

FRINGE BENEFITS? PLANNING, BUILDING AND THE DEVELOPMENT OF COMMUNITY IN A NEO-LIBERAL LANDSCAPE

Vanessa McDermott¹ and Sarah Holdsworth

School of Property Construction and Project Management, RMIT University, 360 Swanston Street, Melbourne, VIC 3000, Australia

Melbourne has the largest population growth of all Australian capital cities, with significant growth in its outer suburbs. A key goal of Victorian planning policy is to establish economically strong communities that are socially cohesive. A deregulated planning system and a loosening of planning controls that allow private actors to play key roles in development decision-making complicates this task. A further layer of complexity is added when urban growth encroaches on existing hazardous buried infrastructure, such as high-pressure natural gas transmission pipelines that are a risk to public safety if they are damaged. This paper considers the efficacy of Precinct Structure Plans to support Melbourne's strategic planning goals and also manage public safety risks from gas transmission pipelines. To address these issues, 21 interviews were conducted with pipeline company representatives, housing estate developers, and state and local government planners. The paper also examines key planning policy and argues that planning policy and associated tools fail to sufficiently address the impact of a deregulated neo-liberal approach to planning in relation to development in Melbourne's Growth Areas. This has the potential not only to lead to policy and governance failure, and thus inadvertently increase risk to public safety, but also to contradict the fundamental goal of planning.

Keywords: neoliberalism, high-pressure gas pipelines, land use, planning policy, risk

INTRODUCTION

Melbourne has seen the largest population growth of all Australian capital cities, with significant occurring in its outer suburbs (Lowe *et al.*, 2013). To support this growth, Urban Growth Zones (UGZ), land previously designated as Green Wedge Zones (GWZ) with limited urban development, has been identified. In some cases, these include areas where buried high-pressure gas transmission pipelines were already present. For the pipeline sector, increased urban development in these areas also means increased risk of a strike leading to a pipeline rupture with implications for public safety. The consequences of a pipeline rupture were illustrated in 2010 when a pipeline in San Bruno, California failed due to a technical fault, killing eight members of the public and devastating the suburb (Davidson *et al.*, 2012). Although a technical fault was responsible for that rupture, pipeline sector research has shown that excavation work from non-pipeline sector groups is the most substantial cause of external pipeline damage (Ramirez-Camacho *et al.*, 2017). Although also concerned with public welfare, planners' perception of risk to

¹ vanessa.mcdermott@rmit.edu.au

urban growth is focused on providing access to services and housing to support socially cohesive, environmentally efficient, and economically viable communities over the long term.

To support increasing population growth Melbourne's strategic planning framework, Plan Melbourne², includes policies governing urban planning and infrastructure development in UGZ, including for gas transmission pipelines (DPTLI 2014). The gas pipeline sector is also governed by policy and technical documents that include measures to address risks from population growth near potentially hazardous pipelines. However, the operationalization and interactions of these policies across the planning and pipelines sectors is complex, as their stated objectives do not always align. Added to that, neo-liberal paradigms have permeated urban development and governance discourses, including in Victoria's planning scheme (Freestone 2007).

The paper starts with a brief outline of neo-liberal reform and Victorian planning and the implications of that for managing public safety risk in development near transmission pipelines. It then describes the methodology used in the research and how the assessment was conducted. It continues with a comparison of the risk governance mechanisms for urban development and pipelines as articulated in current planning and pipeline legislation. The paper then discusses Victorian planning policy with a specific focus on the role of Precinct Structure Plans (PSPs) to manage the risk to public safety from increasing urban development in areas with high-pressure gas transmission pipelines. The paper concludes that, in this case, a market-driven planning framework in which planning roles are increasingly decentralized has the potential to create a public safety risk.

Metropolitan Planning Strategy

Over the course of the twentieth century, planning in Victoria evolved out of a need for government to provide amenity and services to communities because of haphazard development led by private enterprise. Over subsequent decades, planning came to be dominated by ideas of social democracy (Steele 2009). However, in the mid-1970s an economic rationalist agenda began to permeate government and planning discourse. This saw a greater reliance on market-based decisions (Gleeson and Low 2007, Huxley 2000, Sandercock 1998). In the 1980s, planning decisions became dominated by neo-liberal principles of economic efficiency, deregulation, and outsourcing. As a result, urban planning has become oriented towards short or medium-term planning decisions focused on market-oriented outcomes (Healy and Williams 1993).

