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Weathering the storm: Accountability implications for flood relief and recovery from a local government perspective

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**Weathering the storm:
Accountability implications for flood relief and recovery from a local
government perspective**

Abstract

This paper investigates the role of accounting and the nature of accountability from the perspective of local government managers in the context of multiple flood events. The findings demonstrate that convoluted governance and extensive State and Federal Government funding arrangements resulted in some confusion among local councils and communities as to their eligibility for, and the timing of, financial support. Within this context, the study findings revealed how, as the first point of contact for local residents, small rural shires with limited financial and human capacity used accounting to address the impact of a natural disaster on a personal level.

Keywords: Accountability, local government, natural disasters

INTRODUCTION

The aim of this study was to gain an understanding of the role of accounting in managing an environmental disaster such as a flood event. Such events result in significant financial and social costs to the community. In addition, understanding how accounting is systematised in the context of a natural disaster provides insights as to its functionality and limitations. Thus, the premise in this paper is that in the situation of an unanticipated extreme event, accounting may be used in unc customary ways. Examining how accounting was used as a supporting tool under these 'unnatural conditions' will help fill a knowledge gap. It will also test Wilson et al. (2010) argument that accounting, and its calculative function, is a powerful instrument to justify decisions under extreme conditions.

The role of climate change and its consequences has meant that governments worldwide have implemented policies that they believe will reduce climate change impacts on communities and the natural environment. The development of climate change mitigation and adaptation policies developed by Australian Commonwealth and State governments is a resource intensive exercise. For example, major infrastructure may need to be constructed to protect communities from flood inundation, storm surges and coastal erosion. Climate change scientists now believe there is a link between climate change and the frequency and severity of extreme weather events (EWE) (IPCC 2012). However, there are differing levels of commitment and gusto from governments globally on how to tackle this challenge.

This investigation focussed on how accounting is deployed by local councils at a time of significant stress.¹ That is, how accounting was activated and used in negotiating decisions and practices after an extreme external incident. The study is based on the devastating and multiple flood events that occurred in the State of Victoria, Australia in 2010-11 and their impact on communities. These floods resulted in:

- 4,000 houses damaged,
- 4,000 businesses and primary producers affected,
- approximately 1,500 kilometres of local roads closed during the floods,
- rail services disrupted,
- significant psychological distress,
- gross financial costs estimated in the vicinity of A\$1.3 billion (DPC 2012).

This study makes a number of contributions to the literature. It builds on prior research that examines the role of accounting within the context of a natural disaster (Sargiacomo et al. 2014). The Victorian flood events provide a unique opportunity to examine this phenomena and explore how EWE affect notions of accountability. A number of researchers have also highlighted the neglect of accounting research within the context of the public sector (Lapsley 2000; Ball et al. 2012; Caperchione et al. 2013). Thus, investigating an EWE from the perspective of local government managers offered an opportunity to alleviate this shortcoming in the literature.

¹ Local government refers to *local councils* which are predominantly metropolitan based, and *shires*, which are rural and significantly smaller (by population). The latter are the focus for this investigation.

Accounting for natural disasters has been investigated in some recent studies (Baker 2014; Lai et al. 2014; Sargiacomo et al. 2014; Taylor et al. 2014; Walker 2014). However, the investigation by Lai et al. (2014) appears to be the only one that has a focus on the use of accounting practices in a flood situation. This current investigation sought to expand on this study by examining some of the distinguishing accountability relationships during the devastating Victorian floods of 2010-11.

LITERATURE REVIEW

Background

Although it is acknowledged that emergency *response* is not the traditional role of local government, councils and shires do play a significant role in the *recovery* stage. Flood management in Victoria is governed by the *Victorian Flood Management Strategy (1998)* which provides the overall strategic policy framework and includes data on flood risks to communities (DNRE 1998). It also outlines the roles and responsibilities of government and other organisations involved in flood management (Lapsley and Skerbek 2012). In terms of emergency management in Victoria, the *Emergency Management Act 2013 (Vic)* provides the basis for prevention, response and recovery from an emergency event, including natural disasters such as floods. This legislation came into force in September 2014 (after the floods), updating the previous *Emergency Management Act 1986 (Vic)*.

