



ACKNOWLEDGEMENT OF COUNTRY

Hume City Council recognises the rich Aboriginal heritage within the municipality and acknowledges the Wurundjeri Woi-wurrung, which includes the Gunung Willam Balluk clan, as the Traditional Custodians of this land.

Council embraces Aboriginal and Torres Strait Islander living cultures as a vital part of Australia's identity and recognises, celebrates and pays respect to the existing family members of the Wurundjeri Woi-wurrung and to Elders past, present and future.

CONTENTS

1 INTRODUCTION

- 1.1 Purpose of this background paper
- 1.2 Approach
- 1.3 The value of open space

2 STRATEGIC PLANNING CONTEXT

- **2.1** Victorian State Government
- 2.2 Hume City Council
- **2.3** Definition of open space
- **2.4** Council's role
- 2.5 Link to other plans and strategies

3 CHALLENGES AND DRIVERS

- 3.1 Inconsistency in the quality and distribution of open space between the established and growth areas
- **3.2** Quality
- **3.3** Quantity and distribution
- **3.4** Equity
- **3.5** Forecasted population and land use change
- **3.6** Changing needs
- 3.7 Changing climate

- **3.8** Land administration challenges
- **3.9** Emerging Trends In Open Space Planning

4 REVIEW AND ANALYSIS OF OPEN SPACE PLANNING IN HUME

- **4.1** Open Space Strategy 2010 2015
- **4.2** Needs Assessment Precint Planning Approach
- **4.3** Gap Analysis Precinct Summaries
- **4.4** Demand Analysis

5 KEY POLICY DIRECTIONS FOR THE NEW OPEN SPACE STRATEGY

- **5.1** Draft Vision and Principles
- **5.2** Draft Key Policy Direction Grow, Optimise, Protect

6 EMERGING OPTIONS TO ADDRESS GAPS

7 ADDITIONAL

- 7.1 Links to Further Reading
- **7.2** References







1.1 INTRODUCTION

Purpose of this background paper

This background paper outlines the work undertaken to date and provides an overview of key directions informing the anticipated content, structure, and scope of the new Open Space Strategy.

In 2010, Hume City Council developed an Open Space Strategy that has guided open space planning and works in the City over the past 11 years.

In that time Council has achieved a great deal with improvements to many parks and sportsgrounds as well as various stormwater management and environmental projects. The specific past achievements are outlined later in this report.

The Hume Council Plan 2021-2025 Strategic Objective 2.3.2 requires the finalisation of the new Open Space Strategy and continued implementation of improvements to active and passive open spaces and playspaces.

State Government guidance recommends that open space strategies are prepared for ten-year timeframes. Thus, it is now intended that the new Hume Open Space Strategy (OSS) will run from 2022-2032 and will respond to current issues, including climate change, demographic and socio-economic trends, and community needs. The strategy will inform the directions, actions, and priorities to quide Council with future decision making and resource allocation for open space planning over the next decade.



Tom's Park, Sunbury

1.2 INTRODUCTION

Approach

The Open Space Strategy approach has been comprehensive and consultative across the organisation and with key external stakeholders. The internal project team is made up of members across City Design, City Strategy, City Parks & Open Spaces, Climate Action Integration, and Landscape Planning.

The Open Space Strategy project team also undertook a 12-month review to ensure the mapping of Hume City Council Open Space was accurate and suitable for assessment purposes.

The project team reviewed key documents and assessed demand and supply to understand issues, needs and directions relating to open space.

The demand analysis assessed the implications of

demographic characteristics and considered a range of consultation findings and applied it this to 13 precincts across Hume. The precinct approach is new for open space planning in Hume and there is more detail on this in later chapters of this paper.

The supply analysis has involved reviewing maps and information, understanding the character, issues and potential opportunities associated with open space. The analysis focuses on and considers the unique characteristics of each precinct, rather than taking a broad-brush municipal approach.

Site visits across the open space network, desktop aerial assessments and data analysis were utilised in this process.

The planning steps for this background paper are summarised to the right:



1.3 INTRODUCTION

The Value of Open Space

Open Space is an essential part of our urban environment, with numerous benefits for our communities and our natural environment. Planning for open space within existing suburban areas as well as new developments and areas of environmental significance, must acknowledge the importance of these places and networks for the future health of our people and our planet.

Published in 2017, The World Health Organisations paper, Urban Green Space and Health - A Review of Evidence. 1 provides a detailed analysis of research conducted over the previous 10 years on the benefits of open space to people's health. Summarised below, the benefits cover physical, social, mental, environmental, and economic outcomes and provide a decisive argument for the provision of accessible open space.



Sunbury Fields, Sunbury

Physical Activity

Open spaces provide the opportunity for people to engage in a range of physical activities. These activities include informal ones such as walking, jogging and playing as well as organised activities such as sports and community events. Open spaces also contribute to the networks of movement through our neighbourhoods, allowing people to walk and cycle through safe, green spaces. The provision of open space for these activities is vital for improving health outcomes across all socioeconomic strata and genders.

Social and Community Connectedness

Community interaction and cohesion are often enabled through the opportunities and facilities open spaces provide. including places to interact, relax, socialise, and feel comfortable away from the home or workplace. The provision of spaces for community events and performances can encourage an interactive and healthy community, helping to establish a sense of belonging and encouraging public displays of culture, ethnicity, and diversity. Social connections are continually developed and

strengthened within the context of team sporting activities and sporting clubs. Additionally, open space is considered a third place - a place that's not home or work, that is free to access and allows for connection to communities.

The importance of cultural connections to open space is framed through landscape aesthetics, heritage, interpretation, outdoor recreation, and spiritual significance including Aboriginal and Torres Strait Islander cultural heritage values which are often embedded in Australian open spaces.

1.3 INTRODUCTION

Mental Wellbeing

Open spaces provide opportunities to unwind, relax, and connect with nature. As backyards become smaller and the opportunities to engage with the earth, plants and nature become less frequent, our public open spaces provide these vital experiences. A regular connection to the natural environment has been shown to help improve mental wellbeing, reduce levels of stress and anxiety, increase brain activity, and promote a positive mindset. Green spaces and play have also been identified as particularly important for early childhood social development and important in decreasing social isolation in older adults.

These positive impacts are independent of cultural and climatic context, with all members of the community benefiting from access to open spaces regardless of culture, ethnicity, and socioeconomic circumstance. Covid-19 and recent lockdowns in the Melbourne metropolitan area have been a great equaliser in this regard and have brought a new

appreciation of nature and open space and what it means for well-being.

A recent study2 found that people who spent at least two hours in nature per week were consistently more likely to report higher levels of health and well-being compared to people who spent less time in nature. The health benefits of connecting to nature and "greenspace" are now widely accepted. As well as physical health, greenspace is associated with positive mental health outcomes.

Environmental Sustainability

Urban landscapes have a crucial role in the environmental sustainability and health of our neighbourhoods. Open spaces provide habitat for a range of flora and fauna, assist in creating habitat corridors, and can include critical areas of remnant indigenous vegetation. They provide opportunities to increase biodiversity through a range of plant species and landscape characters. Urban landscapes

assist with climate change and urban heat island mitigation through increased tree canopy coverage and permeable surfaces helping to cool the environment that retain moisture in the ground. Open Space contributes to the resilience of areas responding to extreme weather patterns, including periods of drought and flooding. Open spaces in urban environments are also important in the network of Integrated Water Management treatments, helping to filter stormwater, improve waterway quality, reduce pollution, increase the amount of water absorbed by the ground, and encourage the efficient usage of rainwater. Connection to nature through open space can also inspire environmental concern and action in those who use them.

Economic Vitality

Victoria's parks are highly valued by the community. They provide open space, stunning landscapes, habitats to protect flora and fauna and areas to conserve cultural heritage. While these values are undoubtedly important in their own right, parks also play an often-unrecognised role in providing benefits that flow beyond park boundaries to contribute to Victoria's health, wellbeing, liveability and economy. Open space provision and quality can provide a range of economic benefits to the Hume community

- Benefits to recreation and tourism, providing spaces for sightseeing and picnicking.
- 2. Benefits to surrounding properties, creating an increase in property values. One Victorian study³ notes a 5-7% increase in increase in home value for properties immediately adjacent to parks in Melbourne.
- 3. Benefits to the environment by conserving areas of remnant vegetation and protecting biodiversity.

However, the greatest economic benefit is in the increased health and wellbeing of a community that has easy and safe access to well maintained and engaging open spaces, enhancing their community connectedness, sense of belonging and physical and mental wellbeing.

2.1 STRATEGIC PLANNING CONTEXT

Victorian State Government

Plan Melbourne – Metropolitan Open Space Strategy (Open Space For Everyone)

The Metropolitan Open Space Strategy called *Open Space for Everyone*, was endorsed in 2020 and is a key action out of Plan Melbourne. This is reflected in Clause 19.2-6R of the Hume Planning Scheme.

The Open Space for Everyone strategy will guide all levels of government in the planning, management and delivery of a quality open space network over the next 30 years. It will achieve this by fostering a coordinated approach by state and local governments, Traditional Owner groups, communities, researchers, and businesses.

It guides all public land managers to plan to protect, optimise and grow Melbourne's open space network.

State government will provide support for councils through funding and partnership opportunities, especially with other landowners where open space complements the Council's own Open Space Network.

Funding under this plan is already underway through the Suburban Parks program, and new funding will become available as the plan is implemented.



Melbourne Metropolitan Open Space Strategic Framework, Victorian State Government

2.1 STRATEGIC PLANNING CONTEXT

Victorian State Government

Plan Melbourne – 20 Minute Neighbourhoods

Plan Melbourne 2017-2050 is the Victorian State Government's long-term plan to accommodate Melbourne's future growth.

The plan is guided by the principle of 20-minute neighbourhoods which seeks to enable people to 'live locally' - giving people the ability to meet most of their everyday needs within a 20-minute walk, cycle or local public transport trip of their home.

The effective development of a 20-minute city requires a localised approach to deliver appropriate infrastructure and activation techniques to local communities. The 20-minute city concept covers a range of factors – with a strong emphasis on liveability. Some of the key elements considered in an Open Space Strategy – including local playgrounds and

parks, green streets and spaces, community gardens and sport and recreation facilities.

Focusing the development of the Open Space Strategy with a localised approach (assessing open space supply at a precinct level and identifying gaps in the open space network) allows Council to consider one of the key foundation elements of the 20-minute neighbourhood framework, enabling Council to continue to work towards the goal of living locally.

During the Community Vision consultation, 100 people were asked what living local meant to them. Key statements coming from this consultation relating to living local and open space included recreation, attractions, active spaces and fun things to do and beautiful outdoor spaces as 2 of the top responses.



Plan Melbourne – 20 Minute Neighbourhoods, Victorian State Government

2.2 STRATEGIC PLANNING CONTEXT

Hume City Council

Hume City Council is a large and diverse local government area covering 504 square kilometres. The City was formed on 15 December 1994 after the amalgamation of most of the City of Broadmeadows, the Shire of Bulla and parts of the City of Keilor and City of Whittlesea.

It includes 13 suburbs in the outer north-western suburbs and a number of rural localities between 13 and 40 kilometres from the Melbourne city centre.

Hume has 3,278ha of Council owned open space, and 1,978ha of open space owned by other public agencies, covering 10% of the municipality.

Suburban growth in Hume largely commenced in the late 1950s and reached its peak in the 1980s. Development during this time featured conventional designs favouring curvilinear streets, cul-de-sacs, and an assumption that most families would drive to commute and meet their daily needs. Established, older suburbs are not designed to be walkable or to maximise access to green space.

Hume's population is expected to grow by more than 130,000 people in the next 20 years, with most of this growth set to occur in new suburbs. Since the 1980s planning policy and design trends have produced high quality park networks in new suburban areas, as evidenced by the excellent quality, accessible green spaces in Hume's newer suburbs.

The main characteristics and features in Hume that influence the character and development of open space include:

 The significance of the landscape for the Traditional Owners of the land. For the Wurundjeri Woi-wurrung community the natural world is also a cultural world; therefore, the Wurundjeri Woi-wurrung people have a special interest in preserving not just their cultural objects, but the natural landscapes of cultural importance. Of particular note are the deeply incised waterways and volcanic hilltops.