One outcome of a market-driven focus for contemporary planning is the emergence of a third space or 'hybrid' governance context in which public, private, and community interests compete for attention (Steele 2009). This has created a context where private sector actors, such as developers assume functions of the 'state', rather than government, and make significant decisions about the type of development that occurs. Rather than the sole responsibility of government, a new process of governing (Rhodes 1996: 652) has emerged that is influenced and directed by the interests and objectives of multiple private and public stakeholders. Another consequence of neo-liberal, deregulated planning has been the decentralization of the planning role as planners work more in the private sector and less in the public sector (Steele 2009). This decentralization means that

² Plan Melbourne has been updated to Plan Melbourne 2017-2050. However, at the time the research reported here was conducted, Plan Melbourne was the current strategic planning document.

planners are pulled in often contradictory directions and concerned largely with directly facilitating development through rapprochement with the private sector (Freestone 2007: 86).

The risk to communities and the challenges for planners in a neo-liberal planning system characterized by economic efficiency, deregulation, and outsourcing have been well canvassed in the planning literature (e.g. Firman and Fahmi 2017, Sager 2011, Savini 2017, Waterhout *et al.*, 2013). Australian planning research has identified a range of risks to the community that emerge from a planning system influenced by neo-liberal discourses. For example, Randolph and Tice (2017) argue that metropolitan planning strategies must understand the risk of rising inequality from neo-liberal policies and reliance on the market to deliver housing (see also Kadi and Musterd 2015). As well as this social risk, the literature also considers planning policy and public safety risks from bushfires or other natural disasters. For example, Llausàs *et al.*, (2016) considered Australian planning policy on Victoria's peri-urban areas and found that a market-led planning system and short-term development considerations failed to provide any long-term strategic vision or to address social, ecological or landscape impacts. The planning literature also considers risk in relation to urban infrastructure in Australia (e.g. see Bolleter 2017). Buxton and Chandu (2016) considered urban growth near Melbourne's Tullamarine airport and argued that a planning system 'co-opted' by influential social actors and a lack of integrated planning policy across all levels of government resulted in poor outcomes.

There is currently little research regarding planning policy and risk to public safety from urban development near potentially hazardous buried infrastructure. This paper considers the impact of neo-liberal planning frameworks and public safety risks from development on Melbourne's fringe that encroaches on existing hazardous buried infrastructure, namely high-pressure gas transmission pipelines.

METHOD

The data presented here is drawn from a project exploring risk management in planning policy and the risk awareness of urban planners in relation to gas transmission pipelines in Melbourne's GWZs (see also Hayes *et al.*, 2015). This paper reports data from 21 interviews with pipeline sector representatives, planners (strategic and statutory, private sector, local and state government), housing estate developers, development consultants, and the pipeline technical regulator. Semi-structured interview questions were framed around the interactions between planners, developers and pipeline companies and probed participants' awareness of the risks associated with development near transmission pipelines and the strategies they used to identify and manage potential risks.

The research used a case study design with purposively selected urban growth areas where pipelines are present to illustrate the complexity of the planning process in relation to land use, pipelines, and risk. Importantly, although case study findings may not be generalizable across contexts, they nevertheless provide opportunities to draw from 'the power of example' (Flyvbjerg 2001, Timmermans and Tavory 2012), in this case to examine risk management in planning policy in relation to gas transmission pipelines. Specifically, using urban growth on Melbourne's fringe as a case study revealed how top-down governance frameworks affect the way that planners not only perceive, but also manage, risks in relation to urban development and transmission pipelines. The work received university ethics approval and all interviews were recorded, and later transcribed and coded for analysis. Open coding was completed independently by each researcher under the broad umbrella of the ways that the different groups perceived and experienced

risk in relation to planning and transmission pipelines, which were comparatively examined across the groups. This fine-grained analysis enabled the researchers to systematically tease out what emerged as a broader pattern of risk governance and specifically the way that Precinct Structure Plans, situated within a deregulated planning process, addressed risk in the context of urban planning near transmission pipelines.