The rural communities subjected to the worst floods in the state's history, which are the focus of this study, were at the time in the midst of a 14-year drought. Under enormous mental and financial strain, some farmers whose families had owned and worked the land for generations, were at the point of selling up. The need to secure water for livestock, irrigation, business and household use dominated the communities' discourse, efforts, resources and planning. There was a general complacency regarding the potential for floods (Comrie 2011) and the prevention of flood risks. Most emergency education activity was centred around water minimisation strategies and bushfire prevention, not on preparing for major flood events. Under the circumstances, this emphasis on policies and practices surrounding the drought appeared rational. One year later, Victoria experienced some of the worst floods in history. Such is the nature and unpredictability of EWE that it has, and will continue to impact on government decision making with significant financial, social and environmental implications.

Calculative rationality

It is quite common for the media to provide extensive coverage of EWE. Live crosses or even entire news programs based on the catastrophic event attract attention well beyond the location affected, with an extensive proportion of the population watching, listening and commenting on the unfolding consequences, especially with respect to the victims. Elected officials and senior command officers front the media, standing side-by-side, offering perspectives, advice and assurances to the wider community. While informing the public on related external damages, this media exposure also serves to inform perceptions about the levels of confidence the public has in elected politicians and emergency workers dealing with the catastrophe. The public desire re-assurance that those managing the command-control centre are calm, informed and '*rational*' in making decisions under conditions of extreme stress. Accounting is a concept that appears neutral, reliable and supportive

of rational decision making. Hence, the application of the theory of *calculative rationality (CR)* in conditions of incomplete information and ambiguity seems fitting. Wilson et al. (2010, p.703) define CR as:

... a series of institutionalised patterns of counting, accounting and measurement typically geared toward efficiency either for profit on behalf of shareholders or to deliver best value for stakeholders.

CR is not a new theory but has been more closely linked to government through the work of Rose and Miller (1992). Although their emphasis is on the use or abuse of management accounting, particularly costings, what is pertinent is the link between *responsibility and calculation*. The actions of individuals, agencies and businesses can be shaped and justified by calculations. In the context of a serious flood event, accounting and its calculative disposition are a useful medium to express to the public that the government is in *control* of the situation, because it has relates to quantifiable data; and the government and emergency managers can be seen to be making rational, prudent decisions using that information.

One of the most frequent forms of accountability used by organisations is the production of financial and budget reports to assist with decision making. These reports rely heavily, almost exclusively, *on the numbers*, as they appear objective, easily understood and widely accepted for decision making. As noted by Miller (2001), converting complex events into a single calculative practice gives accounting enormous power and influence in deciding between various courses of action. In a major study on preparedness for extreme events, Wilson et al. (2010) conducted 11 focus groups comprising 161 senior level managers across 135 organisations and found that a dominant constellation of managers maintained a powerful hold on decision making when confronted with an extreme event. In addition, they reinforced the point that in the face of uncertainty to extreme events, calculative practices hold sway, because they support what appears to be *rational* decision making. Similarly Kurunmaki et al. (2011), in the context of the public sector, refer to accounting as ‘an apparatus of power’, explaining how calculative instruments are set to work.

Governance and accountability

In this paper, governance and accountability are discussed simultaneously as accountability is treated as a principle of public sector governance. According to the Australian National Audit Office (ANAO 2003, p. 6), governance is defined as:

... the processes by which organisations are directed, controlled and held to account. It encompasses authority, accountability, stewardship, leadership, direction and control exercised in the organisation. The concept encompasses the manner in which public sector organisations acquit their responsibilities of stewardship by being open, accountable and prudent in decision-making.

Governance becomes important in the aftermath of an EWE as the government responsible seeks to establish means and processes for the delivery of relief and recovery to the affected community. In the case of the Victorian floods, a Flood Recovery Task Force was established in January 2011, but it soon became apparent that the size and impact of the floods warranted an expanded governance model. Hence, a Secretaries’ Flood Recovery Group (SFRG) was established which included all departmental secretaries, Victoria Police, VicRoads and the Office of the Emergency Services Commissioner. The primary tasks of the SFRG were to provide strategic leadership, coordinate the work of the respective state government departments, identify issues and evaluate the progress of

the recovery initiatives (VAGR 2013). Although the Victorian Auditor General acknowledged that the SFRG coordinated the relief and recovery operations of the departments, it found little evidence of the group leading the recovery effort as mandated in its terms of reference; a point confirmed in the findings of this investigation. That is, the SFRG did not present as the ultimate authority, which was detrimental to its leadership capacity in the relief effort.