 The large and significant Greenvale Reservoir, Mount Ridley Nature Conservation Reserve, and Woodlands Historic Park, which are managed by Parks Victoria;



Views to Jackson's Creek from the Skyline, Goonawarra

2.2 STRATEGIC PLANNING CONTEXT

- Aitken Creek and Malcolm Creek linear reserves, providing green corridors through Craigieburn. These corridors contain remnant vegetation, Golden Sun Moth habitat, and constructed wetlands, but also shared paths and substantial recreation nodes.
- Merri Creek, part of this significant regional parkland running along the eastern boundary of the municipality, which is shared with the City of Whittlesea to the east and connects south into Moreland City Council and beyond, eventually reaching the Yarra River/ Birrarung.
- Moonee Ponds Creek, part of this significant regional parkland along the southwestern edge of the city, the focus of the Chain of Ponds cross-council collaboration project;
- Merlynston Creek, leading to Jack Roper Reserve forms a key north south linear corridor through Dallas and

- Broadmeadows.
- Broadmeadows Valley Park, part of another significant regional parkland connecting through the centre of the municipality, leading north up to Greenvale Reservoir;
- Green Wedge land between the Hume Corridor (the urban development corridor from Broadmeadows in the south to Kalkallo in the north) and Sunbury, with Bulla Recreation Reserve located in the centre. The Green Wedge supports ongoing farming and rural land uses as well as providing visual amenity between the Hume Corridor and Sunbury. Deep Creek runs through the Green Wedge land and is primarily in private ownership although the natural values of the creek corridor are highly valued by locals:
- Sunbury, with Jacksons
 Creek and its tributaries
 running across the area to
 the north-west of the
 municipality. The land
 around Jacksons Creek will

- form Jacksons Creek biik wurrdha Regional Parklands.
- Organ Pipes National Park to the south west of the municipality, managed by Parks Victoria.
- Large parcels of open space spread across Hume including district and regional sportsgrounds and

- local and neighbourhood recreation parks.
- Remnant River Red Gums and grassland are integrated into the urban environment and are retained for their environmental and aesthetic values.



Malcolm Creek Linear Park, Craigieburn

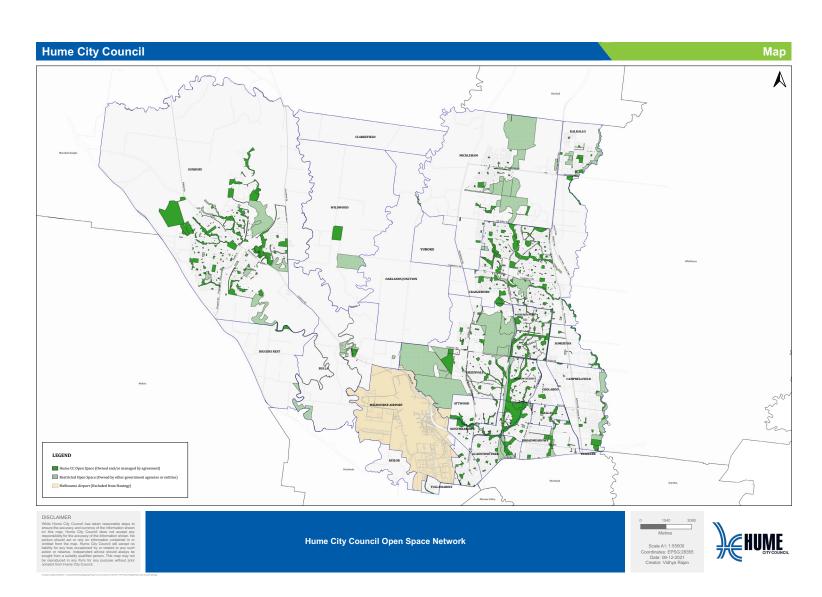
2.2 STRATEGIC PLANNING CONTEXT

Due to the Commonwealth managing the Melbourne airport site it has been excluded from the assessment, however the plan notes there are open space and recreation opportunities within the airport including a golf course, UrbnSurf water park and Essendon Football Club.

Precincts Approach

The size of Hume, and its areas developed during different eras, has resulted in precincts of different character and a high level of diversity between the various suburbs and areas across the City. The City has broken the city into 13 precincts, in alignment with the Community Infrastructure Planning Framework.

The Planning Precincts aim to reflect and draw together the different characteristics of Hume. They enable a targeted approach to open space planning in addition to planning the Open Space Network across the city.



2.3 STRATEGIC PLANNING CONTEXT

Definition Of Open Space

'Public open space' in this strategy adopts the Metropolitan Open Space definition meaning:

Public land and waters that provide for one or more of these purposes:

- Outdoor recreation
- Leisure and sport
- Environmental and cultural benefits
- · Visual amenity and
- off-road active transport.

Public open space in Hume has been mapped and classified as one of two types:

1. Hume City Council owned and/or managed Open Space - Accessible public land and waters, for which the primary purpose is open space for one or more of the purposes above.

2. Restricted Open Space owned and/or managed by other public authorities - This means public land and waters, for which the primary purpose is open space for one or more of the purposes above, but that has limited accessibility or uses due to ownership, management, leases, agreements, specialised sporting infrastructure or conservation protection overlays.

For the purpose of this background paper, 'public open space' has been abbreviated to 'open space'. Council's strategy will recognise the crucial need to protect, optimise and grow the network of accessible unencumbered open space, it will also promote the increasingly important role that encumbered or restricted open space plays in the network.

The strategy seeks to complement and improve access to open space across Hume by working more collaboratively and creatively to utilise encumbered or restricted public lands and waterways for open space and recreation purposes, as far as is possible. Land that was considered marginal in the past (such as encumbered land) is likely to be considered critical in a changing climate.



Greenvale Recreation Reserve, Greenvale

2.4 STRATEGIC PLANNING CONTEXT

Council's Role is Custodian of Parks and Open space in Hume. This specifically includes:

Service Provider

Council designs, enhances and maintains local parks and open spaces, allowing them to be freely accessible by the Hume community and strengthening urban and residential communities. Responsibility for these services is shared across a number of Council departments including Urban and Open Space Planning, Strategic Planning, Sustainable Environment, Parks, Subdivisional Development and Capital Works.

Environmental Stewardship

HCC Council Plan outlines the following values for environmental stewardship, in particularly relevant to the Conservation estate component of the Open Space Network.

- Biodiversity values are protected, enhanced, and well-integrated within the built environment.
- Risks to both short- and longterm ecosystem health and landscape values are factored into planning and decision making.
- Support the community to manage land sustainably.

- Non-compliance with environmental regulations is pursued via capacity building, education and/or legal approaches.
- Natural assets are valued and included in Council's asset management systems and procedures.
- Conservation assets are well integrated within the built environment and the community can access and enjoy these spaces.

Facilitator

Council facilitates, partners and plans open space with a range of other organisations and government agencies, including but not limited to Parks Victoria, Melbourne Water, Yarra Valley Water, and VicRoads to complement our Hume City Council Open Space Network.

Advocate

Council plays an important role in advocating on behalf of the community to other levels of government and service providers in order to ensure parks and open space needs and priorities are addressed in state planning documents and funding arrangements.



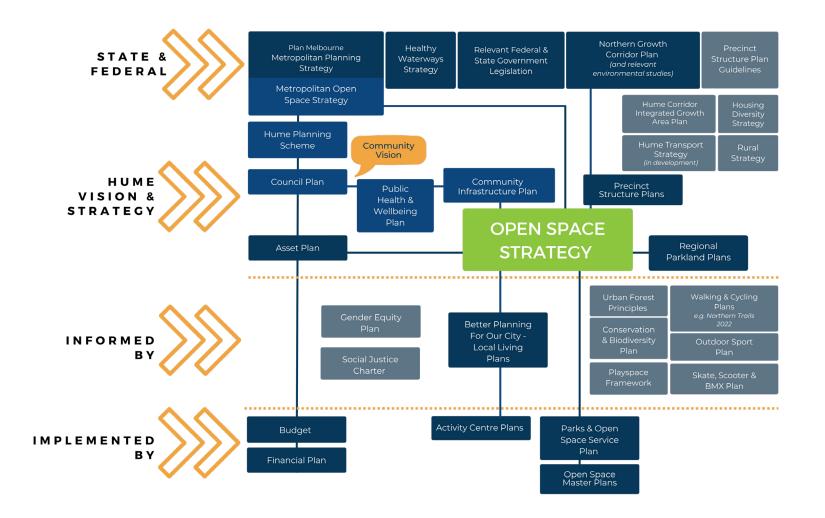
Hume City Council Open Space Strategy

2.5 STRATEGIC PLANNING CONTEXT

Links to Other Plans and Strategies

A number of studies and plans previously or currently being developed or participated in by Hume City Council are relevant to the Open Space Strategy.

| Hume Community Vision | A sustainable and thriving community with great health, education, employment, infrastructure, and a strong sense of belonging | |
|---|---|--|
| Hume Council Plan Action 2021-2025 | Strategic Objective 2.3.2 requires the finalisation of the new Open Space Strategy and continued implementation of improvements to active and passive open spaces and playspaces. | |



3.1 CHALLENGES AND DRIVERS

Inconsistency In The Quality and Distribution of Open Space Between the Established and Growth Areas



Golden Sun Moth Park, Craigieburn

Overview

In more recent times there has been a greater awareness of the important role open space plays in improving community health and wellbeing, and extended lockdowns across Melbourne in 2020-2021 highlighted this.

In the growth areas, the provision of open space has been informed by consideration of walking catchments, community use and protection of biodiversity values. Therefore, the open space, particularly at the local and neighbourhood level in the growth areas, is generally of higher quality than most of the open space in the established areas.

It has a higher level of facility provision for unstructured recreation and informal use, with more attention given to the planted character and quality of the spaces. To address the inequity between open space in the established and growth areas, the Strategy will recommend a prioritised program of improvement works.

This will include the provision of new open space in gap areas (where residential properties are outside of a 400m walking distance to open space) and upgrades to existing open space for the existing and forecast population in the established urban areas of Hume, with a particular focus on long disadvantaged areas such as Broadmeadows and Campbellfield, as well as parts of Tullamarine and Meadow Heights and the rural township of Bulla. These upgrades will be identified as opportunities in the draft Strategy for the community to comment on in the next round of consultation.

The strategy will also define consistent 'Desired Standards of Service' for the provision, development, and operation of open space. These standards outline the expected amenities at each park type and will guide the future upgrades of new open space in the whole municipality.

3.2 CHALLENGES AND DRIVERS

Quality

New open spaces in suburban growth areas are of a higher quality than most of the open space in established areas. Intercept surveys identified that there are relatively low levels of use of open space in the established areas, compared to the growth areas.

Research from <u>Deakin</u> <u>University</u>⁴ identifies possible reasons for lower levels of use, including:

- A lack of diversity of facilities and open space character that appeals to the community.
- Poor visibility of open space due to lack of passive surveillance parks are provided at the back of developments or at the end of cul-de-sacs and the presence of dense shrubs at entries hides the park from view.

- Lack of path access to existing facilities such as shops and bus stops.
- Lack of trees and shade making a park hot in summer and unattractive for visitation.
- Lack of time commute times can impact the daytime available to exercise in parks and open space.
- Poor condition of facilities

 older play equipment and
 illegal dumping can reduce
 likelihood of visitation.

The prioritised program of upgrades to address the issues identified above will improve the quality of open space which aims to encourage greater levels of use by the existing and forecast community.



Playground in established area – Tradstan Drive, Tullamarine – Small playspace and seating, limited vegetation and tree canopy.

Date of last upgrade: 2005



Playground in the growth area – Longtan Avenue, Sunbury – open space next to grassland, with playspace shaded picnic area, pathways and trees and vegetation plantings.

Developed in June 2019.

3.3 CHALLENGES AND DRIVERS

Quantity and Distribution

To understand current access to open space a mapping exercise was undertaken. To do this, each park type was assigned a typical catchment area which shows how far people are likely to travel to access the park. This map has identified gaps in the provision of open space in parts of the established urban areas. "Gaps" means areas where people are not within an easy and safe 400m walk (i.e. without the need to cross major roads or railways) of any public open space.

Accepted open space planning principles identify that all residents should be able to easily walk to some public open space without the need to cross major roads or drive to reach them. A well distributed open space network, which includes linear spaces acting as connectors and trails, will help to address these gaps.

The assessment of distribution used a base benchmark of 95% of all dwellings to be within 400m of open space, in alignment with Clause 56.05 of the Hume Planning Scheme.

