

Public open space contributions in Victoria: A preferred approach

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Executive Summary

In this SGS Economics & Planning Pty Ltd (SGS) Occasional Paper, Marcus Spiller and Jo Noesgaard propose a preferred approach to the calculation of public open space (POS) development contributions under Victorian legislation.

Councils rely heavily on development contributions under CI53.01 of the Victoria Planning Provisions to acquire and develop public open space. However, there is little formal guidance from the State Government as to how the rates which are potentially enshrined in CI53.01 might be calculated and strategically justified.

Business as usual arrangements, under which most of metropolitan Melbourne is covered by contribution rates of 5 per cent or less of site value, would see a rapid deterioration of access to POS given the projected strong growth of the city.

As councils go about reviewing their CI53.01 rates, it is important that they have regard to four key principles. These include; treating the municipality as one planning unit; ensuring that POS supply is adequate in quantum, accessibility, and quality; applying contribution obligations equitably regardless of the timing of development; and applying contributions to all land use types.

Cost apportionment for POS may be determined by applying one of a range of mutually exclusive conceptual models including impact mitigation, value capture, user pays and inclusionary requirements. The latter two are most likely to be appropriate.

While the user pays framework is used extensively in the Victorian development contributions system for other forms of infrastructure, it is problematic with respect to POS provision in the established parts of metropolitan Melbourne. As new development is likely to be a relatively small proportion of the future pool of users, this approach generates unduly low contribution rates and limited revenue.

Under the inclusionary requirements approach, each successive unit of development is expected to equip itself with sufficient open space to meet its needs, or pay for this to provided off-site. Such requirements are used elsewhere in the planning system including for car parking and management of stormwater drainage, for example.

The inclusionary requirements approach itself may be applied in a variety of ways. The POS contribution may be fixed having regard to a planned program of acquisition and works, or it can be determined by reference to a provisioning standard, that is a rate of POS availability per capita.

A standards based approach is preferred because it avoids the fraught issue of determining long term POS acquisition and programs in the absence of funding certainty. It also avoids arbitrary decisions about what investment is required to service future development as opposed to historic development.

There is a strong practice record for an aggregate provisioning standard of the order of 30 sqm per capita. This was first adopted for the purposes of open space planning in Melbourne as part of the 1954 Metropolitan Plan and is still used by many local governments today.

By establishing local funds exclusively dedicated to POS network development, a standards based approach provides greatest assurance that communities will get the open space they need.

1. Introduction



1.1 Overview

Delivery of adequate public open space (POS) for current and future populations is the responsibility of State Government, Local Government and developers.

In this Occasional Paper, we propose a preferred approach to the calculation of public open space development contributions under Victorian legislation.

Councils in Victoria have a number of options when levying development contributions for the provision of municipal open space. They can:

- Embed levies in a Development Contribution Plan (DCP) made under Part 3B of the Planning and Environment Act.
- Rely on the general power to levy development upon the creation of separate allotments under the Subdivision Act. The Subdivision Act allows for contributions of up to five per cent of site area or site value, but these amounts are appealable on a case by case basis.
- Codify the levy power under the Subdivision Act by incorporating municipal wide or district/area specific contribution rates in the Planning Scheme by amending Clause 53.01 of the Victoria Planning Provisions.

Councils almost exclusively rely on the third option. However, there is little formal guidance from the State Government as to how the rates which are potentially enshrined in Clause 53.01 might be calculated and strategically justified.

Our focus is municipal open space provision within urban areas, though several of the principles and methods we discuss are applicable elsewhere.

1.2 The policy problem – a looming rapid decline in availability of open space

As shown in Table 1, Clause 53.01 provisions applied by metropolitan Councils vary significantly. However, the majority apply a contribution rate of 5 per cent or lower.

This percentage rate refers to the proportion of developable land (residential, industrial, commercial) required to be set aside for public open space. If open space cannot be provided on the development site, or if the land in question is not suitable for open space provision, the Council in question collects the nominated percentage of site value in cash.

Council is then responsible for deploying these funds on the delivery of additional open space and/or redevelopment of existing open space. Funds can be expended on open space acquisition or embellishment in any part of the municipality. In some contrast to levies made under DCPs, contributions need not be deployed in the vicinity of the sites which generated the revenue.

TABLE 1: CLAUSE 53.01 OPEN SPACE CONTRIBUTION RATES (AS AT JUNE 2023)

Local government area	Contribution rate
Bayside	5% for Strategic Development Sites, none specified elsewhere
Boroondara	None specified
Brimbank	5% commercial and res, 2.5% industrial
Cardinia	Generally 8% (other figures apply in specific areas)
Casey	Typically 10%
Darebin	Typically 5%
Frankston	5% in most res areas, 8% in Frankston Activity Centre
Glen Eira	8.30%
Greater Dandenong	Typically 6.3%
Hobsons Bay	Typically 5%, 7.1% in particular development areas
Hume	2% to 4.8%
Kingston	5%, 8% in activity centres
Knox	Typically 5%
Manningham	5%, 8% in activity centres
Maribyrnong	5.70%
Maroondah	Typically 5%
Melbourne	Typically 5% or 7.06%
Melton	Varies between 2.89% and 9%
Monash	Typically 5%
Moonee Valley	5%
Merri-bek	Varies between 2.5% and 6.8%
Mornington Peninsula	Typically 5%
Nillumbik	Typically 5%
Stonnington	5% and 8%
Whitehorse	4%
Whittlesea	8% to 11.3% (including encumbered land)
Wyndham	2.65% to 9.9%
Yarra	4.50%
Yarra Ranges	5%

Source: SGS Economics & Planning Pty Ltd

Councils rely heavily on open space contributions for the acquisition and development of public open space. These contributions have become even more important in the context of rate capping, escalating infrastructure costs, and rapid population growth. Given the generally low rates of CI53.01 contributions, headline access to parkland and open space in metropolitan Melbourne will likely decline significantly with the city's ongoing rapid growth.

