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Metropolitan Melbourne in 2021: changes and implications for the emergency management sector

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Metropolitan Melbourne in 2021: changes and implications for the emergency management sector

Abstract

The Victorian Fire Services Commissioner (FSC) has embarked on a program of research exploring anticipated changes across Victoria over the coming decade. Titled 2021, the research aims to identify key changes taking place in Victorian communities and describe the likely impacts on the emergency management sector. This paper is the final in the series published in this journal. It outlines some of the key changes taking place in metropolitan Melbourne. Increases in the number of people, assets and infrastructure at risk and the increasing complexity of urban communities pose significant challenges for the emergency management sector. In particular, continued population growth due to overseas migration will require a capacity to communicate information and warnings to an increasingly culturally and linguistically diverse population, and to engage diverse groups in emergency preparedness, response and recovery. The large and growing number of people who visit the city each day for work, shopping and recreation adds to the challenge of managing all aspects of emergencies in the city's central business district (CBD) and inner suburbs. This paper does not provide a comprehensive list of possible changes and implications. A detailed report, which discusses a wide range of changes and their implications for emergency management and emergency services organisations, is available from the Victorian Fire Services Commissioner's (FSC) website.

Keywords

implications, melbourne, changes, metropolitan, 2021:, sector, management, emergency

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Metropolitan Melbourne in 2021: changes and implications for the emergency management sector

Dr Holly Foster (Fire Services Commissioner Victoria), Dr Joshua Whittaker, Dr Briony Towers, and Prof. John Handmer (RMIT University) consider the key economic and population changes that are taking place in metropolitan Melbourne.

ABSTRACT

The Victorian Fire Services Commissioner (FSC) has embarked on a program of research exploring anticipated changes across Victoria over the coming decade. Titled *2021*, the research aims to identify key changes taking place in Victorian communities and describe the likely impacts on the emergency management sector. This paper is the final in the series published in this journal. It outlines some of the key changes taking place in metropolitan Melbourne. Increases in the number of people, assets and infrastructure at risk and the increasing complexity of urban communities pose significant challenges for the emergency management sector. In particular, continued population growth due to overseas migration will require a capacity to communicate information and warnings to an increasingly culturally and linguistically diverse population, and to engage diverse groups in emergency preparedness, response and recovery. The large and growing number of people who visit the city each day for work, shopping and recreation adds to the challenge of managing all aspects of emergencies in the city's central business district (CBD) and inner suburbs. This paper does not provide a comprehensive list of possible changes and implications. A detailed report, which discusses a wide range of changes and their implications for emergency management and emergency services organisations, is available from the Victorian Fire Services Commissioner's (FSC) website.

Introduction

As the fastest growing city in Australia (Lord 2013), metropolitan Melbourne is expected to change significantly over the coming decade. Population growth, residential development and growing cultural and linguistic diversity are creating more interconnected and diverse urban settlements. These changes have implications for how the emergency management sector engages with, plans for, and delivers services to communities with highly varied capacities, needs and expectations.

This paper outlines some of the key changes taking place in metropolitan Melbourne and considers the implications for the emergency management sector (state-level policy and strategy) and emergency services organisations (service delivery, programs and local needs). The purpose of this paper is to provide an overview of some of the significant changes identified across Melbourne and some of the noteworthy implications for the Victorian emergency management sector.