Bovens (2007) explains accountability as a process whereby an *accountor* must explain and justify their conduct to *accountees* (stakeholders). The stakeholders must have a forum with which to question the actions of the accountor and must be able to pass judgement on the accountor. Finally, there should be *consequences* for the accountor based on that judgement.

As discussed by Taylor et al. (2014), accountability is a fundamental concept that governs the activities, performance and reporting obligations of public sector entities. What has been less understood and investigated is where competing demands from stakeholders creates accountability tensions. Here, distinctions are made as to the *direction* of accountability, namely, *upward* or *downward* (Kilby 2006).

Taylor et al. (2014) investigated the devastating 2009 'Black Saturday' bushfires in Victoria, Australia, when 173 lives were lost and 2100 homes destroyed. Using downward accountability (to victims/beneficiaries) and upwards accountability (to donors and governments) as a frame of reference, the authors established that the non-government organisations (NGOs) providing direct relief to victims viewed upwards formal accountability mechanisms, such as the production of reports to donors and government, as being more relevant than reporting to victims (downward accountability). In the NGOs' view, downward accountability would be costly and take resources away from the 'on-the-ground' recovery effort. The reference to upward and downward accountability is relevant to the present flood project. For example, upward accountability was apparent in local councils justifying requests for disaster relief funding, which the state government would then accept, amend or reject. However, the stress placed on emergency workers, constant media attention, pressure from NGOs and personal stories of tragedy (whether personal, financial or environmental) leads to the reasonable contention that those individuals/families affected by the natural disaster were accorded a higher prominence in the narrative and discourse. In this vein, one would expect significant downward accountability, with greater emphasis placed on the beneficiaries/victims of the flood disaster. Moreover, accountability relationships are claimed to be different where the accountor and accountee have a close relationship be it social, moral, or religious. Less formal mechanisms of accountability are then required (Everett and Friesen (2010); Gray et al. (2006)).

The case of small (by population) rural communities affected by a natural disaster fits within this boundary. The majority of the State Emergency Service (SES) workers who are normally first to respond to distress calls are simply locals who have received specialised training and enjoy giving something back to their community in the form of practical assistance. The same principle applies to members of these shire councils whereby individuals may hold the role of Mayor, be a board member of a local rotary club or participate on committees for their local football/netball club. The main argument here is that the closeness of individuals in rural areas suggests that different, but not necessarily inferior accountability mechanisms are warranted. For example, in some circumstances, more elaborate accountability instruments are required for rural areas because 'closeness' of

individuals means that greater impartiality and independence are necessary conditions in an environment for appropriate accountability to prevail. This study provides some insights as to the circumstances where differing notions of accountability change in the context of a natural disaster in a rural setting.

In a study of the 2009 earthquake in Abruzzo, Italy, Sargiacomo et al. (2014) investigated how accounting and calculative practices alleviated or exasperated the suffering of the victims. Accounting, in the initial period following the earthquake, lacked legitimacy and did not rank as critical for the disaster response (Kastberg 2014). It appeared that disaster relief fund statements developed by politicians dominated the immediate discourse (Sargiacomo et al. 2014). However, there was a definite shift over time from using accounting (specifically, disaster relief grants) as a means of mobilising activity immediately, to using accounting systems to minimise fraudulent claims. In a further example of how accounting was used in the context of a natural disaster, Walker (2014) provides a historical account of the 1930s drought in the United States (US). Walker (2014) suggests that although accounting intruded in the financial affairs of farmers (to determine financial assistance by government), individuals and families appreciated the way accounting could be used to monitor their expenditures and income, thereby giving them greater control of their farm activities.

As indicated, this current study makes a further contribution to research on natural disasters by examining how small rural shires with limited financial and human capital capacity use accounting within the context of multiple flood events. The small populations in these rural townships and the multiple roles individuals may hold in the shire itself suggests that accounting in a natural disaster context can become very personal. How these relationships traverse over the course of a flood event has implications for governmental accountability.

RESEARCH METHOD

Since this project sought to gain an understanding of the accountability relationships from the perspective of local government, a multiple case-study approach was used to draw themes from a local council (shire) perspective (Yin 2009). Empirical data was collected from four Victorian based shires most affected by the flood events. There are 79 Local Government Areas (LGA) in Victoria, consisting of councils and shires, and 21 shires were affected by the flood events. To ensure the anonymity of the shires and respondents (as agreed between the researcher and each of the shires), shires and respondents were individually numbered rather than named. This approach is supported in the accounting literature (Kraus 2012).

