Strategic action and Planning change: Regulatory Changes and Bushfire Resilience

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Abstract: This research paper aims to provide better understanding of the manner in which changes occur via strategic planning. It suggests that while strategic planning is extensively discussed in the wider body of urban planning's literature, it is not always clear how practice-based planning change occurs, how it develops as a process, and is actualised in planning practice. In addition, there is limited knowledge of the ways that strategic planning occurs "with" the other governmental systems with which urban planning is inter-related. This paper addresses the question of *how* and *why* changes in strategic decisions are made in this context, and who the decision makers and influencers of such changes are, using the example of bushfire planning policy in Victoria, Australia. The paper specifically analyses the processes of development and implementation over time of the Bushfire Management Overlay (BMO), which was established in 2011 after the devastating events of the 2009 Victorian Bushfire Season. The BMO's latest and significant amendment, which occurred after only three years, provides particular insights into the interplay of multiple systems and influences that represent the realpolitik of policy formation, management and change. The research method employed is policy analysis, based on data collected from a range of documents, scientific papers, and regulations; combined with semi-structured interviews with professionals from different agencies involved in the development, implementation or amendment of the policy. The findings of this research paper document the conditions and reasons for strategic change in the case study.

Key words: strategic planning, decision making, bushfire planning, governance of planning, regulatory changes

Introduction

Australian strategic planning is going through a process of re-developing its characteristics and approaches. As a result, there is a need to develop strategic thinking at multiple scales and across various modes of action to help governments deal with the wicked problems facing Australia's urban areas using adjustment and innovation, without relying on technical solutions alone (Searle and Bunker, 2010). The problem is that, while urbanisation continues alongside human induced climate change, population growth, and associated risks, there remains an urgent need to develop understandings of resilience relevant to the specific challenges and potentials of urban planning (Wamsler, 2014).

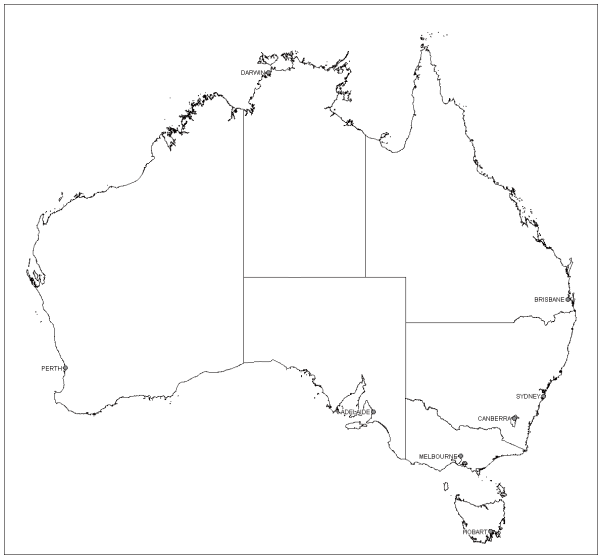

Figure 1 Map of Australia

This paper examines strategic spatial planning as a means of developing resilience, seeking to integrate its aims to bring about collective and individual advantages in the future. Like resilience, strategic planning includes paradoxical aspects, such as its attempts to establish new visions of the future, but in circumstances where uncertainty and complexity in the present undermine planning itself (Hillier, 2010). Indeed, a key challenge highlighted below is the tension between longer term processes institutional learning and the shorter term influences of political cycles (March, 2012). Strategic planning systems are challenged by the need to adapt to uncertainty and change over time, managing substantive "realities" such as growth pressures, environmental challenges or transportation efficiencies. However, in parallel, strategic planning is also a system of *governance*. It is a system of governance in which knowledge is developed, however imperfect, and applied to situations over time as *decisions*: about planning systems themselves, and about the substantive challenges of cities and regions themselves that are dealt with through policy and regulation.

