SEPTEMBER 2020

Inquiry into environmental infrastructure for growing populations

AHURI PROFESSIONAL SERVICES

Submission to Legislative Assembly Environment and Planning Committee

About AHURI

As the only organisation in Australia dedicated exclusively to housing, homelessness, cities and related urban research, AHURI is a unique venture. Through our national network of university research partners, we undertake research leading to the advancement of knowledge on key policy and practice issues.

AHURI research informs the decision-making of all levels of government, non-government sectors (both private and not-for-profit), peak organisations and the community, and stimulates debate in the media and the broader Australian community.

Our mission is to inform and impact better housing, homelessness, cities and related urban outcomes through the delivery and dissemination of relevant and authoritative research. To achieve this mission we deliver four key programs.

National Housing Research Program

AHURI's National Housing Research Program (NHRP) invests around $4 million each year in high quality policy-oriented housing research and associated activities. We broker engagement between policy makers, key stakeholders and researchers. This allows us to undertake research that is immediately relevant and actively contributes to national housing policy development.

Our network of university research partners conducts research on key policy issues utilising a variety of research activities. This ensures the flexibility to undertake longer-term projects when fundamental research is needed, while also responding quickly to new strategic policy issues as they arise.

Australian Cities Research Program

AHURI is actively broadening its scope to consider the role, functioning and policy questions facing Australian cities. We are enhancing our significant evidence base on housing and homelessness policy and solutions, and consolidating our role in delivering integrated and robust evidence to guide policy development. We are investing in and developing partnerships for an Australian Cities Research Program. AHURI is working with governments and relevant stakeholders to expand our role in delivering research that imforms urban policy and the shaping of cities in Australia.

Professional Services

AHURI Professional Services draws on our in-depth understanding of housing, homelessness, cities and urban policy and the expertise of AHURI's national network of Research Centres. We deliver evidence reviews and synthesis, policy engagement and transfer, and are experts in research management and brokerage.

Conferences, events and engagement

Our conferences, events and communications stimulate professional and public dialogue. We disseminate research in innovative ways and engage with government, private, not-for-profit sectors and the community.

National Network of AHURI Research Centres

There are currently eight AHURI Research Centres across Australia:

- AHURI Research Centre—Curtin University
- AHURI Research Centre—RMIT University
- AHURI Research Centre—Swinburne University of Technology
- AHURI Research Centre—The University of Adelaide
- AHURI Research Centre—The University of South Australia
- AHURI Research Centre—The University of New South Wales
- AHURI Research Centre—The University of Sydney
- AHURI Research Centre—University of Tasmania.

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Executive summary

The Victorian Legislative Assembly Environment and Planning Committee (LAEPC) is conducting an Inquiry into environmental infrastructure for growing populations in Melbourne and regional Victoria. The Inquiry is responding to the impacts of population growth on the preservation of existing environmental infrastructure, such as parks and open space, sporting fields, forest and bushland, wildlife corridors and waterways. The Inquiry addresses the diverging availability of environmental infrastructure between different suburbs in Melbourne and regions in Victoria. The COVID-19 pandemic has highlighted the importance of accessing local parks, open space and other forms of environmental infrastructure.

This submission provides a summary of AHURI evidence relevant to the impacts of population growth in Melbourne and regional Victoria on environmental infrastructure and emphasises the importance of accessing open space for residents living in inner cities, suburban and regional places.

This submission is structured into three sections as follows:

Impacts of population growth on existing environmental infrastructure

- Population growth is concentrated in Melbourne and regional cities
- Population growth is increasing residential land development, located mostly on outer-suburban greenfield sites and inner-city high-density areas
- The COVID-19 pandemic is currently impacting population growth, but also provides the opportunity to plan for more sustainable cities and regions

Availability of environmental infrastructure

- Potential of suburban residential developments to improve environmental sensitivity
- Accommodating population growth needs to involve the renewal of greyfield areas
- Precinct-scaled redevelopment could drive sustainable transformation