Currently, much of the growth areas are planned to meet the benchmark rate and are at various stages of development. There will be a need to guide provision of the proposed open space to ensure diversity of facilities are provided for in the planned open space areas across the PSPs.

The previous strategy anecdotally noted but didn't provide evidence for the gaps in the established precincts such as Broadmeadows, Campbellfield as well as the rural township of Bulla. There are currently no statutory plans in place to address these gaps. Consideration is also needed to connect the established and growth area parts of Greenvale to ensure equitable access to quality open space.

Noting that many of these gaps are due to historic planning patterns and residential populations adjoining industrial areas there is a need to focus on these areas as they have low canopy cover and are low socioeconomic areas, and open space is critical to support these communities in a changing climate. These areas will benefit from the increased access to

quality open space for the physical, mental, and social health of the community and the environment will benefit from locations with increased tree canopy and integrated water management.

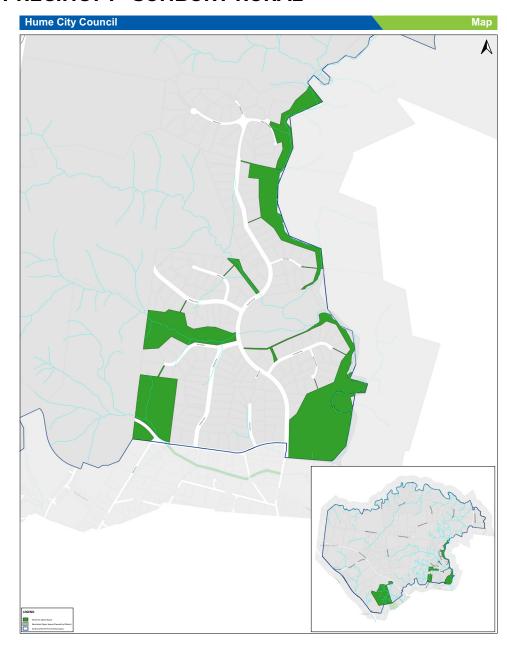
Well designed, quality open spaces in these gap areas will become

popular community meeting places and contribute to a sense of community and the ability for more residents to meet their needs locally. The strategy will recommend site specific options to address the gap areas in their precinct profile summaries.

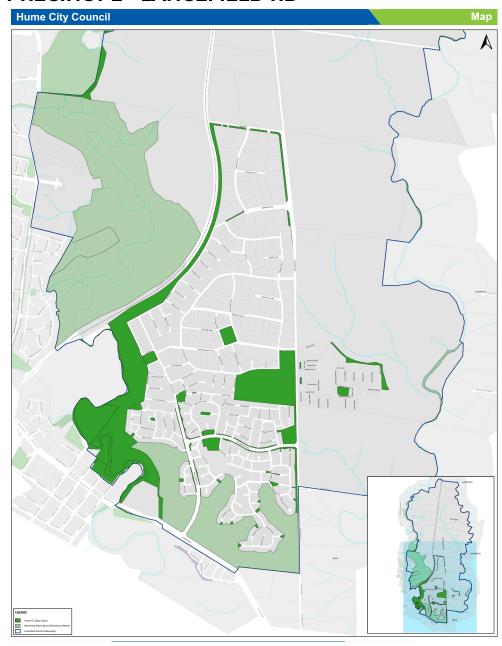
| Precinct Area | Percentage of residential properties currently within 400m catchment of urban areas | Comments |
|--|---|--|
| Precinct 1 – Sunbury Rural | | Not measured due to large lifestyle lots or rural lots |
| Precinct 2 - Lancefield Rd | 97.56% | Small local gaps identified |
| Precinct 3 – Sunbury Central | 99.6% | Planned to meet 95% benchmark under Lancefield Road PSP |
| Precinct 4 - Redstone Hill | 100% | Planned to meet 95% benchmark under Sunbury South PSP |
| Precinct 5 - Rural/Green Wedge (Bulla, Wildwood) | 40.4% | Inconsistent pedestrian accessibility (township lots were measured only) |
| Precinct 6 – Greenvale | 82.27% | Planned to meet 95% benchmark under Greenvale Central PSP. Consider connections between new and old Greenvale |
| Precinct 7 - Valley (including Tullamarine, Gladstone Park, Westmeadows and Attwood) | 96.7% | Small local gaps identified |
| Precinct 8 – Broadmeadows (including Jacana and southern parts of Meadow Heights) | 84.01% | Localised clusters of residences (#) gaps identified |
| Precinct 9 – Roxburgh Park (incl. parts of Meadow Heights north of Barry Rd) | 99.7% | Small, local gaps identified in Meadow Heights |
| Precinct 10 – Upfield (including Campbellfield and Somerton) | 71.91% | Localised clusters of residences (#) gaps identified High risk from the effects of a changing climate. Prioritise new open space in this precinct. |
| Precinct 11 – Craigieburn | 93.32% | Planned to meet 95% benchmark under Craigieburn West PSP, small, localised gaps around Craigieburn Golf Course and train station. |
| Precinct 12 - Merrifield | 76.26% | Planned to meet 95% benchmark under Merrifield PSP |
| Precinct 13 – Lockerbie | 32.29% | Planned to meet 95% benchmark under Lockerbie PSP |

Hume Precincts - Percentage of residential properties within 400m of open space

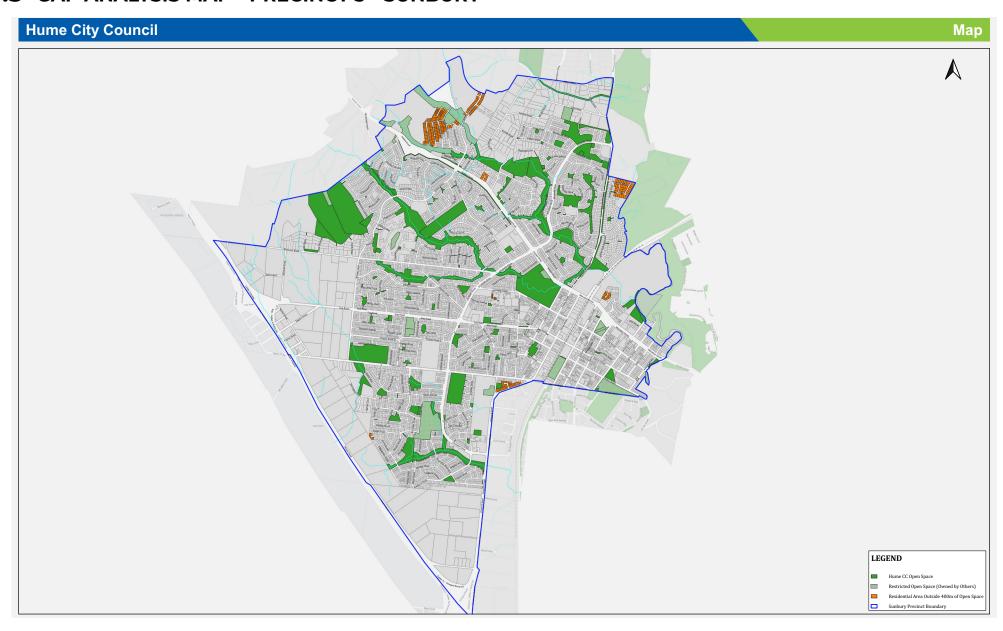
3.3 GAP ANALYSIS MAP - PRECINCT 1 - SUNBURY RURAL



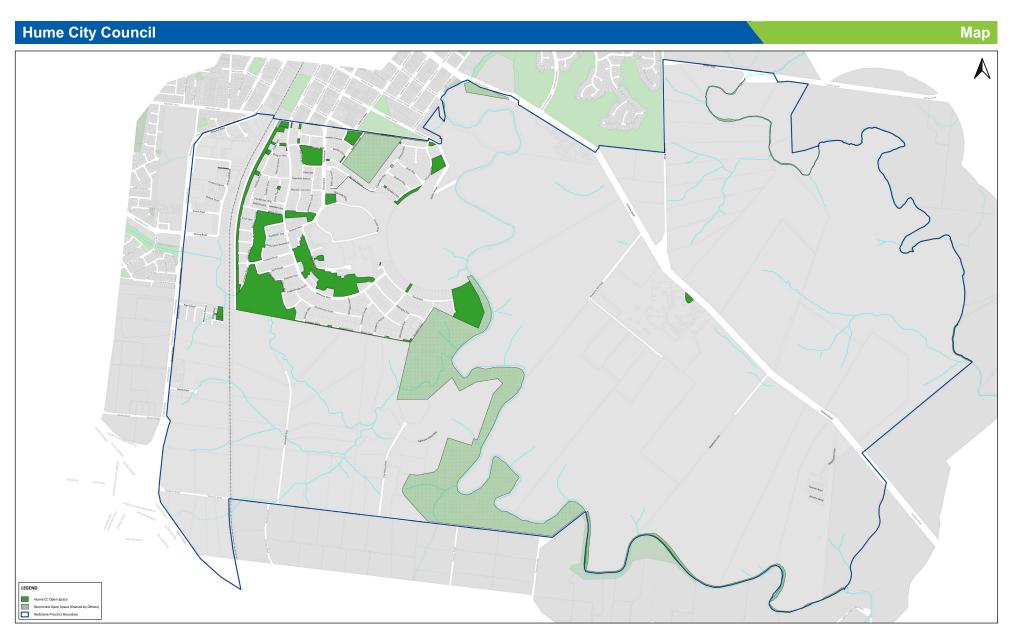
3.3 GAP ANALYSIS MAP - PRECINCT 2 - LANCEFIELD RD



3.3 GAP ANALYSIS MAP - PRECINCT 3 - SUNBURY



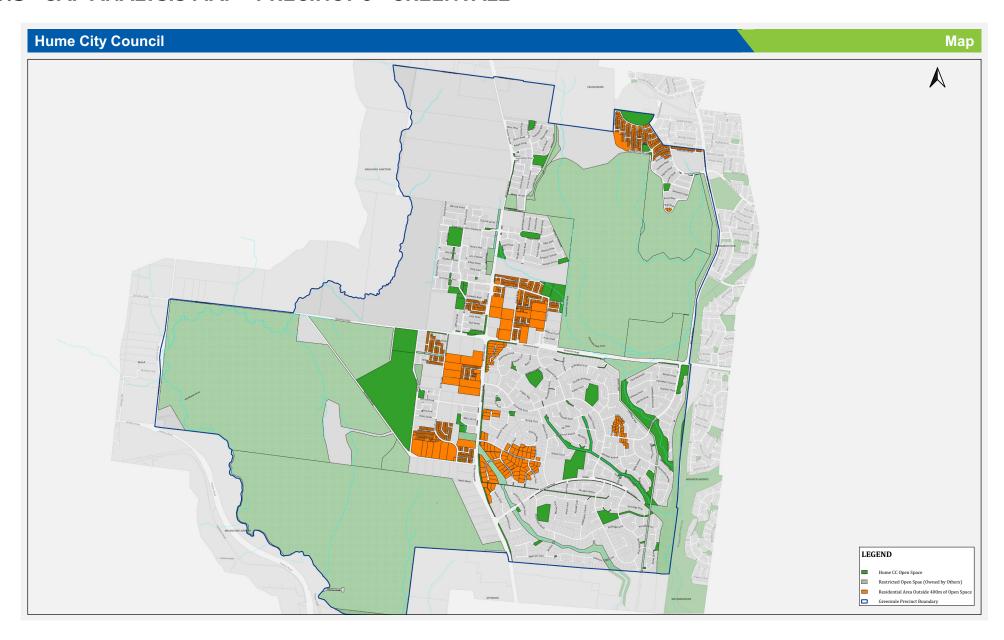
3.3 GAP ANALYSIS MAP - PRECINCT 4 - REDSTONE HILL