RESULTS AND DISCUSSION

The Planning Sector: Governance and Risk

In Victoria, and in conjunction with Plan Melbourne, the primary planning legislation is the *Planning and Environment Act* (PEA). The strategic goals of these documents include providing housing and services to support socially cohesive, environmentally sustainable, and economically viable communities (Buxton *et al.*, 2016). A key part of Plan Melbourne is the densification of development in UGZ, located in four Growth Corridors (GCs), and guided by Growth Corridor Plans (GCP) that provide macro-level development details. Precinct Structure Plans (PSPs) determine the density of development and must consider amenity and infrastructure identified in the GCPs, as informed by urban design principles (GAA 2012, 2013; Hirsch *et al.*, 2016). The responsibility for PSP development rests with the Metropolitan Planning Authority (MPA)³, an independent statutory body with a broad, facilitative role to work with councils, other government agencies, and the planning and development sectors (MPA 2015-16). A PSP must be undertaken prior to any development and, like the GCPs, must reflect the objectives of the PEA and Plan Melbourne including a focus on the economic and social welfare of communities. The design of the PSP determines the use of the UGZ, namely defining land uses and imposing conditions, thresholds, and restrictions depending on the nature of the use. Zones are used to mitigate any risks to ‘sensitive use,’ understood in planning to include residential use, childcare centres, pre-schools and schools, from incompatible use (e.g. keeping industrial use and away from schools).

The PEA and the Victorian Planning Scheme recognizes pipeline risks, including in terms of public safety. For example, the Victorian Planning Scheme mandates that planners must ... recognize existing transmission pressure gas pipelines in planning and protect from further encroachment by residential development or other sensitive land uses ... (SPPF Clause 19.03-6). One way that planning legislation mitigates risk of pipeline encroachment is by recognizing easements over the pipe. Easements are registered on the property Title deed and provide pipeline companies with referral rights over the intended use of the land. The size and scale of the easement depends on the type of pipeline, although a typical example would be a 20 metre wide easement. This allows planners to design communities and also to minimize the threat to buried infrastructure; however, the referral right does not apply to an area of risk, defined by the pipeline sector as the measurement length of a pipeline (see below). As a result, for the pipeline sector, these planning tools are limited in their ability to adequately address the high-consequence, low-probability risk to the public of a pipeline rupture.

The Pipeline Sector: Governance and Risk

The concerns of the pipeline sector are underpinned by an understanding that high-pressure gas transmission pipelines present significant risks to public safety if they are

³ In August 2016 the Minister for Planning renamed the MPA the Victorian Planning Authority (VPA) responsible for managing Melbourne’s urban growth including facilitating innovative, integrated land and infrastructure planning (MPA 2015-16, 4).

damaged. In Australia, specific legislation and technical Standards mandate the obligations and responsibilities of pipeline companies for safe pipeline operation, including controlling risk from external pipeline interference. In Victoria it is *The Pipelines Act 2005* (PA) and Pipeline Regulations 2007. However, across the pipeline sector the technical Standard that informs pipeline design, construction and operation is the Australian Standard Pipelines - Gas and liquid petroleum (AS2885) and especially Part 3: Operation and maintenance (AS2885.3) (Standards Australia 2012b). Part of the requirements mandated in AS2885.1-2012 s2 is to identify threats to the pipeline, including from external interference, and to reduce risk to an acceptable level using a safety management study (SMS) (Standards Australia 2012a AS2885.1, s2, p 21). In effect, AS2885 functions as a risk management protocol that, through the SMS process, assesses risk and stipulates the controls that pipeline companies must incorporate into their Pipeline Integrity Management Plan (PIMP).

AS2885 includes a range of physical and procedural measures to prevent pipeline damage but those of relevance in the context of this paper are the concepts of ‘measurement length,’ ‘sensitive use,’ and classification zones. These measures are intended to reduce the risk associated with pipelines in or near populated areas and can trigger additional engineering design and construction requirements if necessary. The measurement length of a pipeline is defined as the radiation contour that would result from a full-bore pipeline rupture (Standards Australia 2012a AS2885.1 s4.3.1, 42). The associated risk profile is a consequence of the land use occurring within the measurement length and classified according to ‘location classes’ with some types of land use defined as ‘sensitive use.’ In contrast to the planning sector, for the pipeline industry, sensitive use relates to situations where certain types of development (e.g. childcare centres, hospitals, schools) create vulnerable groups that are unable to protect themselves from the consequences of a pipeline failure. The industry preference is for sensitive land uses and concentrations of population to be located away from the pipeline, which has implications for housing density around pipelines.