Accessibility of environmental infrastructure

- Access to public open space is essential, in particular for residents of high-density developments
- The COVID-19 pandemic reinforces the need for adequate provision of accessible public open space

Impacts of population growth on existing environmental infrastructure

The Inquiry is exploring the impacts of population growth in metropolitan Melbourne and regional Victoria on existing environmental infrastructure, including open spaces and parks, sporting fields, forest and bushland, wildlife corridors and waterways. Victoria's population has been increasing, and grew from around 5.6 million residents in 2011 to over 5.9 million residents in 2016 (ABS, 2016). Population growth is concentrated in metropolitan Melbourne, which has had an annual growth rate of 2.5 per cent. Much of the growth that has occurred outside of Melbourne is in regional cities that are within commuting distance of Melbourne, such as Ballarat, Bendigo, and Geelong (ABS, 2019). Soon to be released AHURI research emphasises that present Victorian population growth and its spatial distribution are generally in line with projections made in 2000, however the intensity of population growth experienced in major cities did outstrip projections (James et al. forthcoming).

Population growth is concentrated in Melbourne and regional cities

Current AHURI research is examining the key drivers of population growth and mobility in major capital and regional cities in Australia (Leishman et al. forthcoming). The research is looking at the potential implications of population growth being concentrated in major cities and their capacity to accommodate on-going growth. Negative consequences of concentrated population growth can include pollution, congestion, noise, overcrowding and housing stress. The research is evaluating the potential and constraints of regional cities to facilitate residential mobility by redirecting population growth to regional areas (Leishman et al. forthcoming).

Population growth is increasing residential land development, located mostly on outer-suburban greenfield sites and inner-city high-density areas

The high population growth in Melbourne and other major cities is underpinned by residential land development (James et al. forthcoming). The research highlights that the observed difference between the projected population and the actual population in 2016 in metropolitan Melbourne is linked mostly to the development of high-density apartment buildings in inner city areas and the expansion of residential suburbs on formerly greenfield sites (James et al. forthcoming). Despite governments seeking to control urban sprawl by increasing the proportion of infill development, greenfield development remains a major component of housing supply. Other AHURI research shows that in Melbourne and other cities, significant amounts of new housing is being built in outer suburban areas (Rowley et al. 2020). A significant part of the production of new housing is driven by population growth and associated demand pressures, with housing supply in Australia generally increasing to match increases in the population (Ong et al. 2017). Future housing demand can be predicted based on population growth trends (Rowley et al. 2020).

The COVID-19 pandemic is impacting population growth, but also provides the opportunity to plan for more sustainable cities and regions

The COVID-19 pandemic is affecting Australia and Victoria in many different ways, impacting cities and regions significantly. Before the pandemic, immigration fuelled the growth of Australia's largest cities, with Brisbane, Melbourne and Sydney among the fastest growing urban places in the OECD (AHURI 2020a). As a result of international travel quarantine restrictions and border closures, migrants and short-time visitors are prevented to come into and settle in Australia. With reduced numbers of migrants, population pressures in Australian cities may be expected to ease in the short term, reducing the demand for housing and residential development. This lower growth in population provides the opportunity to reconsider policies responding to ongoing growth, and to plan for more environmentally, economically and socially sustainable outcomes (AHURI 2020a).

AHURI is presently undertaking eight projects addressing the COVID-19 pandemic, covering issues such as housing outcomes, the impact of policy responses to the pandemic, and the capacity of housing policy to stimulate economic recovery. Project topics of particular interest for this Inquiry include the examination of policies facilitating home building and pathways to regional recovery. These projects are due to report in the second half of this year (AHURI 2020c).

Availability of environmental infrastructure

The Inquiry emphasises the disparities in the availability of environmental infrastructure between different suburbs in metropolitan Melbourne and regional areas and cities in Victoria. AHURI research explores the potential of residential developments to increase the availability of environmental infrastructure.