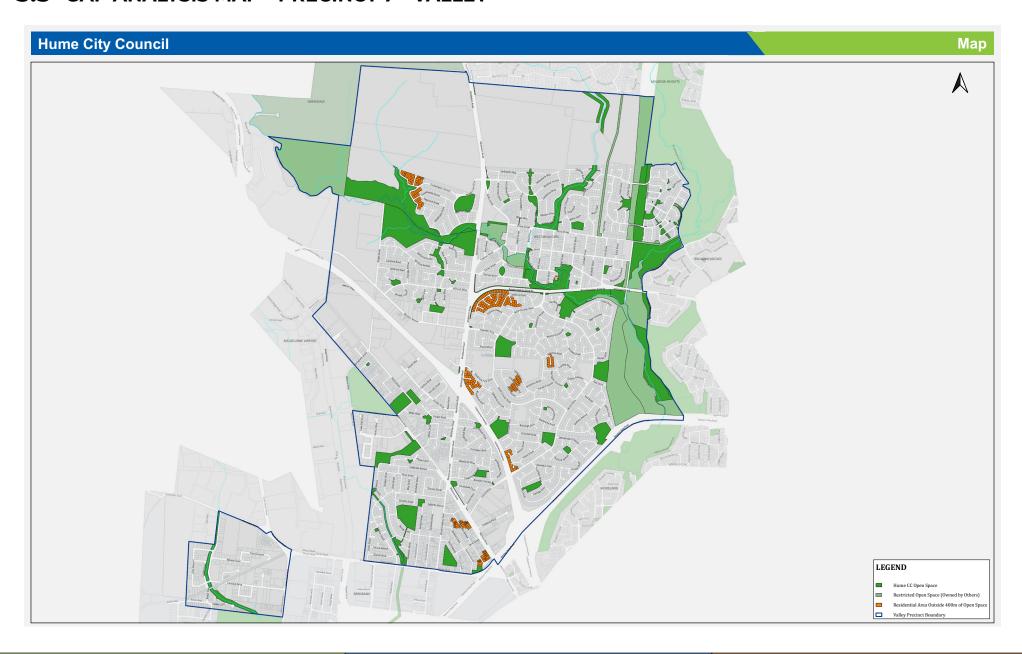
3.3 GAP ANALYSIS MAP - PRECINCT 5 - RURAL / GREEN WEDGE



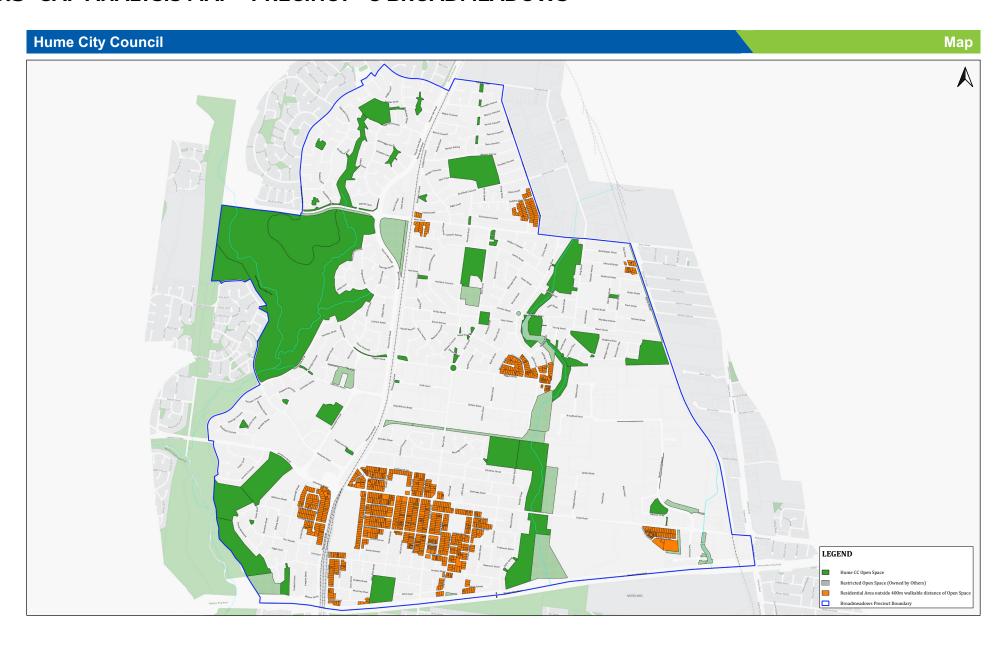
3.3 GAP ANALYSIS MAP - PRECINCT 6 - GREENVALE



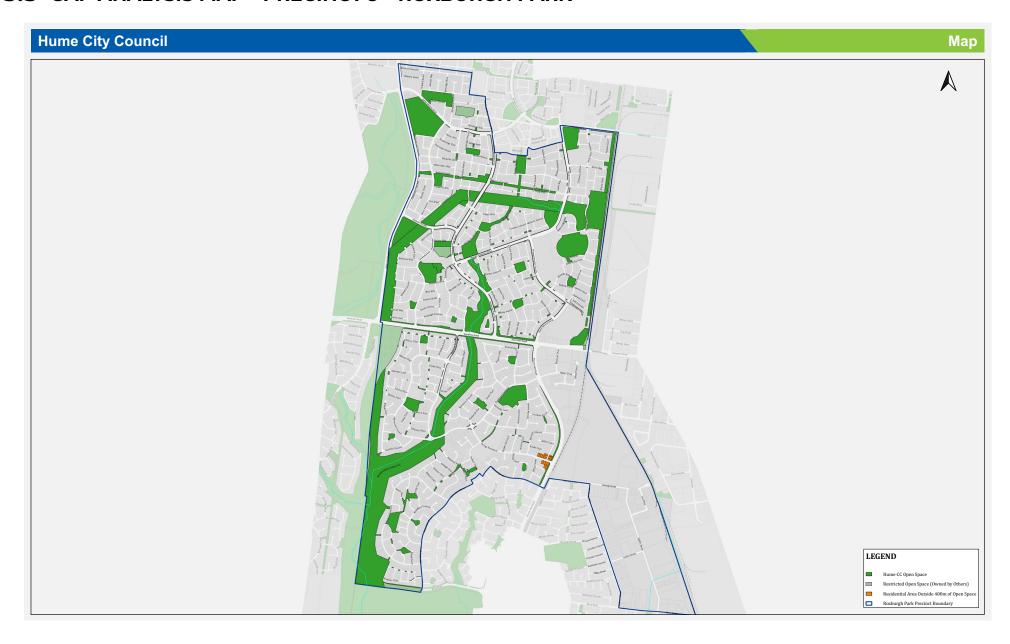
3.3 GAP ANALYSIS MAP - PRECINCT 7 - VALLEY



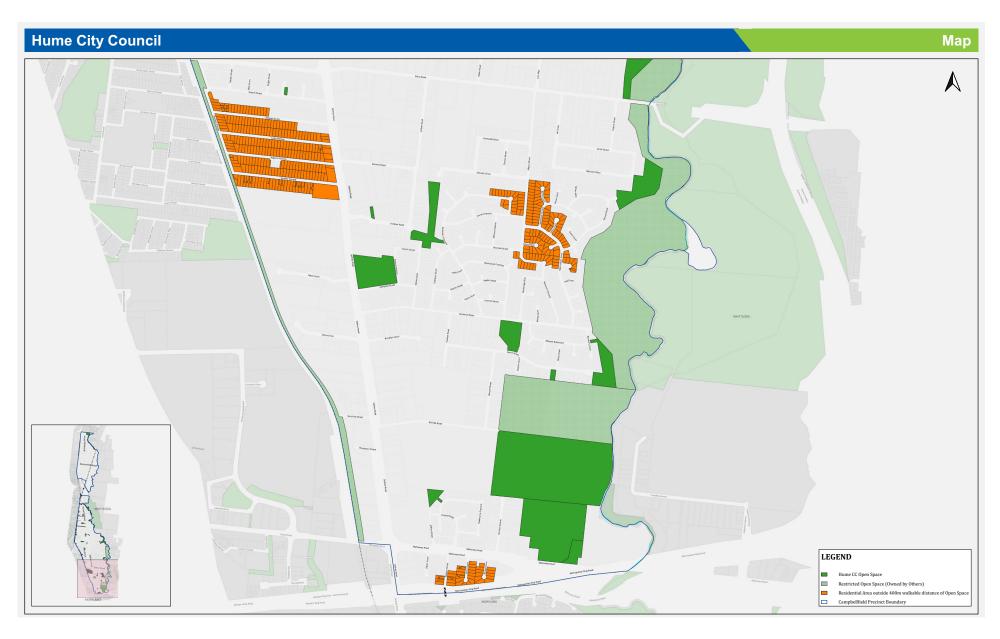
3.3 GAP ANALYSIS MAP - PRECINCT - 8 BROADMEADOWS



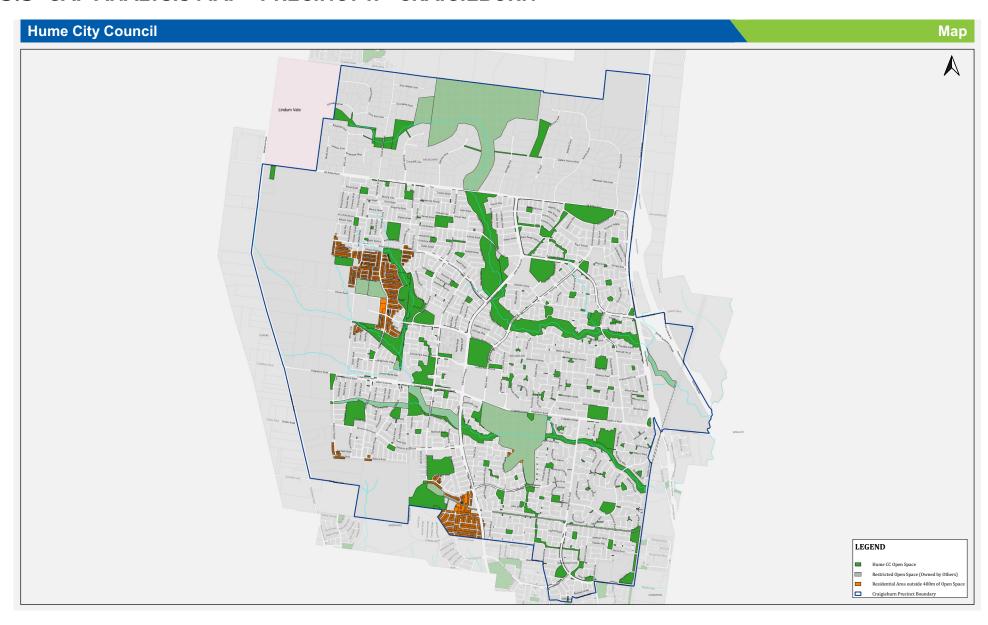
3.3 GAP ANALYSIS MAP - PRECINCT 9 - ROXBURGH PARK



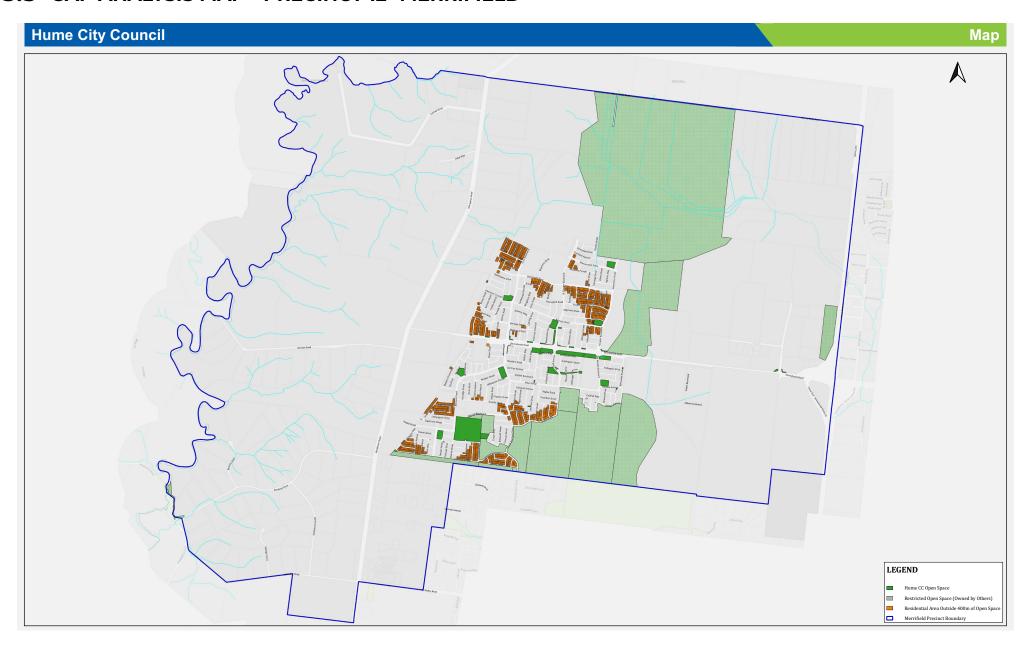
3.3 GAP ANALYSIS MAP - PRECINCT 10 - UPFIELD