To examine strategic planning, this paper examines policy as it changes over time relating to bushfires and related matters, using the 2009 Victorian fires as an illustrative case. Even while there is apparently considerable support to address this substantive problem at higher policy levels (COAG, 2011), an ongoing problem remains that actions after disasters such as bushfires do not always take new knowledge and apply it to improve resilience (Alexander, 1999, Handmer, 2006). Finding practically implementable ways to significantly modify urban risks via spatial planning often remains unclear (Wamsler, 2006, Wamsler, 2014). Politically, urban planning is increasingly acknowledged as a fundamental part of addressing disaster risks, evidenced in ongoing National Strategy documents (Wilkins and McCarthy, 2011). Traditionally, disasters were often thought of as being outside of human control, where the forces of nature or "acts of god" devastated human settlements in unpredictable and uncontrollable ways (O'Keefe et al., 1976). There is now increasing acknowledgement that the risks associated with hazards such as bushfires are influenced by human activities, and that humans have responsibility for the risks faced by their settlements (Alexander, 2012).

The 2009 Victorian bushfires are just one risk element and challenge, but it does illustrate that urban spatial planning is confronted by the ongoing need to develop, maintain and improve forward-oriented strategic systems (Hillier, 2007) while seeking to meet peoples' needs (Gleeson, 2010). Understanding the impacts of risk and disaster on urban processes, and developing governance processes that promote resilience, are critical aspects of urban planning (March, 2012, Gleeson, 2008, Godschalk, 2003), but these are currently underdeveloped in practice, while theoretical constructs integrating resilience within urban planning are incomplete and unresolved (Wamsler, 2014, Wilkinson, 2011). Wamsler (2014) contends that urban managers need to find ways to use resilience as a concept, integrating risk reduction into planning, and further, to eventually set directions that mainstream risk reduction as part of planning. This paper begins by setting out an understanding of strategic planning as an aspect of social systems and introduces the concept of social learning as a way of understanding change over time. It then sets out the case study of Victorian policy change over time relating to bushfire risks. The remainder of the paper reports the findings of this examination, concluding that strategic planning needs to address the overall implications of learning associated with policy changes to be successful.

Understanding Strategic Planning as a Component of Wider Social Systems

Strategic planning's success is intertwined with meeting ongoing environmental, social and economic challenges faced by our cities and regions (Gleeson, 2008, Gleeson, 2009). It is confronted with the difficulty of relying to a great extent on existing governance and planning systems as the basis for trying to achieve improved systems and outcomes in the future, in the face of uncertainties and imperfections of planning knowledge and the possibilities for future action (Hillier, 2007, March, 2012). However, strategic planning is challenged in many ways as a "steering" mechanism. It can be undermined by questioning of planning's authority, by desires for greater devolution and market approaches, and by disconnects from implementation in statutory systems (March, 2012).

"Institutional learning" is used in this paper to conceive of and examine strategic urban planning, *as it is practised*. In this sense, "good" strategic planning would facilitate change over time towards improved establishment and achievement of planning goals. Institutional learning is the process by which organisations develop over time, improving and changing ongoing activities and processes through mechanisms to develop and apply new knowledge (Healey, 2007, Steele, 2011). S*trategic navigation* views urban planning within a "change trajectory" as part of the realpolitik of wider governance and the pragmatic need to deal with emerging change over time (Hillier, 2010, Hillier, 2011). It allows strategic planning to be examined as a process of practical "institutional learning".
An approach grounded in institutional learning allows insight into the processes of strategic planning, particularly as they relate to developing and applying new knowledge (Healey, 2007: 247). Healey suggests that the paradoxes of adaptive strategic planning are grounded in the processes in which systems of meaning are used, modified and created episodically. When it is effective, strategic planning would be "reconstructing" knowledge on an ongoing basis. It would build on many knowledge types to develop new understanding (Healey, 2007: 246). Healey is seeking to draw together the formal and informal contexts that represent the *realpolitik* of circumstances which are the drivers of strategic change (Healey, 2007: 193).