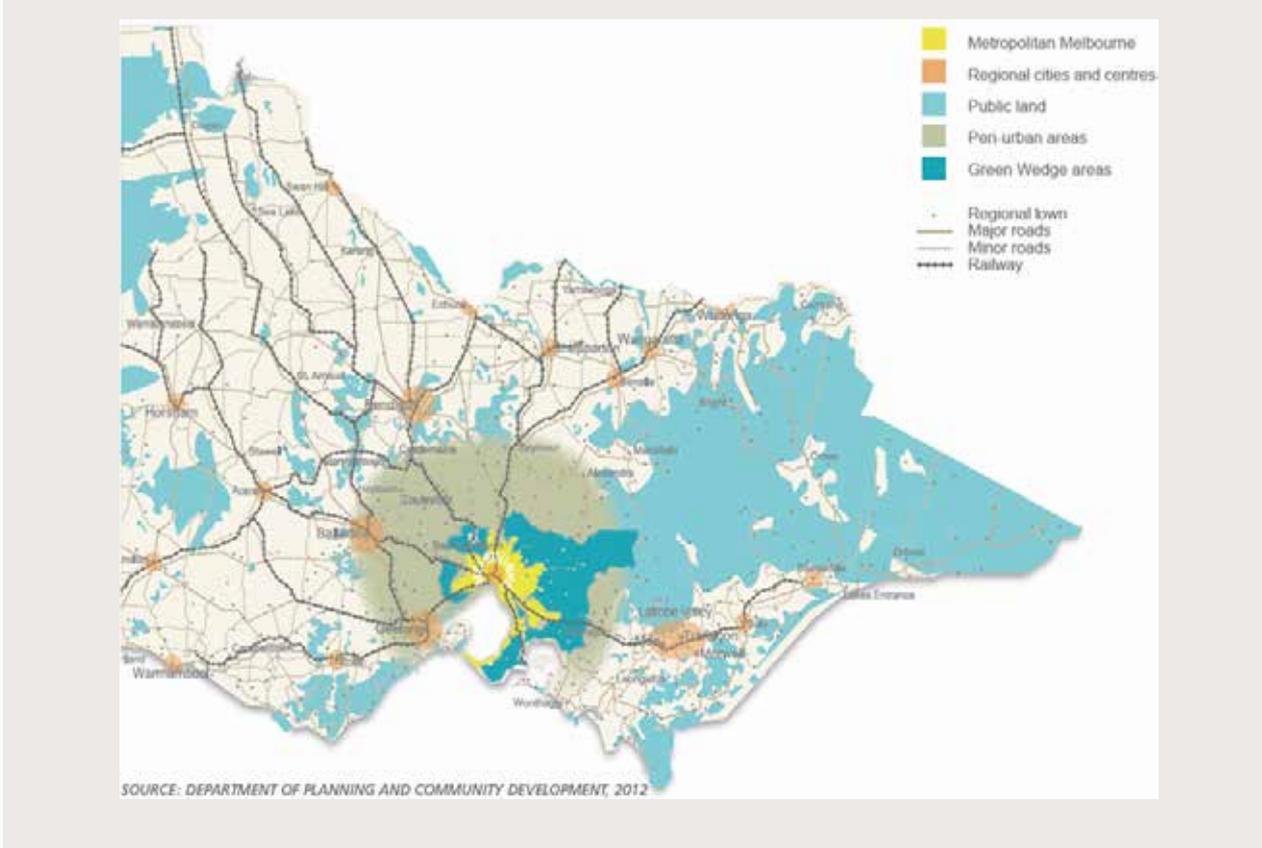
Population growth

Metropolitan Melbourne comprises almost 75 per cent of Victoria's population. This population is anticipated to increase from 4.1 million in 2011 to 4.8 million in 2021, representing an increase of over 670 000 people.¹ Net overseas migration is predicted to be a major driver of population growth over this period (an increase of 210 000), outstripping natural increase (165 070) (Department of Planning and Community Development 2012a).

The most significant growth is expected in the outer suburbs, including the Melton-Wyndham (148 900), South-Eastern Outer Melbourne (110 600) and Northern Outer Melbourne (74 300) Statistical Subdivisions (Department of Planning and Community Development 2012b). This growth is driven by the extension of the urban growth boundary and the associated increase in the supply of affordable housing

¹ Figures are drawn from the Australian Bureau of Statistics (ABS) Melbourne Statistical Division.

Figure 1: Melbourne in its Victorian context (State Government Victoria 2012).



for young couples and families, new migrants, and retirees (Butt 2013, Department of Planning and Community Development 2012c, Growth Areas Authority 2011, Outer Suburban/Interface Services and Development Committee 2012, Regional Development Victoria 2012).