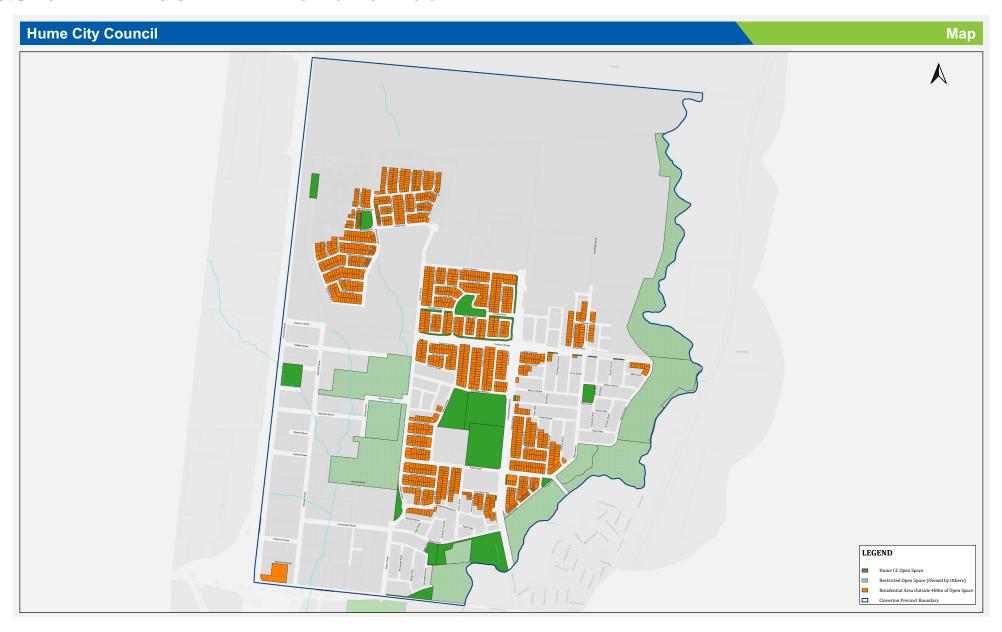
3.3 GAP ANALYSIS MAP - PRECINCT 11 - CRAIGIEBURN



3.3 GAP ANALYSIS MAP - PRECINCT 12 -MERRIFIELD



3.3 GAP ANALYSIS MAP - PRECINCT 13 - LOCKERBIE



3.4 CHALLENGES AND DRIVERS

Equity

Council's Social Justice Charter 2020 outlines that Hume City Council will:

- Improve standards of access and inclusion for all residents.
- Deliver policy, programs and services that support equity and fairness.
- Nurture opportunities for engagement and participation.
- Measure the advancement of social justice across Hume's policies, services, and programs to support rights and accountability.

It's important to note the distinction between "equality" – everyone is assumed to benefit equally from the same supports – and "equity" – everyone receives the support they need to enjoy equal benefits. In line with the social

justice charter, the strategy will seek to address equity of supply and quality. Programs, activations, and other initiatives can start to address social justice and can be undertaken wholistically within Council.

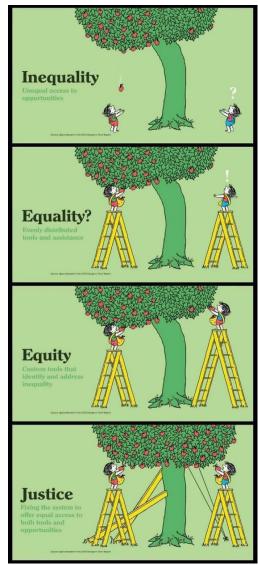
Equity mapping is an approach to understand open space provision. Best practice equity when planning an open space network looks at where efforts should be placed to reduce inequality in access to open space. For example, some precincts will need more park space than others to have the same feelings of access (for example, residential areas adioining industrial land, areas with poor connectivity due to curvilinear road configurations, isolated areas due to road and rail barriers and higher density areas).

What Does This Look Like?

Council's Community Plan has two guiding principles, Sustainability and Social Justice. In the pursuit of social justice, Hume City Council will deliver policy, programs and services that support equity and fairness.

Where open space planning is concerned, the Strategy communities with historically lower provision as noted in the previous section will be targeted with priority interventions to meet the current standards, as well as community needs and expectations.

Addressing equity should not mean reducing the quality of new open space created by developers in new greenfield areas. Instead, it could mean increasing the quality of park upgrades in established areas, considering other quality factors such as accessibility, safety, and landscaping, raising the budget for maintenance, and being proactive in response to changing community needs and expectations.



Source:https://dailyinfographic.com/difference-between-equality-equity-inequality-and-justice

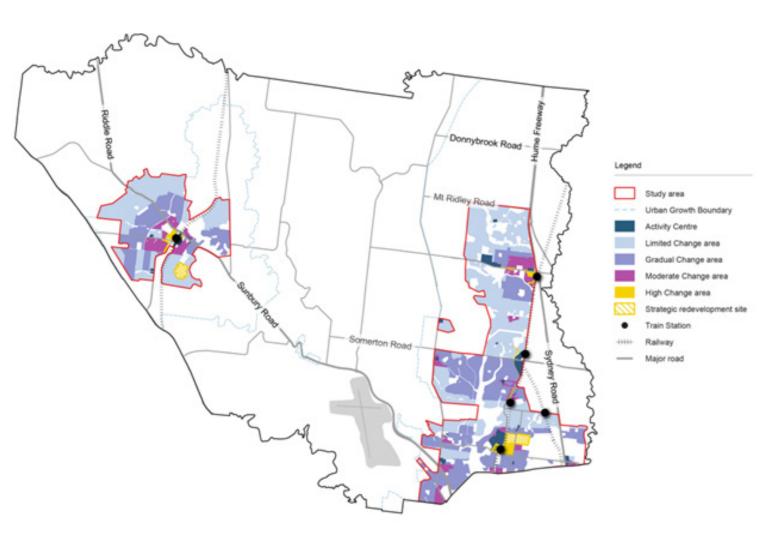
3.5 CHALLENGES AND DRIVERS

Forecast Population and Land Use Change

The forecast land use and population change will be used to guide the Open Space Strategy. This will be based on the Hume City Council's Housing Diversity Strategy June 2020 which sets the framework for forecast infill growth in the established urban areas, with a focus on Broadmeadows, Craigieburn and Sunbury activity centres.

There will be an increasing demand for smaller homes and construction of townhouses and apartments in the proposed higher density areas. All three of the locations proposed for increased density do not currently have a detailed plan to protect, optimise or grow open space.

Population growth and new suburban growth offers an opportunity to leverage new investment to provide improved access to quality open space experiences. Increased density does add pressure on open space but can also activate spaces as spaces become more utilised. The strategy can help Council advocate for open space that creates healthy, active communities in both existing and new areas.

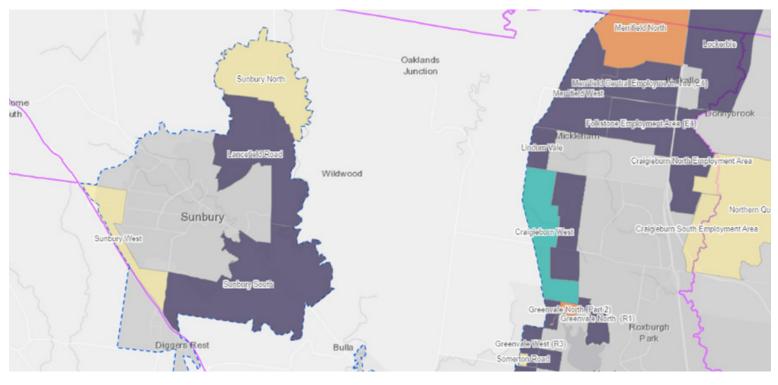


3.5 CHALLENGES AND DRIVERS

Forecast Population and Land Use Change

The Victorian Government in partnership with Hume City Council guides the planning for open space provision in the growth areas. The Open Space Strategy will provide quidance on the design and management of the new open space and the planning of the local open space network, in particular the design and function of new open space. The suburbs that will significantly grow over the period of the next Strategy include Mickleham, Kalkallo, Craigieburn, Greenvale, and Sunbury.

Hume has 21 PSP areas, with 13 completed (under construction now), 1 under preparation and 2 at pre-commencement stage. Five sites are unprogrammed. There will be a need for the OSS to inform open space connectivity into the future through these locations.



Population growth and new suburban growth offers an opportunity to leverage new investment to provide improved access to quality open space experiences. Increased density does add pressure on open space but can also activate spaces as

spaces become more utilised. The strategy can help Council advocate for open space that creates healthy, active communities in both existing and new areas.



3.5 CHALLENGES AND DRIVERS

Higher Population Growth Than Anticipated But Unevenly Distributed Across the Municipality

Some areas of Hume are expected to have increased housing density to accommodate a higher population. This will include increasing heights of buildings and an associated reduction in the size and greenness of private open space, resulting in less open space per capita.

The impact of this change may include, but not be limited to the following:

- The continued shrinking of private household open space raising the importance of public spaces for improved health and liveability (ie. biodiversity, productive gardens, incidental exercise, social gathering, relaxation, and mental relief and exercising pets). ⁵
- Increasing hard surface area

- likely to exacerbate the Urban Heat Island (UHI) effect.
- Vulnerability of new communities in heatwaves especially during power outages due to limited tree coverage.
- Changes in design standards for buildings interfacing with open space.
- Increasing use of public open space.
- Ongoing barriers or pressures where open space is of limited accessibility, or already under a lot of pressure.
- Challenges in providing appropriate natural environments for Hume's biodiversity and habitat corridors and particularly with increasing pressures from climate change.
- The availability of water to keep parks and open space green all year round and provide refuge on hot days.



Arena Recreation Reserve, Roxburgh Park

3.6 CHALLENGES AND DRIVERS



Meadowlink, Broadmeadows

Changing Needs

Increasing Obesity and Adverse Health Issues Within the General Population Linked To Lack Of Exercise

If nothing is done to improve accessibility to open space or improve access to informal active recreation opportunities this may contribute to adverse health outcomes, which significantly impacts already disadvantaged portions of the Hume community. ⁶

Increasing Mental Health Crisis

A recent <u>study</u> found that people who spent at least two hours in nature per week were consistently more likely to report higher levels of health and well-being compared to people who spent less time in nature.⁷

By improving people's access to nature on a regular basis, there are significant mental health improvements to be made. Conversely, in areas with poor access to nature and open space, mental health issues are likely to continue to worsen. This must not be limited to popular nature spots or tourist areas but be prioritised to areas where people who are commonly overlooked may benefit the most. Not only are parks and green spaces crucial for mental health and reducing inequalities, but quality spaces and green development are essential in the ongoing fight against climate change.

Changing community needs and expectations.

Community needs for recreation are changing. For example, over the past decade demand for solo recreational pursuits such as walking and cycling has been steadily increasing in comparison with team or organised sports activities. Council must weigh up investment in trails and multifunctional open spaces with needs for specific recreation uses like fields.

3.6 CHALLENGES AND DRIVERS

Increasing residential densities in the growth areas which are not being matched with commensurate increases in open space (i.e. lot sizes are now almost 50% smaller than they were 10 years ago, and houses can now occupy a larger proportion of the property) will result in less trees, gardens, and backyard pace on private land, and a higher number of people using the available public open space. The community may not have the open space it needs to meet physical, mental and social outcomes

In the growth areas, some property developers propose to provide smaller sized open space parcels within the residential development area rather than large parcels. Larger parks are considered to provide more functional benefit to local communities and can accommodate a broader range of infrastructure which promotes longer usage periods.

Impacts of infill development in the established areas have a

similar affect and require consideration of open space improvements in line with cumulative approvals of townhouses and apartments.

Need To Consider Women, Girls and Gender Diverse People In Open Space

Females are underrepresented in parks, even when mothers taking young children to the playground are included in total park usage numbers. Safety in public space is a massive concern for women and gender-diverse people, with big impacts on health and well-being. Places where specific sectors of the community are reluctant to exercise, play and connect play are not inclusive.

