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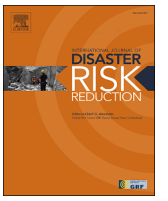

Navigating collaborative governance: Network ignorance and the performative planning of South Australia's emergency management

Peter Tangney [a, *], Cassandra Star [b], Zoei Sutton [c], Beverley Clarke [c]

[a] Department of Political Science, University of Amsterdam, Netherlands
[b] School of Social and Political Sciences, University of Sydney, Australia
[c] College of Humanities, Arts and Social Sciences, Flinders University, Australia

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ABSTRACT

This paper examines the roles for emergency and disaster risk management plans as policy artefacts that guide centralised governance networks. Past scholarship has been sceptical of the instrumental worth of these artefacts for informing and elaborating governance arrangements. Some suspect that such plans are purely symbolic devices, mere 'fantasy documents'. This paper examines the role of South Australia's state emergency management plan during the Black Summer bushfires of 2019–2020. The study provides confirmation of the symbolic utility of these plans for central government, while also providing evidence for some suggested difficulties with centralised emergency management networks, about which there is still limited empirical demonstration. Drawing on focus group and interview testimony from senior actors at strategic, tactical and operational levels of South Australia's emergency network, however, we also demonstrate instrumental-heuristic worth of these plans for network actors seeking to make sense of a continually changing bureaucratic landscape, and when reflecting on the value of the network in the aftermath of extreme events.

1. Introduction

Emergency and disaster risk management have long been considered essential, albeit ancillary, governance portfolios. Globally, a common feature of governments' pursuit of these agendas has been the development of 'governance artefacts' – in the form of published administrative frameworks and plans – that codify the formal collaborative networks of government and non-government organisations (Rubin 2010). These emergency management (EM) plans, it is claimed, can help to assuage the public about the adequacy of government's contingency planning for disaster risk reduction [1], as well as to guide and inform actors within EM governance networks in anticipation of, and response to, emergency events [2,3]. EM plans would thereby clarify for both participants and the public the roles, responsibilities and operational doctrine associated with a well-functioning EM network.

Much attention is paid in the literature to best practices for EM associated with planning, prevention, response to, and recovery from hazard events (e.g. Refs. [4,5]. These activities are set forth as important constituents of EM governance under international agreements such as the United Nations' Sendai Framework for Disaster Risk Reduction [6]. Understandings of the EM plans that codify these activities, in terms of their precise role as artefacts of public administration and network governance, however, have been under-explored to date. The seminal work of Clarke [3] examining the worth of such plans under conditions of high uncertainty is perhaps most notable. Clarke refers to these types of publications as 'fantasy documents', noting their tenuous relationship to the

* Corresponding author.
E-mail address: p.c.n.tangney@uva.nl (P. Tangney).

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problems they seek to address or to actual administrative practices, and their performative role in governments' contingency planning.

In this paper, we seek to shed more light on the instrumental and symbolic uses of these governance artefacts for EM networks. Drawing on the example of South Australia's (SA) State Emergency Management Plan (SEMP) in the aftermath of the so-called 'Black Summer' bushfires of 2019–2020, we show how EM plans can lack descriptive accuracy and prescriptive worth. Few network actors surveyed had more than a fragmented and partial understanding of the framework as codified in the SEMP. Nonetheless, our findings indicate important instrumental-heuristic uses of the plan for its EM network that go beyond the symbolism suggested by Clarke's [3] 'fantasy documents'. Our research draws on a series of interviews and focus groups with key network actors responsible for the delivery of SA's SEMP. The paper describes the limitations and apparent contradictions associated with this artefact, and then discusses the implications of these findings in the context of the structure and function of EM networks more generally. We propose that our findings have international relevance for understanding the role of governance artefacts of this type for disaster risk reduction.

The paper begins by setting out a theoretical framework for the study presented here, an overview of the challenges and limitations associated with EM networks that are now well recognised in academic literatures, and a brief discussion of the challenges associated with the use of knowledge artefacts for the purposes of effecting good governance. We then present an overview of the South Australian case-study and situate it within theories of centralised governance networks. Once the methods used for data collection have been described, we present the study findings. In the final section, we discuss these findings in the context of the perceived challenges for EM planning, centralised coordination and network collaboration.

2. Emergency management governance networks

Governance networks have been a topic of study for policy and administration scholars for over 40 years [7]. Following the so-called 'new public management' reforms of the 1980s and 1990s that arose with the advent of neoliberal political ideology, academic conceptualisations of governance moved from traditional hierarchical models of bureaucracy, to recognition of a 'hollowing out' of bureaucratic government, an increased reliance on a network of arms-length institutions, and the attempted marketisation of governance services [8]. Scholarship following this transition has increasingly recognised the evolution of governance towards collaborative networks of government and non-government agents with common interests and/or goals [9,10].

Network governance has become a well-established foundation of the conceptual architecture of contemporary EM research [11], and has also become part of the conceptual framework underpinning the discourse and practice of EM in several national and subnational jurisdictions internationally. Both US and Australian governments, for instance, envisage EM as a collaborative network, prescribing an All-Hazards, All-Agencies approach. Their respective coordinating institutions recognise that EM expertise is split across both government and non-government agencies, and assert the need for inter-agency collaboration at both strategic and tactical levels when preparing for, responding to, and recovering from emergency events [12,13]. This predominance of network conceptualisations and arrangements has arisen despite, on the one hand, a perceived need for centralised control of these networks in some constituencies [14], and on the other, suggestions to reconceptualise EM arrangements as evolving governance 'ecosystems' requiring enhanced partnership and collaboration [15]. This latter perspective aligns with calls for a more participatory approach to disaster risk reduction more broadly, and the importance of intermediary actors for fostering collaboration within and between government agencies and the public [16].