Significant growth is also expected in the CBD and inner suburbs. For example, the population of the Inner Melbourne and Southbank-Docklands Statistical Local Areas is expected to grow to 58 900, representing an increase of over 24 000 people since 2011 (Department of Planning and Community Development 2012b). Population growth in these areas is driven by the availability of employment and tertiary education opportunities, as well as recreation and entertainment facilities. The CBD also attracts permanent overseas migrants, particularly in inner suburbs such as Kensington and North Melbourne (Forecast.id 2011). Population density is projected to double in the City of Melbourne local government area over the 20-year period to 2026 (Victorian Environmental Assessment Council 2009).

A key feature of Melbourne’s CBD and inner suburbs is the daily variation in the population. At present the largest variation takes place during office hours when the CBD population grows from 94 700 residents to 788 000 people (City of Melbourne 2011, Victorian Environmental Assessment Council 2009). Residential suburbs outside the CBD tend to experience the opposite trend, with population numbers declining during weekdays as commuters travel out of their suburb for work (Victorian Environmental Assessment Council 2009). In addition, at any one time,

the Melbourne local government area hosts over 70 000 visitors from overseas, interstate and regional Victoria (City of Melbourne 2011).



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Growth in cultural and linguistic diversity

There are a range of demographic changes taking place in metropolitan Melbourne (FSC 2013). A key feature of Melbourne's population, and one that has significant implications for emergency management, is the cultural and linguistic diversity (CALD) of residents. A large majority of Victoria's CALD population resides in metropolitan Melbourne. Figures from the Australian Bureau of Statistics 2011 Census show that almost 37 per cent of metropolitan Melbourne's population was born overseas and 29 per cent spoke a language other than English at home (Australian Bureau of Statistics 2013).

The Melbourne local government area has a large and growing CALD population. In 2011, 59 per cent of its population was born overseas and 38 per cent spoke a language other than English at home (Australian Bureau of Statistics 2013). A significant proportion of the overseas-born population was from Asian (30 per cent) and European (8 per cent) countries. This high level of diversity is driven by the large number of overseas migrants, primarily made up of international students studying at educational institutions in inner Melbourne. The Melbourne local government area also attracts a number of permanent overseas migrants, many of whom settle in areas such as Kensington and North Melbourne (Forecast.id 2011).

Melbourne's middle suburbs also accommodate large CALD populations. In most of these suburbs, 30-40 per cent of the population was born overseas and 20-30 per cent speak a language other than English at home (Australian Bureau of Statistics 2013). However, some areas have more diversity than others. For example, in the local government areas of Greater Dandenong and Brimbank, more than half the population was born overseas (62 and 53 per cent respectively) and speak a language other than English at home (66 and 56 per cent respectively). Culturally and linguistically diverse communities in these areas are driven by a number of factors including the availability of affordable rental accommodation and access to public transport (Forecast.id 2013c). It is anticipated that one-third of Melbourne's metropolitan population growth by 2021 will be due to overseas migration.

Housing tenure

A key feature of Melbourne's CBD and inner suburbs is the large proportion of renters. In 2011, the majority of residents in metropolitan Melbourne owned their home outright (32 per cent) or had a mortgage (35 per cent), and just over a quarter were renting (27 per cent). However, in the City of Melbourne, far fewer residents owned their home outright (13 per cent) or had a mortgage (17 per cent) and a much larger proportion was renting (58 per cent) (Forecast.id 2013a, 2013b).

Although this review did not identify specific forecasts for changes in housing tenure by 2021, a number of trends influencing residency and tenure were identified. In the Melbourne local government area, strong employment growth is expected to continue for the next two decades, which will drive demand for housing. This growth is



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expected to be oriented towards 'knowledge intensive' sectors such as property and business services, finance and insurance (SGS Economics & Planning 2013). As a result, the CBD and inner suburbs will attract increasing numbers of 'knowledge workers' seeking amenity and access to employment and services. Housing affordability may be an issue for 'key workers' (broadly defined as workers in service industries necessary for the efficient functioning of a city e.g. health, education, police and emergency services) who may need to find housing within commuting distance of the city. Growth in the Melbourne local government area's rental stock is expected to continue into the future (SGS Economic & Planning 2013).