According to the Australia Institute, 87 percent of women have experienced at least one form of verbal or physical harassment in public. For many women and gender-diverse people the stress and anxiety that comes with this harassment negates the physical and mental

health benefits of using open space. This prevents many from developing stronger social connections and a sense of belonging.

With the implementation of Victoria's Gender Equality Act 2020, creating safe and inclusive spaces for women and gender-diverse people is a priority statewide.

Provision and quality of amenities such as public bathrooms, lighting and pathways are key to improving sense of welcome for all. The "desired standards of service" included in the strategy will facilitate a consistent approach to where and how these amenities are provided.

Busy, activated parks which are designed to facilitate clear sightlines and open street frontages are safer places to be. Prioritised upgrades and redesigns at parks which are not designed this way, alongside increasing population density and therefore use of parks, will all aid in improving sense of safety.

Training, resources, and appropriate community engagement will be needed to ensure Council meets the requirements of the Gender Equality Act. The impact of this is better planned parks and open space for all people in Hume.



Seth Raistrick Reserve, Campbellfield

3.7 CHALLENGES AND DRIVERS

Changing Climate

Increasing demand for space for team sports combined with pressures with maintaining sports grounds in a changing climate ⁸

Hotter drier conditions in combination with increased frequency of extreme weather events are a challenge for maintaining fields and playing of sports.

The continuation of existing sports with no consideration of how the future of sport should be planned for and managed would lead to an inadequate provision of sports. The multiuse of sportsfields and a change of sports could assist in the management of the actual fields. There is also a need to consider integrated water management and opportunities for increasing tree planting to assist in creating cooler, shaded sports environments

Likely impacts of climate change and the urban heat island effect

As the climate changes Hume will experience more extremely hot days on average, as well as general issues of lack of water, need to maintain greenery, and provide a refuge from heat.

More green space and enhanced tree canopies are needed to reduce the impact of higher temperatures and the urban heat island effect due to climate change. Trees and vegetation have a cooling effect which cools the surrounding local environment and provides refuge for biodiversity and often people during heatwaves.

Additional considerations including shading playgrounds with trees and shade structures, using and requiring materials that reduce the urban heat island effect, integrated water management and considering the availability of drinking water

in open space all need to be considered to enhance resilience to climate impacts. A strategic review of shade provision and resilience of open space to climate impacts is required across the municipality to address increasing concerns relating to urban heat and sun exposure.



Centennial Park Drive Reserve, Craigieburn

3.8 CHALLENGES AND DRIVERS

Land Administration Challenges

Protection of open space for current and future generations

A review of open spaces across the municipality is required to ensure that land currently utilised for open space is zoned appropriately (i.e. PPRZ) to ensure its protection and retention for that purpose in perpetuity. Currently one third (#%) of open space is not zoned for this purpose.

Loss of other government land being used as open space

Land owned by other authorities such as schools, Victrack, Melbourne Water and Vic Roads is often used as open space by the community.

The loss of valuable green space that has historically been used by residents as open space, or the loss of remnant vegetation, may reduce the ability to provide passive recreation opportunities and effectively manage climate change impacts. Council can advocate for retention or transfer of property where there is a shortfall or an ongoing community expectation that the land is available for open space purposes.

Loss of buffers between residential and industrial land use as the value of land increases Planted tree buffers between industrial and residential areas are being lost to expanding development, due to the value of land and lack of planning mechanisms to secure the buffers. These buffers provide a benefit to the community in terms of air quality, noise, amenity and urban heat mitigation that cannot be easily replaced.

Loss of open space from illegal private building/garden encroachment, particularly along creek corridors.

Where open space is lost to illegal private gardens, buildings, or industry there is a negative impact on the community and the environment, creating barriers

to access, reducing the quality and amount of public open space and degrading environmental values. If not regulated and prosecuted this will continue to occur and in some cases may present significant barriers to the delivery of significant creek corridor open space, such as the Merri Creek Trail.

Inconsistent application of shared use agreements

Shared use agreements are often in place with schools to facilitate school use of Council open space. A review of shared use arrangements, which prioritises the needs of the wider community, is required to determine the needs of stakeholders.



Jacana Wetlands Jacana

3.8 CHALLENGES AND DRIVERS

Competition for open space land

A critical issue for open space is the incremental loss of open parkland to indoor sporting facilities, other community facilities and car parks. There is often pressure to find locations for new facilities and respond to residents' concerns about on-street parking and provision of community facilities such as men's sheds and community gardens. While some of these uses have significant community benefit and can activate places, the reduction in open space available for other public uses or passive recreation can also be an issue or source of dispute.

There is also an increase in dog ownership placing pressure on smaller open space areas across Hume to provide for on-leash and off-leash opportunities. The current planning provisions allow for a wide range of permitted uses within open space. There is a need to consider multifunctionality of open space, but only if the functions are complementary to the primary function of the open space without reducing the available land for open space purposes. Poor quality or under-used open space should not be reasons for considering open spaces for other purposes.

It is critical for council to commit to protecting open space and to seek alternate sites for infrastructure, particularly if they do not relate to open space activities. Built infrastructure and buildings in open space should demonstrate how they contribute to the recreation or conservation values of the reserve before the use is accommodated in the space.

New public open space maintenance

Each year there are increasing costs to maintain land set aside for parks, open space, and conservation. As a growth Council, Hume's open space network grows every year as new areas develop. Developers are responsible for the first two years of maintenance, but once this period is complete, maintenance is handed over to Council. In the established areas, maintenance responsibilities are handed over earlier.

Once new sites are incorporated into the open space network, maintenance levels are applied in accordance with the scale and function of different types of open space.

Higher levels of maintenance will be prioritised for the sites that are more highly utilised, and provide a broader range of functions to the community.



Golden Sun Moth Park, Craigieburn

Open space planning is beginning to take a new direction. While people still value their local recreation park and the green escape they provide, many contain the 'kit playground', often described as boring, lacking in creativity and too safe. There is a growing trend towards more challenging and imaginative play for all age groups at the one location.

Challenging Play/Managed Risk

Play spaces aim to offer a safe environment balanced with challenges. A play environment that offers no risk will not provide stimulating learning experiences for children. Play offers children the opportunity to test themselves, to explore, and to make decisions for themselves, which instils confidence and resilience.

It is not always possible to provide a substantial range of stimulating play in Local or Neighbourhood play spaces due to the available land, and the need to balance the use for play with other uses such as picnics, quiet contemplation, or urban forest planting. Therefore, recent trends in open space provision have moved towards investing in major play facilities, with additional built-in challenges

for managed risk-taking. These facilities may take the form of high rope structures, climbing walls, water play areas, and play within natural surroundings.

These sites are best located where there are connections to trails, adequate room to allow for large numbers of people, carparks, BBQ and toilet facilities, and plenty of space to spill out from the formal play into surrounding grass areas to



Jack Roper Reserve, Broadmeadows

allow people of all ages to run around, kick balls, gather in groups, and generally enjoy the wider open spaces. Siting these major play facilities in large, regional open spaces rather than neighbourhood spaces also allows neighbouring properties to retain the quiet enjoyment of their homes.

Existing Regional open spaces such as Jack Roper Reserve, Galaxyland, or Golden Sun Moth Reserve may be appropriate to further develop to provide additional challenging play equipment and experiences. These spaces have existing amenities which can be expanded on to attract a broad range of community members to spend extended periods of time.

Constructed water play is often requested in open space. The provision of this element would need to consider the environmental and financial aspects of reticulated water systems. The use of potable

water for water parks would not meet Council guidelines for sustainability, and responsible use of resources.

Nature Play

Nature play is an emerging trend particularly in urban environments, where access to nature is not as readily available.

Residents and visitors should be encouraged to engage with their natural environment.

Awareness of the benefits of children's contact with nature is also growing, and many councils are embracing the concept of developing nature playspaces within their parks and bushland reserves, as Hume has done in recent years.

More natural play elements should be developed in conjunction with traditional playspaces across Hume, and opportunities should be sought to encourage the appreciation of and interaction with the natural landscape within Hume's

waterway corridors, through walking and cycling connections and interpretive signage.

Balancing local needs vs Hume as a destination ¹⁰

There is a need for the OSS to consider what locals need compared to the visitor economy agenda. The concept of liveability overlaps across both considerations, and the visitor economy is also an important catalyst for new capital investment and infrastructure, both public and private. Improvements to local walks, town amenity, parks and playgrounds improve the area for both visitors and locals.

While some infrastructure is principally for visitors, much is used by both locals and visitors and creates greater community liveability. Council should first seek to address local everyday needs of its residents, which should flow over into meeting the needs of the visitor economy.



Wanginu Park, Jacksons Hill. Source: http://gbla.com.au/project/wanginu-park/

Impacts of technology

Technology available for park management and interaction is improving rapidly. Smart lighting which responds to movement or is programmed in advance, energy generation (solar panels) integrated into park furniture, locks which allow unlocking via an app available to community user groups, and interactive public art are all becoming common in open space.

Active gaming is becoming a contemporary approach to exercise. In technology-based games, participants are engaged in physical movement by using their bodies as the controllers (while increasing their heart rate and burning calories). There are also increasing opportunities for the use of technology within recreation areas including WiFi access in key parks, encouraging the promotion of Hume's open spaces through social media,

recording temperature variations between shaded and unshaded spaces, promoting existing geocaching and by using QR codes on tracks and signage.

Changes from formal to informal sport

For several years, it has been recognised that lifestyles, patterns of work and importantly, ways of participating in sport, are changing. For many people, the rigidity, time commitment, structure and competitiveness of formal sport is increasingly unappealing and inaccessible.

Residents of Hume, and in particular young people, are opting to participate in unregulated and flexible opportunities that align with their evolving lifestyles. Participation is thus being negotiated to better match abilities and interest, to have a greater focus on health,

restoration, and the body, and to further enhance social connectivity. This includes things like an informal game of soccer or basketball at the park, fitness classes in the park and skating in car parks.

Organised sport plays a significant role in the development of young people and supporting community connectedness, participation and health. It is noted that organised sport provides opportunities for a small portion of the Hume community to be active.

Opportunities to ensure open space is flexible and multifunctional are therefore increasingly important. There is a need to provide a range of options for people to get activewhich are flexible for people to be active around the rigours of their daily routine, and that are adaptable to the different stages of people's lives.

Increasing affluence and expectations of recreation

As a society, Australians are becoming more affluent - the proportion of income being spent on recreation goods and leisure is increasing. Whilst outdoor recreation equipment such as kayaks, mountain bikes and camping goods may have previously been considered too expensive for many in the community, discount department stores are increasingly offering affordable options.

As people spend more money on outdoor recreation and associated equipment, an increase in outdoor recreation activities by individuals has been observed. Previously, these activities were associated with commercial operators. As such, demand is increasing for a diversification of natural areas offering unique experiences and higher levels of infrastructure.



Broadmeadows Town Park, Broadmeadows

What this means for Hume:

- Open space and play need for more creative, challenging and natural play elements.
- Informal recreation and physical activity – continue to develop recreation facilities attractive to all ages and abilities – establish quality walk/cycle loops at key locations (e.g. around lakes, along creeks and rivers).
- Recognise a move away from traditional sport and consider improving opportunities for informal sport, including added senor lighting in some locations to allow for afterhours use of

- facilities such as half court basketball, community tennis courts, outdoor gyms and soccer goals.
- Outdoor recreation in addition to traditional sport planning and development, investigate opportunities to assist residents and visitors seeking outdoor recreation experiences (even where these may be on land outside Council's direct control). This could include canoe and kayaking and recreational fishing at Spavin Lake and other large water bodies not impacted by conservation considerations.

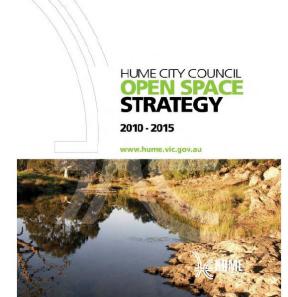
Status Of The 2010-2015 Open Space Strategy

The Open Space Strategy 2022-2032 has involved a review of the 2010-2015 Open Space Strategy to consider directions and projects in the earlier strategy that are still relevant and to ensure that future directions are consistent with previous longer-term priorities.

A considerable number of the strategic directions in the 2010-2015 Open Space Strategy are still relevant as highlighted on the following pages and summarised below.