We have made an estimate of the quantum of council owned public open space per capita in 2043 versus 2023 based on the following assumptions and inputs:

- Metropolitan population forecasts as published by the Victorian Government
- Forecast population growth occurs at an average site density of 60 dwellings per hectare, covering both greenfield and infill development
- Local government owned public open space per capita as reported by the Victorian Planning Authority (VPA) in a 2017 report¹
- Open space contribution rates average 6 per cent.

We calculate that municipal open space per capita stood at 23.5 sqm per capita in 2023 and, if development over the next 20 years contributed 6 per cent to open space, this could fall to 18 sqm per capita by 2043. This is a reduction of almost 25 per cent.

There is therefore an urgent need to overhaul Clause 53.01 provisions in metropolitan Melbourne if living standards – based on availability of local public open space – are to be maintained.

1.3 State Government policy

The State Government has published a number of reference documents to support councils in the preparation of open space strategies. These policies, strategies and guidelines address definitions of open space, the importance of equity and access, and assessment of future demand – albeit that they are silent on how this future demand should be quantified and assessed. In addition, outside of greenfield growth areas, the State Government does not provide definitive advice on how public open space contribution rates should be set.

The Government's Open Space for Everyone (2021) strategy categorises open space as 'accessible', 'restricted', or 'encumbered' – see Table 2. Much of the restricted and encumbered land indicated in the table is not accessible for all community members. Often it is not appropriate for either passive or active recreation as a primary use. 'Accessible' public open space – which is the focus of CI 53.01 contributions- is therefore the key resource in the context of this paper.

1. <https://vpa.vic.gov.au/wp-content/uploads/2018/02/Open-Space-Network-Provision-and-Distribution-Reduced-Size.pdf>

TABLE 2: VICTORIAN OPEN SPACE FOR EVERYONE - CATEGORIES OF OPEN SPACE

CATEGORY	Accessible	Restricted	Encumbered or Restricted
PRIMARY PURPOSE	Open space	Open space	Not open space
EXAMPLES	Parks	Parks	Government schools
	Coastal foreshores, bays and waterways	Botanical and zoological gardens	Retarding basins
	Pathways and promenades	Conservation reserves	Pipe tracks
	Community sports fields	Golf courses	Utility easements
	Off-road recreation	Golf courses	Reservoirs
	Lakes and wetlands	Community farms	Cemeteries
	Gardens		Boulevards
	Civic squares		Road reserves
	Public forecourts		Airspace over and space under transport corridors
	Pathways and promenades		Streets and transport corridors
	Piers and jetties		Publicly accessible rooftops
	Pathways and promenades		Disused quarries in public ownership

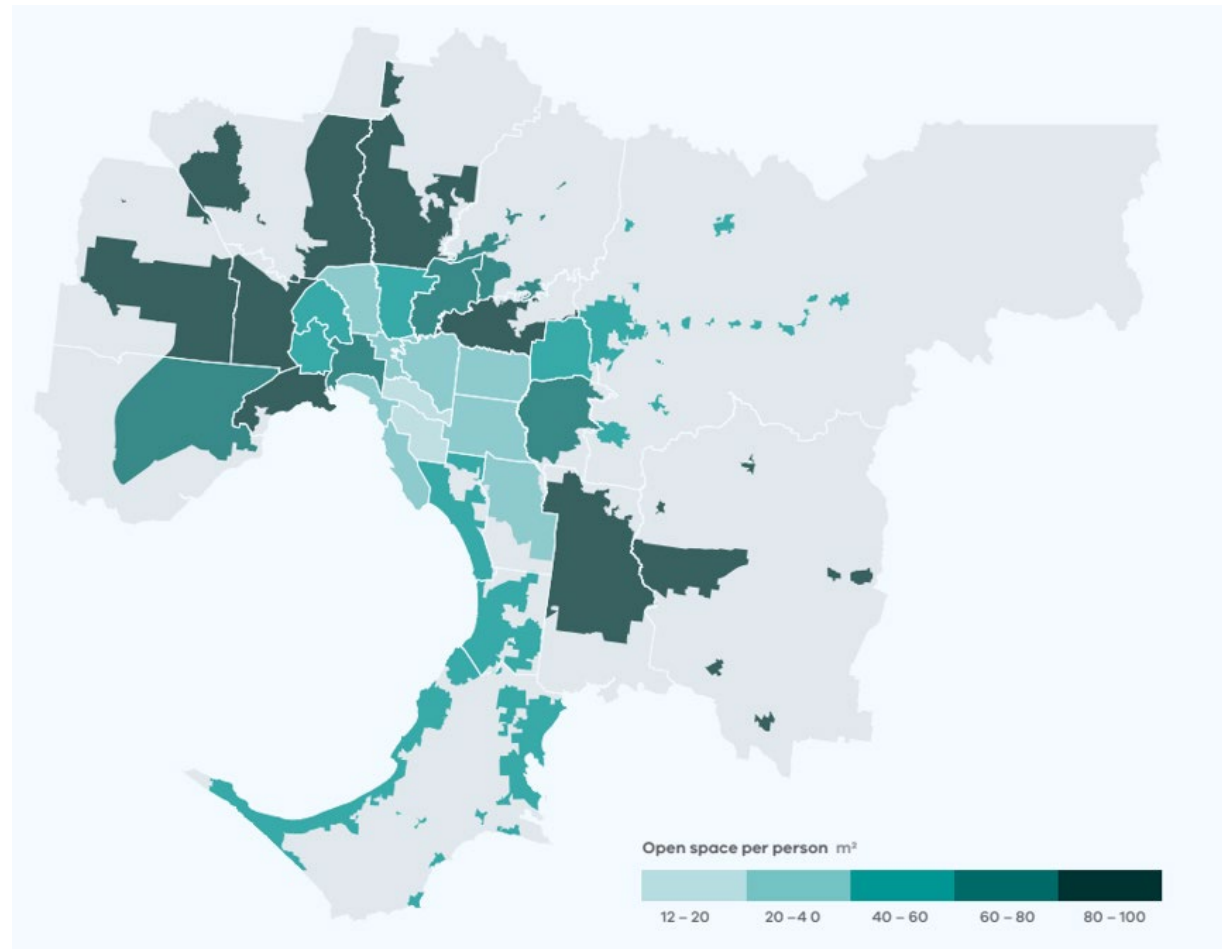
Source: Victorian Government, 2021 Open Space for Everyone

The State Strategy presents measures of open space per capita ranging across these categories. As noted in the Strategy itself, measured availability of open space varies considerably depending on the spread of categories included in the count.