We can identify contrasting perspectives on the merits or otherwise of centralisation of EM networks specifically, and for disaster risk reduction more generally. Some have proposed that centralisation ensures order and stability in times of crisis [17], while others argue that centralised networks can be rigid and unresponsive [18,19]. Centralised systems have been accused of failing to integrate unplanned actors as new situations emerge, a propensity for gaps in familiarity and knowledge of the system within and between participating organisations, and communication bottlenecks during emergency operations [20,21]. However, as Jensen and Thompson [22] point out, there is as yet limited evidence to support these claims. Ku, Han and Lee [14] propose a classification of EM networks based on their degree and type of centralisation around a single organisation. Amongst centralised networks, they propose, we can observe a 'functional centralisation' with one controlling organisation or actor at the local level. Alternatively, 'vertical centralisation' involves direct control of the network from central government.

McConnell and Drennan [23] highlight a range of potential tensions between governments' EM ideals and the realities of EM in practice, that are also relevant for understanding the utility of governance artefacts for collaborative networks. One concerns a mismatch between the potential scale and severity of future crises on the one hand, and on the other, governments' frequent disinterest in preparing and planning for a broad range of possibilities that may never happen. Aside from the prohibitive resource requirements of expansive EM planning, such disinterest arises from the expectation that governments will receive no credit for disaster averted, but assumed culpability when disaster strikes (e.g. [24]). Tension also arises from the inherent unpredictability of crisis events as compared to the scenarios imagined by emergency plans, the latter usually accommodating a relatively narrow range of possible outcomes. Given these difficulties, Clarke [3]; p.2) describes how government plans inevitably struggle to understand what constitutes effectiveness, but they must nonetheless demonstrate good cause:

> *"organizations and experts use plans as forms of rhetoric, tools designed to convince audiences that they ought to believe what an organisation says. In particular, some plans have so little instrumental utility in them that they warrant the label "fantasy document".*

Indeed, Hutchinson, Dekker and Rae [1] extend Clarke's [3] notion of 'fantasy documents' to a concurrent cynicism about 'fantasy planning' more generally. As McConnell and Drennan (2016, p65) note, there is:

> "a powerful tendency to try and create – through contingency planning – a sense of order, control and assuredness, despite the fact that crises can create an unimagined uncertainty and disorder".

Ku, Han and Lee [14]; similarly, question common assumptions prevailing in centralised EM networks, and that are conveyed in EM artefacts. They raise doubts about the adequacy of pre-specified roles and responsibilities, the availability of adequate training, the existence of a shared understanding by network participants, and the existence of a standardised course of action to address every disaster situation. These concerns mirror doubts expressed about knowledge integration and use in disaster risk reduction more generally, and the propensity to neglect local and non-technoscientific knowledges for understanding hazards, vulnerabilities and risks [25,26]. Contemporary EM planning must draw on expertise and resources from a wide range of dispersed organisations, making coordination and leadership during crisis events challenging [27]. Plans often struggle to account for such network complexity. Questions remain, therefore, about the worth of these artefacts for codifying the aspirations, roles and responsibilities of EM networks.

In the following case-study, we aim to elaborate on the potential instrumental and non-instrumental uses of EM plans. While there are good reasons to believe that symbolic roles for these artefacts predominate, our findings indicate considerable nuance beyond this generalisation. In defence of EM plans, Rubin [28] warns us that assuming these artefacts serve only symbolic roles may neglect to recognise that plans are nonetheless underpinned by inter-organisational planning processes that are of real value. We should be wary of eliding EM plans as supposedly functional *products* with effective underlying *processes* that ensure network function. While the former, he reminds us, involves producing something tangible (the artefact) to symbolise government's intent, the latter requires appropriate agents to 'show up' and to build the necessary trust and relationships that ensure network function when events do not go to plan.

3. South Australia's emergency management network

South Australia (SA) is no stranger to emergency situations arising from climate extremes. While these have occurred most frequently in relation to bushfire, storm and flood hazards in recent decades, the state's emergency management framework is designed to take a common approach across all hazard classes, including the recent COVID-19 healthcare crisis. Instigated by SA's Emergency Management Act (2004), SA's SEMP[1] takes an explicitly collaborative, multi-agency, whole-of-government approach to disaster planning, emergency response, relief and recovery activities.

The SEMP has been significantly tested in recent years. SA experienced severe storms and flooding in 2016, while bushfire events occur on an almost annual basis in the state. The Black Summer bushfires in 2019–2020, however, presented an event of considerable rarity in terms of its scale, severity and duration [29]. Large areas of New South Wales, Australian Capital Territory, Victoria and South Australia were ablaze over a period of several months. In South Australia, 3 lives were lost, 196 homes and 68,000 livestock destroyed, along with 280,000 ha burned [30]. Major fires were fought by EM agencies at four locations across the state as well as at several other minor fronts. In the aftermath of the fires, two Commissions of Inquiry were established to investigate the efficacy of EM provisions during and after these events: a federally initiated Royal Commission of Inquiry [31], and a state-sponsored 'independent' commission (the so-called Keelty Review) (Government of South Australia 2020). However, their investigations were hampered by yet another emergency, the COVID-19 health crisis and its associated social distancing protocols, which arrived immediately after the fires, from March 2020 until May 2022.

It is the Black Summer fires that constitute the principal focus of our research. To date, there has been a dearth of studies investigating governance and emergency management arrangements relating to this case-study, with most existing literature focused on the community and ecological impacts of the fires (e.g. Refs. [32,33]. Exceptions include Gonzalez-Mathiesen et al. [34] who examined the importance of integrating wildfire management into spatial planning governance, and Blaustein et al. [35] examining models of policing and 'security governance' for enhancing community resilience and disaster risk reduction. Our study further addresses this gap in the literature by elaborating on the effectiveness of EM planning and its role in collaborative governance arrangements in the face of such an extreme event.

The South Australian focus of our study is particularly relevant, we propose, because upon commencement of the fires, state government took the decision to explicitly over-ride some of the strategic arms of the SEMP with bespoke arrangements. Additionally, during the same period the Australian government declared a national emergency, thereby instigating inter-state cooperative arrangements as well as federally-deployed assistance from the Australian Defence Forces (ADF). As discussed by our research participants, such was the scale and extent of the bushfires nationally during this period, both federal and state governments considered existing EM plans inadequate to the task at hand. These events thereby provide a useful opportunity for better understanding these plans' true worth and the extent to which they provide(d) network knowledge or other utility.