The institutional learning model being used here understands stimuli such as "disasters" as a basis for knowledge generation and use, analysing the ways that different knowledge has or has not been used and translated in strategic planning. Institutional learning describes the process by which knowledge is constructed and applied in a wider governance system, taking into account the range of knowledge types that embody the ongoing production and applications of planning strategy (Healey, 2007: 245). This view of strategic planning would be that it is the ability to adjust and adapt over time, analogous to understandings in resilience thinking (Cork, 2010), offering the possibility for institutional learning methods and actions avoiding problems in the first place by using existing knowledge and experience.

An institutional learning model offers five key analytical focuses (Healey, 2007: 29, Hames, 2007). These core questions have been used to inform the study:

1. What are the understandings of the problem amongst various communities and who has ownership?

2. What knowledge types are being employed or resisted (whether in-production or after adoption and use), and what are the various policy communities seeking to "know"?
3. What practices are being employed in developing knowledge?
4. How are key audiences selected and brought in/excluded from processes and "convinced"? (from Healey, 2007: 192-8)
5. At what point, and how, do changes occur? Are there particular "smoothing" or validation techniques for adoption of change?

Case study of the Victorian Bushfire Policy Development

Changes in bushfire planning policy that have been made after the 2009 Victorian Bushfire season were selected as a case study to examine how and why changes in strategic decisions were made. The increasingly interdisciplinary nature of bushfire planning allows for investigation of these decisions in view of the other systems involved. This particular case was chosen because the devastating and significant losses that occurred resulted in significant and relatively rapid changes in planning mechanisms.

Data were collected from reports submitted as a part of post-disaster recovery stage activities, legal notices on changes in relevant planning policies that are available in public domain, scientific papers and semi-structured interviews with leading experts conducted by the researchers. Agencies whose reports have been analysed are the Victorian Bushfire Royal Commission (VBRC), Country Fire Authority (CFA) and Commonwealth Scientific and Industrial Research Organisation (CSIRO). All analysed documents are authentic and credible, which established based on data origin and authors' information (Bryman, 2012). Documents were analysed using a policy analysis approach, seeking to define, understand and critique problems (Guess and Farnham, 2011). More particularly, the analysis assesses the alternatives chosen for the policies and determines which of them achieved goals (Nagel, 1999, Dunn, 2007). Semi-structured interviews were transcribed and used to verify and supplement government documents and reports to provide in depth analysis and fill-in missing information on the topic. Triangulation was used to ensure rigor. Commencing with a brief description of overall changes in the bushfire planning practices in Victoria, the case study answers the questions posed previously to understand the triggers of strategic decisions, and how were they carried out.

Development of the Victorian bushfire planning policies

The South East region of Australia is one of the most bushfire prone areas in the world (Bradstock et al., 2012). Despite general policy acceptance of the importance of planning tools and mechanisms (e.g. Handmer and Haynes, 2008), it has been relatively recently that planning tools began being used here as one of the main fire protection mechanisms. Fire protection in Victoria previously had an emphasis on building, rather than planning controls. Despite existence of some design guidelines (Ministry for Planning and Environment, 1990), they were not clear or particularly detailed, nor were they well integrated with building codes. In 1991 the bushfire building standards AS3959 were introduced, and in 1994 first bushfire maps were developed. The Bushfire Prone Area (BPA) mapping served as trigger for building permits (Professional 2, 2015, Professional 3, 2015), while in planning system bushfires were addressed under the Special Building Overlay (SBO), which also included floods, demonstrating that there were no designated planning controls (Gibson et al., 1997).

In 1997, a series of concerns were raised by several councils across Victoria regarding urban planning bushfire risk standards required for water supply, apparent blanket exemptions from vegetation removal controls, and the of the overlay and in referring to 'wildfire' rather than 'bushfire'. These concerns were addressed by the Advisory committee on the VPPS in August 1997, and Special Building Overlay (SBO) was replaced by WMO under Clause 44.06 in October same year (Gibson et al., 1997). Developed by the Country Fire Authority (CFA) professionals in order to put some planning controls and measures on properties prone to bushfires (Professional 2, 2015), WMO was not a state wide map, but each local council in collaboration with CFA was scheduled to apply WMO accordingly (Victoria Planning Schemes, 1997). However, by 2009, only 35 out of 82 municipalities implemented relevant mapping to allow use of the provisions, and of these many were limited in area (Victorian Bushfires Royal Commission, 2010c).