The City of Hobsons Bay provides a good example of this. While Hobsons Bay records a high level of broadly defined open space per capita (see Figure 1), much of this land functions as conservation reserves and is not accessible to the community. Moreover, a substantial proportion of this open space is comprised of planning buffers around Major Hazard Facilities.

Broadly defined open space provision varies greatly between local government areas, ranging from 12sqm per person to 100sqm per person. It is noteworthy that inner and middle ring suburbs – which are expected to absorb around 70 per cent of Melbourne’s population growth over the next two decades- have relatively low provision.

FIGURE 1: OPEN SPACE (M2) PER CAPITA IN 2016 (INCLUDING ACCESSIBLE AND RESTRICTED OPEN SPACE)



Source: Victorian Government, 2021 Open Space for Everyone

The Strategy notes that we ‘cannot continue to plan for open space as we have in the past’. This alludes to more creative approaches which might see better public access to land which at present is effectively off-limits. It also notes an imperative to generate more value from the accessible open space which is already in service.

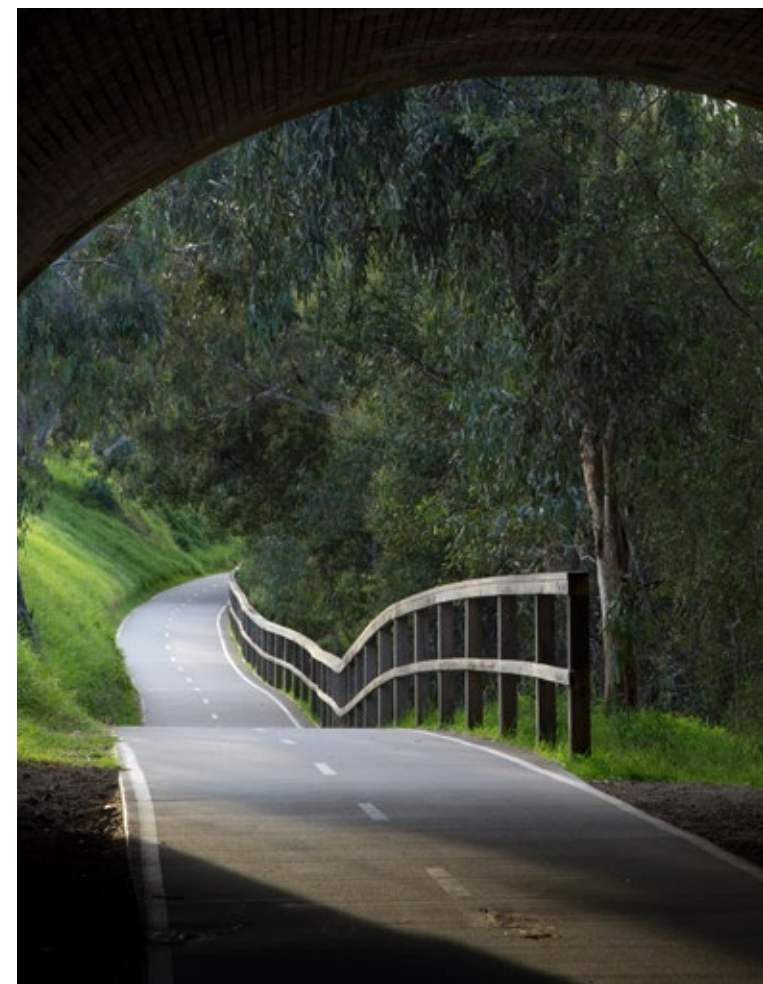
The Strategy does not discuss how such innovations would ensure adequate access to open space for Victorians; it eschews the adoption of targets or standards by which adequacy of provision might be measured.

For its part, Plan Melbourne 2017-2050² establishes a strategic intention to provide accessible, high-quality local open spaces in a fair and equitable way so that the needs of all members of the community are met, regardless of age, gender, ability or a person’s location.

1.4 Scope and structure

Against the background of limited guidance from the State Government regarding how to calibrate development contributions for public open space, this paper outlines the authors’ preferred approach based on our consultancy experience and SGS’s self-funded research.

The paper is set out in four sections. Following this introduction, Section 2 proposes some overarching planning principles to guide the planning and funding of open space provision. Building on these principles, Section 3 canvasses and evaluates a range of approaches to cost apportionment in open space provision. Through this discussion, we identify the continuing importance of an open space provision standard as the lynchpin of a sound cost apportionment method. Finally, in Section 4, we present evidence on an appropriate standard for open space planning in Melbourne and Victoria.



2. <https://www.planning.vic.gov.au/guides-and-resources/strategies-and-initiatives/plan-melbourne>

2. Open space cost apportionment principles

2.1 Overview

We propose four overarching principles to guide the establishment of open space development contributions:

- The municipality in question should be treated as one planning unit featuring one open space network
- The local government area's (LGA's) open space network should be established and maintained with reference to adequate:
 - quantity
 - accessibility/distribution
 - quality/level of service, and
 - reliability of ongoing service provision
- All development should contribute its fair share towards an adequate open space network for the LGA, regardless of the development life-cycle of the municipality, and
- All development that benefits directly or indirectly from the open space network should contribute regardless of land use type.

2.2 Principle 1: One planning unit / one planning network

Municipalities are legally constituted as one community. Their open space network is open to, and serves, the whole community. It is reasonable therefore to treat the LGA as one unit for the purposes of POS planning.

It follows that development proponents have a shared and equal responsibility to ensure that the whole LGA has an open space network suitable to its needs.

Contributions under Clause 53.01 of the Victoria Planning Provisions may be deployed anywhere in the relevant municipality regardless of where they were collected. This underlines the fact that the municipality may be treated as one planning unit for open space purposes, and especially so in wholly urban LGAs.