SA's SEMP envisages what has previously been classified as an Incident Command System (ICS) model of EM governance [14]. The ICS comprises a largely parallel network of participating agencies, overseen by a lead agency [19]. In SA, this lead agency varies by hazard type, while the Department of Premier and Cabinet (DPC) coordinates all disaster risk management planning by state government, as well as being the central point of contact for both federal and other state governments in relation to inter-state collaboration and assistance. However, given that other emergency management organisations in SA also fulfil central leadership roles in the SEMP, we propose that SA's arrangements constitute a hybrid model. Following Ku, Han and Lee's [14] categorisation of EM network centralisation (above), we can identify both vertically- and functionally-centralised network arrangements in SA's SEMP.

[1] Our research was undertaken between May and December 2021, during which time the SEMP was being revised and, following public consultation, its newest iteration was in the process of finalisation. During this time, the preceding version of the SEMP (2017–2022) was still in use and was the only version available on State Government's website. This older artefact formed the basis of our investigation because it was that plan which was in use during the 2019–2020 bushfires.

In SA, DPC is lead agency in line with a vertically-centralised model of coordination, responsible for coordinating the collaborative inter-agency, preparatory, planning and assurance functions of the network via the State Emergency Management Committee. DPC also coordinates disaster recovery via the State Recovery Committee, and also facilitates communication, via the State Crisis Centre and Emergency Management Council, between state cabinet and the other network agencies responsible for coordinating emergency response and recovery operations (Fig. 1). These latter organisations, however, fulfil functionally-centralised leadership roles at a local level via the State Emergency Centre and State Control Centre.[2] The SEMP specifies a series of statutory Control Agencies legislated under SA's Emergency Management Act (2004) that fulfil command and control responsibility appropriate to the hazard in question (e.g. Country Fire Service is the named Control Agency for rural fires; State Emergency Service is Control Agency for flooding events etc.), along with named Support Agencies and themed Functional Support Groups (e.g. for logistics, engineering, mapping etc.) responsible for assisting the Control Agency as necessary. A State Emergency Coordinator, a statutory role fulfilled by SA's Police Commissioner, coordinates communications between Control Agencies, Support Agencies and Functional Support Groups at the State Emergency Centre (Fig. 1).

4. Method

Our research methods were evaluated and approved by both Flinders University Ethics Committee and the Australian Department of Defence. Potential participants for our research were identified in consultation with SA's DPC. As one of the network's lead agencies, DPC was able to provide our research team with a short list of the central participating EM organisations and their principal network actors. Research participants were nominated by DPC on an intra-state level, on the basis of an organisation's centrality in the functioning of EM network operations. Individual actors were identified by their responsibilities in attending to those operational functions. Only two of the twenty-one organisations identified by DPC declined to participate in the study: SA Police and the SA Fire and Emergency Services Commission (SAFECOM). We engaged study participants in either focus group discussion or in semi-structured interviews. Interviews were primarily reserved for senior executive members of the network, while those working in operational leadership roles participated in focus group sessions. Focus groups and interviews were audio-recorded and transcribed for subsequent analysis. A list of organisations represented at these sessions is presented in Table 1.

4.1. Focus groups

Three focus group sessions were held in September and October 2021 involving a total of 19 participants. Each focus group was conducted over a full day, during which participants were engaged in analysis of the SEMP and its various points of network interaction (hereafter referred to as *nodes*). For this purpose, the SEMP's organisational framework (as published by DPC and reproduced here as Fig. 1) was printed on A3-size sheets. Working in groups of 3–4 people along with a coordinating researcher, participants were engaged in semi-structured discussions and network map analysis via the following steps.

4.1.1. Step 1

Participants were asked to evaluate the existing SEMP framework in terms of its descriptive validity, and to annotate their diagrams to capture aspects of the network they perceived to be missing or poorly represented. This step allowed participants to critique the SEMP framework and assess its worth as a descriptive model of EM network arrangements.

4.1.2. Step 2

Participants were then asked to explore the relative influence of particular actors/agencies at the central nodes of the SEMP (i.e. The State Emergency Centre, State Emergency Management Committee etc.), and how the relationships between actors impacted network functionality. This method elucidated participants' perceptions of the complex organisational interactions of the SEMP, and how actors navigate and cooperate within these settings.

4.1.3. Step 3

Participants were then asked to assess the relative importance of central nodes on the network as a whole, and their relative influence on EM outcomes relative to other nodes. This analysis allowed the research team to assess each node in terms of its relative strength of influence in the network overall, and to characterise the connections between nodes according to their relational influence.

4.1.4. Step 4

Finally, participants were asked to collaboratively reflect on the annotated frameworks, and were given the opportunity to make further amendments as necessary.

4.2. Semi-structured interviews

Focus groups sessions were supplemented by a series of 9 semi-structured interviews lasting between 1 and 2 h each. Interviews were conducted between October and December 2021. These interviews helped to clarify and further elucidate the findings from focus group discussions. Six of the nine interview participants were senior executive members of their respective organisations, while the remaining three were participants who were unable to attend focus group sessions.

[2] The State Control Centre is not depicted in the SEMP's organisational overview (Fig. 1).