Potential of suburban residential developments to improve environmental sensitivity

Despite the planning system's intention to limit suburban expansion to accommodate population growth of Melbourne and other Australian cities, regulation has not been successful in changing growth patterns (Goodman et al. 2010). Rather, urban growth policies continue to rely on residential developments on the urban fringe by providing new housing supply and extending the built environment into former greenfield areas. AHURI research has explored the economic, environmental and social characteristics of residential developments on the urban fringe (Blair et al. 2004). The research highlights that urban development, including housing, has significant environmental impacts including increasing resource consumption, over-extraction of natural resources, the pollution of the atmosphere, water, and land, and the elimination of habitat and consequent demise of fauna. By increasing development densities and starting a trend to smaller houses, environmental sensitivity could be raised, generating synergies with issues like reducing greenhouse gas emissions and other forms of pollution, while consuming fewer materials and improving affordability (Blair et al. 2004).

Accommodating population growth needs to involve the renewal of greyfield areas

Australian cities continue to sprawl, exacerbating socio-spatial inequalities in Australia cities, but also represent an increasing cost in providing environmental, social and transport infrastructure (Murray et al. 2015). AHURI research (Newton et al. 2011; Murray et al. 2015) has shown that to accommodate future growth and better utilise existing land and infrastructure, there will need to be a large scale renewal of the middle ring 'greyfield' areas in Australian cities, which are dominated by aging housing stock and underutilised land. The design of this redevelopment would need to engage responsively to the environment, (including preservation of green spaces or established trees, and provide better sustainable outcomes, such as more open space, and increased renewable energy production), instead of relying on further sub-division that results in less optimal use of land and progressive reduction in private green spaces (Murray et al. 2015).

Precinct-scaled redevelopment could drive sustainable transformation

AHURI research shows that redeveloping and regenerating urban areas is a major challenge for growing Australian cities to become more environmentally sustainable, while remaining productive, liveable and equitable (Murray et al. 2015). Focusing on the integrative developments models that aim at delivering more affordable and sustainable medium density housing, the research emphasises that increasing housing supply needs to be coordinated within a more holistic approach. This includes providing services, infrastructure and amenity, such as public open space, to ensure that equitable and sustainable outcomes are achieved as populations grow and the built environment transforms (Murray et al. 2015).

Access to environmental infrastructure

The Inquiry outlines the importance of access to local parks, open space and other forms of environmental infrastructure, which the COVID-19 pandemic has reinforced. AHURI research emphasises the essential need for residents, in particular those in high-density developments, to access open space.

Access to open space is essential, in particular for residents of high-density developments

Increased access to public open space can improve the wellbeing and quality of life of residents, in particular for people living in high-density housing. AHURI research investigating the experience of low-income households living in apartments shows the importance of neighbourhood amenity (Easthope et al. 2020). Living in high-density neighbourhoods can have negative effects on health, which can be a result of insufficient access to green spaces, loss of acoustic and visual privacy, overshadowing and road congestion. Evidence suggests that comprehensive precinct planning is needed in the development of high-density apartments, taking shared private and public spaces for residents into account (Easthope et al. 2020).

Case studies in the research demonstrated the fundamental importance of neighbourhood amenities and facilities, such as parks, libraries and community centres. These neighbourhood amenities have a positive effect on people's wellbeing and satisfaction. Yet, the case studies also showed an uneven access to neighbourhood amenities, such as these not being in walking distance, creating an equity issue where lower-income residents have different quality of life (Easthope et al. 2020). The research argues that there is much room to improve quality of life for residents in high-density building, including designing more useful shared spaces and clarifying shared responsibilities. Better planning for public open space can be ensured by setting urban design priorities, such as considering negative impacts, such as noise or overshadowing, that will reduce community use of open space. The research also recommends that the open-space needs of children and elderly persons are given adequate consideration in neighbourhood design policies and regulations (Easthope et al. 2020).

The COVID-19 pandemic reinforces the need for accessible public open space

Within cities and regions, the lockdown in response to the COVID-19 pandemic has reinforced the necessity of having sufficient public open spaces, such as parks and reserves, available within walking distance, especially for people living in high density residential buildings. Local green spaces for healthy exercise and an escape from the confines of people's residences have become more important. Planning for the appropriate provision and adequate availability of quality public outdoor spaces is essential, particularly, in high density contexts, but may not always be adequate. Policies to ensure all residents of urban areas have access to public open space would help to create healthy local places that can enhance local communities and neighbourhoods (AHURI, 2020b).