2.3 Principle 2: Adequate open space network

Adequacy of open space provision needs to be judged with reference to a range of parameters including:

- **Quantity;** this relates to the amount of open space per capita. We argue that, as with all infrastructure provision, a benchmark needs to be agreed upon. This benchmark is a starting point for understanding the level of current and forecast demand of open space (and any over or under supply). For the purposes of Clause 53.01, the quantity of municipal open space is of primary concern; that is, areas under the control of council specifically set aside for resort and recreation. As noted, measurement of quantity should relate to open space which is fully accessible to the public and is not compromised in terms of meeting local recreational needs. We recommend application of a benchmark of 30sqm per capita. The rationale for this standard is articulated in Section 4.
- **Quality;** land provision by itself is not sufficient to ensure that residents, workers and visitors gain the recreational value expected of POS assets. Quality, in terms of condition, facilities and infrastructure, must also be fit for purpose. Relevant POS attributes will include adequacy of drainage, fencing, landscaping, irrigation, toilet facilities, playgrounds, pavilions, seating, lighting and the like. Alignment with the prevailing needs of the surrounding community such as children, older people, people with a disability, young people, and women, will also be relevant. The value of 'resort and recreation services' offered by a particular POS asset will therefore be a function of quantity and quality, i.e.

$$\text{Value of space service} = \text{Quantity of open space} \times \text{Quality of open space}$$

- **Access** standards relate to the availability of different categories of open space services to residents, workers, and visitors. This is expressed in terms of a reasonable travel time or distance. The current Victorian Government walkability standards are provided in Table 3. Access should be assessed based on actual walkability rather than "as the crow flies". This ensures that significant access barriers such as major roads and waterways are considered.
- **Reliability** relates to the continuity of open space services available to residents, workers, and visitors over an indefinite period. It intersects with the above-noted requirement that municipal open space should generally be unencumbered by any other function and in ownership by government to support perpetuity.

Importantly, this value axiom allows for a degree of substitutability between quantity and quality. Thus, a smaller area of open space provision may deliver the same value of open space services if developed with enhanced facilities. This should, however, be applied within limits. There will likely be a point where no amount of embellishment will compensate for sheer lack of open space area.

The value axiom means that a provisioning standard relating to area, i.e. expressed in square metres per capita, may be adopted for the purposes estimating a cash in lieu contribution requirement from proponents, but the proceeds may be applied to embellishment of parkland rather than acquisition of additional land.

TABLE 3: WALKABILITY TO OPEN SPACE

Type of open space	Benchmark
Active	A sports reserve within an 800m safe walkable distance of each dwelling
Passive	A local park within a 400m safe walkable distance of each dwelling Open space larger than 1 hectare within an 800m safe walkable distance of each dwelling

Source: VPA (2021), VPA (2021), Precinct Structure Planning Guidelines: New Communities in Victoria

2.4 Principle 3: All development should contribute a fair share, regardless of staging

This principle relates to equitable treatment of development over the long trajectory of development in a district or municipality.

In a greenfield situation, such as the growth area Precinct Structure Plans (PSPs) prepared by the VPA, there is a strong emphasis that all successive development makes an equal contribution to the planned open space network for the area. This includes an equalisation scheme under which land holders who are required to set aside a relatively greater proportion of their property for open space provision compared to the standard requirement are compensated for this via levies on land holders who have a 'lighter' obligation to provide open space on-site.

In these PSPs, proponents provide the same effective contribution towards the land and works required for adequate open space provision regardless of whether their developments occur early or late in the process of building out the planned district.

The same equity principle should apply in established areas. Proponents coming into a municipality with a mature open space network should make their fair contribution to the provision of this infrastructure.

2.5 Principle 4: All development that benefits should contribute

This principle calls for non-residential development to make a contribution to municipal open space provision as well as residential development.

Industrial, commercial and retail development has the same requirement for access to council open space as residential uses. That is, non-residential uses must be supported with the provision of council open space in the same way as residential uses are, notwithstanding that the visitation they generate to these assets may vary from their residential counterparts.

To illustrate, a worker in an industrial area may jog around a local sports oval once a week, whilst a local resident may do the same jog five times a week. Both require access to this 'service' for their respective employment and homes to be deemed to be in a functional and sustainable neighbourhood. The indivisibilities in council open space provision mean that the facilities cannot generally be scaled in line with visitation.

Moreover, industrial, commercial, and retail uses are part of the wider LGA community and single planning unit. They benefit from being in a municipality which is properly equipped with essential infrastructure, including council open space. They therefore have a responsibility to help provide this infrastructure.



3. Approaches to cost apportionment

3.1 Methodology review

In the absence of State Government guidance a variety of methods for apportioning open space network costs across development have been applied by Victorian municipalities.

These methodologies can be distinguished by reference to a general four way typology of ‘development contributions’, using that term in its generic sense rather than that attaching to levies under DCPs/ICPs implemented under Parts 3B and 3AB of the Planning and Environment Act. Depending on which conceptual frame is applied significant variations in Clause 53.01 contribution rates can arise.

The four development contribution frames are summarised in Figure 1.

Of the four mutually exclusive development contribution types depicted in the diagram, ‘user pays’ and ‘inclusionary provisions’ are most relevant here. The user pays framing follows the principles applied in Development Contribution Plans and the like, where the cost of specific planned works is apportioned according to projected share of usage.

When this approach is applied to established urban areas, a relatively small proportion of the cost of future works and acquisitions will be recoverable from the Clause 53.01 provisions. This is because new development will generally comprise a small proportion of the total user base at the horizon year in question.

Assuming the same quantum and quality of planned open space, the user pays approach and the inclusionary standards approach would only deliver the same Clause 53.01 requirement when all development is occurring in an entirely greenfield situation.