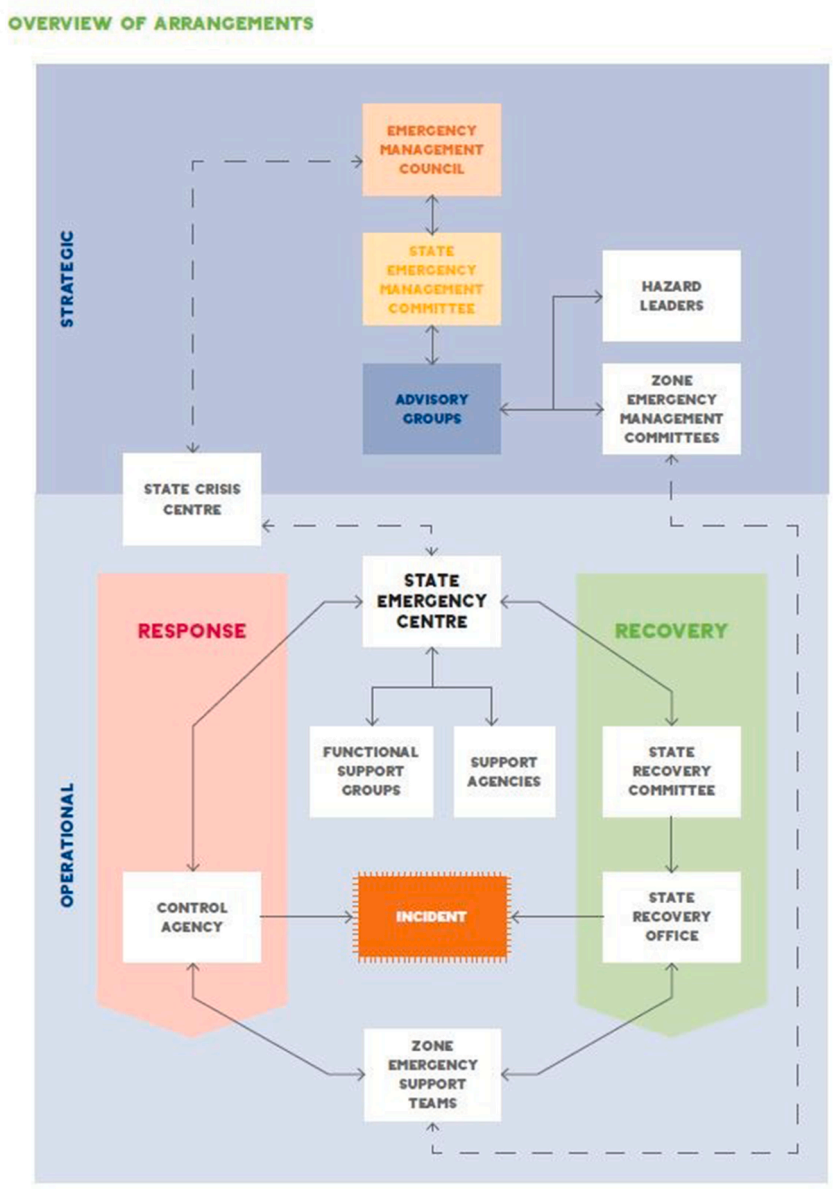

Fig. 1. South Australia's emergency management organisational framework, as depicted by the State Emergency Management Plan 2017–2022 [36]; p.8).

4.3. Analysis

Following the research exercises described above, transcripts and annotated network maps were analysed by the research team to understand the perspectives of participating network agents. The analysis focused on agents' perceptions of the formal SEMP framework and their understanding of intra-network working arrangements.

5. Results

Here, we present a summary of key findings from our research to highlight the role of EM plans as governance artefacts.

5.1. Understanding the plan

Focus groups and interviews revealed significant disparities between the structure of the SEMP's formal organisational framework, and participants' understanding of those organisational arrangements as they operated in practice. Few study participants appeared to have a complete understanding of the formal network, as codified by the SEMP or as arranged in actuality by DPC. Even study participants operating at the highest levels of the network appeared to have only partial understanding of both the operational and strategic arms of the network, both as it was represented in the SEMP, and as it was currently operating. For instance:

Table 1
EM network organisations represented at focus groups and attending interviews.

	Organisation
Focus Group 1	Local Government Association SA
	Department of Primary Industries and Regions SA
	Country Fire Service
	Country Fire Service – Volunteers Association
	Metropolitan Fire Service (**x 2**)
	State Emergency Service
	State Emergency Service – Volunteers Association
	Disaster Relief Australia
Focus Group 2	SA Veterinary Emergency Management
	SA Housing Authority
	Local Government #1
	Blaze Aid
	Foodbank
	St. Vincent de Paul (Vinnies)
Focus Group 3	Australian Defence Force (ADF) (**x4**)
Interviews	State Emergency Service (SES)
	Local Government #2
	Department of Premier and Cabinet (DPC) (**x3**)
	Green Industries SA (GISA)
	Department of Primary Industries and Regions SA (PIRSA)
	Department for Environment and Water (DEW)
	Country Fire Service (CFS)

> *"to be frank, you'd be better off sitting down with [REDACTED] and talking through the detail on this, […] when you follow up with him you'll highlight my short memory span in terms of what the current arrangements are"* (DPC 1).

More than simply struggling to keep up with organisational transition, there appeared to be uncertainty and ambiguity about the roles and responsibilities of strategic nodes of the network. This DPC representative noted:

> *"most officials wouldn't be aware of what the State Crisis Centre is for or does, it really, it kind of sits between […] the SEC and the politicians (the EMC). […] the report that comes out of the State Emergency Centre is useful for the operational organisations who are involved in managing the operation, but it's not really fit for the Premier and the ministers, who need a different product […] the CFS (Country Fire Service) don't know what it's for"* (DPC 1).

A Control Agency senior representative believed that:

> *"the State Crisis Centre is on paper, but it's really in name only, […] no such centre exists, this is an artefact of the old NCTP (National Counter-Terrorism Plan), and it was supposed to provide advice to the government of the day, (from) policy wonks working out of the Premier's department"* (SES).

Moreover, the SEMP portrayed the State Crisis Centre and Emergency Management Council (EMC) as being at the top of the network's administrative and decision-making hierarchy (see Fig. 1), yet there was some disagreement amongst those interviewed as to what (if any) executive authority these nodes actually held. Some believed that the EMC held some decision-making responsibility over other strategic nodes such as the State Emergency Centre:

> *"in the middle of crisis, this thing (EMC) is meeting once or twice a day, […] and the Commissioner of Police or the Chief Officer or the State Controller is fronting up and briefing them on a daily basis so, during the height of a crisis this becomes much more central to leveraging whole of government resourcing, capability, support"* (SES).

