

Community-led recovery: Evidence, dimensions and supports

Phase 2: ReGroup

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We acknowledge the traditional custodians across all the lands on which we live and work, and we pay our respects to Elders both past, present and emerging. We recognise that these lands and waters have always been places of teaching, research and learning.

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We live and work on the unceded lands of the Wurundjeri People of the Kulin nation, and we pay respects to their Elders past and present. We acknowledge that for First Nations communities, disasters such as bushfires occur in contexts of historical and ongoing trauma stemming from colonisation, racism and dispossession. We wholeheartedly support current efforts to address the severe and harmful neglect of these matters in the disasters sector in Australia. We also recognise the formidable strengths of First Nations peoples and cultures, including the rich knowledges and practices of healing and caring for Country which are so powerful in reducing disaster risk and supporting recovery. We strive to participate in genuine and respectful collaborations between Indigenous and non-Indigenous people for a more just, healthy and sustainable future together.



This artwork was commissioned by University of Melbourne Beyond Disasters team from Yaegl artist by Frances Belle Parker, who explains:

"The healing process is vastly different for everyone. It is a pivotal part of our own recovery. This icon features five figures depicting a sense of community connectedness. They come together to help each other heal. The central figure is a symbol of calm, knowledge and healing. The remaining figures represent children as well as adults coming together to collaborate and learn from the Indigenous knowledge of healing. The ray of light represents the hope we experience following a disaster. The flowing pattern below the figures captures a sense of momentum as well as the movement within the journey of healing."

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We sincerely thank the amazing community recovery committees who participated in this project. They welcomed us to their communities, were generous in sharing their time and perspectives and gave us constructive feedback about how we could improve the tools we are developing¹. All of the participants demonstrated an inspiring and humbling commitment to ensuring their communities recover well from the disasters and disruptions they have faced. For ethical reasons, we have chosen to protect the anonymity of each of the case study communities and instead they will be referred to as Group A, B, C and D throughout this report.

Our Project Reference Group has been an amazing support to our project. All members of the reference group have either lived experience of being a member of a community recovery committee or supporting community recovery committees in their professional capacity. Their insights, suggestions and willingness to discuss and debate the issues that have come up in this project has been greatly appreciated by the research team.² Thank you to:

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¹ We have elected not to name the Community Recovery Committees in the report for ethical considerations.

² Where a reference group member has multiple affiliations it indicates a role change in the project period.

We approached a number of disaster affected communities to consider participating in this study. A number of communities were keen but ultimately unable to commit to the project for a variety of reasons. Despite this, a lot of effort went into trying to establish these connections, and we would like to especially thank Tracey Greenaway, Anne Crestani, Lisa Keedle, Tracey Reid, Tegyn Angel, Sahba Delshad for their efforts.

The network physicalisation exercise and social network mapping tool was made possible through collaboration with Melbourne Data Analytics Platform (MDAP), including the incredibly talented Amanda Belton (who assisted with data collection), Daniel Russo-Batterham, Noel Faux, and Emily Fitzgerald.

Special thanks also to the incredibly helpful team at Natural Hazards Research Australia, especially Blythe McLennan and Supriya Gurung for their ongoing support throughout the project.

Executive summary

This report documents the approaches and findings of phase 2 of the *Community-Led Recovery: Evidence, dimensions and supports* project, also known as *ReGroup*.

There were three aims to this phase of the study:

1. To determine what Community Recovery Committee (CRC) members consider a recovery group to be, in terms of the group's objectives, make-up, social position, relationships and mission.
2. To test and validate a self-assessment tool (developed in [phase 1](#)).
3. To conduct a social network mapping exercise as a proof of concept for assessing the representativeness of CRCs, and develop a proof-of-concept electronic tool for mapping community participation in affected communities.

While there is existing research that establishes why CRCs are important, there is only limited information that exists to guide CRCs in their formation, planning and how they engage with other stakeholders. This has produced gaps in understanding for how CRCs function as well as how they relate to formal mechanisms of decision-making in local and state government.

This research project included case studies in four disaster affected communities and also surveys of disaster recovery workers. The research team used mixed methods and collected data by online Q-methodology survey, online questionnaire, qualitative focus group discussions and either a tangible or online social network mapping activity. Researchers also took observation notes throughout the project.

Key findings from this study include:

- **Participants found both the self-assessment tool and the community network mapping tool helpful.** We consider that we have established a proof of concept that these tools can support community-led recovery and should be refined to be accessible to any community who wants to use them.
- **There is no silver bullet for effective models of Community Recovery Committees**, as the context of communities before and after disasters vary too widely. Rather than continuing to ask 'what is a good model for a Community Recovery Committee?' we suggest asking 'what do we need to better understand the context of disaster affected communities for Community Recovery Committees to have the best chance of success?'
- **There was very little consistency across the issues that the groups identified as important.** This highlights how crucial it is for communities to have access to flexible support that incorporates their particular context.
- **Government action and inaction in disaster affected communities influences how Community Recovery Committees define themselves.** The way that governments and other organisations support disaster affected communities will impact how Community Recovery Committees perceive their role, scope and obligations.
- **Community Recovery Committees had a wide range of views regarding representativeness.** Some Community Recovery Committees saw their main function as being a voice for their community, while others didn't see themselves as fulfilling this role.
- **A deeper understanding of Community Recovery Committees may help expand our understanding of collective action theory.** Community Recovery Committee members take on a high workload at an incredibly stressful time when they participate, but they may also be able to action change in their community more swiftly than in non-disaster times.

In the *Implications* and *Utilisation Outputs* sections of this report, we also identify further planned analysis and utilisation products.

Phase 2 of the *Community-Led Recovery: Evidence, dimensions and supports* project was funded by Natural Hazards Research Australia and Emergency Management Victoria.

End-user statement

Melinda Nicholls, Manager of Research and Evaluation, Emergency Recovery Victoria, VIC

“Phase 2 of the Community-led recovery: evidence, dimensions, and supports for Community Recovery Committees (CRC) project demonstrates the importance and challenges of community-led recovery through exploration of four CRC case studies.

“This project informs how we can define CRC functions and its role in community recovery operations. It does this by exploring similarities and differences in CRC definitions in various contexts. We acknowledge there is no single formula for community-led recovery there are many contributors and unique contexts that feed into CRC development.

“The project sees the development of a CRC self-assessment tool that can enable identification of network gaps and missing community members by utilising features that illustrate CRC representativeness and social network mapping.”

Product user testimonials

Community member participant:

"I am writing to express my strong support for the ReGroup research project on Self-Assessment and Community Mapping being undertaken by the Child and Community Wellbeing Unit at the University of Melbourne.

"Our community was severely impacted by the south-east Queensland rainfall and flooding event in February 2022. As a member of the disaster recovery committee, I have seen firsthand the important role that social networks play in supporting communities in times of crisis and recovery.

"The research project will help to deepen our understanding of our local networks and the ways in which they can be leveraged to support disaster recovery efforts. We are hopeful that this will help us identify key groups within the community and better understand how we can collaborate during times of crisis.

"The reflective self-assessment tool has provided valuable insights into the ways in which our committee has formed and may change in the future. I feel that the Self-Assessment Tool will be a valuable resource for local recovery committees. This exercise will not only benefit the participants but will also contribute to a larger body of knowledge on disaster preparedness and recovery.

"It is important for disaster recovery efforts to be community-led and overall, I believe that this research project and reflective self-assessment exercise have the potential to make a real difference in the lives of those affected by disasters."

Introduction

Community recovery committees are an important element of community-led disaster recovery. There is limited research focused on these groups, but there is enough anecdotal evidence and grey literature to indicate that the way these groups form and operate across Australia varies broadly.

This report documents the approaches and findings of phase 2 of the Community-Led Recovery: Evidence, dimensions also known as ReGroup. There were three aims to this phase of the study. The first aim was to determine what Community Recovery Committee (CRC) members consider a recovery group to be, in terms of the group's objectives, make-up, social position, relationships, and mission.

The second aim was to test and validate a self-assessment tool (developed in [phase 1](#)) that allows CRCs to identify the boundaries and focus of their group and to identify support needs, including guiding their interactions and consultations with government agencies, NGOs, and the wider community.

Third, the project sought to conduct a social network mapping as a proof of concept for assessing the representativeness of CRCs, as instantiated through their social positioning and relationships with the wider community.

Based on our findings from [phase 1 of this study](#), experience and input from the Project Reference Group, a guiding assumption has been that there is no single 'right' formula for recovery groups to follow when forming or running a community recovery group. Our premise is that different groups make different choices suited to their own context. That is not to say, however, that such choices are always optimal for a particular situation. Choices can be made on behalf of a group, perhaps implicitly, or due to pragmatic constraints, without due consideration by the group as a whole, leading to internal disagreement and tension, second guessing, and burnout later on.

In this respect, this phase of ReGroup has sought to develop resources to support CRCs to consider issues that have been sticking points for groups in other settings and to make informed choices, at an earlier timepoint in their lifespan. These resources incorporate a range of tacit knowledge and hard-won learnings by those involved in the past twenty years' of community responses to disaster.

This report is intended as a record of the work undertaken, as well as a signpost to the themes and findings of the project, which will be reported on in depth through a variety of academic and community forums.

A word about language

In this project we have been using the term 'Community Recovery Committee's' (CRCs) to refer to community groups comprised of community members who are involved in the recovery process. We acknowledge that this is a term mostly used in Victoria. When we use this term, we are not referring to groups comprised primarily of people representing government and other organisations.

Background

In Australia, citizens' emergent responses to disasters is of increasing importance as government progressively shift responsibility for disaster resilience away from government and towards local communities (McLennan et al, 2016; Whitaker et al., 2015). An important implication of this shift is an increased reliance on public participation in planning and policy as it pertains to disaster response and recovery (Dibley et al. 2019; Olshansky 2005). In Australia, 'using community-led approaches' has been identified as one of the six core principles to consider for successful disaster recovery (Mitchell L 2019; AIDR 2018). Community Recovery Committees (CRCs) are one way that community-led approaches can be fostered and enabled through government, recovery bodies and community collaborations. CRCs can be regarded generally as community-led bodies that may collect, record, advocate, undertake projects and activities and report on local priorities for recovery. In Victoria, the State Emergency Management Plan and Recovery Framework both acknowledge CRCs and in other jurisdictions in Australia community-led recovery models are utilised in a range of different ways.

These policies align with the participatory turn in governance, in which public participation in planning and policy is generally considered an "unalloyed good," as both a democratic right, and a pathway to more effective policy (Rydin and Pennington, 2000). However, challenges arise in providing an exact description for what a CRC is, or is not. While there is existing research that establishes why CRCs are important, there is only limited information that exists to guide CRCs in their formation, planning and how they engage with other stakeholders. This has produced gaps in understanding for how CRCs function as well as how they relate to formal mechanisms of decision-making in local and state government. As a result, it is unclear what may differentiate a community group with special interests, versus a group that communicates with state and local recovery agencies about local recovery priorities, versus a group that has established a legitimate role in representing the community.

The current project is part of a larger research agenda aimed at better understanding and supporting the development of CRCs and their relationships with government and the communities they serve. This research follows on from the 2020-2021 research study 'Community-led Recovery: Evidence, dimensions and supports for Community Recovery Committees project (phase 1)' and makes up phase 2 of the project. It has been given the shortened name ReGroup.

The project outputs of phase 1 included:

1. Evidence summary. A factsheet providing an overview of theory, evidence, and frameworks for community-led recovery.
2. Community perceptions analysis. A draft research paper drawing on existing data in bushfire affected communities to identify the characteristics of individuals and community groups likely to be able to provide accurate assessments of community satisfaction.
3. CRC modelling. A description of different types and forms of CRCs and their likely support needs, with a prototype tool for self-assessment (Self-Assessment Tool for Community Recovery Committees).
4. Recovery progress monitoring. Research guidance to support end-user development of research plans for recovery progress monitoring.

In phase 1 of the project, a model for a CRC self-assessment tool was developed that identified the dimensions of CRCs, and a range of potential support needs (Appendix 1). During phase 1, the research team was unable to test and refine this model with CRCs or with a wider group of stakeholders, and this limitation was noted.