Semi-structured interviews were initiated with the 'key' players within the shires who had a direct role during and after the flood events, including the CEO and the Mayor of the respective shires. These interviewees had job titles such as Manager; Environment and Emergency, Municipal Recovery Manager, Municipal Emergency coordinator, Rural Roads Review Manager, Resources; General Manager, Asset Manager, Manager; Governance, Director; Corporate Services, Manager; Engineering, Waste Operations and Contracts, Director; Assets and Development, Director; Infrastructure & Planning and Community Services Manager. These interviewees or key informants were selected on the basis of having both general knowledge regarding the operating activities of the shire, as well as detailed knowledge of the nature and thinking behind decision making during

and after the flood events, including specific policies and strategies. The objective of the interviews was two-fold. First, to gain background information regarding the flood event, and second, to elicit the beliefs and perceptions of the interviewees on various accounting and accountability issues (Tucker and Parker 2013).

An interview protocol was developed commencing with open-ended questions around the operations of the shires and the key challenges they faced (Qu and Dumay 2011). The interviews, held on location at the respective council offices, ranged from one to two hours and respondents granted permission to tape-record them. Additional hand written notes were also taken during the interviews. The interviews were transcribed and analysed to identify themes (see appendix for a sample of the interview questions).

A catalogue of concepts began to emerge from the transcript reviews. From this initial list, an indexing scheme was used to bring together accountability issues and capture the recurring and/or dominant themes present in the interview transcripts; a process known as thematic analysis (Vaivio, 2008). This technique of linking and nesting concepts is a well-established practice and supports preparing well-defined classification categories (Ritchie and Lewis 2008). Careful attention was paid to using terms drawn from the transcripts so that this part of the analytical process remained grounded in the data.

Initially, the chief researcher developed themes from a reading of the transcripts. Subsequently, a research assistant independently undertook the same task. No major discrepancies in the identification of themes were noted. However, that is not to say that only 'one' story can be derived from the data because the purpose of interpretative research is to celebrate the nuances, richness and complexity of the unfolding drama under investigation (Ahrens and Dent 1998).

FINDINGS

Three themes were developed from the interview transcripts, namely:

1. CR
2. Governance and accountability and,
3. Financial decision making under conditions of stress.

Each of these themes are discussed below.

Theme 1: CR

When rain continued to fall over several days, it became apparent that a flood disaster in the case study regions was imminent. While local community concern at this stage was on the maximum height level the water would reach before receding, accounting calculations were also at the forefront of planning and response for the recovery. This contrasts with the findings of Sargiacomo et al. (2014) who suggested that accounting did not initially dominate the response effort. In the State of Victoria, the policy of Rapid Impact Assessment (RIA) means that accounting, specifically calculative accounting (a focus on the numbers), is integral to further decision making. Under the RIA system, council officers received phone calls from the state government within 48 hours of the rain subsiding, requesting information on the estimated damage in dollar terms. These calculations were used to assess damage and garner an estimate of what sort of funding support councils would eventually request from the state government. In turn, the state government used these figures to justify making requests for additional disaster support from the Federal Government. Hence, calculative practices were used to justify immediate relief funds for households, for crucial repairs to utilities, such as water and power, and intermediate and longer term repairs to infrastructure, such as bridges and roads.

Politically, the government had an interest in ensuring that the funds were made available promptly to those most in need. Immediate cash payments were made to families for daily needs such as food and clothing, however, the state government also wanted to ensure that flood grants were swiftly applied by councils for clean-up works and repairs to significant infrastructure. Public announcements could then be made about the quantum of relief funds made available by the government, but it was up to councils to complete the necessary disaster relief funding paper work to apply for such grants. Consequently, council officers were pressured not only in dealing with the immediate effects of the flood disaster, but also in applying, as a priority, for a range of state government grant funds, each with their own eligibility criteria. Delays occurred in preparing shire budget proposals as accurate assessments of flood damage could not always be made. In particular, damage to roads and road infrastructure could not be determined until the water receded, yet the state government and its agencies pushed the shires for detailed budget proposals.