This perception was echoed by the Keelty Review [30]; p.41) which understood the EMC as providing *"executive leadership during a significant security event or natural disaster"*. However, others interpreted the EMC merely as a conduit for keeping the state premier and cabinet up to speed:

> *"The [EMC] is a cabinet convention, […] it doesn't have any particular functions […] this Premier also is happy with statutory officers performing their function in emergency response without direction from politicians. […] [The EMC] is not directing operations in a response to an event"* (DPC 1);
>
> *"the way our state works is the Control Agency really holds all the authority, which is a good thing."* (Focus Group 1).

At an operational level, several study participants admitted that they were not particularly familiar with the framework set out in the SEMP. There appeared to be a significant blind-spot amongst many participants at the interfaces between strategic and operational arms of the network, as well as between the emergency response and disaster recovery phases of the SEMP. Senior operational officers responsible for delivering emergency response or disaster recovery conceded that they had limited understanding of the strategic arms of the SEMP:

"I know nothing about it […] and there's no reason I would know it, at the level I work. I don't care what they do".

"I didn't even know some of these things existed […]"

"hmmm no, I've never heard of the Emergency Management Council […]" (Focus Group 1)

Others noted that those network actors working at the interface of strategic and operational arms of the SEMP do not necessarily understand what goes on 'on the ground':

"Sometimes your representation at the SEC (State Emergency Centre) is your executives, […] but sometimes there's a gap in knowledge and experience [of what happens operationally] […] they have a different set of priorities". (Focus Group 1)

Meanwhile, participants with responsibility for disaster recovery in the EM network noted that the SEMP's framework was *"a little confusing"* (Focus Group 2)

Only a few participants across the three focus groups demonstrated a complete understanding of network arrangements as codified by the SEMP. In particular, ADF personnel held very detailed and precise understandings of the SEMP's organisational framework. They described in some detail how requests for Defence Assistance to the Civil Community (DACC – a formal protocol of the federal Emergency Management Act) should proceed during an emergency event. Yet, their understanding did not extend to, and was not able to reconcile, how operational practices had played out during the Black Summer emergency. According to testimony from other network participants, both informal and formal (i.e. DACC) requests were initiated by the Control Agency (CFS) three times in late 2019 and early 2020, but were only actioned by the State Emergency Coordinator on the third occasion.

"We did ask for military assistance (in late December) […] and was quickly kicked back […] by the Commissioner of Police (State Emergency Coordinator) and the senior officers in the JOSS (ADF Joint Operations Support Staff), indicating that that's not how it gets done around here; it goes through a correct process, it gets approved in State (government) […] and I said, I don't want help no more, everything will be burnt down by then, which is what happened, because we got military assistance on the 9th of January." (CFS)

Moreover, when the formal request was eventually submitted by the State Emergency Coordinator, it was done on a post-hoc basis, after ADF resources had already been activated.

In (20)19/20, which was a bit of a game changer, there was a deployment and then the DACC requests were done subsequent to the deployment." (DPC 3).

This was considered by some focus group participants to be a part of the usual informal working processes of the network (Focus Group 1), as operational necessity inevitably over-rides formal institutional arrangements.

5.2. Challenges of representing PPRR

There was some consensus amongst study participants that the SEMP struggled to represent or provide guidance in relation to the contrasting demands of the planning, preparedness, response and recovery (PPRR) constituents of EM (Focus Group 2/DEW). On this view, the principal emphases and orientations of the SEMP was towards inter-agency planning and emergency response coordination across the network, seemingly at the expense of disaster relief and recovery activities (DEW). Several participants also noted that the SEMP did not provide an adequate conceptual aid for understanding contrasting scales of response and recovery operations and the transition from one activity to the other. In relation to recovery operations, for instance, some participants believed that the SEMP worked more effectively for larger events than for smaller ones:

"Y'know, the bigger events, and as they grow and build, (the SEMP) works really well, but the short ones, where all of a sudden you're switching in a very short window from response to recovery, I know the recovery support functions in various agencies, felt really like, […] the response was stood up and stood down extremely fast […] it made it extremely difficult for the people working in recovery […] that handover wasn't particularly good" (PIRSA)

The challenge of representing the network by way of organisational diagrams, therefore, was hampered by the transitional characteristics of the network (i.e. transitioning between contrasting activities of response, relief and recovery) and by differences in conceptual orientation across the network (i.e. between actors with strategic, tactical and operational responsibilities). This representational challenge posed difficulties for network actors seeking to understand which nodes of the network played which roles, as well as which organisations had oversight, advisory or executive decision-making responsibilities. At times, this lack of clarity had impacted upon network effectiveness:

"the ZESTs (Zone Emergency Support Teams) and incident management teams weren't wholly fluent in communicating with each other […] it was not always functional." (CFS)

Codification of network arrangements, thereby, seems to have been of limited worth, particularly for agents working in operational roles.

5.3. Managing continual bureaucratic change

For participants working at the strategic arm of the SEMP, their uncertainty of the network arrangements noted above was likely due in large part to ongoing changes to organisational structures and inter-agency working arrangements. At the time of undertaking this research, the SEMP was out of date, and had been since strategic re-arrangement of the network at the beginning of the Black

Summer fires. A key finding from both focus groups and interviews was that bureaucratic structures were in an ongoing state of evolution and flux, with numerous network structures and functions undergoing name changes and changing functional responsibility over the course of the preceding years. The reasons for this change arose from a combination of factors, which included the election of a new Liberal Party government in 2018 (following 16 years of Labor government), as well as in response to the large scale, multi-location emergency events (most especially the Black Summer fires and COVID-19 health crisis) which had prompted senior bureaucratic staff to reshuffle existing teams and structures to meet hazard circumstances:

> *"We've had to redesign some of our systems to plan better for those sorts of things in the future, so I think there are, there is a sense in which […] bits of the framework need to be looked at, and have been since the 2020 fires"* (DPC 1)

These changes appear to have caused considerable ongoing uncertainty and confusion for both senior strategic and operational network actors alike:

> *"to be frank, the bandwidth of people in this sector (to deal with organisational changes) [since] the (20)19/20 fires and then through COVID has been pretty minimal"* (DPC 1)

Notably, two senior members of DPC revealed that while they understood the structure of those parts of the SEMP directly relevant for their work, they were largely ignorant of the updated structures of those aspects with which they did not interact, but for which their department held coordinating responsibility. The update to the SEMP, it was believed, would resolve this uncertainty (DPC 1/2).