Finally, it was evident from phase 1 of the project that there was a lack of consensus among end-users about the essential functions of a CRC, and the relationship of CRCs to state and local agencies. End-users indicated that this lack of clarity was problematic for disaster recovery policy.

Research approach

This research project took a case study approach using mixed methods and collected data by online Q-methodology survey, online questionnaire, qualitative focus group discussions and either a tangible or online social network mapping activity. Researchers also took observation notes throughout the project. These methods allowed for an in-depth exploration of the priorities, contexts and meanings of CRCs as well as being designed to collect information according to each corresponding aim.

Ethics approval for this project was obtained from University of Melbourne Office of Research Ethics and Integrity in September 2022 (Reference number: 2022-24698-32194-4).

Methods

Aims

Following on from phase 1 of the project, phase 2 of the project sought to understand the below main three aims, with additional sub-aims.

1. Develop a shared understanding of the roles of CRCs.
 - a. Understand where viewpoints on the fundamental roles and responsibilities of CRCs converge and diverge among members.
 - b. Understand what CRC members and local and state government personnel consider a CRC to be.
 - c. Develop a definition that addresses the similarities and differences between the CRC members' views and local and state governments' views.
2. Test and refine the self-assessment tool built for CRCs that was developed in Phase 1.
 - a. Facilitate the trial and completion of the CRC self-assessment tool with four case study CRCs.
 - b. Assess whether the tool is useful and easy to understand for CRC members
 - c. Can the participants use it?
 - d. Do the scales make sense?
 - e. Are the domains correct?
 - f. Is the tool relevant?
 - g. Translate these findings into an updated working self-assessment tool
 - h. Consider the potential to be hosted digitally by end-user organisations for wider use by current and future CRCs
3. Undertake a social network mapping:
 - a. Identify how the CRC is positioned within their community in terms of:
 - i. Connection to the community
 - ii. Information networks
 - iii. Trust

Participants

This research project had two groups of participants: 1) members of CRC committees 2) local/state government officials and other professionals who work/have worked in a disaster recovery role.

Recruitment

Four case study CRCs were recruited, with their members asked to participate in a 1-day workshop (in-person) across mid-late 2022 and early 2023. The case study CRCs were recruited via a purposive/snowball approach using existing networks and were initially contacted via email or telephone. The primary inclusion criteria to participate in this research was that CRCs held a genuine desire to be included in the research, and that participation in this workshop would be mutually beneficial for both researchers and community-members. It is important to note here that researchers took a very accommodating approach in working with CRCs to make sure that the timing of the workshops suited them and did not overburden them during a time of disaster preparedness or existing busy workloads. Therefore, throughout this phase of the project we had some delays in data collection.

It was originally planned to recruit local/state government officials and other professionals working in a disaster recovery role in the same CRC location as the four case studies, and who had working knowledge of the CRCs. However, after conducting the first two workshops with our case study CRCs this recruitment strategy was revised, after identifying that CRCs were operating independently of the local/state government officials and that well established connections with recovery workers did not exist. Therefore, we approached a wider sample of local/state government and other professionals who work or have worked in a disaster recovery role via email and LinkedIn posts using our existing networks.

Given the contextual nature of the data collection necessary for this project, researchers did not recruit for diversity or representativeness in the sample.

TABLE 1: DATA COLLECTED³

Date of workshop	Participant type	Location	N=	Data collected
6/11/22	CRC members	NSW	7	Q-sort Self Assessment Tool (SAT) Tangible Social Network Map
25/11/22	CRC members	QLD	6	Q-sort Self Assessment Tool (SAT) Tangible Social Network Map
20/2/23	CRC members	WA	12	Q-sort Self Assessment Tool (SAT) Online SNAP
5/4/23	CRC members	VIC	8	Self Assessment Tool (SAT) Online SNAP
Online data collection: 20/3/23- 20/4/23	Recovery workers	National	Part A: 37 Part B: 30	Q-sort

³ Group ID names have been left out of this report for de-identification purposes.

TABLE 2: CASE STUDY GROUP CHARACTERISTICS

GROUP	Disaster setting
A	Regional community. Community had experienced multiple flooding events in recent years, most recently in 2022.
B	Urban community. Community had experienced recent flooding event in 2022. Suburb had historic flooding.
C	Regional interface community. Community had experienced significant fire event in 2021.
D	Remote community. Community had experienced significant bushfire event in 2019-2020.

Data collection

Three case study CRCs completed the Q-Sort Activity with one case study CRC (Group D) unable to complete it due to time constraints. All four case study CRCs completed the Self-Assessment Tool (SAT) and either a tangible or online Social Network Mapping exercise. Local and State Government officials and other professional recovery workers completed the Q-Sort Activity.

CRC members were invited to attend a 1-day workshop in-person with all other members of their CRC, which was held in a central location to where they lived. Workshops 1 -3 typically went from 9.30am until 4pm and were catered (see Appendix 2 for example workshop schedule). Workshop 4 was compressed to two hours to accommodate the availability of CRC members. Participants were offered financial assistance with travel costs if necessary. A flyer with information about the research and a schedule for the day was sent out to all participants prior.

During the workshop, participants were provided a Plain Language Statement and asked to sign their consent. Participants were then given an iPad to use and given a personal non-identifiable code to enter into each of the survey forms.

Qualitative data was collected by researchers own notes, taken during the facilitated discussions during the workshop. Both observation notes and quotes verbatim were taken down by researchers.

In addition to collecting data from CRC members at four case study locations, 37 local council and state government officials and professionals who work or have worked in a recovery role completed the online Part A Q-Sort survey with 30 further completing Part B.

The data collection methods are described below and align with the corresponding three main aims of the research study. Following each instance of data collection, real-time de-identified results were presented back to the CRC and a facilitated focus group discussion was conducted in order to further understand the CRC members' views.

Part 1 Q-Sort:

Q-methodology (or Q-sort) is a mixed systematic approach to study individual's perspectives (or subjectivity) on a particular topic (McKeown & Thomas, 1988). It can help identify areas of agreement and disagreement, and different patterns of thought on a particular subject. The focus is on how people think about a certain topic, not how many people think a particular thing. This is a different approach to quantitative survey data and involves a smaller (non-random) sample of selected participants/stakeholders.

Participants completed an online survey that is a Q-Sort activity⁴ on the iPads provided to elicit what statements they agree/neutral/disagree with regarding what they consider 'an ideal' CRC to be, its roles and functions (Appendix 3). The Q-Sort activity was broken up into two parts. Part A had 35 statements that related to Procedure or 'how' a CRC should operate, and Part B had 23 statements that related to Policy or 'why' a CRC should operate. Statements were collected by reviewing our existing literature review developed in Phase 1 of the project, as well as through consultation with our project reference group which includes 12 stakeholders from a range of organisations that work in and with CRCs. The full list of statements is outlined in Appendix 4.

After sorting the statements into the domains of agree/neutral/disagree, participants were then prompted to drag and drop the statements into a pyramid shape, which forced the participant to prioritise statements which they most agree with all the way to statements they most disagree with. Data was then analysed in real-time using factor analysis (further described below) and presented back to the CRC members within 20 minutes of completion (see Figure 1). A facilitated focus group discussion was then completed by researchers and the CRC members to discuss areas of most agreement and disagreement.

⁴ Hosted on qmethodsoftware.com

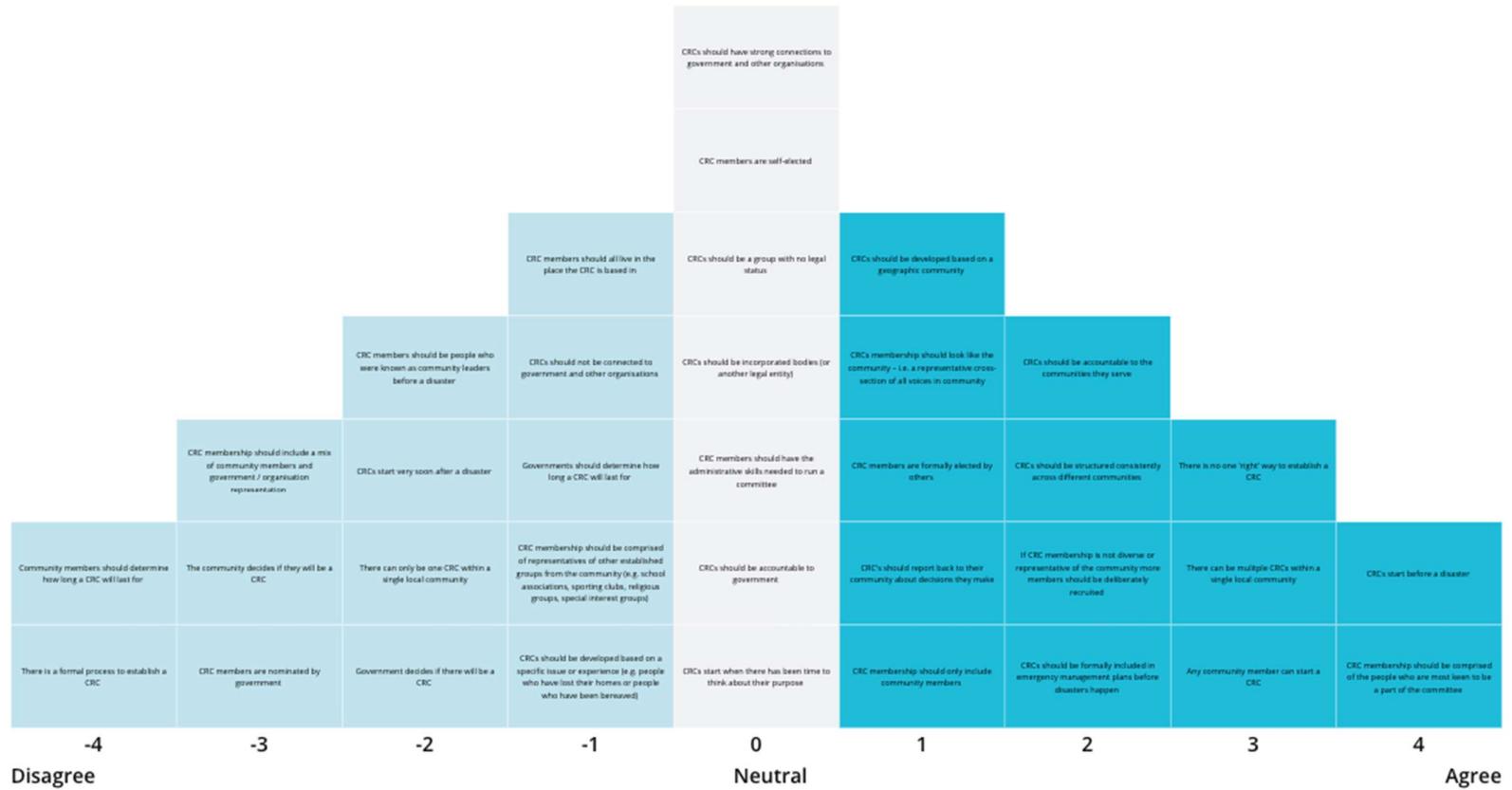


FIGURE 1: Q-SORT DISTRIBUTION GRID

More information about Q-Sort steps can be found in Appendix 3



Part 2 Self-Assessment Tool:

Participants completed the self-assessment tool as a second online survey (Appendix 5, hosted on Qualtrics) on the iPads provided to understand where the participant thinks the CRC fits on the scale according to each question in the three main domains (formation and scope, governance and decision-making, stakeholder engagement). Data was then analysed in real-time (further described below) and presented back to the CRC members, followed by a facilitated focus group discussion to address areas of most agreement and disagreement. Researchers also asked the group about the usefulness of the tool and for any other feedback.

The below questions are about what you would like your Community Recovery Committee to look like.

Please select a position on the scale that reflects your views.