The events of the 2009 Victorian Bushfire season occurring in January to mid-March are historically one of the most devastating and damaging disasters in the country. The total number of fire events reported to the Country Fire Authority (CFA) during that season was 39,987 (Victorian Bushfires Royal Commission, 2010a), out of which the most deadly and severe occurred on 7th of February, 2009, also known as "Black Saturday". A total of 365,020 ha of land were burnt, resulting in significant environmental losses, 78 communities were directly affected, 173 people were killed 7th of February, 2009 and 2,056 houses were lost to the fire (Victorian Bushfires Royal Commission, 2010b, Country Fire Authority, 2012). To investigate reasons for these devastating events and to find ways of reducing future risks, the Victorian Bushfire Royal Commission (VBRC) was established. The Commissioners stressed that "land use and regulation of building standards in bushfire-prone areas are two of several measures available for improving people's chances of surviving bushfire" (Victorian Bushfires Royal Commission, 2010c). Review of existing planning strategies and regulations demonstrated that there was a lack of appropriate planning measures in place, and maps were not accurate and not consistently applied (Victorian Bushfires Royal Commission, 2010a). To address these issues they identified several major changes needed to the planning system. Primarily, the Bushfire Management Overlay (BMO) was mapped and applied on May 18th, 2011(Victoria Planning Schemes, 2011). Similar to the WMO, it is a series of planning regulations that trigger the need for planning permits in areas with increased risks for human lives from bushfire disaster (Department of Planning and Community Development, 2013). Unlike the former WMO's application, the new version was applied to the whole state as a single mapping exercise. This approach resulted in rather conservative risk assessment, based on assuming the entire state has the same fire danger risks, expressed as the Fire Danger Index (FDI) index (Professional 1, 2015, Professional 2, 2015, Professional 3, 2015, Professional 4, 2015).

Planning controls under the BMO have now existed for just over three years and were updated on 31 July, 2014. The updated regulations were intended to provide landowners and residents with 'greater certainty' in bushfire designated areas by providing more opportunities to develop land, clear vegetation and to put in place tailored bushfire defences (State of Victoria, 2014). Changes were made by the Minster for Planning via Amendment VC109 to all Victorian Planning Schemes (Government of Victoria, 2014). The new policies reduced required defendable space, an increased range of alternatives for construction, removed CFA's right to veto proposals in the residential areas, eased application process for residential areas (State of Victoria, 2014). However, application of the policy remains limited to new construction, and does not apply to land uses such as hospitals.

Understandings of the problem

Healey (2007) suggests that the first step for institutional learning to occur is a need for general consensus regarding the nature of the problem amongst the various communities (p.29). Similarly, the nature of any DRR practice is that various professionals and expertise is drawn upon to improve understanding of problems (Haddow et al., 2011, Coppola, 2011). In the Victorian case of bushfire a wide range of problems were identified by the Royal Commission. When events after the fires are examined more carefully an ongoing lack of common understandings amongst the various communities is revealed, a particularly important aspect given that drastic changes to the authority responsible for planning assessment (the fire authorities) ownership was central to the policy developed being highly unpopular.

One contested area is the widespread but misguided perception that the previous WMO did not reduce bushfire risks, even though the VBRC review and research (Holland et al.) demonstrated that the most significant damage occurred in municipalities and locations where the WMO was *not* applied (Victorian Bushfires Royal Commission, 2010c). In light of this, drastic changes to the bushfire planning policy were made, even while more thorough application of existing policies may well have been sufficient.