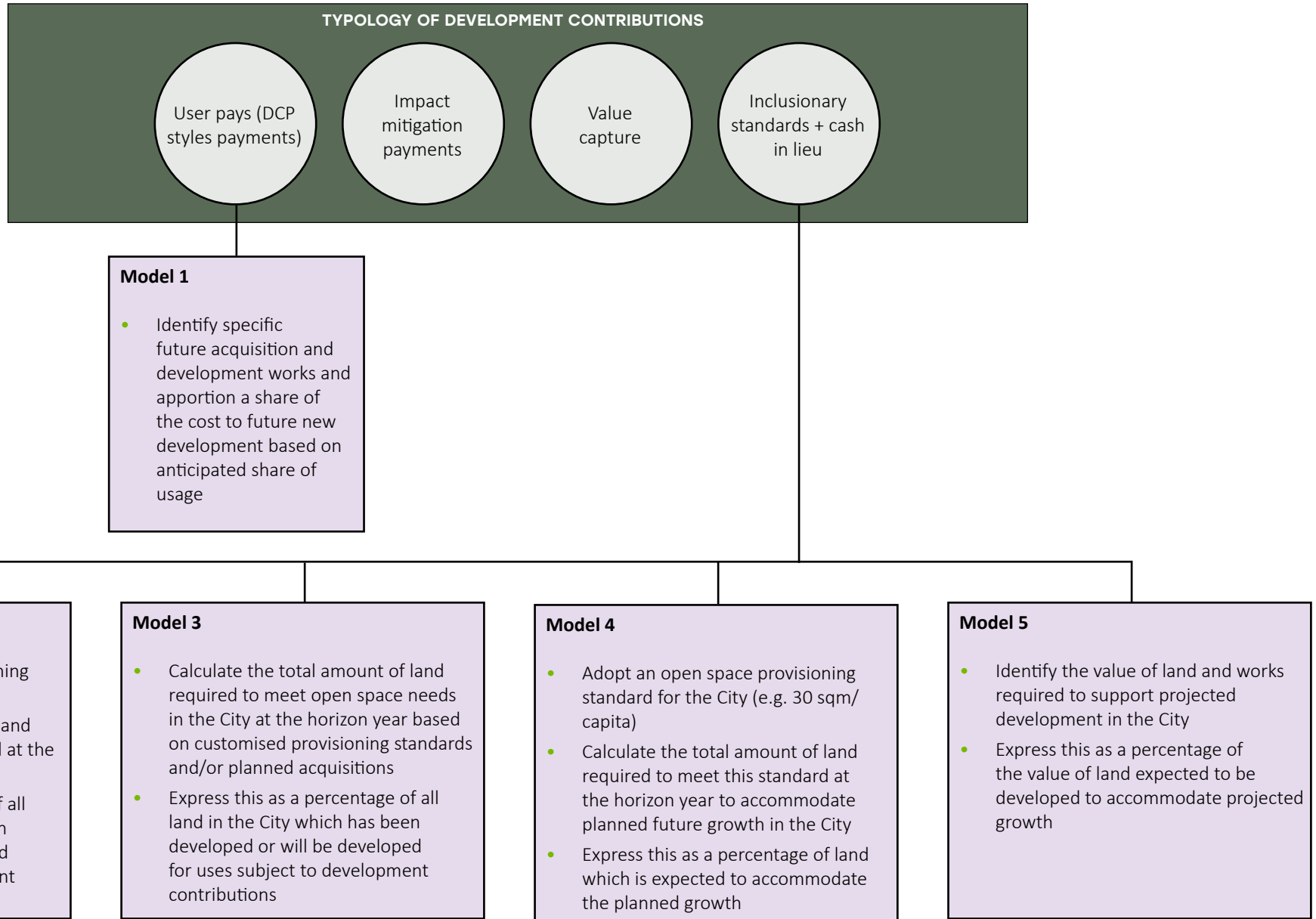
The shortcoming of the user pays approach in established areas is that new development does not pay its fair share of past investment in park acquisition and development. This contravenes the principles set out in Section 2. Furthermore, it does not allow for the fact that the marginal additional investment required in works and acquisition may be largely attributable to new development as distinct from the existing body of development in the LGA.

In some contrast, the inclusionary provision approach relies on the principle that each successive unit of development should, in a conceptual sense, ‘equip itself’ with the POS it requires, or pay for this requirement to be met off-site. It typically relies on a ‘planning standards’ framework, as applied, for example, with car parking provisions.

The standards in question can be derived from a general provisioning metric, such as 30 sqm per capita. We discuss selection of an appropriate standard in Section 4.

Alternatively, the inclusionary provision ‘standard’ may not be a predetermined supply number, but can be the outworking of the cost of the POS network as planned. This constitutes a ‘customised’ provisioning standard.

FIGURE 2: CONCEPTUAL FRAMES FOR ESTIMATING POS CONTRIBUTION



Source: SGS Economics & Planning Pty Ltd

As shown in the diagram, there are further variations to the inclusionary provision approach which relate to differences in the development base which is factored into the contribution calculation.

Unlike Models 2 and 3, which estimate the cost of a POS network based either on a standard or actual investments and spread this over the entire base of developable land in the municipality, Model 4 applies an optimal planning standard like 30 sqm per capita only to land which will be used in accommodating future growth in the municipality. As incremental development in an already developed municipality is likely to be at relatively high densities, this model will generate very high contribution rates, typically higher than 20 per cent or 30 per cent if strictly applied. This outcome is the opposite of the user pays approach (Model 1) which, as noted, tends to generate unduly low contribution requirements from incremental development. One way to mitigate excessively high contribution rates generated through Model 4 is to arbitrarily reduce the numerical provisioning standard.

Model 5 also separates new development from existing development in terms of open space investment requirements. However, instead of relying on a numerical provision standard, the cost of works and acquisitions deemed attributable to new development is spread over the value of land expected to accommodate the anticipated new development. This approach calls for a judgement on what future works and acquisitions are attributable to anticipated growth versus the ongoing needs of the existing population. Such a judgement can be fraught.

This approach also suffers from the same equity concerns as the user pays model when applied to relatively mature urban areas. Development occurring relatively late in the life-cycle of the suburb may not pay its fair share towards previous investment in POS infrastructure.

Contributions and POS capital works and acquisition programs

The question of how much a proponent should contribute towards POS is independent of the question of what the council will commit to by way of an acquisition and works program.

Under the inclusionary standards approach, the POS contribution is not a user charge which links to a program of infrastructure services. Rather it is an obligation to contribute to a fund which is exclusively dedicated towards the creation of a single, community wide, network of POS.