5.4. A vehicle for coordination and shared responsibility?

Despite the testimony above suggesting that the SEMP was confusing, ambiguous and/or that it did not reflect strategic/tactical coordination or operational practice, some participants with strategic responsibilities implied that the SEMP could provide important instrumental guidance:

> *"we'll coordinate (recovery operations) from DPC […] that's the new model that you'll see in the new SEMP […] to be fair to this document, I think that's what it's indicating, is that recovery as much as response has access to all those mechanisms"; "what this is supposed to say (in the upcoming revision) is that recovery has access to Functional Support Groups just as much as response does through the SEC"* (DPC 1)

The purpose of the SEMP –and DPC's role in its delivery– on this view, was to manage and make clear the coordination arrangements both up and down the governance hierarchy:

> *"we coordinate the agencies […] relief and recovery agencies are stood up, we make sure the right people are in the right place […] and we also […] work with non-government agencies […] it's really about coordinating all of that and more. So it's managing up to the ministers, we make sure that the State Recovery Coordinator […] does what he's required to do […] and then we work down on the community, work out their needs […] and we make sure that's done at a state level through initially SEC (State Emergency Centre) and then it moves to the various committees etc., and then we also, at a local level, put in a Community Recovery Coordinator, a Community Development Officer, and [pointing to the Zone Emergency Support Teams] those governance structures at the local level to make sure that keeps ticking over"* (DPC 2)

Nonetheless, DPC had made the decision to over-ride the SEMP's strategic arrangements at the beginning of the 2019-20 fires in favour of a bespoke Joint Task Force headed by a senior ADF officer. At this point, significant portions of the organisational framework was put to one side (DPC 1, 3).

> *"the last [emergencies] were so big that we ended up, y'know, those things were being decided at cabinet (level), […] they were well above the paygrade of the people in the FSGs (Functional Support Groups)"* (DPC 1)

The subsequent arrival of ADF personnel *en masse*, and the need for delegation of tasks to ADF by civilian agencies during the 2019/20 fires, for instance, was not only not accommodated as a possibility in the SEMP, it was a completely new experience for all parties concerned. As one focus group participant noted: *"the SEMP wasn't designed for the ADF to be around"* (Focus Group 1).

Study participants noted how the SEMP varied in its instrumental worth depending on the hazard situation in question. For instance, some participants (CFS/Focus Group 1) criticised the SEMP for its inability to handle some hazard types and situations (e.g. the COVID-19 pandemic) due to a lack of logistical planning experience by the relevant Control Agency (i.e. Department of Health). But what was the purpose of the SEMP if not designed to address all hazard types and scales?

> *"When I looked at it (the SEMP), it was clearly for a jurisdiction that had not endured multiple emergencies at once, and had not endured long duration emergencies […], they weren't geared up for campaign fires which burned and affected properties for a month on end, and they certainly weren't ready for two which occurred at the same time in different locations"* (CFS).

This participant suggested that the SEMP was structured to ensure that everyone had a job, at the expense of operational efficiency:

> *"one of the things that struck me was […] not everyone who sits around the SEC […] every seat had to be filled, but it doesn't have to be. For a particular type of emergency, you might not need (Department of) Education […] but this is South Australia, and everyone has to be around the table […] that could have a slowing impact"*. (CFS)

It was also noted that the SEMP struggled to provide adequate instruction or direction to Support Agencies and Functional Support Groups to help them to understand their duties relative to the Control Agency for any hazard in question. For instance, several participants expressed uncertainty as to which Functional Support Groups played a role in the State Emergency Centre during the Black Summer fires (Focus Groups 1/2; GISA; PIRSA). The SEMP also did not convey the centrality of the State Control Centre (i.e. the Control Agency's centre of operations) in its overall framework, despite the importance of this node for tactical planning and response activities across the network (SES).

Some participants suggested that use of the SEMP presented a challenge for succession planning as new actors in the network, and particularly those at lower levels within participating organisations, sought to familiarise themselves with an organisational framework that did not make clear what their roles and responsibilities actually were, nor provided adequate direction to help Support Agencies to understand the role of SEC (Focus Group1, 2; CFS):

> *"a lot of agencies came to the table around the SEC, not understanding the level of the discussion that's intended to occur there. There was very much their strategic level discussions, so the Commissioner had to pull them back a few times. Go, 'That's nice, but that's your day to day work'"* (Focus Group 2).

> *"Keelty (Report) highlighted one of the failings: […] a number of people sitting around the table (of the SEC) were too junior to have any authority whatsoever […] they didn't have the stature or authority to commit their organisation's resources effectively"* (CFS).

The SEMP structure also gave the impression of being very hierarchical with state cabinet at the top:

> *"I observed […] a significant proportion of effort in the whole system militated towards meeting the political needs of the state politicians, in terms of information briefing […] They want to be the voice of authority* (CFS).

Yet it was noted that this conceptualisation did not reflect either strategic, tactical or operational practice:

> *"when you've got the Emergency Management Council, which is a subsection of cabinet above the guy who's running the state emergency. That tells you volumes about the way things are conceived."* (CFS);

> (referring to the SEMP's organisational framework) *"you got the incident (response) at the lower level, …well, the incidents need to be at the top level […] that's the director […] that's the thing that initiates (the SEMP)"* (Focus Group 2).

In actuality, emergencies are coordinated strategically from the State Emergency Centre and tactically from the State Control Centre, at the interface between the Strategic and Operational arms of the network.