References

ABS (2019). Australian Demographic Statistics, December 2018 Cat. 3101.0. Issue 20/06/19. Canberra, Australian Bureau of Statistics.

ABS (2016). 2016 Census of Population and Housing, General Community Profile: Victoria Cat. 2001.0. Canberra, Australian Bureau of Statistics.

AHURI (2020a) 'COVID-19 reshaping migration in Australia's cities' Brief https://www.ahuri.edu.au/research/covid-19/covid-19-reshaping-migration-in-australias-cities.

AHURI (2020b) 'What has COVID-19 revealed about the liveability of our homes and neighbourhoods?' Brief https://www.ahuri.edu.au/research/ahuri-briefs/what-has-covid-19-revealed-about-the-liveability-of-our-homes-and-neighbourhoods.

AHURI (2020c) 'AHURI announces eight COVID-19 research projects to inform housing policy response to pandemic'. AHURI News https://www.ahuri.edu.au/research/covid-19-research-agenda.

Blair, J., Prasad, D., Judd, B., Zehner, R., Soebarto, V., Hyde, R. (2004) *Affordability and sustainability outcomes: a triple bottom line assessment of traditional development and master planned communities—Volume 1*, AHURI Final Report No. 63, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/63.

Easthope, H., Crommelin, L., Troy, L. , Davison, G., Nethercote, M., Foster, S., van den Nouwelant, R., Kleeman, A., Randolph, B., and Horne, R. (2020) *Improving outcomes for apartment residents and neighbourhoods*, AHURI Final Report No. 329, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/329, doi:10.18408/ahuri-7120701.

Goodman, R., Buxton, M., Chhetri, P., Taylor, E. and Wood, G. (2010) *Planning and the characteristics of housing supply in Melbourne*, AHURI Final Report No. 157, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/157.

James, A., Davies, A., Singh, R., Rowley, S. and Ong, R. (forthcoming) *Population growth and mobility in Australia: Implications for housing and urban development policies*, https://www.ahuri.edu.au/housing/research-in-progress/ahuri-inquiries/population-growth,-migration-and-agglomeration.

Leishman, C., Gurran, N., James, A., Nygaard, C., Bond-Smith, S., Liang, W., Ong, R. and Rowley, S. (forthcoming) *Population growth, migration and agglomeration*, https://www.ahuri.edu.au/housing/research-in-progress/ahuri-inquiries/population-growth,-migration-and-agglomeration.

Murray, S., Bertram, N., Khor, L., Rowe, D., Meyer, B., Murphy, C., Newton, P., Glackin, S., Alves, T. and McGauran, R. (2015) *Processes for developing affordable and sustainable medium-density housing models for greyfield precincts*, AHURI Final Report No. 236, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/236.

Newton, P., Murray, S., Wakefield, R., Murphy, C., Khor, L. and Morgan, T. (2011) *Towards a new development model for housing regeneration in greyfield residential precincts*, AHURI Final Report No. 171, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/171.

Ong, R., Dalton, T., Gurran, N., Phelps, C., Rowley, S. and Wood, G. (2017) *Housing supply responsiveness in Australia: distribution, drivers and institutional settings*, AHURI Final Report No. 281, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/281, doi:10.18408/ahuri-8107301.

Rowley, S., Gilbert, C., Gurran, N., Leishman, C. and Phelps, C. (2020) *The uneven distribution of housing supply, 2006–2016*, AHURI Final Report No. 334, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/334, doi:10.18408/ahuri-8118701.

Australian Housing and Urban Research Institute
Level 12, 460 Bourke Street
Melbourne VIC 3000
Australia
+61 3 9660 2300
information@ahuri.edu.au
ahuri.edu.au
twitter.com/AHURI_Research
facebook.com/AHURI.AUS
Australian Housing and Urban Research Institute