- There is a need to address gaps in open space provision in some areas and provide diverse open space in the growth areas.
- There is need to improve the quality, design and function of existing assets.
- Master Planning of district and regional parks is necessary.

- Quality play, youth and picnic facilities are a priority.
- Sportsgrounds and outdoor courts should be developed and managed through a hierarchy approach.
- Stormwater management and water management are a priority in a changing climate.
- The natural environment and enhancing biodiversity are very important in a changing climate.
- Open space connections and the creation of walking and cycle networks are essential.
- Partnerships with schools and community groups continue to be required.



Hume City Council Open Space Strategy 2010 - 2015

The new open space strategy provides an opportunity to consolidate and prioritise these elements. Many of the items above will be reflected in the revised Open Space Strategy 2022-2032, although they will be presented in a more concise and coordinated manner

In addition, the 2010-2015 Open Space Strategy provides a very clear direction on which reserves are a priority for certain improvements and this information is still relevant and will therefore be reflected in this Open Space Strategy 2022-2032

Open Space Strategy 2010 -2015 achievements

Key deliverables from the open space strategy have been assessed from 2010-2020 and primarily undertaken across the organisation by the former Departments Strategic Planning, Subdivisional Development, Urban and Open Space Planning, Sustainable Environment, Leisure and Parks:

- The 2010-2015 Open Space Strategy played its role in assisting to secure open space in the growth areas of Council and helped Council to secure over 300ha of open space via Precinct Structure Plans (PSPs).
- Over 100 local and neighbourhood parks have been designed and delivered by the Subdivisional Development department across all PSP areas over the past 11 years.
- Many kilometres of creek restoration and shared path networks have been secured through the Subdivisional Development department across all PSP areas over the

- past 11 years. Key projects include Malcolm Creek, Aitken Creek, and Merri Creek, as well as shared paths along key connector roads.
- Advocacy and active management of conservation reserves by the Sustainable Environment team has secured significant tracts of remanent vegetation across the municipality through the PSP process.
- 90 neighbourhood park upgrades, ranging from playspace only to full replacement upgrades have been delivered in the past 10 years across all suburbs.
- 19 subdistrict parks
 (including some with
 sporting infrastructure) have
 been upgraded across the
 suburbs of Broadmeadows,
 Jacana, Meadow Heights,
 Campbellfield, Dallas,
 Gladstone Park, Greenvale
 and Tullamarine.
- 10 district parks have been upgraded across the following suburbs in the past 10 years - Broadmeadows,

- Craigieburn, Gladstone Park, Meadow Heights and Westmeadows.
- Significant hilltop parks have been planned in partnership with the development industry including Mt Ridley and Mt Aitken Hilltops.
- Incremental Regional Park Upgrades to Jack Roper Reserve in Broadmeadows and Galaxyland in Sunbury to a combined value of \$2.4 million, in line with long term masterplans.
- Masterplans completed for Town Park Broadmeadows, Seabrook Reserve, Broadmeadows and Progress Reserve, Coolaroo
- Completion of Meadowlink Linear Park in Broadmeadows, and securing a new future neighbourhood park at Nicholas Street, Broadmeadows.
- Completion of Town Park Broadmeadows in 2020, in line with the masterplan.
- Securing the Jacksons Creek Regional Park and Upper Merri Creek Regional Park in partnership with

Department of Environment, Land Water and Planning, Parks Victoria, Melbourne Water, Greater Western Water, and Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation.

As open space planning evolved in the growth areas, additional projects were directly managed and delivered by Council's Leisure team (predominately district active open space) over and above what was outlined in the previous open space strategy.

- Regional Tennis facility at Craigieburn
- Hume Hockey
- Anzac Park, Craigieburn
- Toyon Road, Kalkallo

These projects were influenced by:

- Development patterns in the growth corridor and Precinct Structure Plan requirements;
- Outdoor Sports Plan;
- Community Consultation; and
- Masterplans

Needs Assessment -Precinct Approach to Open Space Planning

In accordance with the Planning Practice Note 70, due to Hume's size and the impact of growth area planning, the municipality has been broken into 13 precincts.

This allows for an analysis that includes:

- preparing an inventory of open space, including land ownership
- preparing a GIS open space mapping layer
- applying an open space classification system on the existing assets
- identifying walkable catchments around the open space – using actual walking, not just circles (for example PedShed).

All of this work has been undertaken and is available online on Hume's Intramaps GIS system.

– Link is here: Hume > Council Strategies. Extracts of these maps

will be provided as part of the draft Strategy.

A Preliminary Needs Assessment Has Been Undertaken Which Considers The Following:

Gap Analysis

Once an understanding of the existing supply and demand gaps and opportunities for improvement were identified. These included:

- analysis and mapping of existing open space, and the function of the open space
- assessment of the demographic profiles, population growth and dwelling density, and the implications these inputs have for open space provision and design, in terms of participation, demand and benefits
- identifying the Walkscore of each area. Walk Score is a method for calculating a rating (from zero to 100) for

- a given address, based on the walking distance from that address to a variety of key amenities that a typical person needs on an average day.
- identified urban forest gaps and urban heat island mapping.

Demand Analysis

The project team has undertaken an assessment of the current and likely future demand for open space across the 13 precincts. This included:

- existing demand and use (if known)
- analysis of possible changes in the population from projections, demographic and socioeconomic profile, cultural mix and review of dwelling densities/development pressure
- determination of the likely participation in organised sporting activities and demand for these and other types of facilities and open space.



Craigieburn Gardens, Craigieburn



Emu Bottom Wetlands
Image: Friend of Emu Bottom Wetlands (Facebook)

Precinct 1 - SUNBURY RURAL

Identified Gaps

 40.4% of properties are within a 400m walkable catchment of open space

Open Space Needs Assessment Summary

There is good network of open space in this precinct however all play opportunities are further to the south. Further consideration to be given to an appropriate location for play in this precinct.

Given the biodiversity assets in this locality, there is a need to create connections between existing open spaces, to create habitat corridors. There is an opportunity to provide walking paths where it does not conflict with natural habitat management and Cultural Heritage values.



John McMahon Reserve

Precinct 2 - LANCEFIELD ROAD

Identified Gaps

 99.6% of properties are within a 400m walkable catchment of open space

Open Space Needs Assessment Summary

Open space provision has been planned well, with no walkability gaps identified. Connections will be needed between the Jacksons Creek bilk wurrdha Regional Park, Sunbury town centre and the growing Lancefield Road corridor to increase access to a diverse range of open space opportunities.

The quality of open space, opportunities for walking circuits and increasing tree canopy across the open space network would greatly benefit this precinct.

Connections across Lancefield Road will be needed to ensure the new and old communities within this precinct integrate over time.



The Nook Imaae: Mamma Knows West

Precinct 3 - SUNBURY CENTRAL

Identified Gaps

• 97.6% of properties are within a 400m walkable catchment of open space

Open Space Needs Assessment Summary

An open space gap has been identified at Vineyard Road (30 lots). This gap will be addressed when new open space comes online as part of the Rosenthal development. Improvements around this area such as footpaths would improve overall pedestrian accessibility to new open space.

Gaps identified in the Canterbury Hills area will be addressed when planned open space comes online through development

A small shortfall (10 lots) has been identified near Evans Street Grassland, which is a conservation reserve, so not fully accessible open space.

Urban Forest can be increased along street corridors and within council owned reserves.



Jacksons Hill

Precinct 4 - REDSTONE

Identified Gaps

 100% of properties are within a 400m walkable catchment of open space

Open Space Needs Assessment Summary

A network of open space will be required to provide a range of uses to support residents to maintain their physical and mental health and wellbeing. Open space will also be required to increase urban forest in this precinct as it is highly vulnerable to extreme heat events.

As new open space comes online as part of the Sunbury South PSP implementation, these parks will need to provide for increased social recreation opportunities, as well as active sport.

There is also an opportunity to maximise the amenity and value of some encumbered open space (such as drainage and powerline easements) through the provision of shared paths, and other appropriate recreation elements such as picnic seating and off leash dog areas.



Bulla Recreation Reserve
Image: Hume City Council

Precinct 5 - RURAL & GREEN WEDGE

Identified Gaps

 40.4% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

Bulla was a rural township and still provides a local service centre to the surrounding Green Wedge made up of lifestyle lots and small farm holdings. However, due to the proximity of the airport, it has the potential to become a tourism precinct. This requires a larger strategic planning exercise for the township.

The Bulla Recreation Reserve and surrounds which includes the Bulla Railway and Alister Clark Memorial Rose Garden, is the main open space in the precinct. It is subject to an upcoming master plan which will consider a range of upgrades and visitor amenities.



Napoli Park

Precinct 6 - GREENVALE

Identified Gaps

 82.3% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

Open space in Greenvale is characterised by large conservation open space areas, in particular Woodlands Historic Park (managed by Parks Victoria) and Greenvale Reservoir Park (managed by Melbourne Water and Parks Victoria).

Greenvale Recreation Reserve provides for sporting and social recreation uses which has served the community for along time, but is under pressure from increased demand. As the precinct has undergone renewal under PSPs, additional open space has been provided by new development, predominately local and neighbourhood open space.

The low density residential lots off Elphinstone Boulevard (of which 80 lots do not have walkable access to open space) have less pressure for public open space close to home, due to the large open space on their private property, but would benefit from improved path connectivity to open space.

High proportion of dog ownership requires suitable spaces for off leash and on leash dog play.



Tangemere Avenue Reserve Image: AdventurePlus

Precinct 7 - VALLEY

Identified Gaps

 96.7% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

Overall precinct meets the 95% benchmark, however due to differences in development patterns over time, there are localised shortfalls as noted below:

- Increase tree planting across all existing spaces to ensure a cooling affect across the suburbs.
- Heading north into Attwood, the quality of open space is reduced and there is a need to consider securing the Attwood Creek Linear Reserve between Attwood and Greenvale to protect its conservation values, and opportunities for linear walking connections.
- Discuss with the community the idea of reducing play on the small parks and creating larger parks with additional infrastructure.
- The small spaces themselves would remain and Council would increase tree planting, landscaping and picnic areas in these locations to reduce the urban heat impact across the suburbs.
- · Improve pedestrian connections across the suburbs.



Broadmeadows Town Park
Image: Hume City Council

Precinct 8 - BROADMEADOWS

Identified Gaps

 84% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

In this precinct there are 1711 lots without 400m access to open space. It also has low canopy cover, high vulnerability to heat and is the most disadvantaged area in Hume. Need to prioritise investment in open space in this precinct to address inequity, which is increasing with infill development and loss of backyard space.

To address this need, Council should consider:

- Securing additional land along the Merlynston Creek Corridor and enhancing social recreation opportunities along this corridor.
- Securing land for a neighbourhood park to the south of the precinct.
- Securing land for two local parks or a neighbourhood park near Camp Road.
- · Securing land for one local park in Jacana.



Murchison Square Image: Hume City Council

Precinct 9 - ROXBURGH PARK

Identified Gaps

 99.7% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

Encumbered land (drainage and utility easements) provide for much of of the open space network in Roxburgh Park, and include a reasonable path network.

Good supply of diverse local and neighbourhood parks with connections to the wider network by walking and cycling connections.

- Protect the open space legacy through rezoning and better management of encumbered land and conservation reserves.
- Optimise existing open space and improve overall quality as community needs change.
- · Grow the network by acquiring DHHS owned links.



Seth Raistrick Reserve Image: Hume City Council

Precinct 10 - UPFIELD

Identified Gaps

 71.9% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

There are four separated residential neighbourhoods in Campbellfield which severely impacts access to open space in the precinct.

High vulnerability and low incomes means the community rely on public open space more for their recreation needs, making this precinct a high priority for significant open space investment.

- Secure additional land for the Upper Merri Creek marram baba Parkland in the medium to long term
- Secure railway land at Barry Road for seating and recreational space adjoining the Fordgate Shops and continue a linear connection down Dunstan Parade
- Secure land for a new neighbourhood park between .75 and 1ha for Neighbourhood 1
- Secure local open space for Neighbourhood 2, at a minimum of 2000sam
- Reduce urban heat across the precinct (in particular in an east-west alignment) by planting trees within road reserves, where possible.



Golden Sun Moth Park Image: Warrandale

Precinct 11 - CRAIGIEBURN

Identified Gaps

 93.3% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

The older open spaces in Craigieburn will require a refresh in coming years to meet community needs and expectations, especially in areas where redevelopment is likely to occur.