The PEA, Governance, and Pipelines: The Realities of Planning on the Fringe

Over the past two decades neo-liberal paradigms have seen core public planning functions and responsibilities shift from the state to the private sector (Rhodes 1996, Steele 2009). This has seen a decentralization of planning roles, with planners also employed directly by developers and engaged as ‘development consultants’ to guide developers through the complex PSP process (e.g. see Firman and Fahmi 2017, Freestone 2007). Steele (2009) argues that local government planning schemes and the assessment of development proposals are now written and assessed by private sector planning consultants that may also represent and advocate for the interests of private clients. There is evidence of this in the data. For example, one development consultant described their role as working for private clients such as developers as well as government clients such as local and state government.

Further, the new process of governing (Rhodes 1996: 652) that emerges as a result of a neo-liberal agenda and deregulation of planning means that policy objectives can sit uncomfortably against the interests and objectives of multiple private stakeholders (Firman and Fahmi 2017, Freestone 2007, Gleeson and Low 2007, Llausàs *et al.*, 2016). The data reveals that these types of tensions are evident in Victorian planning. For example, although the MPA and local councils are bound by legislation and strategic plans, a diversity of private actors and market mechanisms inform all aspects of community development within Melbourne’s UGZ. The data showed that even though

the MPA is charged with the development of PSPs there is no centrally mandated approach or guideline about who it partners with to accomplish this task. A PSP may be driven by a partnership between the MPA and a local council, between council and a consortium of developers, or a development consultant representing a developer and/or private landholders. One council planner described the process as a bit fluid and the following indicative comments from a developer illustrates these points:

...with the larger developments we actually fund the PSP. So it would cost us about a million dollars to put a PSP together ... Pay for a lot of reports to be done, manage the process and guide, oh, not guide, encourage the MPA to keep things moving, on a reasonable timeframe. There's usually a consortium of developers who contribute to make sure it's pushed through. [Developer]

As the comment cited above shows, developers play a key role in 'encouraging' government actors, such as the MPA, to keep the process 'moving.' One potential outcome of the apparent ad hoc nature of the PSP process, and irrespective of the objectives of the PEA and Plan Melbourne, is that design outcomes become aligned with those of the developer, rather than the long-term well-being of that community. Although this approach may represent some short-term efficiency for government, a dominant planning focus on short or medium-term outcomes also raises questions around long-term amenity for communities on the urban fringe (Bolleter 2017, Buxton and Chandu 2016, Llausàs *et al.*, 2016).). This issue becomes more complex when development is planned in areas where high-pressure gas pipelines exist and the safety requirements of the PA and AS2885, such as relocation of community facilities and the types and levels of permissible housing density clash with the objectives of private sector actors within the constraints of urban planning policy.

Plan Melbourne does not include any reference to high-pressure transmission pipelines as either providing an essential community service or as potentially hazardous infrastructure requiring particular risk management strategies in a draft PSP. A statutory council planner comments on the complexity of balancing community needs against pipeline risks in the following way:

...our first preference in terms of the residents there will have the best access to employment, to public transport, to services, which is planning 101. Then how do you manage the risk of being near the pipeline? Well, ideally, if you go completely risk averse, then you just say no one can be in there. But people live there already. Units are developed. There's hospitals and medical centres all in the vicinity. [Stat. Planner]

The PSP is used to design communities to meet the community welfare goals of the PEA and Plan Melbourne, described above as planning 101. The PSP is also the forum where the objectives of various stakeholders, including design decisions, priorities, and outcomes for the proposed development are voiced. The PSP is a complex process that can take many years, with a draft PSP formally pre-exhibited to government agencies that includes councils and publicly owned utility companies. Problematically, non-government owned utilities, such as transmission pipelines, do not have 'determining referral status' under clause 66 of the PEA (DPTLI 2014) and tend not be included in this stage. The only trigger for notification of pipeline companies is if a planned development is within a pipeline easement that is registered on the land Title. As one pipeline industry representative noted:

Under that Act [PEA]... [PIPELINE ORG] or all non-government utilities are not referral authorities ... they only really become aware of us at sub-division if we've got an easement. Not all our pipelines have easements. They're in road reserves sometimes and other places. So in a Planning and Environment Act perspective, they don't have to refer to us.

Any pipeline company concerns about land use and development within the pipeline measurement length, but outside the easement, are recommendations only. As one development consultant stated:

... outside of that easement, I think that that's up to the pipeline asset owner to put in place measures to protect it ... the issue is that there is no formal referral requirement in the planning scheme to the asset owners ... There's no trigger for the people involved to think to do it.