Each of the four shires took different approaches to this issue. For example, Shire 3 took a more conservative approach, not wanting to commit to too many major projects until they were virtually certain that funding would become available through the disaster relief fund. Hence:

The council and the CEO were concerned obviously that all of a sudden we go and spend \$10 million and there's a hiccup in the pipeline where we've got a major political problem and a major financial

problem. So, basically the rules were, we weren't building anything or doing any infrastructure until the money was in the bank (Respondent 3, Shire 3).

An important area where calculative practices were not used but which played a vital role in supporting various communities was in-kind support. There is a pervasive perception within shire communities that rural areas receive less favourable treatment compared with metropolitan based councils when it comes to grant funding. In addition, the shires simply do not have a large ratepayer base to increase their income. Therefore, when a disaster occurs, shires are more than willing to support each other, unconditionally:

One of the other things that happens very quickly in these events, across the region, are our neighbouring councils step in and assist. So while we're talking about taking on new staff, we had six people from X Shire come over and say we will help your staff in your recovery centre, or we will come into the office and do whatever you need. Then we said, actually we're holding together pretty well, but Y Shire, they're really stuck. So they moved on to the next council (Respondent 2, Shire 1)

There was no formal mechanism for this in-kind activity to occur, and there was no tracking of time or other incidentals for budgetary purposes. These informal relationships between shire councils were really about leaders, particularly CEOs having strong network connections, and sharing resources with more severely affected communities. This went beyond the formal administrative processes that are so well entrenched in government operations. In other words, it appeared that, initially, calculative practices took a backward step in favour of offering administrative and operational support to those shires less equipped to deal with a disaster of this magnitude.

Theme 2: Governance and accountability

Some basic governance obstacles in relation to disaster management were known prior to the flood event; it just took this disaster to bring some of these issues to the fore. The Victorian Auditor-General's Report examining the response to the flood disaster was particularly scathing about the lack of appropriate accountability mechanisms:

Local government authorities were important players in informing and delivering services to their communities. However, overall effectiveness of relief and recovery efforts was weakened by a lack of clarity in roles and responsibilities between state departments and municipalities. At the community level, audit field work found that many were confused about the relief and recovery role of local government and that of the various government departments. The multiple departments and programs involved made for a fragmented relief and recovery approach which was difficult for communities and councils to understand and navigate (VAGR 2013, pp. 26-27).

As noted previously, at the time of the floods, the main reference resource was the *Emergency Management Act 1986*. It was out-dated and failed to take into account the changing role and higher expectations of communities regarding the operations of their local shire. One respondent noted:

So the Emergency Management Act has a bit in it for councils, and it's really brief. It just says councils have got to appoint a committee, and the committee's got to develop a plan for the local area. And it's only in recent times, and probably the fires and the floods have started to push this sort of change where the councils are going hang on, we're sick of bloody doing this, it's not meant to be our job, it's meant to be your job and you're not really engaging (Respondent 1, Shire 1).

For myriad reasons, tensions between state government agencies, emergency units and local councils are not a new phenomenon. Although representatives from each of these groups met amicably on a regular basis as required by the *Emergency Management Act 1986*, it was only after this flood event that it became clear that more responsibility for recovery activities would be delegated to shires. It appears that this decision was made given the local community preference for dealing directly with their local shire, rather than the numerous state government agencies, emergency units and NGOs.

In terms of the use of the accounting information system within local councils, the main issue appeared to be one of processing a significantly higher volume of transactions due to the flood event and ensuring a proper delineation in the ledger accounts between normal operating transactions and accounting for the disaster relief funds. As a respondent noted:

Then we also had a range of other flood relief, the Victorian Disaster Flood Relief, but there was a huge amount of grants out there and we certainly were in a lot of those. Which has its own problems in that there's a huge range and that they're all called flood disaster relief or something similar to that, so you've got money coming in, in dribs and drabs and all over the place and trying to track and keep that is a real problem (Respondent 2, Shire 4).

This point of concern is related to what Baker (2014) refers to as 'calculative accountability'. It is accountability that relies on the 'hard' numbers and verifiable evidence to support decision making. Calculative accountability fails to recognise the emotional aspects of natural disasters and so McKernan and McPhail (2012) argue that 'narrative' accountability be used in conjunction with calculative accountability. This would take into account the necessary 'caring' aspect for disaster victims. Narrative accountability was certainly evident in the case of the Victorian floods.