Focus group and interview discussions, meanwhile, made several references to the fluid nature of operations 'on the ground' that would be unlikely to be captured by any revisions to the SEMP (Focus Group 2). Participants indicated that, while organisational arrangements had differed significantly from their depiction in the SEMP, this discrepancy was not particularly problematic in practice given the strength of network relationships at an operational level:

> *"we know who we talk to. It is the 4am friends […] I have got [REDACTED]'s phone number so that if I am stuck and I need to know something, I will ring. Even though there are some formal arrangements, the reality is most people know people"* (Focus Group 1).

Indeed, our observation of participants interacting during focus group sessions suggested close camaraderie across emergency response and recovery organisations. Those relationships had been built through interactions across multiple emergency events over time, building social capital for enhanced network function.

Others argued that any derivation of more effective formal EM arrangements held diminishing returns:

> *"We can keep investing in better systems and more capability, but actually, long run for the community, there's potentially no real benefit […] we're pretty well served in South Australia"* (SES)

On this view, the SEMP portrayed the network in a way that is largely fit for purpose, and in terms of outcomes, the SEMP's success spoke for itself:

> *"When we benchmark community safety outcomes in South Australia, in terms of adverse outcomes from disaster events, deaths per 100,000, morbidity, property damage and losses, we perform very well on a global level, in fact it's probably one of the safest places in the world to live"* (SES).

6. Discussion

6.1. What role does SA's SEMP play?

Our research findings provide some support for the scepticism conveyed by Clarke [3] and Hutchinson, Dekker and Rae [1] concerning the instrumental worth of EM plans and planning processes, and the susceptibility for governance artefacts to fulfil symbolic roles in EM networks as 'fantasy documents'. Our findings also provide some support for the arguments in previous literature that EM plans struggle to account for unforeseen events or for the role and perspectives of non-central agencies and actors.

The view of most study participants was that SA's SEMP provided little descriptive or prescriptive accuracy. The plan was perceived as failing to provide conceptual clarity for those actors working at operational arms of the network, especially concerning the transitional nature of the network from emergency response to disaster recovery/relief operations. The SEMP also failed to clarify interactions between strategic and operational arms of the network in a way that would augment actors' understanding of the actual

working arrangements, roles and responsibilities of participating agencies. Nonetheless, most study participants painted a picture of a dynamic EM network that relied on close relationships and mutual trust and collaboration between participating organisations. Focus group participants appeared in agreement that much of the tactical and operational effectiveness provided by the network arose through informal working arrangements, including those for which the SEMP provided formal provisions.

Several study participants conceded that the SEMP had proven to be inadequate to the task of large-scale, long duration emergency events characterised by multiple response and recovery fronts. The Black Summer fires had amply demonstrated the SEMP's limitations, as its strategic response and recovery provisions were largely superseded by bespoke arrangements. As noted by our research participants, as well as by the Keelty Review, those SEMP structures that were retained during the Black Summer fires were also found lacking to some extent, as over many days and nights the most experienced network agents were replaced by those less qualified, and response and recovery operations functioned in parallel in ways for which the SEMP had not made appropriate coordination provisions. Our findings in relation to the uncertain roles for the Emergency Management Council and State Crisis Centre also highlight SEMP's inability to account for the expected or actual influence of government cabinet in governance arrangements. Although the SEMP provided these forums to allow communication and coordination with SA government's executive branch, there were clear differences of opinion about what their role in decision-making actually was and should be. Interview participants indicated that the role assumed by politicians, and the extent to which they interceded in EM response and recovery, depended on the preferences of the government of the day, but that few strategic actors believed it was appropriate for politicians to take executive control of strategic emergency response/recovery decisions.

Hutchinson, Dekker and Rae [1]; p.1) propose that 'fantasy planning' is *'not only understandable, but may be happening routinely in safety practice'*. They stress that this does not mean that fantasy plans are necessarily designed to deliberately deceive, but rather, they are designed to be persuasive and implicitly oriented to fulfil symbolic knowledge roles for policymakers. Our findings suggest that SA's SEMP provides a useful example of such knowledge use. Despite its manifest inadequacies, however, our findings indicate that some instrumental utility was provided by the SEMP. At the time of this research the published SEMP was out of date, yet was considered by senior strategic actors to still convey the key responsibilities across the network and thereby provided a useful heuristic amidst ongoing bureaucratic change. Network actors with strategic coordination and planning responsibilities used the SEMP as a rule of thumb to keep track of the framework's various planning, facilitation and assurance activities. Moreover, in the aftermath of the Black Summer fires, the Keelty Review made similar heuristic use of the SEMP, as a tool for reflection on, and evaluation of, the contrasting roles and responsibilities across the network. Nonetheless, the Inquiry's conclusion that the "*The State Emergency Planning Framework is effective if it is followed and agencies do not improvise or cut corners*" [30]; p.39), is worth some consideration in the context of the findings presented here.

The Keelty Review's report (p.i) makes a point of highlighting the "*obvious success*" of the collaborative arrangements between both government and non-governmental participating agencies that was key to EM delivery at a time when the network was significantly over-stretched. This highlights an expectation, also noted in our discussions with network actors, that collaborative arrangements and collective responsibilities are key to effective EM network functioning, as opposed to a strictly hierarchical, command-and-control or siloed approach overseen by government executives or other strategic leadership. However, the inquiry's conclusion appears to contradict the fact that the SEMP was partially superseded by bespoke arrangements in the face of the exceptional hazard events encountered during the Black Summer fires. Their conclusion also contrasts with our findings above concerning the SEMP's limited instrumental worth, and research participants' perceptions of its limited descriptive and prescriptive validity. For these reasons, we might interpret their statement as referring to the framework's broader formal and informal network arrangements, rather than to the specific details inscribed in governance artefacts, and specifically, in the SEMP. This interpretation coheres with previous scepticism amongst EM practitioners about the extent to which any formal plan can account for all contingencies, even though the underlying governance network functions may be sound [1,28].