FORMATION AND SCOPE

One well defined location	<input type="radio"/>	District level, multiple locations
Single issue focus	<input type="radio"/>	Whole of recovery focus
Pre-existing group	<input type="radio"/>	Completely new group
Self-appointed group	<input type="radio"/>	Formal election process
No clear objectives for the group	<input type="radio"/>	Clear, deliberate goals and parameters of the group
Do not manage projects	<input type="radio"/>	Manage all projects
Group formed / adapted very soon after the disaster event	<input type="radio"/>	Group formed / adapted some time after the disaster event
No financial responsibility	<input type="radio"/>	Complex financial responsibility
No legal status of group	<input type="radio"/>	Clear legal status of group
Our group does not represent the communities views and priorities to any external bodies (e.g. government and NGOs) on all issues relating to resilience and recovery	<input type="radio"/>	Our group represents the communities views and priorities to external bodies (e.g. government and NGOs) on all issues relating to resilience and recovery

Screenshot

FIGURE 2: SCREENSHOT OF ONLINE SELF ASSESSMENT TOOL

Part 3 Social Network Analysis:

Social network analysis (SNA) is a uniquely relational methodology in which social actors (in this case, people) are treated as variably interconnected one-to-one through a web of interpersonal relationships (e.g., friendships, advice networks, information seeking, etc.) (Borgatti et al, 2009). This data allows for the construction of larger social “maps” or diagrams that can be analysed to examine issues of social connectivity and cohesion.

In the workshops, participants were given a short presentation by researcher Colin Gallagher to the concept of social network analysis (SNA) and why connection to social networks is useful to understand in a disaster setting. Participants were then asked to share information about what groups they are connected to in their community.

In the first two workshops, this aim was pursued through a data physical visualisation process, involving use of tangible materials (whiteboards, stickers, post-its, string) to visualise the joint network. For the final workshops we collected social network data online using a platform developed in collaboration with University of



Melbourne's Melbourne Data Analytics Platform, in which participants' group memberships were live-mapped as a network.

For all four workshops, discussions were held, focusing on the reach and diversity of the CRC's overall network, the nature of members' relationships to groups. The final two workshops also sought feedback on the design of the online tool.



Research findings

In this section, we outline general findings from the three sections of this phase of research: the Q-sort activity, the Self-Assessment Tool, and the Social Network Mapping Exercise.

Section 1: Q-Sort activity

This activity was designed to understand where viewpoints on the fundamental roles and responsibilities of CRCs converge and diverge among community members, local/state government officials and other professionals working in the recovery sector. The Q-Sort activity was conducted with three case study CRCs (with the exclusion of group D due to timing constraints) and 37 local/state government officials and other professionals working in the recovery sector.

The Q-Sort activity was broken up into two parts, with Part A comprising of 35 statements on procedure 'how' questions and Part B comprising of 23 statements on policy 'why' questions.

Participants were asked to prioritise statements into a pyramid shape in the domains of most agree, most disagree or neutral that aligns with their view about what an 'ideal' Community Recovery Committee should look like. CRC participants noted a frustration with only being able to pick two statements in the most agree and most disagree sections of the pyramid. During the workshops this was acknowledged by researchers, noting the importance of this method in determining the highest and lowest priorities for each individual with regards to the overarching question of what an 'ideal' CRC should be.

Participants were either given iPads to complete the activity or emailed a link to complete it on their own device (laptop, smartphone or tablet). The activity took participants approximately 30 minutes to complete both Part A and Part B.

CRC members' Q-sort responses were then analysed using Principal Components Analysis to group statements and participants into factors (or "camps"). Principal components analysis is a widely used technique in the social sciences for simplifying responses of many individuals into a smaller number of themes or components (Dunteman, 1989). To determine the number of factors extracted, Kaiser criterion was applied. However, in most circumstances, only a single factor was found. Therefore, as a prompt for discussion in the workshop, a minimum of two factors was extracted.

We presented the results to the group, focusing on:

- Whether the group had formed 'camps' (clusters on likeminded respondents) and outliers
- Areas of highest agreement within the group
- Areas of highest disagreement within the group

By being able to present the de-identified results back to the group in real-time, we were able to engage in a rich focus group discussion based on CRC members' views on what an 'ideal' CRC should be. This opened up further discussion on topics where there was some disagreement and allowed for a constructive and deliberative conversation in order to move through these issues.

In this report, we have presented the overall total group level of agreement and disagreement of the top 3 statements (see Tables 3-6). Statements have been bolded when three or more groups have selected it in its top 3 agreement or disagreement.



TABLE 3: GROUP A Q-SORT RESULTS

GROUP A		
	Procedure questions - HOW	Policy questions - WHY
TOTAL GROUP AGREE	<ol style="list-style-type: none"> 1. There is no one 'right' way to establish a CRC 2. CRCs should be formally included in emergency management plans before disasters happen 3. CRC membership should be compromised of the people who are most keen to be part of the committee 	<ol style="list-style-type: none"> 1. CRCs should be actively involved in decision making about community recovery by government and other organisations 2. CRCs should identify community priorities after a disaster 3. CRCs should advocate for their community after a disaster to government and other organisations
TOTAL GROUP DISAGREE	<ol style="list-style-type: none"> 1. Government decides if there will be a CRC 2. CRCs should be developed based on a specific issue or experience (e.g. people who have lost their homes or people who have been bereaved) 3. CRC members are nominated by government 	<ol style="list-style-type: none"> 1. CRCs should carry out the decisions of government and other organisations 2. CRCs should only help people who help themselves 3. CRCs should only help those who are unable to help themselves

TABLE 4: GROUP B Q-SORT RESULTS

GROUP B		
	Procedure questions - HOW	Policy questions - WHY
TOTAL GROUP AGREE	<ol style="list-style-type: none"> 1. CRCs should be accountable to the communities they serve 2. Any community member can start a CRC 3. CRCs should report back to their community about decisions they make 	<ol style="list-style-type: none"> 1. CRCs should advocate for their community after a disaster to government and other organisations 2. CRC members should facilitate opportunities for others in the community to make decisions about the community 3. CRCs should be actively involved in decision making about community recovery by government and other organisations
TOTAL GROUP DISAGREE	<ol style="list-style-type: none"> 1. CRC members are nominated by government 2. Government decides if there will be a CRC 3. CRC members should all live in the place the CRC is based in 	<ol style="list-style-type: none"> 1. CRCs can focus on single issues only 2. CRCs should only help those who are unable to help themselves 3. CRCs should carry out the decisions of government and other organisations

TABLE 5: GROUP C Q-SORT RESULTS

GROUP C		
	Procedure questions - HOW	Policy questions - WHY
TOTAL GROUP AGREE	<ol style="list-style-type: none"> 1. CRCs membership should look like the community 2. CRCs should be accountable to the communities they serve 3. CRCs should have strong connections to government and other organisations 	<ol style="list-style-type: none"> 1. CRCs should be actively involved in decision making about community recovery by government and other organisations 2. Governments and other organisations should consider CRCs as the main channel for community led recovery 3. N/A
TOTAL GROUP DISAGREE	<ol style="list-style-type: none"> 1. Government decides if there will be a CRC 2. Governments should determine how long a CRC will last for 3. CRC members are formally elected by others 	<ol style="list-style-type: none"> 1. CRCs should only help people who help themselves 2. CRCs can focus on single issues only 3. CRCs should only help those who are unable to help themselves

GROUP D did not complete Q-Sort



TABLE 6: RECOVERY WORKERS Q-SORT RESULTS

RECOVERY WORKERS		
	Procedure questions - HOW	Policy questions - WHY
TOTAL GROUP AGREE	<ol style="list-style-type: none"> 1. CRCs should be accountable to the communities they serve 2. CRCs membership should look like the community 3. CRCs should report back to their community about decisions they make 	<ol style="list-style-type: none"> 1. CRCs should be actively involved in decision making about community recovery by government and other organisations 2. CRCs should influence the decisions and planning of government and other organisations 3. CRCs should coordinate with governments and other organisations as a way to identify how to meet needs
TOTAL GROUP DISAGREE	<ol style="list-style-type: none"> 1. CRC members are nominated by government 2. CRC members are self-elected 3. Government decides if there will be a CRC 	<ol style="list-style-type: none"> 1. CRCs should only help those who are unable to help themselves 2. CRCs should only help people who help themselves 3. CRCs should carry out the decisions of government and other organisations

Across both groups of participants (CRC members and recovery workers) **all agreed** to the statement that:

- CRCs should be actively involved in decision-making about community recovery by government and other organization.

Group B and C and Recovery workers also **all agreed** to the statement:

- CRCs should be accountable to the communities they serve.

Across both groups of participants (CRC members and recovery workers) **all disagreed** to the statement that:

- Government decides if there will be a CRC

Group A and C and Recovery workers **all disagreed** to the statement:

- CRCs should only help people who help themselves.

Further analysis will be conducted including joint factor analysis of all groups in combination, as well as mapping the different roles of Recovery workers to understand general patterns across all groups. While some key issues are generally agreed upon across groups, overall the Q-sort results revealed a diversity of views on what the fundamental roles and responsibilities of a CRC should be; within CRCs, between CRCs and amongst recovery workers. This is further discussed below under the title Heterogeneity. Because of the diversity of views we saw captured by this activity, further conjoint analysis of participant questionnaire and workshop responses will be required to fully address sub-aim 1.3 'Develop a definition that addresses the similarities and differences between the CRC members' views and local and state governments' views'. We offer the following provisional statement:

CRCs are the manifestation of public participation in local planning and policy making for disaster recovery. They are entities, formed purposefully by communities to be an active party to decision-making about recovery. These groups negotiate rules for membership and operation, their scope, their relationship to government, and their model of representation and accountability to the community.

This broad preliminary statement is offered on the presumption that CRCs are both a democratic right and an effective resource for recovery (Rydin and Pennington, 2000), and thus should exist in some form. This definition does not exclude the role of government in convening potential parties to a CRC or otherwise encouraging formation.



Section 2: CRC Self-Assessment Tool (SAT)

In phase 1 of the project (Gibbs et al., 2021) we developed a preliminary self-assessment tool to support CRCs determining how they wanted to approach issues likely to arise when forming or revising the structure and purpose of a group. The tool comprised 29 elements split under headings:

- Formation and scope
- Governance and decision making
- Stakeholder engagement

Each element was set up as a Likert scale (see Appendix 5).

To test the self-assessment tools within our case study sites, we loaded the self-assessment tool onto a survey form (using Qualtrics software) and gave individual workshop participants iPads to use. This activity generally took participants approximately 15 minutes to complete. We then used statistical software program R to generate the results immediately. As a simple and practical measure, we relied on the standard deviation for the spread of responses to gauge levels of agreement.

We presented the results to the group (see Table 7-10), focusing on:

- Whether the group had formed 'camps' (clusters on likeminded respondents) and outliers
- Areas of highest agreement within the group
- Areas of highest disagreement within the group

TABLE 7: GROUP A SAT RESULTS

GROUP A			
	FORMATION & SCOPE	GOVERNANCE & DECISION MAKING	STAKEHOLDER ENGAGEMENT
AREAS OF HIGHEST LEVELS OF AGREEMENT	Project management	Group will exist beyond government involvement	Active engagement with the community beyond the committee
AREAS OF HIGHEST LEVELS OF DISAGREEMENT	Legal status of the group	Planning for representation of all sectors of the community	Community members outside the committee are involved in committee decision making

TABLE 8: GROUP B SAT RESULTS

GROUP B			
	FORMATION & SCOPE	GOVERNANCE & DECISION MAKING	STAKEHOLDER ENGAGEMENT
AREAS OF HIGHEST LEVELS OF AGREEMENT	The group represents community externally	Group will exist beyond government involvement.	Active engagement with the community beyond the committee.
AREAS OF HIGHEST LEVELS OF DISAGREEMENT	Group will take on financial responsibility	Members should receive payment for committee involvement.	Media engagement.

TABLE 9: GROUP C SAT RESULTS

GROUP C			
	FORMATION & SCOPE	GOVERNANCE & DECISION MAKING	STAKEHOLDER ENGAGEMENT
AREAS OF HIGHEST LEVELS OF AGREEMENT	Need clear, deliberate goals for the group.	Defined decision making role of the group.	Connection to elected officials.
AREAS OF HIGHEST LEVELS OF DISAGREEMENT	Geographic location the group covers.	Planning for representation of all sectors of the community.	Media engagement.

TABLE 10: GROUP D SAT RESULTS



GROUP D			
	FORMATION & SCOPE	GOVERNANCE & DECISION MAKING	STAKEHOLDER ENGAGEMENT
AREAS OF HIGHEST LEVELS OF AGREEMENT	Legal status of group.	Formal roles needed within group.	Planned, active engagement with community by committee.
AREAS OF HIGHEST LEVELS OF DISAGREEMENT	When the group should form.	Term length of roles.	Level of engagement with elected officials.