Another contested perception was that fuel reduction had been insufficient in recent years (Victorian Bushfires Royal Commission, 2010a). While considered a powerful tool in prevention of bushfire disasters (e.g. Busenberg, 2004), understanding which areas of vegetation should be treated, and how frequently, remains contested. Ideally, to be most effective, fuel reduction is carried out on the edges of endangered settlements. In practice it has been carried out in areas where bushfire disaster risks are significantly lower, such as extensive but remote forests or parks where targets can be met (Professional 1, 2015). This might be a result of risks associated with management of controlled fire

on the fringe of settlement, or lack of clearly defined territories or areas scheduled for fuel reduction, state government rather state dictates percentage of public land or square hectares of areas to be burned (State of Victoria, 2013b, Professional 2, 2015). Limitations to fuel reduction also clash with native vegetation overlays in the planning scheme, (Victorian Planning Schemes, 2015) as they over-ride the ability to reduce fuel loads. Considering that some Australian native vegetation species rely in fire as a mean of spreading seeds (Bradstock et al., 2012), restrictions on reduction of such fuel on rural or urban fringe result in development of hazardous environment.

Based on a number of VBRC recommendations (19 out of 67) (Victorian Bushfires Royal Commission, 2010a), planning and building controls were seen as one of the most problematic aspects of bushfire DRR. However, planning itself was but one factor intertwined with warning system issues, adequacy of fire service responses, and public awareness. An emphasis on planning emerged and a strong desire to change the planning system was communicated to state government planners, as a clear "action item" for government. However, ownership of building and planning knowledge and decision powers differed between building regulations and planning controls. Using pre-2009 provisions, use of building controls remained the "domain" of the building industry, meaning that modification to this aspect of the development was not possible, despite new evidence emerging (more information below). Today, there are two building controls available – AS3959 for timber based (Standards Australia, 2011) and NASH standards for steel based structures (NASH, 2015). Referral powers in planning assessments pre 2009 were based in CFA and MFB decision-making. After the introduction of new and more complex state-imposed controls, significantly greater numbers of applications had to be assessed by CFA and MFB officers, under the oversight of local government planning officers. However, there was a lack of adequate expertise among planning and local fire service communities. Assigning CFA and MFB as referral authority in the 2011 provisions meant that many fire officers, trained in response to fires, were now required to assess risks in advance, planning and building terms. This meant that ownership of "the problem" has changed in various ways in the planning provisions, but that multiple and often conflicting understandings were being applied, with local governments still largely reliant on emergency responders for advice, even while the "solutions" offered on a site by site basis are based in building and planning (Professional 4, 2015).

Strategic planning mapping exercises using pre-determined measures in the 2009 Building Codes found that building in some of the identified bushfire prone areas would increase bushfire risks beyond acceptable levels. This notion was based on the suggestions of the CFA professionals, and restrictions on development were introduced (Victorian Bushfires Royal Commission, 2010c). However, it does appear that this position represents an over-reliance on one agency (the CFA) which saw the problem as only solvable via cessation of development altogether in some areas, rather than seeking out other solutions, such as those provided by the engineering, construction, planning industry, or indeed in parallel with buy back processes. This resulted in the development of rather conservative planning policies (Professional 4, 2015), which may then contradict other goals, such as individuals' land development rights (UNISDR, 2015).

Despite identification of some land being too risky for development, there was little to no assistance in recovering costs of land already owned, such as buyback or compensation (Professional 3, 2015). This led to skewed understandings of the problem by residents, and protests being mounted against "banned development" and political pressures for change, which ultimately led to further changes to policy in 2014 (Professional 4, 2015, Professional 6, 2015). Accordingly, the limited interactions and knowledge sharing between decision makers and local government planners and communities led to limited solutions being delivered by planning and building controls. Locally based CFA officers were often uncertain the interactions between and levels of risks being addressed, lead to a tendency to over-use pre-existing approaches, such as extensive fuel reduction that existed in the CFA and communities, or to apply the new planning controls conservatively to refuse new development altogether.