A related concern was a concept known as *betterment*. Betterment refers to the notion of replacing an essential public asset to a more disaster resilient standard. It has been standard practice for governments to fund only repair and/or exact replacement of existing assets that were damaged. That is, asset replacement cannot be of a higher quality or size in order to withstand future natural disasters. This issue causes misgivings among those wanting to ensure that in the event of another flood, the replaced asset could better withstand those environmental forces. Secondly, the community may not want the particular damaged or destroyed asset to be replaced because it may have been under-utilised or a new, more appropriate location for its placement is identified. From the government's perspective, in order to contain costs, it constrains flexibility. The modest administrative structures of most shires coupled with a lack of clarity and complexity in gaining approval for betterment projects meant that this was an area that remained unresolved.

Theme 3: Financial decision making under conditions of stress

Decisions made under 'normal' operating conditions are justified based on experience, policy manuals and support staff. However, investigating decision making during and after a major flood event (or any natural disaster) opens up opportunities to explore if and how decision making protocols change and under what circumstances these are viewed as justifiable. Under *Theme 1*, it was noted that Shire 3 maintained a stringent budgetary protocol and only spent funds they were virtually assured of receiving from the state government via disaster relief.

However, Shires 1 and 4 had a different approach. It was the third time these townships had been flooded in six months. The shires were aware that residents were emotionally and physically exhausted and that the toll of another flood disaster might have a long-term detrimental impact on some parts of the community. Accordingly, it was reported that:

We hadn't spent a great deal of money, up until that time, we'd ran some relief centres and food, but then it started to hit the recovery side of it and that's when the CEO said to me "whatever people need, let's just get it to them", and I said, what about the budget, and he said "Let's just get it for them" (Respondent 1 Shire 4).

The CEO basically said spend whatever you have to. The CEO would have been aware of the fact that we should be able to apply for most of this back. But we're not guaranteed. But let's just get on with it (Respondent 1 Shire 1).

Compare these approaches to that of Shire 3:

Three days after the September event we were getting calls from the government saying how much damage is done so that they can get an idea of the size and financial impact on their coffers. Good idea but we were ten times short. Our CEO told us don't build anything out there until you've got money in the bank (Respondent 3 Shire 3).

It was unclear whether the CEOs had other advice suggesting that funding for this activity would eventually 'come through', or had taken the decision that the immediate priority was to get back to its customary community routines as soon as possible. In any case, it was the first time that such a decision was made in this context. In Shire 2, this led to the immediate hiring of 20 large garbage containers, front-end loaders, tractors and graders and a whole range of equipment to clean up private properties. It appeared that the conversation temperament between the Shires and the community changed after that decision, in that the Shire was making extraordinary efforts to support their community and locals appreciated that the council was 'on their side', as noted in the following quote:

There were council staff out working side by side with community people in a lot of areas doing sandbagging, and the people saw that council was not just roads, rates and rubbish, there was a whole lot of different aspects to council during that time and I suppose that probably improved council's standing in the communities (Respondent 1 Shire 2).

According to managers from Shire 2, they needed to ensure their community that the shire was there to provide support, however, at the same time the community needed to acknowledge that the shire did not have the capacity and resources to deal immediately with each individual circumstance. It appears that the local communities affected by the floods were well aware of this fact; self-sufficiency is common in rural areas.

Thus, it would appear that *not* following common governmental budgetary/expenditure procedures during these extreme conditions achieved commendable outcomes. Accounting and accounting procedures can sometimes frustrate users (victims) and some shires in this study demonstrated a clear understanding of this phenomenon. Decision making under stress tended to place a greater emphasis on prioritising affected households and infrastructure rather than on traditional local government accounting functions where strict adherence to policies, procedures and due process are paramount. One respondent noted:

Well, I guess access was the first thing like, once the water started to recede a lot of roads were cut, so restoring roads (was the priority) (Respondent 2 Shire 2).

Immediate road repairs not only allowed water to pass through and move down stream, it also facilitated access for households, emergency workers, government officers and volunteer organisations

Following the 2011 floods, the Victorian Government changed its policy with respect to repairs and replacement of assets. It now provides councils with an upfront allocation of 50% of the expected costs of the works. This initiative was well received by the shires as it provided a greater sense of surety with the understanding that the 50% balance outstanding would be forthcoming once the required documentation and accountability requirements were finalised. The leadership in these shire councils, as well as the state government went to significant lengths to prevent accounting from impeding practical outcomes for disaster victims. Communities welcomed this approach, as evident in the following quote:

It was a great strategy. I mean, we actually were able to influence the outcomes for our community immediately, and ultimately, I think we got it all back (*funds spent* anyway) (Respondent 2 Shire 1).