In the middle and outer suburbs, growth in home ownership rates (outright and mortgaged) is expected to continue (SGS Economics & Planning 2013). A report prepared for the National Housing Supply Council forecasts a 37 per cent growth in demand for public housing in metropolitan Melbourne by 2021 (compared to 30 per cent growth for all housing) (McDonald & Temple 2007).

Port, freight and logistics

As the nation's freight and logistics hub, the Port of Melbourne is critical to the functioning of the Victorian economy (Department of Premier and Cabinet 2012). The Port of Melbourne is Australasia's largest maritime hub for containerised, automotive and general cargo (Port of Melbourne Corporation 2013a). The total trade value of goods moving through the port is estimated at around \$80 billion annually (Port of Melbourne Corporation 2013b).

The Port of Melbourne handled 2.58 million containers in the 2011-12 financial year. This is forecast to double to more than 5 million containers over the next 10 to 12 years, necessitating major expansion of the port and associated infrastructure (Port of Melbourne Corporation 2013c). To expand the capacity of the port, the Port of Melbourne Corporation has begun a project to expand existing, and construct new terminals and wharfs, dredge within the dock to accommodate modern vessels, build new connections to Melbourne's road network, and construct noise walls and open space development to create a continuous buffer between the port and the nearby city (Port of

Melbourne Corporation 2013d). These developments will facilitate an increase in the number of ships that visit the port, as well as the volume and value of goods that pass through it.

Government and specialist services

In addition to the port, the CBD and its immediate surrounds is also the focus of Victoria's rail and road transport systems. The area houses most government functions including police, emergency services and justice. Most of Victoria's specialist medical facilities are within the Melbourne CBD, as are three universities. In terms of both government and business it is the decision-making hub of the state. Victoria is known for its entertainment and recreational events—especially for sport. These are important both culturally and economically. Events are held mostly in or near the Melbourne CBD, often bringing 100 000 extra people into the city centre. There is no sign that this concentration is reducing, at least in the time frame to 2021.

Implications for emergency management

The changes taking place in metropolitan Melbourne will have a number of implications for emergency management strategy, policy and frameworks.

Communication

Almost a third of the population growth forecast to occur in metropolitan Melbourne by 2021 is expected to result from overseas migration (approximately 220 000) (Department of Planning and Community Development 2012a). Therefore, a key priority for emergency management policy and strategy is to develop a consistent, culturally sensitive approach to communicating with and engaging CALD communities in emergency preparedness, response and recovery. More effective communication and engagement with new migrants will help emergency services providers to better understand the risks, vulnerabilities and capacities within these communities, encourage greater planning and preparedness, and help to manage expectations by clarifying the roles and responsibilities of emergency services organisations and communities.

The high proportion of renters in the city and inner suburbs reflects the large number of young people and students living in inner Melbourne. These may be difficult groups to engage in emergency management as they are often short-term residents, live in high-density and centrally managed buildings, and may not have a financial interest in their home. In addition, rates of non-insurance for contents are known to be significantly higher among renters and those living in flats and other non-detached houses than for other groups (Tooth & Barker 2007). Greater use of social media such as Facebook, Twitter and YouTube for the provision of information and emergency

management education and warnings presents opportunities to enhance communication with these groups. This includes engaging them in awareness and preparedness activities. Greater promotion of the need for and benefits of contents insurance is also required to increase the capacities of renters to recover financially after an emergency or disaster.

Evacuation

The Melbourne local government area's growing residential population and the increasing number of workers and other daily visitors presents a number of challenges for emergency management. As noted previously, population density is projected to double in the 20-year period to 2026. High-rise residential and commercial developments are enabling an increase in daily and residential populations without corresponding increases in open space or improvements to road and public transport infrastructure. This could limit people's relocation options during major emergencies and disasters.

