risk of losses occurring, for example having a defensible space around their property, types of trees/scrubs to plant, and evacuation plans. The CDEM team intend to work with local communities, including the Port Hills' communities, to increase their understanding of and preparedness for emergency events.

Information from operational teams

87. The importance of regular information from the operational and response team was a key lesson from the fire event. In the subsequent event the CDEM Duty Officer and the Controller proactively sought information from the operational teams prior to the activation of an EOC. This assisted with decision making regarding the activation of the EOC in a timely manner. However, this took time and a technology solution could be explored, for example the use of drones or mobile devices.

Liaison with other agencies

88. The need for early liaison with other agencies was another lesson from the event. In the subsequent event the CDEM team started liaising with the other key civil defence agencies whilst the incident was being monitored and consideration being given as to whether the EOC should be activated or a declaration made. The Police and other agencies were consulted prior to the declaration for the Christchurch floods.

89. The fire event also highlighted the necessity of agencies having a presence in the EOC, to help facilitate effective planning and communication. In the subsequent event most of the relevant civil defence agencies were present in the EOC soon after the declaration. This facilitated the flow of information from within the Christchurch EOC to the staff, contractors and volunteers managing the cordons and welfare centre and door-knocking in affected neighbourhoods. It also facilitated consultation around decision making on matters such as the appropriate time to open and close cordons and allow evacuees back into their homes. Additional support was also sought early in the event from NZ Defence Force, Surf Life Saving, Coastguard, and St John. This ensured that these agencies were able to mobilise and be prepared to support the evacuation. A clear tasking and reporting line was established with these agencies which ensured that their resources were directed appropriately.

Cordon management

90. The requirement for effective cordon management was a key lesson learnt from the Port Hills fires. During the subsequent flood event, a cordon management process was developed by the operations function in the EOC. This enabled cordons to be set up with adequate resources and managed effectively during an emergency. It also enabled the smooth planning and implementation of resident re-entry. Clear and consistent messages were given to people on the cordons prior to it being communicated to residents via the media. The same information was communicated to the contractors and response teams on the ground. This ensured that residents received the same information at the cordons and from all the responders.

EOC Management

91. The Port Hills response reinforced the need for comprehensive action planning in the EOC. It also demonstrated that these plans should be well understood by all those in the EOC. During the subsequent event the EOC action plans were visual in the EOC to give clear direction on what needed to be done and by whom. Function teams regularly reported progress against the action plans. This provided an easy point of reference for members of the particular function and others in the EOC. It also supported the handover between EOC shifts.
92. Another lesson learnt was the critical role of the Response Manager in the EOC. During the fire event there was not always someone in the role of Response Manager in the Christchurch EOC. In the subsequent event the Response Manager role was filled by a person with extensive knowledge and experience. In that event the Response Manager (based on their knowledge of emergency legislation and the CIMS structure) was able to ensure that all functions of the EOC were operating effectively.
93. The importance of good communication and coordination between the functions in the EOC was a lesson from the Ports Hills fires. When the EOC was activated for the subsequent event consideration was given to which functions should be located next to each other. The PIM and Welfare functions were positioned next to each other to ensure coordination of core responsibilities, such as the creation and promotion of an affected residents' register and responding to messages/queries via social media.
94. The response to the Port Hills fires highlighted the importance that those working in the EOC have a good understanding of roles and responsibilities. After the Port Hills fires response the EOC database was revised to ensure it contained a current list of those on the EOC roster, their contact details, their specific skill sets and a record of training that volunteers have received. This enabled better communication with volunteers between events and at the time the EOC was activated. The EOC database continues to be

regularly updated. It will enable EOC function rosters to be managed well from within the EOC. The CDEM team are developing a training programme planning for people on the Christchurch EOC roster in the various function areas. The CDEM Team also plan to recruit additional EOC volunteers/staff.

95. The CDEM team plans to hold regular meetings of the functional managers of the Christchurch EOC between events. This will help build relationships within the Christchurch EOC and ensure consistency with processes and protocols, both of which are crucial to information flow. It will provide further understanding of how the different functions within the EOC complement each other. If the managers of all functions of the EOC are well trained and confident in giving clear direction, it will not matter if untrained volunteers need to be called in to assist during a large-scale emergency.
96. EOC knowledge base - the CDEM team has begun to review and update the EOC knowledge base to ensure it provides relevant and clear information which is easily accessible. Once revised, the EOC knowledge base will have document controls to ensure the value of the manual is not lost.