The opportunity for pipeline companies to provide input does not occur until late in the PSP process, when the Minister for Planning reviews comments from the public exhibition but prior to inclusion of a PSP in the Victorian Planning Scheme. The PEA requires that a number of prescribed Ministers, including the Minister for Energy and Resources responsible for administering the PA, be notified of planning scheme amendments. The Minister for Energy and Resources passes the notification on to the relevant pipeline companies who have 28-days to comment on the draft PSP. If the pipeline companies have not been made aware of this proposal it is at this point that a safety management study (SMS) may be undertaken, with any recommendations provided as feedback to the proposed amendment.

The management, or undertaking, of an SMS for a PSP further demonstrates the difficulties of a hybridized governance space. Although government actors, such as MPA, recognize the role of an SMS as it relates to minimizing risk from transmission pipelines, responsibility for coordinating an SMS often rests with those managing the PSP. This can be problematic because developers often fund a PSP with significant financial investments at risk. The requirements imposed by pipeline companies, as identified through a SMS, can raise issues for developers regarding costs and project delays. The following comments by a developer and a council planner illustrate the role of an SMS in relation to strategic planning, risk management, and pipelines:

... we had spent probably two or three years working with the MPA and council to come up with the background information that was going to feed into the design of the PSP. [PIPELINE ORG] came into the process midway ... and basically said, Sorry, we've got some feedback from the Panel Hearing that suggests that you're going to have to redesign your whole PSP ... The design and all the background work that ... had to be reconfigured to accommodate the requirements of an authority which, oh, sorry, an organization, which had the weight of some legislation behind it, and had a significant impact into that outcome. I'm just trying to think of the name of the Act that was sitting behind it ... They've talked about having to go through a SMS ... It was definitely The Pipelines Act that I can remember. [Developer]

... unless a planner knows to look at the PSP or knows there's a measurement length ... under the existing planning scheme, they will look at their referrals and it won't be there to do one. So you can put in the PSP that a safety management study's been done for these pipelines within this measurement length. But sometimes there might not be a safety management study, the planner might not know that that's within the measurement length ... [Council planner]

These comments indicate the complexity of a hybridized governance space that involves multiple private actors with competing objectives. Despite claims by some developers interviewed to be focused on positive community outcomes, the hybridized space in which planners work raises questions around the way that the risks associated with transmission pipelines are balanced against financial returns as well as long-term community outcomes. More significantly, not only do these comments emphasize the need to include pipeline companies early in the PSP process but also that the current planning framework fails to support planners to engage with these groups when making planning decisions.

CONCLUSIONS

Both the planning sector and the pipeline industry are governed by legislation that seeks to manage risk in order to deliver positive, and safe, community outcomes. However, the data revealed several issues, stemming from requirements in the respective pieces of governing legislation and technical Standards that created tension between the pipeline sector and planners. Fundamentally, in terms of planning and development on Melbourne's fringe, these groups conceptualize the risk to communities in very different ways.

Although aware of the risk from an encroachment on a potentially hazardous pipeline and while also concerned with public safety, this is just one of many competing risks that planners seek to balance. Planners' perception of risk is primarily related to minimizing any negative impact on good long-term community outcomes. For planners, one key objective of Plan Melbourne is to increase the densification of housing within Melbourne's UGZ. This objective is clearly counter to the type of land use desired by pipeline companies. For the pipeline sector, increased urban development increases the risk to public safety from an accidental strike from excavation work by non-pipeline sector workers. Pipeline companies' preference is to prohibit, or at least relocate, sensitive land uses out of a pipeline measurement length in order to minimize the high-consequence but low probability risk to community from a pipeline rupture.

Effectively managing risk and public safety in relation to pipelines is complicated by a deregulated planning system where the boundaries and responsibilities for the governance of development have shifted away from the state in ways that give greater influence to powerful private actors. A deregulated planning system has also seen the emergence of a hybrid governance environment that includes the decentralization of the planning role. Planners increasingly work not only in public roles but also in the private sector representing the interests and objectives of multiple private and public stakeholders. However, the current planning frameworks in Victoria fail to bridge the gaps between the objectives of public and private actors associated with development in Melbourne's Growth Areas. Not only does this have the potential to lead to policy and governance failure, and thus inadvertently increase risk to public safety, but also to contradict the fundamental goal of planning, namely to establish communities with strong economies that are socially cohesive, now and into the future.

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