After the results were presented to the group, the researchers facilitated a focus group discussion about the results, asking group members to reflect on things they found surprising or unexpected.

All of the groups identified that they had discussed at least some of the issues in the self-assessment tool at some point, but had not approached discussions in a structured or guided way. The group discussions that the results of the self-assessment tool activity prompted were rich, thoughtful and nuanced. Group members asked each other to clarify their position and challenged some statements made by others.

The discussions in each group had a different focus, emphasising the heterogeneity of the groups and their contexts. In two of the workshops, the discussion prompted clarification and resolution regarding some issues the group had been grappling with.

Following the workshop with the first group, we made minor adjustments to the self-assessment tool to reflect participant feedback relating to the language used in some of the statements. The self-assessment tool was not altered after this.

Section 3: Social network mapping tool (SNAP)

In [phase 1 of the project](#) (Gibbs et al., 2021), recording and analysing patterns of community participation was identified as a key research opportunity for tracking and harnessing social capital in disaster affected communities (see also Gallagher et al., 2019). This phase 2 of the project included a two-part social network mapping exercise, with the central aim of developing a proof-of-concept electronic tool for mapping community participation in affected communities.

This mapping exercise was based on a social network approach, in which community participation was conceptualised as a two-mode or bipartite network (see Figure 3). In such a network, individuals are connected via their co-affiliations to common groups, with non-overlapping groups also represented. Network graphs such as these not only provide a general visualisation of social connection, they can also be analysed for key positions within the network that may be useful for CRCs to harness as part of their activities. Social network mapping can help CRCs in the following areas:

- **Disseminating information.** Certain groups may be central and highly connected to the network as a whole. Partnering with these groups would allow the Recovery Group to get information out quickly and efficiently to the largest number of people possible.
- **Connecting communities.** Certain groups may be unique bridges (brokers) between otherwise disconnected parts of the communities. Working with such groups may be especially important for making sure the community remains cohesive and in touch with one another.
- **Accessing the periphery.** Some individuals may have only one group connection. And some groups may have many members whose only form of group involvement is that group. Liaising with these groups may be important in reaching otherwise-disconnected groups.
- **Characterising the disconnected.** Not everyone belongs to a group. Contacting these individuals may require alternative approaches, such as through social media, or community connectors (Wallace et



al., 2020). Nevertheless, social mapping in combination with other data sources could provide scope to this issue.

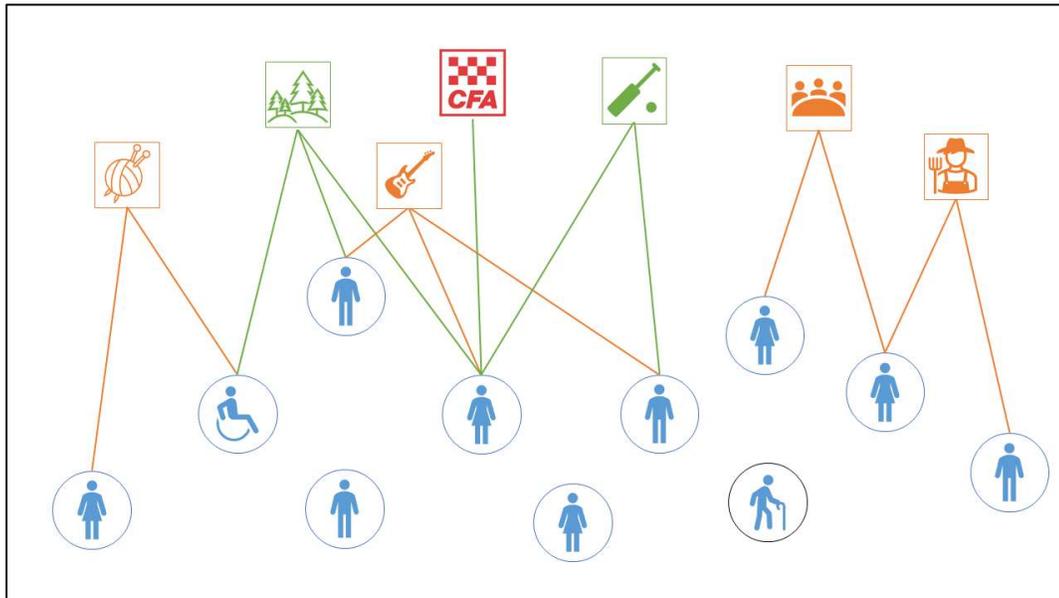


FIGURE 3: BIPARTITE NETWORK

The remainder of this section describes the development of the social network mapping tool in two phases, followed by highlighted findings from the activities mentioned.

Phase 1. Network physicalisation (hands-on)

For the first two case study groups, the social network mapping activity was hands-on and tactile in nature, making use of concrete items (i.e., office supplies, sewing materials) to represent how group members had various overlapping memberships in local groups.

This task was inherently qualitative and flexible. Members could define the nature of the connections they had with different groups and discuss the groups they belonged to as they pinned them to the board (see Figure 4 & 5). The shared nature of the task elicited conversation and common awareness of connections (See table 10 below for the themes).

While an important first step in understanding social ties, this activity was inherently limited to the process of eliciting networks, rather than the network data itself. The physical nature of the output meant that the visualisation that was produced was not amenable to recording and analysis, much less instantaneous analysis. Furthermore, it was highly limited in scale, allowing for only a small handful of people to work simultaneously.



FIGURE 4: NETWORK PHYSICALISATION ACTIVITY GROUP A



FIGURE 5: NETWORK PHYSICALISATION ACTIVITY GROUP B

Phase 2. SNAP tool (electronic)

In parallel with the first two groups, an electronic prototype of the SNAP tool was developed, led by Dr Gallagher in collaboration with Melbourne Data Analytics platform (Russo-Batterham, Belton, Faux, Fitzgerald). Development included the following main components:

- Data architecture and hosting
- Web interface development
- Network visualisation

Participants input their individual social network data into the SNAP tool using an online questionnaire (see Appendix 6). The defining feature of the tool is an expandable roster, whereby individuals select which local groups they belong to, from an initial roster; however, if a particular group of theirs does not appear, individuals can add that group to the roster, and it will become available to subsequent participants. Before completing the questionnaire, participants are asked to confirm that they are happy with the data they are submitting. Upon completing the questionnaire, they can instantaneously see their data added to the larger network graph representing all participants for that location (See Figure 6 below, and Appendix 6 for further detail).

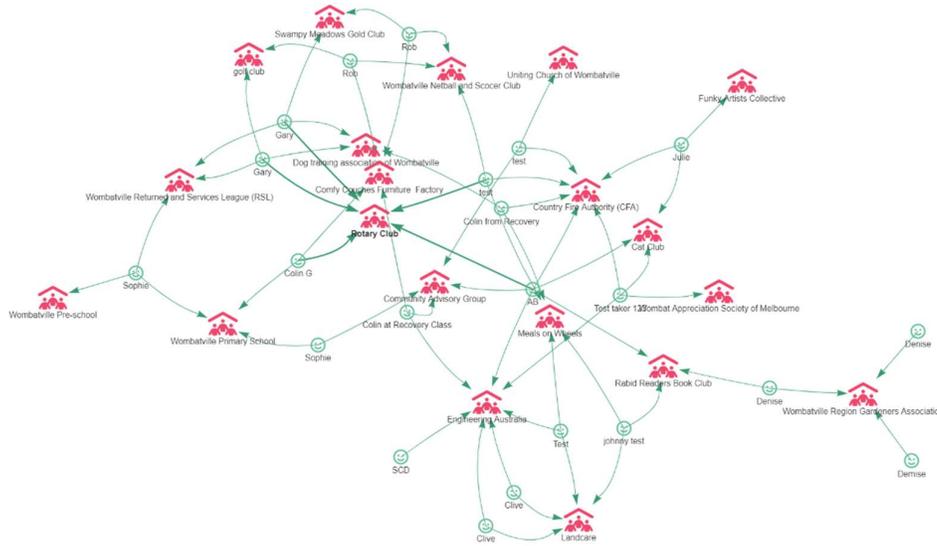


FIGURE 6: SCREENSHOT OF ONLINE SNAP TOOL

The tool was ready for use with the last two case study groups. Overall, the tool worked well, without any major technical glitches aside from temporary connectivity issues owing to local mobile data reception. Users were generally receptive to both the function and appearance of the tool, and the future potential for the tool⁵. More specific feedback and comments are listed below in Table 10.

TABLE 10: THEMES DRAWN FROM SOCIAL NETWORK MAPPING SUB-PROJECT

Awareness of the social network was useful	
<p><i>What we heard.</i></p> <ul style="list-style-type: none"> For the hands-on activity, it was generally observed that the shared nature of the network physicalisation task revealed a lot about members’ group memberships that was unknown to the other CRC members, both in terms of how memberships overlapped with certain groups, and how they were unique. Through the group activity, a waterfall effect for recalling aspects of the community network: i.e., when one person openly noted their network connection to a group, this prompted others to remember a connection to that group, or to discuss that group and how they might be useful for public consultation and collaboration. 	<p><i>What this may mean for utilisation.</i></p> <ul style="list-style-type: none"> Awareness of a collaboration partner is a key requirement for collaboration (Borgatti & Foster, 2003). The basic premise of mapping a community social network was affirmed – that boosting common knowledge of the CRC’s connections is both motivating and engaging, and holds the potential to facilitate collaboration between the recovery group and other groups within the community. Hands-on, shared activity is useful for broadening CRC members’ awareness of each other’s connections. Even when an electronic map is fully realised, a shared activity should be planned as part of implementation.
Types of connections to groups are diverse.	
<p><i>What we heard.</i></p> <ul style="list-style-type: none"> A common comment across all CRCs was a desire for more range in terms of how connection might be defined. It was felt that personal active involvement was too narrow a definition for capturing the sorts of useful connections that members have with groups. Such additional connections include. 	<p><i>What this may mean for utilisation.</i></p> <ul style="list-style-type: none"> The definition(s) of group involvement is a key consideration in tool development. While a hands-on physicalisation activity was inherently flexible in accommodating multiple ideas of “connection,” the electronic tool is more limiting, requiring one or a few

⁵ **Note on access.** At the time of writing, the code for the SNAP tool can be made available for use by contacting CI Colin Gallagher directly. Additional availability options (e.g., development wiki) will become available in the near future.