It could be argued that the activities pursued by the councils in the aftermath of the flood verge on the idea of the 'heroic bureaucracy' (Walker 2014). For example, Shire 4 did a door knock of every property flooded to ascertain their individual situation, and offer assistance or direct households to other aid agencies. However, and intriguingly, not all community members or councils officers supported the extent of assistance provided, criticising it as paternalistic and having unintended consequences. These included raising the expectations of individuals for even greater support and assistance, either in cash payments or in-kind support, as soon as another natural disaster emerged. There is a balance here between reliance on government hand-outs and promoting self-sufficient and resilient communities.

Information sharing between the shires and community was also seen as crucial for maintaining harmony and cooperation. For example, individual households became increasingly frustrated with the time taken for recovery works to occur in their immediate area. It was only after direct communication and 'town-hall' type meetings organised by the Victorian Department of Human Services that there was a significant increase in the number of people making applications for grants.

DISCUSSION AND CONCLUSIONS

In the case of the flood events in Victoria, given the scale of the multiple flood events, the state government made the decision early to provide a 50% upfront payment to the shires affected. The 50% payment was based on estimated damages and was welcomed by shires given that the alternative would have been waiting months for re-imburement of funds initially spent. The latter process would not have been practical given the scale of the flood disaster and the relatively small budgets that these rural shires have under their control. The repair and replacement of essential public infrastructure would have quickly exhausted their cash resources. Thus, the use of numbers, that is, CR, was very much at the forefront of this flood disaster. This supports the premise of Wilson et al. (2010) that adopting accounting practices within the context of an extreme event makes decisions appear rationally based. It was the state government that wanted to know the *cost* from the shires within days of the flood event. It is argued that there were several reasons for this haste. The state government wanted to know what effect this flood would have on their own budget and whether any spending priorities would need to be changed as a result. Moreover, the figures would assist the state government to lobby the Federal Government for further financial assistance. Politically, the collection of costing data could be used to inform the public that the government was *in control of* the situation, and part of the response was the immediate allocation of funds to the affected households and shires to commencing the *re-building* phase.

A further contribution of this study is in understanding that the *context* provides distinguishing features. Members of the community had an understanding that their local shire did not have the capacity or the resources to render the sort of assistance required post the flood event. They then, took it upon themselves to instigate self-driven actions to help themselves and others in need. Shire councils offered to support these activities in numerous, often in-kind, ways, empowering communities to solve their own problems within a structure of facilitated assistance. This emphasis on a 'bottom up' response to a natural disaster tends to be effective (Walker 2014). Naturally, this approach does not sit well with everyone in the community as expectations are a subjective notion. Some locals hold the view that it is the government's duty to provide unconditional assistance and support for disaster affected individuals and thus hold government to account. This is a difficult area for government to balance, wanting on the one hand to display its capacity and role in facilitating rescue and recovery efforts for its electorate, while being conscious of the political risks associated with budget over-runs or using a convoluted and confusing system of support for victims across several departments.

Notions of accountability are fluid and changing circumstances and extreme environments can solicit new expectations and commitments. Evidence from the *Victorian Flood Review* (Comrie 2011) indicates that the Victoria State Emergency Service (SES) were overwhelmed by the size and complexity of several flood events occurring in consecutive months, while it can be argued that the state and local government accountability obligations to the flood victims did not change. Rather, immediate practical considerations and a culture in most rural communities to band together and support each other in times of distress altered the accountability dynamics. Given the extraordinary nature of the multiple flood events, instinctively local communities understood the limited capacity of the SES and their local shire council and instigated and organised their own recovery activities. This point is consistent with the argument provided by Taylor et al. (2014) that formal mechanisms of accountability are more relevant for *upward accountability* purposes, in this case, between the

shires and the Victorian State Government. Here, formal mechanisms were important. They were less important between the shires and the local community because of their close connections.

Tension did exist between some locals and the SES, believing that the local community had insufficient warning about the *scale* of the impending flood disaster. However, consistent with the findings of Lai et al. (2014), during the recovery phase, a combination of continuing dialogue between the shires and NGOs and flood victims, 'hands-on' support (sand-bagging) by shire staff and mutual understanding that financial support from the state government was imminent, lead to greater understanding of the role of accounting in supporting the needs of victims.