Accordingly, significant differences of understanding of "the problem", alongside highly variable levels and types of knowledge between the various communities led to difficulties in developing and then applying the new planning policies. Planning policies became highly reliant on risk assessment based in pre-existing building codes. The next section provides an argument regarding how "knowledge" was developed. Consequent sections outline how it was applied, who was included or excluded from decision-making processes and how it influenced strategic planning.

State policy - drawing on science – but applied by building and planning

Many of the new policies developed after the 2009 Victorian Bushfire season were based on scientific research. Statutory planning policy makers demonstrated an increased appetite for evidence based regulatory controls, which required inclusion of expertise and professionals from other fields. In particular, planning sought to use a performance-based approach that complemented the predetermined tests inherent to AS3959. Science professionals, on the other hand, were seeking for a return to a fundamental risk management approaches that challenged many of the assumptions of the building codes. Overall, the inability to change fundamental risk assessments and treatments in existing building controls, combined with top-down communication changes led to highly variable understandings of the new planning policy and its effectiveness.

After the 2009 Victorian Bushfire Season, investigations carried out by the VBRC recommended changes to building codes and the AS 3959 – 2009 version was published and adopted on March 25th, 2009. This version was "work in progress" when disaster struck, and in light of pressures on government to make immediate changes, the updated version was released, despite some doubts as to whether it was ready (Professional 4, 2015, Professional 2, 2015). The timing here was conditioned by pressure on Standards Australia in publishing revisions. AS 3959 version 2009 included six possible Bushfire Attack Levels (BAL) for construction; five levels of construction corresponding to highest BAL, included two methods for assessing bushfire attack, recognized differences of Fire Danger Index for different states, and referred to two new testing standards for construction materials (Victorian Bushfires Royal Commission, 2010c). The BAL is calculated based on topography, vegetation, Fire Danger Index and proximity to other buildings (Victorian Building Authority, 2011). Based on the site assessment, 6 categories of BAL can be assessed – from zero risk to the lives and property, to extreme risks (Australian/New Zealand Standard, 2009).

New knowledge was developed in several stages as part of the recovery process and part of VBRC investigations. Data were collected by professionals and further applied to recovery tools and mechanisms. For example, the final report of the VBRC (Victorian Bushfires Royal Commission, 2010a) recognized an urgent need to revise mapping criteria, leading to data collection, analysis and mapping. Initial data was gathered and analysed by Department of Environment and Primary Industries (DEPI), and further refined by Department of Transport, Planning and Local Infrastructures (DTPLI) (State of Victoria, 2014). Next, data were used to map out areas suitable for BMO planning purposes. All fire behaviour related data were transformed to identify potential fire intensity and radiant heat it can release. Depending on measured radiant heat, three different bushfire hazard levels are identified and initial BMO is mapped out (State of Victoria, 2013a).

The second stage was development of knowledge directly relevant to bushfire prevention tools, including those impacting strategic decisions. Here, evidence and science base such as flammability of materials, influence of landscape features on fire behaviour, relationship between structure location, design and quality of construction materials and fire behaviour, etc., were used to create AS3959, bushfire planning polices, update state policy and local provisions. For the development of the BMO it consisted of verification processes performed by DTPLI in partnerships with municipal councils and fire authorities. Qualitative data and additional information sources, such as aerial maps and topographical maps are used here to refine accuracy of developed maps and further applied to GIS software to produce maps suitable for statutory purposes that includes smoothing lines and including buffer zones where needed (State of Victoria, 2013a).

The third stage observed was communication to the end-users of the new policies. End users here refer to local government and residents. This stage was rather "passive" as policies were just informed with no or minimum consultation or explanation (Professional 4, 2015, Professional 6, 2015), leaving them no choice but to develop their own understandings of the topic. This resulted in protests from the community (e.g. Partland, 2014) and creation of Bushfire Management Overlay Lobby Group against Planning Restrictions with main aim to change planning provisions or get full compensation for loss of value under the new BMO policies (Cotter, 2014).