Information to Elected members

97. The fire response demonstrated the need to keep the Mayor and Councillors well informed. During the subsequent event regular information was sent to elected members throughout the event to ensure that they were aware of the event and the response. Elected members also had a clear channel to raise concerns or seek clarification. Elected members attended regular briefings by key EOC and technical staff throughout the event.
98. The need to keep elected members informed and provide them with a channel to pass on community concerns should not be underestimated. The CDEM team intends to work with elected members to refine these processes.

Declaration

99. The key lesson from the fire event was the need to brief the Mayor in the early stages of the event, prior to the declaration. In the subsequent event, the Mayor was briefed at the point a risk was identified.
100. Another lesson from the fires was the need to consider all risks and to declare a state of emergency early. An earlier declaration would have provided a warning to residents of the risks they may be facing, lifted the profile of the event and given greater confidence that all resources were being applied to the event.
101. In the future flooding event there may have been advantages in establishing an EOC and declaring a state of emergency earlier. This review suggests that a precautionary approach is taken when considering whether to declare a state of emergency. CDEM should be mindful of this in future events.

RECOMMENDATIONS

The review makes the following recommendations:

- (1) **The Council notes the significant contribution made by all involved in the fire response.**

Those involved demonstrated a passion, willingness and commitment to work together to safeguard our community. Many of those who contribute to emergency responses to incidents, such as the Port Hills fires, are volunteers.

- (2) **The Council notes the lessons learnt from the Port Hills Fire response that were applied to subsequent responses**

Christchurch Civil Defence staff and volunteers have been proactive in learning from the Port Hills Fire response and have implemented a number of improved processes. The CDEM team continues to look for ways to improve preparedness and response.

- (3) **The Christchurch CDEM team works with FENZ to develop a community education and response planning programme for areas with high fire risk.**

The Port Hills fires highlighted the need for regular public education programmes for those living in a rural environment. The development of Community Emergency Plans for communities living on or close to the Port Hills where wildfire risks exist should be explored with those communities

- (4) **The Council continues to develop processes and implement systems that will improve the information provided to those affected by an emergency.**

Different mechanisms and technology for ensuring a user-friendly registration process should be explored. Council should also explore options for pre-registration and the recording of residents' emergency contacts. It should also explore methods for easily identifying and contacting affected residents. Some of this work is incorporated in the MyCouncil project, which will make it easier for people to do business with the Council, whether booking a service, applying for something, or making a payment.

- (5) **The Mayor receives earlier and more comprehensive advice regarding declaring of a state of emergency during future events.**

- (6) **That a precautionary approach is taken when considering whether to declare a state of emergency.**

An early declaration would provide a warning to residents of the risks they may face, lift the profile of the event, ensure that all resources are being applied to the response and provide greater confidence to affected residents and the wider community.

- (7) **The Council notes that the Mayor has requested that the Ministry of Civil Defence clarify the legislative framework to make it clear that public confidence is a grounds for declaring a state of emergency.**

- (8) **The EOC provides early warning to residents regarding possible evacuations.**

Residents should be given early warnings about possible evacuations so they can prepare for these, for example make arrangements for animals and pack or remove important possessions.

(9) When cordons are put in place priority be given to ensuring good information is provided to all those managing the cordons.

(10) CDEM invest in technology to improve a) the flow of information between EOC, civil defence agencies and people in the field and civil defence centres, and b) the gathering and analysis of data from response.

(11) The CDEM Training Strategy adopted in 2014 be revised.

This strategy was “created to ensure CCC develops and maintains an effective capability and capacity for comprehensive emergency management in line with legislative requirements and defined national CDEM strategy”. The strategy was to cover the period 1 January 2014 to 30 June 2017.

(12) Staff are identified for the PIM function and regular training is provided covering the role and responsibilities of PIM

A clear understanding of roles and responsibilities will enable PIM to direct information to its different audiences from the beginning of an event. Participation in training will enable staff to keep pace with technology while building relationships between PIM volunteers from neighbouring districts. This has been shown to be of benefit in an emergency and helps with information flow during events affecting more than one district (like the Port Hills fires). Working with Canterbury CDEM and neighbouring councils, 15 Christchurch City Council staff have attended PIM-specific training, including a Canterbury-wide PIM forum.

(13) Regular briefings be provided to elected members during future events.

Abbreviations used in this document

CCC	Christchurch City Council
CDEM	Civil Defence Emergency Management
CIMS	Coordinated Incident Management System
DOC	Department of Conservation
EOC	Emergency Operations Centre
FENZ	Fire and Emergency New Zealand
IMT	Incident Management Team
PIM	Public Information Management
SDC	Selwyn District Council