<ul style="list-style-type: none"> ○ Knowledge of the group. Awareness of that group’s motivations and needs. ○ Vicarious connections through personal contacts. ○ Working with the group in various capacities. ○ Formal responsibility/oversight through a job role. 	<p>definitions of involvement.</p> <ul style="list-style-type: none"> ● Some of the types of social relationships that participants mentioned were formal relationships tied to a particular formal role and expertise (e.g., government oversight, administrative knowledge). While these connections may be important for general information spread, they may or may not be relevant to political representation.
<p>Various networking strategies are employed at different times and for different purposes.</p>	
<p><i>What we heard.</i></p> <p>As part of the discussion, the following consultation strategies were raised, for which network mapping may be helpful.</p> <ul style="list-style-type: none"> ● Identifying key-players during convening. Identifying and consulting with key groups at the outset of the formation of the group was seen as essential in establishing legitimacy. ● Issue-specific triangulation. One CRC followed a strategy of pooling their ties with outside groups. This depended on which issue was most salient at a given time, and which committee member was most well-versed in that issue. For a construction issue (for example), one committee member would liaise with a particular partner group. For a social issue, by contrast, a different CRC member would take over. ● One CRC undertook a strategy of consulting widely and systematically with residents and community groups at the outset (while motivations were high). After that, the group followed up with relevant groups, checking in and updating priorities in line with completed work and changing contexts. ● Bring in vertical capital quickly. One CRC emphasised the need to establish vertical relations quickly (e.g., elected officials, local and state government). 	<p><i>What this may mean for utilisation.</i></p> <ul style="list-style-type: none"> ● Obviously, the role of connection is central to the function of a CRC. But this may be broken down into a range of relational strategies that come into play at different points in the lifespan of the committee. These include communication, mobilization of support, and consultation and representation.
<p>Timing is important, but complicated.</p>	
<p><i>What we heard.</i></p> <p>The ideal timing for community mapping was discussed alongside the broader issue of when to establish a CRC.</p> <ul style="list-style-type: none"> ● Both the reference group and some CRCs expressed that the ideal time for community mapping would come before a disaster struck. ● However, other CRC members noted that while group formation and community mapping would ideally come before the event, this is unrealistic, as the community must be mobilised. The best time is after the initial crises has faded, but when the motivation still exists among a critical mass within the community, estimated to be about a month after the disaster. ● The social network of the community changes over time, and especially in relation to sudden events. 	<p><i>What this may mean for utilisation.</i></p> <ul style="list-style-type: none"> ● There is no perfect time to lay the foundations for the group. There are both upsides and downsides to mapping and group formation before the event versus after the event. ● The notion of before and after loses some meaning in the context of resilience across multiple disasters. ● The social network map may lose some of its relevance over periods of time, as people change their connections over time, as people move in and out of the community. ● Offers of support to CRCs (such as the availability of SNAP) may need to be raised at different and multiple time points.
<p>There are extended uses for the tool.</p>	
<p><i>What we heard.</i></p> <p>Participants noted several possible uses for the SNAP that go beyond its envisioned use as a tool for community consultation.</p> <ul style="list-style-type: none"> ● Mapping at a regional scale. One CRC noted the important use for mapping community connections across different CRC regions, as a means of understanding how recovery may be coordinated at a higher level than the community. ● Emergency response. One CRC discussed the potential use of SNAP in emergency response in depth. In particular, they were interested in the potential use of SNAP as a directory of social connections that could be used in emergency situations to verify what was happening in isolated pockets of the community during communication blackouts. 	<p><i>What this may mean for utilisation.</i></p> <p>Community mapping has a range of potential uses for community recovery. However, some specific uses may come with particular functionality requirements that would ideally be integrated into the tool in a deliberate manner,</p>



Usefulness of the SAT and SNAP tools

We asked participants in the workshops to reflect on the usefulness and relevance of the tools that we were trialing, and the process of participating in the workshops. We received helpful and constructive feedback about the tools, with suggestions on how to make them both more user-friendly. Overall, participants considered that the self-assessment tool and the SNAP tool were useful and relevant, and that the domains that the tools covered were helpful to prompt discussions amongst the groups.

When reflecting on the self-assessment tool, a number of participants noted that while the tool was helpful in supporting them to organise their thinking, the most helpful part of using the tool was the discussions that followed:

“Working through it like this takes the emotion out of the discussions and helps you just figure out what you need to decide.” Participant, Group C.

“I like that you’re not telling us the ‘right way’, that there is food for thought and there are options.” Participant, Group A.

When reflecting on the SNAP tool, participants identified that it would be a useful exercise for communities before and after a disaster event. Participants identified multiple benefits, including being able to identify community leaders and connectors:

“The SNAP could help you identify the people in the community who would be trusted to bring together. We got that right, but it was accidental.” Participant, Group D.

Participants also noted that the community mapping could support targeted, relevant communications in post disaster settings:

“If we had this, it could help to streamline efforts if you’re under time pressure.” Participant, Group C.

When we asked participants to reflect on when the ‘right time’ to offer these tools to communities, there wasn’t a consistent response, pointing to the complexity of supporting CRCs in post disaster settings and the need for support to groups to be flexible and responsive to changing community needs.

“It depends on where you sit on the timeline, isn’t it? We’re after the last one, but before the next one.” Participant, Group A

“Just after the floods, like a month after, when motivation is high for long-term things.” Participant, Group B

“I think if we had seen this early it might have stifled us. It might have added complexity and bogged us down if we’d had a big conversation like this at the beginning. Maybe we wouldn’t have formed.” Participant, Group A.

Some participants commented that if community mapping and support to form a CRC had occurred prior to a disaster it would have been useful and would have helped to avoid some of the cognitive challenges faced by community members after the disaster which made it hard to use tools (including trouble concentrating, reading, and retaining information). However, there was little agreement that communities would feel compelled to do this before a disaster event.

“Every community in the country should do this stuff before an event, like an evacuation plan or an emergency management plan. But, you probably wouldn’t do it before a disaster.” Participant, Group D.

Additionally, participants reflected on the experience of taking part in the study. Most participants indicated that the workshop was a useful experience:



“I feel like we’re being validated by having you here. The workshop supported us to push the conversation to an elevated level, to help keep us out of the weeds.” Participant, Group B.

The below box gives an example of how the Self-Assessment Tool was used to help one CRC identify different views on group formalisation, and supported them to reach a consensus agreement.

One of the SAT questions regarding governance asked group members if they thought the group should have a formalised legal structure. In all four groups, discussions regarding incorporated association structures and auspice options focused on the ability to receive funding or requirements from government.

One group discussed the need to incorporate due to financial and insurance issues, and as a way of staying separate from government. However, the group members were struggling with the pragmatic challenges this would present for the group to fulfill the legal requirements of incorporation. One participant raised the suggestion of being auspiced by another local incorporated group. Participants deliberated regarding the merits of this in the facilitated discussion, and then over lunch. The group were able to come to a decision to be auspiced during the course of the workshop, using the governance section of the self-assessment tool as a guide to discuss points of consideration.

One participant reflected:

“I was so set upon setting up an incorporated association and being unencumbered by any external power structures, but this discussion has opened up some of the possibilities of partnering.” Participant, Group B.



Discussion

There is no one understanding of what a Community Recovery Committee is or should be.

A major finding of this project is that there was little consistency across the issues that the groups found important or focussed their discussions on. In the focus group components of the workshops, participants provided context for their responses, identifying a wide range of factors influencing how they saw the issues facing their communities, the purpose, scope and governance issues at play and how the history of their communities influenced their thinking. This included prior experience with disasters, active groups in their communities, experiences of the disaster events, and perceptions of government.

The lack of consistency in issues prioritized by groups may reflect that community-led recovery efforts may come about through a process of *bricolage* where people iteratively draw upon the resources at hand including “social relationships, forms of knowledge, funding, legislation, policy, and dominant discourses” that have come before (Cleaver & Whaley, 2018, p. 49). Understanding the individual needs and context of community recovery therefore benefits from some in-depth knowledge of the history of local relationships, planning and organisation in that area.

As part of this, it is likewise useful to understand government not as a monolithic actor carrying out a uniform and consistent approach to recovery. Instead, government itself may be understood in terms of a range of actors, varying in their response and application of policy across time and area.

This is reflected in government responses to disasters, where the resources allocated to recovery vary enormously between events and locations and changes at different points in time. Across Australia, there is a recognised variability in collaboration, coordination and service delivery in recovery (Binskin et al, 2020). Currently, the only nationally endorsed disaster recovery doctrine is the Australian Disaster Recovery Framework (ANZEMC, 2022), the National Principles for Disaster Recovery (see AIDR, 2018), and the Community Recovery Handbook (AIDR, 2018). None of these documents compel governments to operate in particular ways, use community-led approaches or to allocate resources consistently.

These differences are not only reflected in the experiences of the different CRCs’ interactions with government, but were also evident in section 1 of the study, where recovery workers from around the country who participated in the Q-Sort activity were asked to prioritise statements relating to the role of a CRC. As noted, the responses from recovery workers demonstrated a breadth of views.

An initial analysis of the results of the recovery worker participants does not indicate a homogenous view among workers regarding the role of CRCs. In the initial stages of analysis we observed that there were three participant camps emerging within the recovery worker participant cohort, using the same factor analysis process used for CRC participant analysis of the Q-Sort results. Further analysis is planned for these results using a joint factor analysis of all participant groups, but this early observation may indicate that the self-assessment tool could be used within organisations to help develop a cohesive perspective on how they consider the roles and responsibilities of CRCs.

Community recovery and collective action

The issue of community-led recovery illustrates a classic issue in sociology: the collective action problem. Broadly speaking, the collective action problem relates to a fundamental tension in which individual interests often overwhelm the potential for collective benefits. A version of this problem states that individuals would be better off if they cooperated on a particular concern (i.e., disaster recovery); yet, in the short term, the cost-



benefit ratio is not favorable, and the amount of time and energy often outweighs the benefits of participating (Rydin & Pennington, 2000). Societies are particularly prone to this problem when the collective benefit is non-rivalrous and non-excludable, meaning that non-participants are able to free-ride on the efforts of others, and enjoy the benefits of collective action without paying the costs.

In terms of community-led recovery, however, the collective action problem takes on some unique dimensions that may call for a unique analysis of relative benefits and costs. For instance, on the upside, collective action in a post-disaster context is bolstered by the pressing importance of fundamentally restoring basic infrastructure, services, and amenities. Furthermore, the local scale of recovery efforts means that building social relationships and social reputation through participating in recovery efforts may offer an additional incentive to participate. Finally, various forms of government aid (i.e., financial support for CRCs or direct links to official decision makers) are often targeted at reducing the costs associated with getting involved. On the downside, however, the work of organising long-term recovery is difficult and novel, requiring an array of unique skills and knowledge (including project management, community engagement, accounting, procedural knowledge) that many must learn on the job. This is compounded by the fact that individuals are disaster-affected, requiring them to attend to their own household recovery. Furthermore, they are working with residents who are affected by trauma and may be angry or distressed. Taken together, anecdotal evidence suggests high rates of burnout and withdrawal, and the toll on CRC members has been recognised by some governments (IGEM Vic, 2021).

It is in this sense that CRCs – as a form of local social capital – can be seen as a balm for the collective action problem, in that they fundamentally raise the benefits of participation, while lowering the costs (Putnam, 2000; Rydin & Pennington, 2000). This is accomplished through the following:

- Opportunities to build relationships and reputation
- Normative sanctioning for non-participation (naming and shaming)
- Coordinating activity and defining scope to ease the load.

Above and beyond these generic social advantages and resources, recovery groups benefit from further amplification of their operations, owing to their involvement in the recovery process. This includes:

- The ability to action decisions and activity at a quicker pace than for other groups.
- Enhanced financial resources, such as access to funding not typically available to communities.
- Visibility as the go-to group for organisations wishing to offer assistance following a disaster event not typically available to communities.

In all, upcoming outputs from this study will examine CRCs as attempted solutions to the collective action problem. In establishing the CRC, and potentially negotiating with government for support, members are fundamentally negotiating the costs and benefits of their individual participation. However, not all efforts are successful, especially over time, and the amplification of costs as well as benefits in a post-disaster setting need to be explored further. Moreover, certain political issues (i.e., larger, more diffuse) may be less amenable to local collective action (Rydin & Pennington, 2000).

Group A may be seen as a prime illustration of a classic idea of social capital - a local social institution aimed at lowering the costs of participation. Their core mission was to empower and amplify the actions of individuals within the community, providing a set of resources, skills, and capabilities necessary for carrying out relatively complex recovery projects. Similarly, they were highly involved in local resilience building, which to them meant fostering bonding social connections within the community. They dealt with external powers (government, NGOs) at an arm's length, striving to manage the balance between accepting funding, and becoming entangled with external requirements.



Group B was at a nascent period in their development, with the large issues including climate change and challenges to traditional power structures taking a central role in their group's character. Such groups are a test case for the theory of collective action. While conventional theory would state that climate change is too large-scale to organise around, others maintain that such groups can overcome collective action problems by generating benefit on a more local level (e.g., lower energy costs) (Ostrom, 2010).

Future work will investigate collective action problems in disaster-affected areas from three perspectives.

- **Changes over time.** CRCs typically begin activity shortly after the event, with motivation riding high. Over time, however, the issue space changes, motivations wane, the task becomes difficult, and anger sets in. These lead to a collective decline in the operations of the group.
- **Individual-level factors and processes.** The role of members' trauma, burnout, and competing personal interests (i.e., their own recovery) weigh heavily on their continued participation.
- **Anger as a strategic force.** Anger is a prominent emotion in disaster affected areas, with multifaceted reasons and manifestations (Kellet et al., 2023). Anger stands to be a strategic political force that complicates the operation of deliberative democracy, but which may be necessary to disrupt ineffective forums (Curato, 2021).