By separating the questions of quantum of contribution from that of capital outlay commitments, the community gains greater assurance that it will be equipped with the POS network it needs. This is so, because there is a greater prospect of accumulating the funds required to establish an appropriate POS network.

By conflating these independent questions, good POS outcomes for the community may be compromised because a council may be reluctant, or unable, to commit to an appropriate long term acquisition and capital works program. This could arise from capacity constraints within council and variable perceptions of fiscal risk across municipal electoral cycles. In addition, while local governments are required to have a 10-year capital program and open space asset management plan, the actual project delivery of this 10-year program varies considerably year to year.

An effective local 'Future Fund' for POS investment sustained by a flow of contributions geared to POS sufficiency standards rather than acquisition and works programs would mitigate these constraints. Open space capital works programs should be used to ensure councils have a future delivery plan for deployment of contributions; however, they need not necessarily be used as the basis for calculating contribution rates.

3.2 Preferred approach

Model 2 is conceptually the most robust. Applied in its purest form it is the most congruent with the principles for fair and efficient POS contributions we proposed in Section 2.

Model 2, produces a uniform open space requirement, expressed as a percentage of site area or site value, for the whole municipality. Establishment of an appropriate contribution does not require formulation of a long term acquisition and works program which may or may not be delivered, nor arbitrary judgements about the proportion of costs attributable to the future community rather than the already established community.

It applies the following calculation method:

1. Treat the whole municipality as a single planning unit
2. Estimate the total amount of open space services required to meet the needs of the whole City at the adopted horizon year with reference to a provision standard for this infrastructure, preferably, in our view, 30 sqm per capita (see Section 4)
3. Express the quantum of open space indicated at step (2) as a percentage of the aggregate area of all notionally developable lots in the City, including:
 - all lots that are unlikely to be developed in the period to the horizon year, and
 - the quantum of existing POS (this honours the principle that the future POS requirement should be taken from the full pool of land available for development before the deduction of parkland and related requirements).
4. Manually scale back the ratio given by step (3) **if warranted**, and having regard to other planning considerations, for example, impact on development feasibility, availability and accessibility of restricted open space that is deemed viable.



4. Establishing need based on planning standings

4.1 Why a standards based approach?

Open space is a critical element of sustainable communities. It is an aspect of livability that is compromised at our collective peril. It is essential to plan for sufficient open space to meet the needs of present and future communities. All existing and future residents of established and developing municipalities are entitled to have access to a reasonable standard of open space.

Sufficiency standards are commonly used to assess the required provision of a range of community facilities such as childcare centres, hospitals, schools and libraries. Standards typically use a per capita or per household rate of provision. Occasionally, they are translated into a percentage of land area.

In our view, open space is no different to other community infrastructure in the sense that provision should be determined based on a sufficiency standard. Models of open space planning which gear the rate of provision to current demography and socio economic profile are problematic. Open space is a very long term infrastructure investment which frames urban development. This infrastructure will witness multiple generations of 'community' over an indefinite period into the future.

In this context, current demography is important in the programming of open space infrastructure but ought not be a driver in determining the sufficiency of provision.

Unsurprisingly, open space provision standards are regularly applied by Victorian councils when compiling open space strategies to ensure equitable access to open space across their respective municipalities.

Consideration of open space standards at the municipal level is consistent with basic town planning principles that require all development to incorporate certain features so that, over time, all development in the municipality is functional and sustainable.

In keeping with this sound town planning approach, the Precinct Structure Planning Guidelines prepared by the Victorian Planning Authority nominate a specific proportion of net developable area to be reserved as public open space as new suburbs develop in greenfield areas. This standard of open space is intended to ensure the entire future community covered by the Precinct Structure Plan has access to a reasonable standard of open space.

Planning for the open space needs of future communities in established areas has challenges which differ from those applying in growth areas, including the cost of acquiring suitable land. Notwithstanding this, people in all communities are entitled to the same or similar standard of open space service. This said, this same or similar standard of service provision may be achieved in different ways in different areas pending the opportunities available. For example, in established suburbs, the standard of service provision may be met by improving the quality of existing open space.

Setting an appropriate standard for open space provision at the local government level is a keystone consideration.

The contemplation of this question must take into account contemporary planning and sustainability challenges facing Melbourne. Ongoing development of the urban fabric, including that of middle and outer suburban areas, will be occurring in the context of climate change and increasing demands on existing infrastructure from a growing population.

More will be expected from our parks than in the past to, for example, mitigate the urban heat island effect and to provide recreational opportunities from a growing proportion of the population living in high and medium density housing with limited access to private open space. Business as usual in terms of supplying (and by implication, funding) public open space will not do in this context (see Section 1).

Inadequate open space – both in quantity and quality – acts as a handbrake on the urban consolidation required to build a more climate resilient, efficient and inclusive city. Growing demands on open space evident in, for example, the inability of local sporting clubs to accommodate more participants at convenient times, is an important factor in popular perceptions that Melbourne – at least in the pre-COVID 19 era- was 'full' and 'bursting at the seams'.

4.2 Selection of an appropriate provisioning standard

Survey of standards

We prefer a 30 sqm per capita provisioning standard for the planning of a POS network delivering active and passive recreational services. This includes local, district and regional passive open space as well as active open spaces. It excludes some forms of open space which might be found in or near a municipality, including:

- Regional parks which are under the control of other agencies (e.g. Parks Victoria) and which are intended to serve a larger catchment than the host municipality
- Encumbered open space which is primarily provided to serve a purpose other than municipal recreation, for example, managing stormwater flows or conserving particular habitats, and
- Parkland immediately across the border from the LGA in question, on the basis that the host municipality has no jurisdiction over these areas and cannot guarantee on-going provision of open space services from these 'off-shore' assets aligned to the needs of its residents.

There is a strong practice and evidence base for a 30 sqm per capita provisioning standard.