While application of evidence and science is necessary to achievement of risk reduction, new bushfire policies in urban planning apply only to new housing/structures and are therefore limited in application in the short term, leaving about 90% of the existing housing stock in the state vulnerable to future

disasters (Professional 2, 2015, Professional 3, 2015, Professional 4, 2015). This limitation resulted in a skewed application of policy and raises for the public about the policy overall – mainly, how the risks of new development are actually decreased when the housing stock around it might be the main source of fire hazard itself. This, combined with top-down communications, led to a significant community backlash.

Limited local government and citizen involvement

There are two key audiences in this case – policy developers and end users. In 'good' strategic planning, policy development should be undertaken in a way that ensures that these two groups are involved in the implementation processes and that knowledge is developed and distributed between both. However, development of policies after the 2009 Victorian Bushfire season occurred with a clear disparity between the two audiences, which can be seen in two phases of policy development provided further.

During the first phase, some collaboration between a number of experts from key agencies occurred, all of whom were employed by the VBRC. However, some of the experts were found not to be qualified to perform the task of policy development, as their knowledge was limited to single aspects of the problem. There was no single expert whose knowledge level could distil all information that allowed the development of thorough policy (Professional 2, 2015, Professional 4, 2015). This initial phase included some limited consultation with local government on the mapping exercises being conducted at the state level (Victorian Bushfire Royal Commission, 2009), but not on future uses of policy, nor were any alternatives entertained.

The second phase consisted of delivering and "messaging" the new policy to its end users – local government and residents, neither of whom are necessarily professionals in bushfire planning. Here again no consultation was undertaken, which might be seen as one of the reasons for such a disconnect between community appetites over time. Good policy needs to be palatable and people need to understand it, but in this case typically did not understand it, and therefore, often did not use it appropriately, or even actively opposed it, which occurred in 2011 and resulted in significant community pushback. The updated amendments of 2014 aimed to assist residents and ease construction difficulties in bushfire-prone areas. These changes were undertaken with some consultation with a single community lobby group, yet not all recommendations and requested were included in the process, leaving the impacts of the policy largely unchanged (Professional 4, 2015, Professional 6, 2015).

Need for adjustment – when policy goes too far

As demonstrated in the analysed case, there are usually multiple points at which changes can occur to processes and policy in a strategic planning process. One of the most salient points is a disaster itself as a change catalyst. The devastation brought by the events of the 2009 bushfire season led to a significant appetite for change in the community and increased pressure for a quick response from government. As a result, there was a substantial centralized (at state level) change. While this response from residents is typical after significant disturbances caused by natural disasters (Dynes and Tierney, 1994), in the analysed case the actual changes were something of a "quick fix" of existing policy, introducing the BMO and associated planning policies. However, these policies were quite restrictive in nature, conservative (in terms of risk avoidance) and led to significant community protests due to the restrictions upon building in established areas. Accordingly, in 2014 a more flexible version of the policy was developed. This disconnect between two the implementation phases appears to have resulted in the policy being targeted by many stakeholders as being inappropriate, particularly those who were adversely affected.

Despite a general acceptance of policy based on expert opinion and centralized imposition, there was still a large disparity of understandings between residents and experts as local people began to comprehend the implications and fine detail of the new regulations being practically applied. A lack of communication and knowledge-sharing between experts and end users might be one seen as one of the reasons for this. Put in other words, strategic planning here failed to produce a palatable product that would be clear and understandable for end users – local government, residents and even local fire agency officers. In this sense, local government does not necessarily consist of bushfire professionals, therefore they do not have expertise to realistically assess the risks of new

developments and to follow the advice of the fire brigades who are often conservative in nature in playing their role of risk managers, demonstrating a need to address the gap between these two groups. This argument also leads to questions of alternatives to the CFA being the decision-maker. This case demonstrates that over-reliance on regulatory approaches and the expertise of a limited number of agencies, whereas a broader spectrum of this may have been beneficial.