The need to understand context: There is no silver bullet

A common question regarding CRCs is 'what works best?'. This question is asked in the hope that there may be a model, or a set of models that can be pre-determined, based on learnings from prior experiences and offered to communities after disasters as a 'good way' to do things, and that there may be a clear way to offer consistent, evidence informed support to communities and groups after disasters.

There are important and valid reasons to want 'off the shelf' options for community representation and participation in recovery. But any clear answer to this question will, by necessity, be overly simplistic and unable to incorporate an understanding of the relevant context required for CRCs to thrive.

The frequency with which communities, policy makers and practitioners grapple with these challenges reflects the tensions that exist between communities who have specific needs, goals and capacities and governments (and other organisations) who may need to offer equitable support, often in a constrained environment, to a large number of communities simultaneously.

Rather than asking 'what works best', we suggest that a better question may be '*what do we need to better understand the context of disaster affected communities for CRCs to have the best chance of success?*'

Understanding context has long been recognised as an important feature of disaster recovery. It is enshrined in the Australian principles for disaster recovery:

Understand the context: Successful recovery is based on an understanding of the community context, with each community having its own history, values and dynamics (AIDR, 2018: p11).

The Australian Disaster Recovery Framework refers to high level recovery practice considerations to understand context (ANZEMC, 2022: p10). The framework recommends that recovery should:

- *Acknowledge existing strengths and capacity, including past experiences.*
- *Appreciate the risks and stressors faced by the community.*
- *Support those who may face vulnerability.*
- *Recognise the importance of the environment to people and their recovery.*
- *Be acknowledged as requiring a long-term, sustained effort as needed by the community.*



- Acknowledge that the impact upon the community may extend beyond the geographic boundaries where the disaster occurred.

Despite this recognition, a deeper understanding of how to understand context in post-disaster settings remains underdeveloped. Tierney (2019) argues that this is in part due to a reluctance of both disaster researchers and practitioners to engage with broader sociological theory.

The workshops with the four groups undertaken as part of this study indicated that there was a wide range of variance between the groups on most points of discussion (see *Research findings* section). The discussions undertaken as part of the workshops gave participants an opportunity to contextualise the decisions they had made or were considering. Many of these were based on this historical context of the community, the impacts of the disaster event and the capacity within the community.

A fuller exploration of understanding context in post disaster setting is outside the scope of this project. However, as part of the planned utilisation products to be developed from this study, we will be using the discussions from the workshops to inform suggested considerations for understanding context for recovery workers and policy makers to sit alongside the self-assessment tool.

Government action (and inaction) influences the role of Community Recovery Committees

In the context of collective action, scholars have suggested a varied role for government in local planning and decision-making (Rydin & Pennington, 2000). The first impulse of government should be to foster and facilitate rather than manage, lest the autonomy of local social institutions be quashed. When the collective action problem is not too steep (i.e., for highly tangible local issues such as rebuilding), government should strive not to usurp the autonomy held by local institutions. At other times, however, government could take a more active role in managing an issue, when the collective action problem is too steep. This may pertain to larger-scale issues in which the collective benefit is too diffuse to motivate widespread community participation (e.g., air quality). Here, the role of government is ideally aimed at mitigating special interests who might take over a flagging local consultation process steering it to their own narrow benefit.

Research literature and practice guidelines exploring community participation in decision making is often represented in different types of spectrums. The IAP2 (2014) scale for example uses a scale of five different levels of community engagement in decision making:

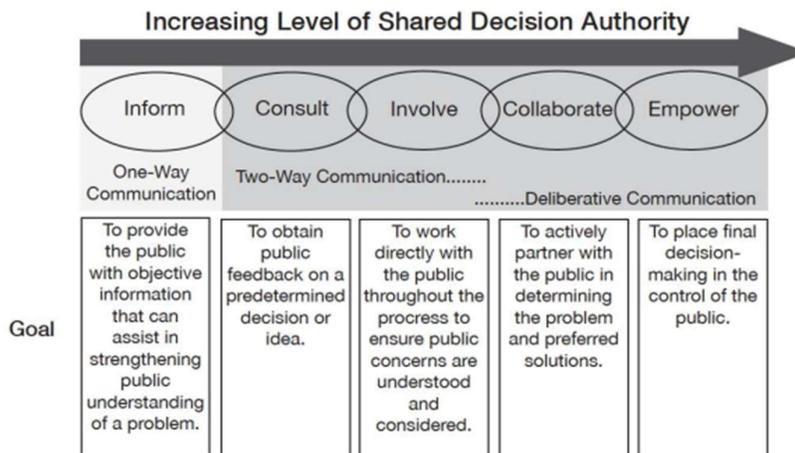


FIGURE 7: IAP2 SCALE OF PUBLIC PARTICIPATION (NELIMARKKA ET AL., 2014: P4)



One of the earliest and influential scales of public participation, Arnstein's Ladder uses a slightly different scale, with citizen controlled, self-organising groups as seen as the 'top' of the ladder.

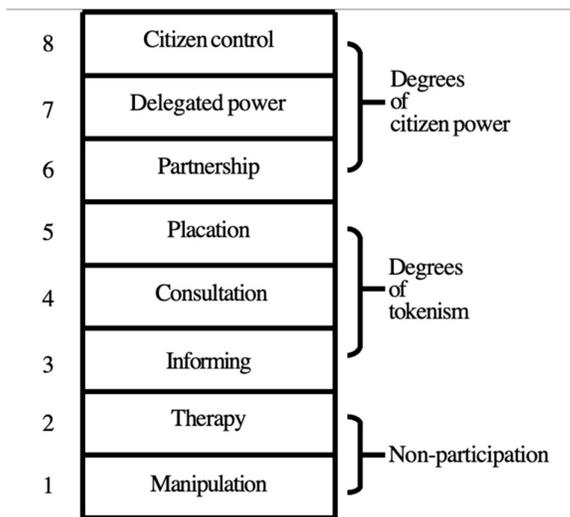


FIGURE 8: ARNSTEIN'S LADDER (BISHOP & DAVIS, 2002: P17)

The dilemma of how or whether governments should be involved with self-organising groups has been discussed by sociologists and political economists. Brandsen (2016) notes that:

"...governments help create some of the conditions that encourage or prevent self-organisation, often unknowingly, sometimes deliberately. Here they often face a hedgehog's dilemma: they like self-organising citizens and can offer valuable support but getting too close will almost certainly harm citizen initiatives." (Brandsen, 2016: p. 339).

Using community-led approaches is recognised as a national principle for recovery (endorsed by all states and territories and the federal government) (AIDR, 2018). Researchers have also observed that there is an increasing expectation from governments that community-based volunteers will take more active roles and higher levels of action in relation to community resilience (McLennan et al, 2016). However, the way that governments at all levels engage with community led approaches is varied. The role of CRCs and other types of community groups is varied across disaster recovery plans in Australia.

The four CRCs involved in this study all had widely different relationships, interactions and expectations of government.

Group A considered that they had, in part, formed owing to the absence of any government involvement in their community.

"No government person came to the relief centre except one. I was so ready to acknowledge council but she was like 'no, I'm just passing through and getting some lunch' and I was like 'oh'. And that's all we saw of them."

"We're not anti-government per se, they're just not here. So we're sort of like an anarchist alliance who gets things done and are open to listening."

Group B described their role as both an advocate to government on behalf of the community and as a nimble vehicle to organise things that government was unable to do.



“We should be the conduit that helps government prioritise...government backs off when the media coverage goes. We need to be the advocates and the squeaky wheels.”

“Government organisations have borders and gatekeepers, administration processes and bureaucracy. Government has responsibilities and I can see why they have to work in particular ways. They have to do checks and balances... I could get our group up and running without bureaucracy.”

Group C was very integrated with local elected officials and government mechanisms. They formed their group with deliberative efforts to be connected to government, with a focus on efficiency to get things done.

“[You have to ask] What strengths are represented here? Who can get stuff done?”

Group D described themselves as representing the voice of the community to government and other organisations. While they saw themselves as independent from government, and held some skepticism regarding government support of community-led recovery, they recognised a need to work closely with government. They identified that in the years since the disaster event, their relationship with government had evolved and improved. They acknowledged that a working relationship with State and Local government was needed to achieve the goals of the community in some areas.

“It needs to be based on trust...we haven’t always welcomed local government people [but] Shire staff as a liaison point is a helpful pathway back to council. It stops us barking up the wrong tree.”

Irrespective of their perspective of government, all of the CRCs used descriptions of their relationship with government as a way of positioning their committee’s role, purpose and structure. In some cases, the CRCs formed as a response to government process, or the lack of it. Other examples of how government requirements had altered the shape of CRCs included the incorporation of CRCs in order to be able to apply for grants. The requirement of organising into a legal entity changed the roles, effort and skills required by members to participate.

While Brandsen’s (2016) work reflects the challenges that governments face when trying to interact with self-organised citizens groups, in this project we identified that even the absence of government presence can influence the shape a CRC takes. There is no one right way for governments to interact with CRCs. In some instances, government involvement will squash the involvement, scope and initiative of community-led groups. In other settings, government involvement will elevate legitimacy, expedite funding and decisions, and create space for community influence. Governments (and other organisations) need to be considered in their approach to working with CRCs and other self-organised groups and acknowledge the influence their interaction will have on these groups.

Representation – considerations and conceptualisations

“If everyone hasn’t had a voice, if it isn’t thorough and inclusive, and that means everyone, not just the people who turn up... everyone must feel like they have a voice. That takes time but that’s what you need to do, and that’s also how you get political clout. It cannot be just six people sitting around a table.”

Participant reflection, Group D

A key issue identified in phase 1 of this research, and pursued in the current phase of research, is the notion of whether CRCs are “representative” of the wider community, and whether government can treat a given CRC as the voice of the wider community. Among the CRCs in this research, we prompted discussion of whether or not they regarded their own committee as representative of the wider community. Views and understandings of representativeness ranged widely. Some groups abided strongly to their representative structure, while others questioned whether they even aspired to such a role. Not feeling like they are accountable to the community might have implications further down the track when it comes to acting in the best interests of the community,



for example. There was discussion of whether CRCs own internal make-up should better reflect the make-up of the community.

These discussions about the nature of community-led recovery may reflect a more a fundamental tension in deliberative democracy between legitimacy of community representation, and the format for deliberation and decision-making. On the one hand, democratic decisions may only be considered legitimate if everyone has a voice; that is, if they involve all of those affected by the decision, following genuine participation in a deliberative process (Dryzek, 2001, p. 651). On the other hand, it is difficult to include many voices simultaneously and have those voices inform one another in a reciprocal, mutual, and equal way. This is due to basic logistical limits to including the types of forums that deliberation can take place in, and these challenges may be further amplified in post disaster settings. As Parkinson (2004) notes, “No decision-making process can involve all the people it affects,” (p. 370). In most cases, democratic deliberation must be restricted to a small number of participants or else it will lose its defining character as a forum in which people engage in open debate for the sole purpose of arriving at the best solution.

CRCs are certainly no exception to issues of scale and format. As noted, CRCs are often regarded as deliberative bodies that (ideally) engage in open-minded discussion and well-informed decision-making (Dibley et al., 2019). Accordingly, CRCs are small in size (anecdotally, CRCs approximate 12 active committee members). While the small size affords an ability to discuss issues and work together effectively (Fay et al., 2000), it also places a low ceiling on the ability of the group to resemble the demographics of the larger community in terms of a range of demographic characteristics (e.g., gender, ethnicity, age, class, sexuality, disability, etc.). This issue of “resemblance” is further compounded by the issue of who typically participates (together) in local civic forums. As widely noted (e.g., Verba & Nie, 1987), civically active residents do not resemble the wider population, tending to be older, from a higher socioeconomic status, and part of the ethnic majority. Moreover, CRCs are often drawn from pre-existing groups, which typically include individuals who are drawn together on the basis of relative similarity (McPherson et al., 2001).