Application of this standard in Victoria can be traced back to the then proposed 1954 Melbourne Metropolitan Planning Scheme prepared by the Melbourne and Metropolitan Board of Works (MMBW). The proposed Planning Scheme was underpinned by extensive research documented in an accompanying volume entitled 'Surveys and Analysis'³. Based on a needs analysis linked to the existing and emergent recreational behaviours of the metropolitan populace at the time, the MMBW proposed specific standards for the planning of particular types of public open space, as summarised in the following table.

TABLE 5: STANDARDS ADOPTED FOR 1954 MELBOURNE METROPOLITAN PLANNING SCHEME

Type of open space	Planning standard proposed by MMBW	MMBW standard expressed in sq metres
Outdoor field sports (excluding golf and racing)	4 acres per 1,000 people	16 sq m / capita
Parks and gardens (outside of central Melbourne)	2 acres per 1,000 people	8 sq m / capita
Children's playgrounds	1.5 acres per 1,000 people	6 sq m / capita
Total	7.5 acres per 1,000 people	30 sq m / capita

Source: MMBW Metropolitan Planning Scheme 1954 – Surveys and Analysis pp 161 -165

3. <https://www.planning.vic.gov.au/policy-and-strategy/planning-for-melbourne/melbournes-strategic-planning-history/melbourne-metropolitan-planning-scheme-1954-survey-and-analysis>

The MMBW standard, albeit empirically based in Melbourne, is open to criticism on the basis that it is 70 years old and the recreational needs of households and individuals have changed. However, if anything, the passage of time would most likely point to a need to lift the 30 sqm per capita ratio. For example, the research cited in the 1954 report extrapolated from the dominance of cricket and Australian Rules Football to determine playing field needs. Today, households enjoy broader sports options.

Moreover, it is reasonable to hypothesise that public open space is a 'superior good' as defined in economics. That is, demand increases as incomes rise.

Research and practice based standards for open space provision quoted elsewhere in the literature vary somewhat, though most are close to, or exceed, 30 sqm per capita. As noted, standards may be expressed as a percentage of net developable area or an amount per capita. Some published standards differentiate between types of open space, such as local versus district and active versus passive open spaces. Table 6 provides a sample of quantity based open space provision rates and covers a range of jurisdictions.

TABLE 6: MARCO-PROVISION STANDARDS FOR OPEN SPACE

Source	Total open space provision rate (m2 per capita)
British National Playing Fields Association (1938)	28.3
Legislated Parkland Dedication Rates in Canada's Provinces and Territories (2004)	27.9 (average)
NSW Department of Planning (1992)	28.3
DPIE (NSW) Recreation and open space planning guidelines for local government (2010)	30 (assuming around 15 dwellings per ha)
National Capital Commission (Canberra 1981)	40
South Australian legislation	10 - 40
South Australian higher density guidelines	30
Vic Gov - Planning for Community Infrastructure for Growth Areas (2008)	26.4
VPA - Precinct Structure Planning Guidelines: New Communities in Victoria (2021)	20
City of Kingston Open Space Strategy 2012	24
City of Wyndham Open Space Strategy 2045	30
Frankston City Council Open Space Strategy 2016-2036	30.3

Source: SGS Economics & Planning Pty Ltd

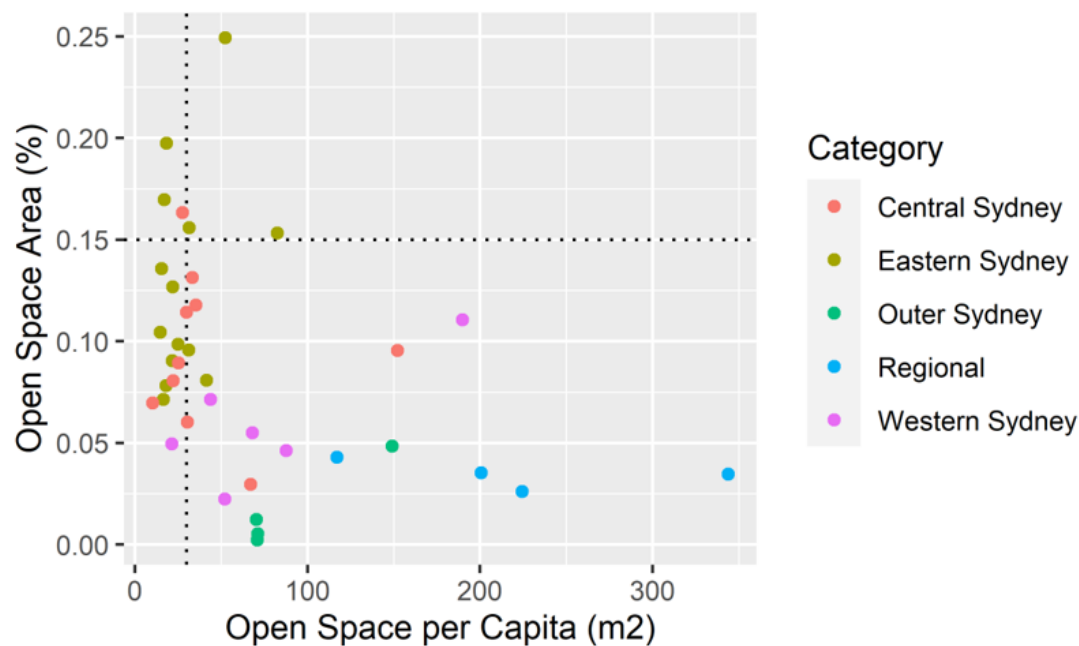
Both the current and superseded greenfield PSP guidelines published by the Victorian Government call for 10 per cent of net developable area to be dedicated to (unencumbered) POS. At an average greenfield density of 15 dwellings per hectare, as was common at the time of the now superseded guidelines, the 10 per cent POS requirement translates to 27 sqm per capita. The current PSP guidelines set an average density target of 20 dwellings per hectare, at which level POS provision would reduce to 20 sqm per capita assuming the same average household size.

Melbourne based local governments included in Table 2 illustrate a range of macro provisioning standards between 24 and 30.3 square metres per capita.