Changes to the planning policies of 2014 were rapid, and were not expected by most professionals and the public. They were a direct political response to lobby groups' opposition to the BMO 2011 iteration of policy, seeking improvements within a three year political cycle. Increasing tensions around the matter and strong community voices in the form of organized street protests and demonstrations impelled the Minister for Planning to consider changing the controls (Professional 4, 2015). Despite ensuring that amendments to the policy will create easier pathways for construction (DTPLI, 2014), they can be seen as rather illogical and as a less rigorous document (Professional 4, 2015). For example, allowing construction of lower standards of fire resistant design when bushfire shelters are proposed is one of the logic flaws in new policies (State of Victoria, 2014). Community voices were not heard in the formal process again. Rather, persistence of lobby groups at the time, and media coverage of personal stories, forced government to consider making changes (Professional 6, 2015), which were accepted as a relief for some residents (Seedy, 2014). Notwithstanding, these changes are considered as an attempt to avoid a political backlash in light of upcoming elections in November, 2014, and overall could in fact be seen as a successful readjustment of an overall successful policy process. The timing of the changes also suggests this was a political step – changes were applied in off peak fire season and did not receive level of attention which potentially would be before the season (Professional 4, 2015). Overall, it could be argued that this represents a general success of the representative democratic system.

Conclusion

Strategic planning encompasses the overall "steering" of policy and implementation from ongoing assessment, through to assessment and adjustment of goals. The examined case of bushfire risk reduction in Victoria shows that, while strategic change was redirected generally in keeping with community sentiment, and has generally been successful, neglecting institutional learning elements of strategic change undermined aspects of strategic change effectiveness, requiring adjustment and "smoothing". Analysis of the five key analytical focuses (Healey, 2007: 29) used to inform the study suggest that if aspects of institutional learning are not addressed, strategic planning may not be successful, or at least undermined in maintaining credibility with communities.

The case reported in this paper indicates that there are several aspects which should 'come together' for successful strategic planning. A failure of strategic planning here appears to be the lack of communication between parties. This was a result of several factors, among which is understanding of problem and its resolution from the beginning of the development. Policy was developed as a response to dramatic events and the initial response was an overly conservative overreaction, using building controls unsuited to the task. The changes of 2014 were again undertaken as political step, again using partly inadequate information. Understandings of the problem here were skewed and differed significantly amongst various communities, resulting in drastic changes to the referral authority for planning assessment, and significant loss of confidence in the policy. Knowledge used was not based by large on science, such as the assumption (in the building code) that radiant heat is responsible for most house losses despite evidence that it is mainly ember attack. Combined with top-down communication, conflict between the goals of statutory planners and science professionals regarding fundamental risk assessments, and building controls, resulted in splintered interpretations, represented in the policy developed. This was combined with a lack of clear communications between parties resulting in a lack of understanding between agencies and a lack of acceptance by end users.

Even when broad understandings of a policy problem exist, such as the need for planning reform to address bushfire risks adequately, the process of policy development over time needs to ensure that problem definition and the links through to solutions associated with planning implementation are maintained. In the case reported, the rapid, top down and expert driven approach was not complemented by wider processes of information development that would have taken significantly greater time, allowing differences in problem definition to remain. Accordingly, many of the end-users found the solutions imposed upon them to be mismatched with the ways they understood the problem

– even if it was in fact a significantly better outcome than previously existed. For example, extensive clearing and fuel reduction practices are well known to many local communities and fire services – so the prospect of widespread development control refusals, preventing building in established communities, was at odds with their understandings. Further, the ability for experts and scientists to modify certain aspects of the building code meant that centrally imposed mapping planning measures took an excessively conservative approach – yet local fire agencies and planning officers were bound to use these provisions, and did not have the expertise to question the fundamental principles they were based upon. Local communities, faced with the prospect of losing considerable "value" associated with their land used the only recourse they had to affect the strategic planning process – political lobbying. Accordingly, Ministerial intervention was required to undertake extraordinary changes to the policy to "smooth" its ongoing acceptance. Overall, the time taken to undertake "institutional learning" across the relevant communities appears to be significantly greater than that taken to develop the policy changes.

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