Taken together, CRCs – like other deliberative bodies – are therefore greatly limited in the degree to which they can draw on demographic resemblance of the wider community (i.e., descriptive representation) as a pathway to being responsive to constituents’ preferences who are not physically present on the CRC itself (i.e., substantive representation) (Celis et al., 2008). Instead, an arrangement of representation must be established whereby “people who are not physically present in a given deliberative forum may nonetheless feel they have had sufficient influence,” (Parkinson, 2003, p. 186). Such an arrangement must answer two basic questions relating to legitimacy – who has the moral authority to exercise power, and how? In other words:

1. How are representatives chosen?
2. What is the role of a representative?

With respect to the first question, CRCs have taken various directions, including the direct election of members, some form of deliberate selection process, or a naturalistic evolution of a pre-existing group into a CRC. Naturally, not all CRCs have sought representativeness, but for those who have, anecdotal evidence suggests that not all have succeeded at obtaining the “reflective assent” (authorisation) of their constituents.

With respect to the second question, CRCs have likewise required different styles of representation. These roles vary along a continuum from a trustee model of representation, to a delegate model.

- Trustees are authorised by constituents to debate and decide on matters on their behalf.
- Delegates are accountable to constituents to adhere and be responsive to their preferences on an issue.

A precise model of representation was most clearly defined in Group D. Here, CRC members were directly elected, establishing a strong wellspring of legitimacy for members to act. Members were keenly aware of the risk that might come from excluding the voices of those who were not in a position to take part. As an



extension of this sensitivity, members saw their legitimacy as representatives as also strongly affixed to a delegate role, in which they were to be held accountable for adhering to community priorities, which community members had directly voted on. They sought to address this responsibility through robust and ongoing consultation with multiple affected groups (e.g. Celis et al., 2008; Parkinson, 2003).

Concepts of permission

While not every one of our groups considered that they had an official role of representative voice for their community, they nonetheless tacitly acknowledged their role in taking actions on behalf of the community. These actions ranged widely, from community consultation processes, planning community dinners, undertaking economic revitalisation projects, to consulting on fuel management strategies.

“We were a community who loved a squabble [pre-disaster]. Now, we’re trying to learn to live with consensus. We’re learning to live with what’s best for most people in our community.” Participant, Group D.

It is therefore beneficial to examine a series of questions about how the community is present in recovery action, even when they do not literally act for themselves (adapting phrasing from Pitkin, 1967). How do decisions about the group’s involvement come about? Who gets to initiate a joint course of action, and how? What criteria underpin this decision?

To this end, we intend to further examine the notion of recovery permissions to describe norms of legitimate decision-making within CRCs, using the results from the case studies. We initially describe three such notions of “permission” that the case study CRCs tacitly described in the focus group discussions:

- **Consensus as permission.** Decisions that are made in line with identified priorities, as agreed to by the entire community. A group can make a decision if they can show that the decision aligns with community preferences.
- **Role as permission.** Decisions that are made by those entrusted to make decisions (trustees). A person / group makes decisions insofar as they have or are perceived to have a mandate to make that decision.
- **Initiative as permission.** Decisions are made on the basis of committing yourself to a grassroots action aimed at a collective good, and which are responsive to an ethic of local involvement and community cohesion. If a person / group shows the initiative to propose and start a project, they will receive support from the group and the community.

Importantly, these permissions may come into conflict. One CRC described how different permissions led to tension, but appealed to the primacy of community and local social relationships as an authorisation for action.

*“We didn’t ask for permission, but we did get in trouble for pushing through on things. I’m not doing anything illegal, I reject the power that comes from on top.
No one owns the word community. No one is the community.
There is nothing wrong with neighbours helping neighbours”
Participant, Group B*

We intend to expand on concepts of representation and permission in future work. This will include refinements of the self-assessment tool and the community network mapping tool to better capture ideas of which models of representation have been adopted, and whether appropriate consultative strategies and relationships are in place to support such a model.



Implications

In this phase of the project, we have developed two tools for CRCs to use:

- **Self-Assessment Tool (SAT) for community recovery committees.** SAT is a practical tool to help recovery committees figure out how to establish themselves and operate over time. It consists of a questionnaire to be used by CRC members, and collective feedback. This is currently done through workshops run by the researchers.
- **Social network mapping tool for communities (SNAP).** SNAP is a novel data collection portal and visualisation tool that allows members of a community to record, merge, visualise, and analyse their common social connections to local groups and organisations (e.g., sports clubs, churches, progression groups, etc) and gaps in connections.

There is considerable promise in developing advanced resources for supporting CRCs that help them with tasks such as the following:

- Form, plan and identify the supports that are needed;
- Develop shared understanding between CRCs and the agencies working in recovery about how they can work together; and
- Help CRCs understand how they are positioned within their community through representative links, so they can identify ways to ensure their responsiveness to the community.

Further technological development of these tools and resources should be coupled with testing and validation at greater scale, developing procedures for implementation and governance, and evaluating the usefulness and accessibility of these tools in communities:

1. Scalability of the tools in question, to reach multiple groups simultaneously across the country
2. Implementation methods, to guide more successful independent uptake of the tools within communities, in conjunction with key stakeholders.
3. Further piloting, testing, and validation of tools.
4. Process evaluation of tools to ensure the feasibility, acceptability, and usefulness for community leaders and recovery services before wider utilization.
5. Governance structures and guidelines for collective responsibility of the tools in question, with an aim of continuous development.

These resources hold the potential to lower disaster risk by improving the community's capacity for collective decision-making in the face of future disasters and disruption. By harnessing social connectivity for improved consultation, these benefits will be more equitable and enjoyed across the entire community.

Community outcomes of resources for self-assessment would include enhanced knowledge, information, and resources, leading to more efficient, cohesive, and inclusive recovery processes and decision making.

Outcomes of community mapping capabilities would include quicker dissemination of information to the community, and more effective consultation with community partners that maximises network reach.

Agency-level outcomes would include: opportunities to serve post disaster recovery support needs in a flexible and responsive manner, building trust and cooperation with communities, more effective community consultation, accelerated learning by recovery workers and recovery committees, scalability in support, and enhanced information of local social connectivity for use in emergency response.



Utilisation outputs

These outputs are planned for development over the next six months:

1. Summary advice for practitioners, including:
 - How to think about post-disaster context
 - Guiding statements about how to think about collective action problems in the context of disasters that influences how you think about issues, considerations about CRC members burden / efforts, role of government in relation to different types of issues, how to think about history and how this shapes what representation looks like today.
2. Workbook for communities elaborating on SAT Tool
3. Inclusion in Victorian Government Community Recovery Toolkit
4. Academic publications
5. One-page summaries of findings (after publications are released)
6. Podcast episode
7. Pursuit article (opinion style piece)

Presentations delivered:

1. *Community led recovery: evidence, approaches and tools*. Understanding the Black Summer bushfires through research: Culture, People and Recovery Webinar. Natural Hazards Research Australia. Invited presentation. 7 March 2023. <https://www.naturalhazards.com.au/news-and-events/events/webinar-series-understanding-black-summer-bushfires-through-research>
2. *Community-led recovery: evidence approaches and tools*. Invited workshop at Natural Hazards Research Australia's National Natural Hazards Forum. Melbourne. 2 May 2023.
3. *Community-led recovery: evidence, approaches and tools*. Invited presentation to Natural Hazards Research Australia showcase. Canberra. 10 May 2023.
4. *Project ReGroup – how can community recovery committees be better supported?* Australian Institute of Disaster Resilience – Putting the community in community recovery committees webinar. 19 May 2022. <https://www.aidr.org.au/events/32703?locationId=32704>
5. *Physicalisation: Enhancing the collection of social network data in disaster-affected communities*. Online presentation at INSNA Sunbelt 2023. Portland, Oregon, USA. 29 June, 2023.
6. *Supporting community-led recovery*. Natural Hazards Research Australia - Hazardous Webinar. 18 July, 2023. <https://www.naturalhazards.com.au/news-and-events/events/hazardous-webinar-supporting-community-led-recovery>



Team members

Reference group:

- Maroondah City Council
- Yarra Ranges Council
- Dept Health and Human Services Tasmania
- Blue Mountains Community Resource Network
- NRRRA/NEMA
- Leadbeater Group
- Australian Red Cross
- Independent contractor in disaster recovery (name kept anonymous)
- Natural Hazards Research Australia
- BRV

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Dr Kate Brady has had a distinguished career over the past decade in disaster recovery operations, programming and research. After establishing and leading the Australian Red Cross Disaster Recovery program for 12 years, Kate is now a Research Fellow at the University of Melbourne and a technical adviser to Australian Red Cross and other organisations.

Most of Kate's work focuses on what people find helpful and unhelpful after disasters. Throughout her career, Kate has had significant influence on State and National emergency management policy and has an international profile in collective trauma, risk and resilience and in disaster recovery program evaluations. In 2021, she became the host for ABC's podcast 'After the Disaster'.

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Dr Colin Gallagher is a Research Fellow in Social Network Analysis at the Child and Community Wellbeing Unit at the University of Melbourne. Through his ten years of experience working in the Beyond Bushfires project, he is Australia's foremost expert on network-based community resilience following disaster. His interests include how social connectivity relates to posttraumatic mental health, network conceptualisations of social capital, and the use of complex social network methods in disrupted settings. He is also acting co-leader of the social networks lab within the Complex Human Data Hub of the Melbourne School of Psychological Sciences. <https://psychologicalsciences.unimelb.edu.au/research/lab>

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Hannah Morrice is a Research Fellow in the School of Population and Global Health at University of Melbourne and recently completed a Masters of Environmental Law. Hannah has over 10 years' experience working on child and community-based public health research and over this time has worked on a broad range of issues including; disaster recovery and community wellbeing, resilience, children's rights and supporting children and young people during a time of complex trauma and grief. Hannah has expertise in project management, stakeholder engagement, qualitative research and knowledge translation. Hannah has a focused interest in



climate and health policy, wellbeing and children's rights and ensuring that research evidence is useful and useable to policy and practice.

Lisa Gibbs

Professor Lisa Gibbs is Director of the Child and Community Wellbeing Unit at the University of Melbourne where she leads an extensive applied research program investigating the health and wellbeing impacts of disasters and the complex social influences on outcomes. She was Principal Investigator of the Beyond Bushfires study which tracked mental health and wellbeing outcomes 3, 5 & 10 years following the Black Saturday bushfires; the multi-award winning Recovery Capitals project which created evidence-based practical guides for disaster recovery; and school-based research to reduce disaster impacts on students' wellbeing and long term academic progress. Professor Gibbs works in close partnership with end-users including government, emergency management and recovery agencies, and community and health partners to guide interventions to promote resilience and recovery.



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Appendix 1: Model for Self-Assessment Tool

This is an excerpt from the first version of the Self-Assessment Tool, developed in [Phase 1](#) of the project.

COMMUNITY-LED RECOVERY – BLACK SUMMER FINAL REPORT | REPORT NO. 702.2021



COMMUNITY RECOVERY COMMITTEE SELF ASSESSMENT TOOL: STEP 1 – IDENTIFY THE PREFERRED MODEL

Disaster affected communities can use this tool to identify how particular elements of CRCs could be structured to best suit their community.

FORMATION AND SCOPE		
One well defined location		District level, multiple locations
Single issue focus		Whole of recovery focus
Pre-existing group		Completely new group
Self-appointed group		Formal election process
No clear objectives for the group		Clear, deliberate goals and parameters of the group
Do not manage projects		Manage all projects
Group formed / adapted very soon after the disaster event		Group formed / adapted some time after the disaster event
No financial responsibility		Complex financial responsibility
No legal status of group		Clear legal status of group

Self Assessment Tool for Community Recovery Committees | Page 7



Appendix 2: Workshop guide

WORKSHOP GUIDE

Time	Activity	Personnel
9.30am	Welcome participants	Kate Brady, Colin Gallagher, Hannah Morrice
10.00-10.30am	Complete survey on iPad about what you think an 'ideal' CRC is.	Kate Brady
10.30-10.45am	Morning tea	Pure Love Catering
10.45-11.30am	Focus group discussion about the topic of what you think an 'ideal' CRC is.	Kate Brady
11.30-12.00pm	Complete survey on iPad testing the self-assessment tool. This tool aims to identify how your CRC sits with regards to questions about: Formation and Scope, Governance and Decision-making and Stakeholder Engagement.	Kate Brady
12.00-1.00pm	Lunch	Pure Love Catering
1.00pm-2.00pm	Focus group discussion about your thoughts on the self-assessment tool	Kate Brady
2.00-2.30pm	Complete survey on iPad about your social networks	Colin Gallagher
2.30-3.30pm	Tangible social network mapping activity	Amanda Belton
Finish	Afternoon tea	Pure Love Catering



Appendix 3: Q-Methodology process steps

The key steps are outlined below:

1. Create a concourse of all the possible statements relating to CRCs and their role, function, processes and makeup.
 - a. This information was collected by reviewing our existing literature review developed in Phase 1 of the project, as well as through consultation with our project reference group which includes 12 stakeholders from a range of organisations that work in and with CRCs.
2. Identify/refine Q-set from concourse
3. Data collection (Q-sort activity during the 1-day workshop, using iPad provided and hosted on qmethodssoftware.com)
 - a. In the first instance, the participant sorts the statements into three categories (agree/neutral/disagree)
 - b. In the second instance, the participant places the statements on the distribution grid, with the most important/agreeable statements in the right tail, neutral statements in the center of the distribution, and most unimportant/disagreeable statements in the left tail.
4. Analysis and interpretation
5. Data is analysed using a factor analysis. In this instance factors are perspectives shared within groups.
 - a. Factors are interpreted, labelled, and commonalities and differences considered.