Demands of emergency service response

The rapid growth and development of Melbourne's port may place additional pressure on emergency management and emergency services organisations. While the port is currently undergoing a major redevelopment and upgrade, Melbourne's other logistics systems and 'just-in-time' manufacturing rely on information technology, communications infrastructure, and road networks that may be disrupted during emergencies (City of Melbourne 2008). Continued growth in the value of Melbourne's freight and logistics industry is likely to place increasing pressure on emergency services organisations to respond to incidents quickly and to ensure that disruption is minimised. Ensuring the continuity of Australia's key transport and logistics hub is a shared responsibility of industry and emergency management agencies.

Similarly, the increasing concentration of government, emergency services and corporate headquarters (as well as the importance of the CBD to the state economy) highlight the importance of planning for continuity in government and business, and for minimising economic disruption during emergencies.

Implications for emergency services organisations

Substantial growth in the number of people and dwellings is leading to a significant increase in the number of people and assets exposed to extreme events or accidents. This places increased demands on the human and technical resources of emergency services organisations, particularly in the CBD and outer suburbs where population growth will be most rapid. Growth in the number of high-density apartment buildings, particularly in the CBD and the inner suburbs, is increasing the concentration of resident populations, which may lead to greater burden on



Image: Port of Melbourne Corporation

The port of Melbourne is currently undergoing infrastructure upgrades to cope with future demands.

response and relief agencies. For example, the CBD currently has four primary Emergency Relief Centres (Melbourne Cricket Ground, Etihad Stadium, Melbourne Exhibition Centre, and Melbourne Museum) which will reach capacity as the populations of the CBD and surrounding inner suburbs expand.

In addition, increasing numbers of people visiting the CBD for work, shopping, and recreation pose challenges for evacuation planning and management. In a major emergency, congestion would likely prevent most people from leaving the CBD by car. Significant delays and disruption to public transport are likely in major emergencies. Consequently, emergency services organisations would have to direct and manage the movement of large numbers of people by foot to the outskirts of the CBD (City of Melbourne 2012). Planning would need to account for those who may have limited mobility, such as the elderly and the disabled.

Engaging and communicating with culturally and linguistically diverse communities represents a significant challenge for emergency services organisation. This is particularly the case in the CBD and inner suburbs where the population comprises large proportions of international students and new migrants. Many of these residents have lived in Australia for a short period of time and may have limited knowledge of local emergency management organisations and their various roles and responsibilities. One way to engage such groups in emergency management is for agencies to work collaboratively with universities and other educational institutions to raise awareness and encourage students to reduce their risks (e.g. planning for what they would do in an emergency and by taking out contents insurance). There is also the potential to engage these residents in emergency management by providing convenient opportunities for access to minimum skills training or requirements that may assist in the pursuit of paid employment.

Another significant proportion of Melbourne's CALD population is comprised of newly arrived refugees and people seeking asylum. A recent consultation with 16-24 year olds from refugee and migrant backgrounds found that this group had limited knowledge about emergency management and emergency services in their communities. However, they saw themselves as having an important role to play in communicating essential information to their parents and to

community members that are more recent arrivals (Australian Emergency Management Institute 2011). This provides a valuable opportunity for emergency management in Victoria to engage recent migrants in emergency preparedness, response and recovery. This will require emergency services organisations to continue to develop strategies and programs to engage with and build capacity in CALD populations across metropolitan Melbourne.

Conclusion

This paper has outlined some of the changes that are taking place in metropolitan Melbourne and the implications for emergency management and emergency services organisations. Continued population growth from migration will require a capacity to communicate information and warnings to an increasingly diverse population. Engaging young people, international students and others who live in the CBD and inner suburbs represents a significant challenge, particularly as many are renters who live in centrally managed buildings. Adding to the challenge of planning for and responding to emergencies in the CBD and inner suburbs is the large and growing number of people who visit the city each day for work, shopping and recreation.

Community participation and shared responsibility are key principles underpinning the Victorian Government's intent for a sustainable emergency management system (State Government of Victoria 2012). There are significant opportunities to engage residents and businesses in emergency management planning and response throughout metropolitan Melbourne. New initiatives and interactions between communities and emergency services organisations are required to inform and educate populations about risk and to foster a culture where community capacity is understood and used.

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