Observed open space provision in metropolitan Melbourne supports a 30 sqm per capita standard. The VPA Metropolitan Open Space Network report⁴ states that the total metropolitan stock of open space was 23,723 ha, including Crown Land, state land, local government land and public authority land in 2017. It further states that across the whole metropolis, some 12,719 ha, or 54 per cent, of this total pool of open space was owned by local government. Local government owned land is the best proxy for local parkland and playing fields in the VPA data. The VPA report also notes that total open space provision per capita across the metropolitan area was 57.7 sqm. Fifty four percent of this, or 30.9 sqm per capita, can therefore be taken as an estimate of Council POS provision.

It is also noteworthy that the modal provisioning rate of POS in metropolitan Sydney is of the order of 30 sqm per capita (see Figure 3).

FIGURE 3: PARKLAND PROVISION – MUNICIPALITIES IN METROPOLITAN SYDNEY



Source: SGS Economics & Planning Pty Ltd

4. VPA, 2017 Metropolitan Open Space Network: Provision and Distribution

A provisioning standard of the order of 30 sqm per capita is implicit in the access standards typically applied in open space network planning. The VPA, for example, has published the following access standards.

TABLE 6: ACCESS STANDARDS FOR THE OPEN SPACE NETWORK / HIERARCHY

Typical catchment/length	Typical size/sub-descriptor	Names
Local Network		
200m-400m	Less than 0.2ha	Pocket
400m	0.2-1ha	Neighbourhood
800m	1.0-5.0ha	Community
1200m	5-15ha	District
Regional Network		
>0-5km	15-50ha	Municipal
up to 15km	Greater than 50ha	Metropolitan

Source: VPA (2017) Metropolitan Open Space Network; Provision and Distribution, page 22



Assuming that 75 per cent of urban land is developable for housing, density is 15 dwellings per hectare and the dwelling occupancy is 2.5 – the above VPA access standards indicate a provisioning ratio of 30 sqm per capita. This embeds a further assumption that there is no nesting of open space functions within this notional urban area (see Table 7).

The end result of such an analysis will vary depending on the density and occupancy rate assumptions. Nevertheless, it confirms that 30 sqm per capita is of the correct order for provision planning, particular when read in conjunction with other authorities.

We therefore regard 30 sqm per capita as a reasonable standard for the purposes of estimating POS development contributions. It is consistent with explicit and implied government policy across several relevant jurisdictions and it reflects actual provision levels for Council parkland across metropolitan Melbourne.

TABLE 7 DERIVING QUANTITY STANDARD FROM ACCESS STANDARDS

Park type	Catchment distance (m)	Gross catchment area (ha)	Residential land (ha)	Dwellings	Residents	Park area (sqm) - upper bound	sqm/capita
Pocket	300	28	21	318	795	2,000	3
Neighbourhood	400	50	38	565	1,413	10,000	7
Community	800	201	151	2261	5,652	50,000	9
District	1200	452	339	5087	12,717	150,000	12
Total							30

Source: SGS Economics & Planning Pty Ltd

4.3 Critiques of standards

Notwithstanding widespread and long standing application, use of provisioning standards in public open space planning has been critiqued in the academic literature.

A. J. Veal of UTS is particularly critical of this approach. He argues that:

- *“The original basis of the British and US standards, upon which Australian standards have traditionally been based, are of doubtful validity.... Furthermore, no documented rationale can be found which justifies their adoption in Australian conditions”⁵.*
- *Despite the enormous variety of communities to be found in Australia, the standards assume a ‘one-size-fits-all’ model. Standards fail to take account of variation in residential densities”⁶.*

On the first of these points, we repeat that the MMBW’s standard of 30 sqm per capita was, in fact, empirically based in the then prevailing recreational behaviours of the population. If anything, expansion and diversification of these behaviours since the 1950s imply that more POS per capita is required today.

The second of the above criticisms is certainly relevant to the task of the site or precinct planning. As Veal et al (2021) point out, application of a standard such as 30 sqm per capita to a particular higher density development precinct could result in an inordinate proportion of developable land being dedicated to POS. However, if the purpose of the standard is to ensure that a community defined at a higher spatial level – that is metropolitan, town or municipality – is adequately serviced with POS infrastructure, the criticism is not especially relevant. This is particularly so if the standard is being applied as recommended in this paper, that is, in relation to the average density of a municipality at the planning horizon year, as opposed to being applied to the density of marginal development between the start year in an already established municipality and the horizon year.

The clear virtue of a standard when applied at the metropolitan, municipal or other higher order spatial community level is that it provides an objective benchmark of sufficiency. Other things equal (incomes, tenure, recreational behaviours, culture), a higher order community with more POS per capita is likely to enjoy greater utility to one with less.



5. See, for example, A.J. Veal (2013) Open space planning standards in Australia: in search of origins, *Australian Planner*, 50:3, 224-232.

6. Veal, A.J. and Piracha, A. (2021) Planning for Open Space and Recreation in High-Density Areas, Report 1: Guidelines Review, UNPUBLISHED DRAFT

5. Conclusion

Providing adequate POS is crucial to sustainable communities, especially in the context of climate change and the rapid densification of Australian metropolises.

Local governments in Victoria carry the bulk of the responsibility for ensuring that community members have adequate access to local parkland and sporting reserves. In metropolitan Melbourne, councils have custody of more than half of all open space and the vast bulk of POS which is unencumbered and freely available to all citizens.

The principal means by which Councils fund investment into POS is via development contributions levied under CI 53.01 of the VPP. While contribution rates of between 5 per cent and 10 per cent and higher apply in selected locations, most of the metropolitan area features contribution rates of 5 per cent or less of site area (or the cash equivalent). In the absence of a substantial increase in average contribution rates, access to POS across Melbourne could fall by around 25 per cent over the next two decades, given the sizeable increase in population anticipated for the metropolis.

The State Government has provided little guidance to Councils as to how these contribution rates should be set.

This paper argues for a standards based approach to the determination of contribution rates. This would see the contribution obligation being distributed across all development regardless of timing or land use type, based on treating the municipality as one planning unit.

A standards based approach avoids the fraught issues of determining long term POS acquisition and programs, and deciding what investment is required to service future development as opposed to historic development.

By establishing local funds exclusively dedicated for POS network development, a standards based approach provides greatest assurance that communities will get the open space they need.



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