Appendix 4: Q-Sort statements

Part A: PROCEDURE 'HOW'

1. CRCs start very soon after a disaster
2. CRCs start when there has been time to think about their purpose
3. CRCs start before a disaster
4. CRC members are self-elected
5. CRC members are formally elected by others
6. CRC members are nominated by government
7. There is a formal process to establish a CRC
8. There is no one 'right' way to establish a CRC
9. The community decides if they will be a CRC
10. Government decides if there will be a CRC
11. There can be multiple CRCs within a single local community
12. There can only be one CRC within a single local community
13. Any community member can start a CRC
14. CRCs should be structured consistently across different communities
15. CRC's should report back to their community about decisions they make
16. CRCs should be developed based on a geographic community
17. CRCs should be developed based on a specific issue or experience (e.g. people who have lost their homes or people who have been bereaved)
18. CRCs should be formally included in emergency management plans before disasters happen
19. CRCs membership should look like the community – i.e. a representative cross-section of all voices in community
20. CRC membership should be comprised of the people who are most keen to be a part of the committee
21. If CRC membership is not diverse or representative of the community more members should be deliberately recruited
22. CRC membership should be comprised of representatives of other established groups from the community (e.g. school associations, sporting clubs, religious groups, special interest groups)
23. CRC members should be people who were known as community leaders before a disaster
24. CRC members should all live in the place the CRC is based in
25. CRC membership should only include community members
26. CRC membership should include a mix of community members and government / organisation representation
27. CRC members should have the administrative skills needed to run a committee
28. Governments should determine how long a CRC will last for
29. Community members should determine how long a CRC will last for
30. CRCs should be incorporated bodies (or another legal entity)
31. CRCs should be a group with no legal status
32. CRCs should be accountable to the communities they serve
33. CRCs should be accountable to government
34. CRCs should have strong connections to government and other organisations
35. CRCs should not be connected to government and other organisations

**PART B: POLICY 'WHY'**

1. CRCs should be the representative voice of the community to government and other organisations after disasters
2. CRCs should identify community priorities after a disaster
3. CRCs should advocate for their community after a disaster to government and other organisations
4. CRCs should be the main decision-making body for recovery plans for their community
5. CRCs should identify services and supports that are needed in a community after a disaster
6. CRCs should carry out the decisions of government and other organisations
7. Governments and other organisations should consider CRCs as the main channel for community led recovery
8. CRC members should make decisions on behalf of the community
9. CRC members should facilitate opportunities for others in the community to make decisions about the community
10. CRCs should be actively involved in decision making about community recovery by government and other organisations
11. CRCs should influence the decisions and planning of government and other organisations
12. CRCs should run events, programs and projects
13. CRCs should only address issues that have come up as a result of a disaster
14. CRCs should address a wide range of issues, some disaster related, some not related to disaster
15. CRCs should be willing to make unpopular decisions if they can see the benefit
16. CRCs should lead community recovery after a disaster
17. CRCs should coordinate with governments and other organisations as a way to identify how to meet needs
18. CRCs should focus on rebuilding issues
19. CRCs should focus on future disaster planning
20. CRCs can focus on single issues only
21. CRCs should focus on a broad range of issues
22. CRCs should only help those who are unable to help themselves
23. CRCs should only help people who help themselves



Appendix 5: Self-Assessment Tool survey

Q1 Please enter your Random ID

Q1

The below questions are about what you would like your Community Recovery Committee to look like.

Please select a position on the scale that reflects your views.



FORMATION AND SCOPE



	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
One well defined location	<input type="radio"/>	District level, multiple locations						
Single issue focus	<input type="radio"/>	Whole of recovery focus						
Pre-existing group	<input type="radio"/>	Completely new group						
Self-appointed group	<input type="radio"/>	Formal election process						
No clear objectives for the group	<input type="radio"/>	Clear, deliberate goals and parameters of the group						
Do not manage projects	<input type="radio"/>	Manage all projects						
Group formed / adapted very soon after the disaster event	<input type="radio"/>	Group formed / adapted some time after the disaster event						
No financial responsibility	<input type="radio"/>	Complex financial responsibility						
No legal status of group	<input type="radio"/>	Clear legal status of group						



Our group does not represent the communities views and priorities to any external bodies (e.g. government and NGOs) on all issues relating to resilience and recovery



Our group represents the communities views and priorities to external bodies (e.g. government and NGOs) on all issues relating to resilience and recovery

End of Block: Formation and Scope

Start of Block: Governance and Decision Making



Q2

The below questions are about what you would like your Community Recovery Committee to look like.

Please select a position on the scale that reflects your views.



GOVERNANCE AND DECISION MAKING



	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Group will not exist beyond the planned government involvement	<input type="radio"/>	Group will exist beyond planned government involvement						
Provide ideas and feedback only	<input type="radio"/>	Clear and defined decision making role						
Loose, ad hoc group arrangement	<input type="radio"/>	Formal governance structure						
Everyone does a bit of everything	<input type="radio"/>	Formal roles (Eg						
No planned timeframe for the group	<input type="radio"/>	Clear sunset plan for the group						
Individuals can stay in roles / the group for as long as they'd like	<input type="radio"/>	Clear set term for roles / individual members						
No access to funds	<input type="radio"/>	Have funding, manage budgets						
Diversity of group membership not prioritised	<input type="radio"/>	Diversity of group membership high priority						
No planning around representing all sectors of the community within the committee	<input type="radio"/>	A core element of planning is consideration of whose voices in the community may be missing						



<p>No access to subject matter experts for advice / information on issues</p>	<input type="radio"/>	<p>Regularly request information from subject matter experts to help inform decision making</p>						
<p>Committee may contribute to a recovery plan being organised by another organisation</p>	<input type="radio"/>	<p>Committee will develop its own recovery plan</p>						
<p>No monitoring or evaluation processes</p>	<input type="radio"/>	<p>Monitoring and evaluation planning built in to all parts of the committees work</p>						
<p>Members of the CRC should be paid for their involvement</p>	<input type="radio"/>	<p>Members of the CRC should not be paid for their involvement</p>						
<p>Members of the committee are not necessarily representative of the socioeconomic and demographic make-up of this community</p>	<input type="radio"/>	<p>Members of the committee must be appropriately representative of the socioeconomic and demographic make-up of this community</p>						

Page Break



End of Block: Governance and Decision Making

Start of Block: Stakeholder engagement

Q3

The below questions are about what you would like your Community Recovery Committee to look like.

Please select a position on the scale that reflects your views.

STAKEHOLDER ENGAGEMENT

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Don't engage with media	<input type="radio"/>	Proactive media strategy						
Not connected to elected officials	<input type="radio"/>	Have elected officials as member/s of the group						
Don't actively engage with the community beyond the committee	<input type="radio"/>	Well planned, active community engagement strategy						
Broader community not involved in committee decision making	<input type="radio"/>	Clear plan for how broader community are involved in committee decision making						
Anti-government	<input type="radio"/>	Well connected to government						

End of Block: Stakeholder engagement



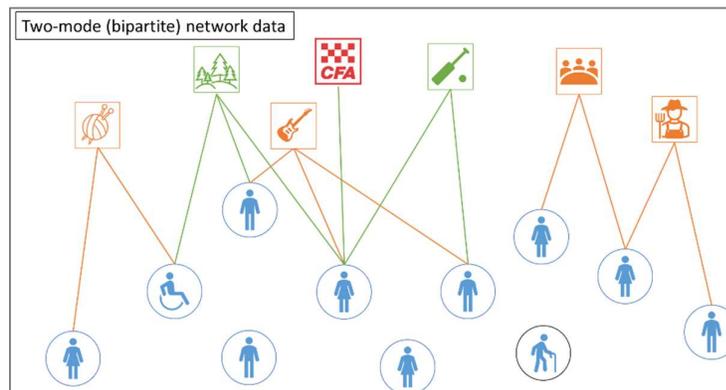
Appendix 6: Social Network Mapping Tool (SNAP)

Colin Gallagher, Daniel Russo-Batterham, Amanda Belton, Noel Faux, Emily Fitzgerald

What is SNAP?

SNAP is a novel survey portal and visualisation tool for mapping social network connections in local communities. SNAP allows community members to come together to record, merge, and visualise, and analyse their common social connections to local groups and organisations. Operating in real time, the purpose of this platform is to give disaster recovery practitioners and community members a better understanding of how their community is connected, and suggest optimised strategies for harnessing those connections for both recovery and emergency response.

Why is SNAP needed?



One way in which to measure community resilience and social capital is through social networks of people's connections to one another. People's co-affiliations to one another through local groups and organisations (e.g., sports clubs, churches, civic groups, etc) are particularly important, forming the backbone of a community's social capital. It is these groups that provide key venues at which decisions are made collectively, information is shared, and assistance is mobilised.

In an emergency, these connections take on an added importance in information-sharing function, when other forms of communication may be disrupted. Understanding these lines of communication would add a powerful new tool to emergency responders.

Uses of SNAP

SNAP is not just a picture or map of the community – it is an evolving database of connections that provides useful network metrics. For example, the platform would provide the following information:

Network reach. What are the 3 or 4 local groups that you can consult with to quickly get messages out to most of the community? How do they typically communicate (online, in-person, by text)?

Network brokers. Who are the groups that cut across divides in the community?



Network periphery. Which groups have “peripheral” members, whose only form of participation is in that group?

These metrics that are likely to be useful to both disaster recovery and emergency response workers, and to community leaders. For example, the wake of disaster, community-based recovery workers need to consult widely with the community to gain local knowledge and input on a range of decisions. During a disaster, these links can be used to seek out and mobilise key resources and information. The aim of SNAP is to enable these types of information seeking and sharing.

Group Name	Role	Participation
Aussie Hoops youth basketball	Member	Active
Reservoir West Primary School Parent Teacher Committee	Member	Active

How participants use SNAP

- The participants enters the tool and receives a greeting, with general information on the tool and how to use it.
- The participant then provides the names of local groups and organisations that they belong to. They can select from a list of groups that other participants have added, or they can add a new group if they are the first one to add it.
- After entering their information, they get to review what they’ve entered, and decide if they want to share it. As part of this, they get to see their own personal network of group involvement.
- If participants share their information, their data is added to the community network. It is this network that is searchable, and which provides information on the structure of the network. SNAP will guide the user through this network to help community leaders make informed decisions about engagement.



ReGroup:
Social mapping tool

Many thanks for being part of ReGroup and telling us about yourself and the groups, clubs, organisations you belong to.

Your details:
[View your details](#) [Edit your details](#)
 Please visit a group page to view your details and update any of your associations.

The clubs, groups and/or organisations you are associate with:
[View your network graph](#) [View the network table](#)

```

graph TD
    A[Reservoir West Primary School Parent Teacher Committee] --- B[Bdf1Bdf0]
    B --- C[Northote Pottery Supplies]
    B --- D[Preston Symphony Orchestra]
    
```

Do wish to donate your answers to the research group?
[Yes - Submit my data](#) [Skip/submit later](#)
[No - Withdraw and delete my data](#)