Additionally, however, we note that Commissions of Inquiry reports such as that which was delivered by the Keelty Review have themselves been accused of being symbolic or performative artefacts [37] that do not reflect the realities of the subject matter they review (e.g. [24]). It is noteworthy too that the Keelty Review (p.31) recounts how South Australia has had 15 similar reviews of bushfire planning and management since 1983 and that '*many of the recommendations – particularly of later reviews – have not been implemented as expected*'. This finding again speaks to the inability of governance artefacts to account for actual EM planning practices or, as noted above, the potential influence of government executives on network arrangements.

Finally, we note that our own research also made good use of the SEMP as a heuristic in the same way as did the Keelty Review. For our focus groups and interviews, the SEMP helped participants to reflect on and evaluate the processes and inter-agency relationships within their purview, in a way that most participants had not used the SEMP before. In a somewhat meta-analytical mode therefore, our research confirms the heuristic worth of the SEMP for network evaluation.

6.2. Do centralised collaborative EM networks need a formal plan?

As noted in our literature review, there is as yet little consensus on the net benefit of centralisation for EM governance networks, while collaborative governance models are actively encouraged for the challenge of disaster risk reduction more broadly. As much as any other administrative portfolio, we argue, collaborative networks of government and non-government agencies provide a useful orientation to meet the planning, logistical and technical needs of effective EM. Sullivan [10] describes the context in which collaborative arrangements often arise, as characterised by the interdependence of responsible agents, the hybrid character of working arrangements appropriate to governance context, and a diversity of perspectives that may or may not need to be reconciled. Our findings suggest that these characteristics were also in play in SA before, during and after the Black Summer bushfires, and that collaborative working arrangements were key constituents of the network's perceived success during these events. At the same time, we ac-

knowledge that EM often demands the highest levels of coordinated decision-making [38] suggesting a significant role for executive authority and command and control expertise during emergency response.

The findings presented here suggest that formal government plans such as the SEMP may help to emphasise for all network actors where central strategic and tactical authority across the network resides, even though such plans do not, and arguably cannot, codify many other significant network arrangements and responsibilities within and between participating agencies. Our findings indicate that those with leadership and coordination responsibility at tactical/operational levels hold a different conceptual framework of the network to those working at strategic levels. While the SEMP may provide heuristic value for strategic network actors before, during and after emergency events, therefore, for others it may often be irrelevant, and at worst, may cause confusion when seeking to understand roles and responsibilities in the midst of an emergency situation. Formal plans may nonetheless be useful for all network actors for the purposes of post-emergency evaluation.

6.3. Study limitations and future research

This study provides insight into the collaborative governance relations of EM networks and the potential utility and limitations of governance artefacts as a guide to network operations and reporting responsibilities. We therefore propose that our findings are useful for both the theory and practice of EM governance internationally. Nonetheless, the questions we raise and the provisional answers provided indicate a need for further research to better understand the generalisability of our findings. One significant limitation of our case-study has been the relatively small size of the EM governance network in SA, as compared with other state jurisdictions in Australia and internationally. We hypothesise that a smaller EM network may be more conducive to strong informal relationships between key network actors and agencies, thereby accentuating its governance effectiveness and offsetting the limitations of EM artefacts when providing guidance on prescribed roles and responsibilities. Additionally, we suspect that EM artefacts may demonstrate even less instrumental utility and more performative worth in larger EM networks. It is also possible that collaborative governance arrangements and the instrumental utility of governance artefacts may vary substantially depending on hazard type, even when government ascribes to an All Hazards orientation to EM design. To complement this study, therefore, we advocate further comparative case-study research of a variety of EM governance networks (i.e. functionally- and/or vertically-centralised collaborative arrangements) of varying sizes within and across national jurisdictions, and across a range of hazard types. This research would enhance understanding of the effect of network size and complexity on the instrumental utility of governance artefacts, and the extent to which informal network relationships can effectively attenuate the inadequacies of formal EM planning.

7. Conclusion

Our findings emphasise that, in the context of continual organisational change and the unpredictability of extreme events, as well as the strength of the informal relationships at play across strategic and operational arms of EM networks, purely descriptive or prescriptive roles for EM plans are neither practicable nor desirable. SA's EM network actors work within a governance framework that is characterised by a combination of centralised control and both formal and informal network arrangements. Few network actors surveyed had more than a fragmented and partial understanding of either the framework as codified in the SEMP, or as it operated in practice. Most actors had an imperfect understanding of the roles and responsibilities of their network partners, of the network 'nodes' to which they did not directly contribute, and even, the remit and make-up of those nodes to which they did directly contribute during disaster response and recovery operations. Yet, network actors recounted considerable inter-organisational trust and mutual respect within and across participating agencies, and were of the view that the network operated effectively because of the strength of informal working collaborations. Governance artefacts like the SEMP nonetheless served as helpful heuristics for strategic actors to understand network composition, and for all participating actors in times of network evaluation.

These findings enhance our understanding of the use of governance artefacts in the dissemination of network knowledge. Although the righthand may be ignorant of what the lefthand is doing – metaphorically speaking – mutual trust and effective cooperation appeared to significantly mitigate this intra-network ignorance so that it was less detrimental to EM network functions than might be anticipated. Network ignorance is unlikely to be amenable to complete resolution through governments' use of formal plans and processes. Our findings indicate that SA's SEMP fulfils a symbolic role as anticipated by previous literature; it demonstrates government's commitment to the EM agenda even though it is not instrumentally helpful for many network actors. However, the SEMP does fulfil an instrumental role for some. Strategic network actors use the SEMP as a heuristic to orient their understanding of network responsibilities amidst a continually changing bureaucratic landscape. In the aftermath of the Black Summer bushfires, the plan also provided strategic actors a focus of attention, reflection and evaluation to refine existing network arrangements and to enhance future collaboration. Our findings speak to the observations of Rubin [28] and McConnell and Drennan [23]; p.60) that 'ideal' disaster risk preparedness *'does not reside simply in having a plan'*. In SA, informal interagency relationships and ad hoc working arrangements constitute a central characteristic of the effective functioning of its EM network in ways that have frequently circumvented and even contradicted the SEMP.

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Declaration of competing interest

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Data availability

The authors do not have permission to share data.

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