It was also found that traditional local council measures of performance and policies, such as ensuring value-for-money, took a backward step during and after the flood event as councils were pressured into making quick decisions. The immediate concerns of victims energised the local councils into action. Therefore, some decisions were made on the basis of how quickly infrastructure could be repaired or replaced at a time when shire councils were competing for limited raw materials, supplies and contractors. The shires managed this activity by purchasing whatever raw materials and infrastructure was available and storing it for future use. These decisions were being made in an environment of minimal administrative support and little experience in dealing with such an unprecedented large scale natural disaster.

The investigation of the 2010/11 Victorian floods draws attention to a number of theoretical, practical and policy implications when confronted with an EWE. Notions of accountability are dynamic and if we believe that accounting is to be used as a mechanism to alleviate suffering and get people 'back on their feet', then certain aspects in this study can be used as a model for future disasters. Conversely, there was evidence of areas of accountability that impeded the relief and recovery effort, specifically when various government departments were relying on detailed and extensive documentation from shires that already had limited capacity at a time when their priorities were justifiably elsewhere.

On a practical level, government funding after this flood event was constrained by historical practices. That is, whilst some funding criteria had changed to suit this flood event, structural limitations on how and when the grants were spent meant that less than optimal use of those resources occurred. For example, the requirement that funds needed to be expended by a particular date has long been a requirement unsuitable to many situations. In the case of a flood event, the actual damage may not be readily visible until the water recedes or long-term structural damage to public infrastructure may not become apparent until months after the flood. There was, consequently, confusion amongst shire managers as to whether and how they could claim funding for such expenditures.

On a theoretical level, this study makes three contributions to the literature. First, it builds on the work of Taylor et al. (2014) which examined accountability within the context of Australia's 'Black Saturday' bushfires, highlighting the lack of prior evidence of downward accountability (to victims) following a natural disaster. The current investigation suggests that the *governance* of the flood relief and recovery hampered notions of accountability. That is, the unwieldy structure set up by the state government (notwithstanding commendable intentions), constrained what the local shires

thought they should and could do in the aftermath of the floods. Second, this study provides a contextual contribution on two levels: examining public sector management in the context of a natural disaster; and undertaking an in-depth analysis of shires in rural regions. Lai et al. (2014) identified a need for more research on flood tragedies; this study has commenced in bridging that gap. The Victorian rural regions investigated in this study are characterised by responsibility for large geographical areas, but with a very low ratepayer base (compared with metropolitan councils). These shire councils did not have the financial or workforce capacity to manage multiple flood events effectively. Following the experiences of floods, droughts and bushfires, these shires successfully lobbied for funded expert 'Disaster Managers'. This has placed EWE firmly on the shire agenda.

The final contribution made relates to the gap in knowledge identified by Sargiacomo et al. (2014). That is, accounting, it is argued, has been constrained in its utility due to an aversion to notions such as subjectivity and emotion. The dominant orthodoxy is that the current strength of accounting in society lies in its impartiality and *coldness*. However, this investigation found evidence of management risk-taking with respect to making local spending commitments before all financial agreements were in place in order to reduce the suffering of victims.

Although a number of important theoretical and practical implications have been highlighted from this investigation, the findings must be read in the context of a number of limitations. The study focussed on four of the most severely affected shires in Victoria, although floods impacted 21 shires to varying degrees. In addition, this study focussed on the activities and decision making at the *local government* level, however, it is acknowledged that several state government departments also played an integral role in the funding of flood relief and recovery. Local government was chosen because of its *closeness* to the actual event and its victims (ratepayers).

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Appendix

Sample of interview questions

1. How does your shire define EWE?
2. Do past EWE inform your current decision making? If so, how?
3. Does the type of information (i.e. accounting, budget, qualitative assessments and behaviours) influence decision making in the context of the flood events?
4. Describe the process for claiming reimbursements for flood relief. Was it an effective process?
5. Comment on the accountability mechanisms in place for flood relief and recovery.
6. Did accountability protocols and relations change because of the flood event? If yes, how?
7. What were your main priorities during and after the flood event?
8. What were some of the obstacles/constraints that were confronted in meeting those priorities?
9. To what extent was local knowledge used to facilitate decision making?
10. What do you believe are some of the main differences in managing a flood event in a rural setting?