Craigieburn is well served by sporting infrastructure, so increased provision of social recreation, walking and cycling connections and access to natural areas should be the focus of investment. Opportunities already being investigated include the Aitken Creek corridor, Yarra Valley Water land in the rail corridor and the eat-west pipe track.



Pinnacle Park
Image: Mamma Knows North

Precinct 12 - MERRIFIELD

Identified Gaps

 76.3% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

As most of this precinct was planned under the PSP process, it either has or will have almost all dwellings within 400m of open space once development is completed. The precinct is 26% open space, providing for sport, social recreation, drainage and conservation. Need to ensure the network is coherent, connects to adjoining precincts and provides a diverse range of opportunities.

Utilise linear drainage corridors to form a "green spine" of open space that ties together neighbourhoods and ensures walking and cycling access to the proposed Merrifield Town Centre and Kalkallo Retarding Basin.

Urban heat concerns indicate street tree planting, increased urban canopy, and smaller local parks where possible to increase the tree canopy across the precinct.

Increasing numbers of youth in the area will require a diverse mix of social recreation opportunities are provided.



Cloverton Entrance Reserve Image: Mamma Knows North

Precinct 13 - LOCKERBIE

Identified Gaps

 32.3% of properties are within a 400m walkable catchment of open space.

Open Space Needs Assessment Summary

This precinct has also been planned under the PSP process however as it borders Whittlesea and Mitchell, collaborative planning of creek corridors (in particular the Upper Merri Creek) and regional sports facilities is required.

Redevelop John Laffan Memorial Reserve to meet district needs for social recreation and play.

The former township of Kalkallo was not included in the Lockerbie PSP, so open space connections (including Crown land) are needed between the old township and new estates.

Urban heat concerns indicate street tree planting, increased urban canopy, and smaller local parks where possible to increase the tree canopy across the precinct.

4.4 DEMAND ANALYSIS

Benchmarking

The project team has benchmarked the open space in Hume against similar sized Councils.

| Council area | Municipal Area (ha) | Amount of open space (ha) | Population Now 2021 | Open Space per person | Open Space Strategy updated |
|-----------------|------------------------|---------------------------------|---------------------------|-----------------------------|--------------------------------------|
| Hume | 15,459 | 1,386 | 250,324 | 180 | 2010 |
| Melton | 20,701 | 1,070 | 185,471 | 173 | 2016 |
| Wyndham | 22,789 | 1,404 | 302,650 | 215 | 2016 |
| Whittlesea | 19,060 | 1,490 | 242,027 | 162 | 2016 |

Sources: Id forecast, VPA Metropolitan Open Space Assessment, Council websites

Across the entire municipality, Hume is currently on par for open space per person, compared to similar sized Councils. However, the distribution of open space per precinct tells a different story and open space supply in some areas is much lower, causing inequities across the municipality. The precinct profiles outlined in the supply section allow Council to better identify the priority locations for addressing gaps in the network.

Community Needs and Expectations - Consultation

A wide range of consultation has been undertaken to date, including the Parks Close to Home Survey, intercept surveys and the Community Vision work in 2020 with key themes that have been captured as part of the Open Space Strategy process.

Findings from the Community Vision Consultation (2020):

- Parks, gardens and the natural environment was listed by the community as one of the top 10 long term priorities for Council to plan for. The Open Space Strategy seeks to deliver a 10-year action plan to address this priority.
- A key element of the vision consultation was Living Local. Access to recreation, attractions, active spaces and beautiful outdoor places was identified as a key component of Living Local. The precinct plans are the first step to understanding what open space and recreation opportunities are available in each locality and the Open Space Strategy will seek to deliver on opportunities to improve these experiences, based on specific precinct needs.
- The community recommended a budget increase for Parks, Open Space and the Environment, voicing concerns with keeping up with growth. The Open Space Strategy will identify new opportunities for open space to address areas under pressure from urban growth.
- A number of suggestions were raised about quality improvements to parks, and these will be captured in the precinct profiles.
- Important aspects of parks were cleanliness, accessible public toilets, shade, greenery, lakes, increasing natural spaces and beautifying current spaces. The Open Space Desired Standards of Service will seek to address these issues.
- Many acknowledged and expressed appreciation for the parks that already exist in Hume and the Open Space Strategy will celebrate the great parks and open spaces in Hume.

4.4 DEMAND ANALYSIS

Findings from the Parks Close to Home survey (2021):

- 2000+ responses from residents from across Hume as well as workers and visitors who live elsewhere. 1994 valid responses.
- 88% of respondents walk to their park close to home (and only drive if they don't have a 'good' local park).
- Key reasons for not visiting a park close to home is there simply isn't one, or the quality doesn't encourage regular visitation.
 These responses came primarily from residents in Broadmeadows and Canterbury Hills (Sunbury)
- Top things people want to see in parks
 - o 79.9% of respondents want to see shade (from trees and structures)
 - o 66% seating/tables
 - o 59.2% equipment such as playspaces and swings
 - o More adventure play or challenging play, and a split between junior and senior play
 - o 4.53.3% Large grass open space (irrigated)
 - o 5.53.6 Better and more paths
 - o Lighting came in at 6th position (50.3%)

Findings from Park User Intercept Surveys (2021):

- 225 Surveys of people in 22 parks, conducted in November 2021.
- Average satisfaction 86%
- Most important park features: cleanliness, security, grass maintenance
- Most satisfied park features: Gardens/trees, paths/tracks, security
- Largest Service gap (where a feature is important, with low rates of satisfaction): Cleanliness, toilets, shade



Destination Park, Greenvale

5.1 KEY POLICY DIRECTIONS FOR THE NEW OPEN SPACE STRATEGY

Draft Vision

This background paper proposes an aspirational vision and strategic directions for open space for the next 50 years.

This draft vision considers what we aspire to create. At this stage, it is a conversation starter. It has been developed with Hume staff across a range of teams in a collaborative workshop in 2021.

Draft Principles

Principles are a tool to give structure to the open space strategy and create a framework to address Hume specific challenges.

Principles reflect the value of open space and the strategic context in Hume, seeking to align with the Metropolitan Open Space Strategy, Council Plan and adopted Urban Forest Principles.

Hume's high-quality open space network supports the health and wellbeing of our community and the natural environment in a changing

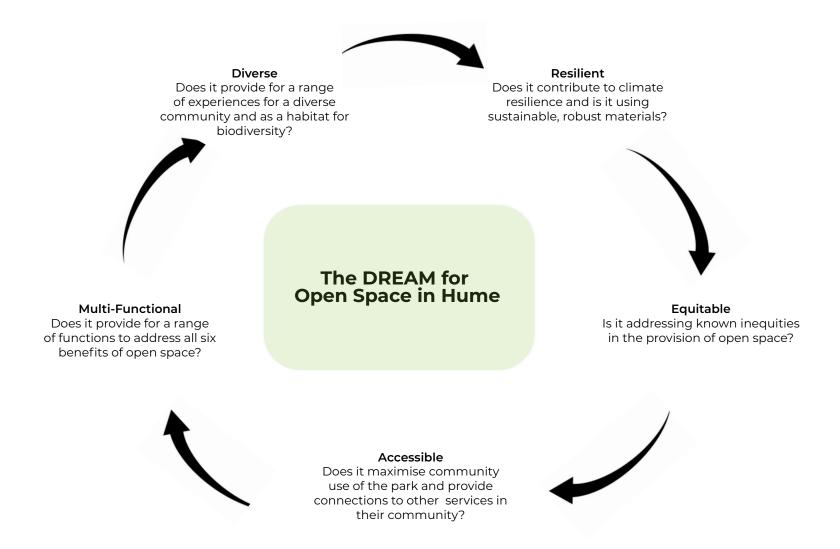


5.2 KEY POLICY DIRECTIONS FOR THE NEW OPEN SPACE STRATEGY

Proposed principles for the Open Space Strategy are outlined below and show alignment across the relevant documents.

| maintain our city with pace and a strong e live abil onsible and governance, services nat respond to needs spaincl City through efficient walking, cycling | quitable pen space in Hume will ensure access to a variety of pen space for all residents regardless of where they ve, their age, gender, income, ethnicity, education or bility. ulti-Functional pen space in Hume will be functional, seeking to alance the needs of the community with providing bace that offers amenity, comfort, safety and inclusion. ccessible | Aligns to UFP Principle 2 – Hume's Urban Forest contributes to equity and social justice for residents Principle 4 – Hume's Urban Forest improves the urban environment and contributes towards the identity and character of its neighbourhoods |
|--|--|--|
| governance, services balance spanning s | pen space in Hume will be functional, seeking to alance the needs of the community with providing bace that offers amenity, comfort, safety and aclusion. | the urban environment and contributes towards the identity and character of its |
| walking, cycling Ope | ccessible | |
| exp | pen space in Hume is accessible and well-connected etwork designed to enable people to enjoy a more xpansive open space experience and better protect iodiversity, reduce the fragmentation of habitat and approve conservation outcomes. | Principle 5 – Hume will protect and retain the existing urban forest, with heritage, indigenous and large old trees as a priority, while establishing the next generation of urban trees |
| | | Principle 6 - Hume's Urban Forest contributes to local biodiversity |
| mmunity that fosters Operation of the control of th | pen space in Hume enables diverse experiences by a iverse range of people by creating opportunities that low people to enjoy nature and connect with others | Principle 3 – Hume's communities value the Urban Forest in both the public and private realm, and participate in its creation and maintenance |
| nd stewardship and nate change. Open resi | pen space in Hume will be cooler, greener and more esilient to climate change. Biodiversity values will be rotected, enhanced, and well-integrated into the | Principle 1 – Hume's healthy and resilient Urban Forest improves the urban environment and responds to a changing climate Principle 7 - Hume will innovate and collaborate to be a leader in Urban Forestry |
| - | mmunity that fosters or deprive and safety. environmental and stewardship and ate change. | Open space in Hume enables diverse experiences by a diverse range of people by creating opportunities that allow people to enjoy nature and connect with others as part of everyday life. Resilient and Adaptable Open space in Hume will be cooler, greener and more |

5.2 KEY POLICY DIRECTIONS FOR THE NEW OPEN SPACE STRATEGY



5.3 KEY POLICY DIRECTIONS FOR THE NEW OPEN SPACE STRATEGY

Draft Key Policy Direction - Grow

Policy position: "Green space within a short walk, excellent recreation nearby"

Through:

- Providing a green space within a short walk from home, and a higher quality park (regional/destination) which provides recreation and sport opportunities within a short drive of all residents.
- Setting the accessibility target: 95% of all households to have open space within 400 walkable metres from their property boundary.
- Shift from 'play in every park' to focus on key neighbourhood open spaces with enhanced provision/diversity of experiences and sites identified by the community.
- Balancing the substantial cost and benefits of providing and maintaining 'destination' parks across Hume City by enhancing existing sites where possible.

Draft Key Policy Direction - Optimise

Policy position: "Addressing environmental equity across the established areas of the city."

Through:

- Utilising the precinct approach to consider localised assessment of supply, demand and need
- A strong focus on increasing urban forest and setting canopy targets per precinct
- Bringing up the minimum standard of green space across the city
- Activation of open spaces increased promotion and engagement programs ie Park Champions
- "Greening the North"

Draft Key Policy Direction - Protect

Policy position: "Establishing a sustainable funding model for provision, development and maintenance of open space."

Through:

- An action plan with allocated resources and funding to deliver a realistic but ambitious strategy over the next 10 years
- Appropriate resourcing to undertake forward planning and to ensure timely delivery of our capital works program
- Prioritisation
- Optimisation of % type/quality of OS
- Leveraging external funding
- Identifying and implementing alternate sources of funding i.e. Open Space Levy on residential developments and improvements (would mostly apply in established areas)

Mechanisms available for Council to secure additional open space include:

- open space contributions as a result of subdivision activity;
- conversion of other land uses to open space (both Council owned land and land owned by another government agencies);
- direct purchase of land by Council; and
- compulsory acquisition of land by Council.



Golden Sun Moth Park, Craigieburn

Open Space Contributions

Much of Hume's future open space will be provided through the implementation of Precinct Structure Plans in the growth areas. This strategy will explore opportunities to acquire additional spaces to address shortfalls in existing areas of the city to meet the needs of the forecast infill population and to address concerns regarding equity, access and quality of open space.

The locations and types of open space needed will be determined by applying the hierarchy and identifying which type of open space will address provision gaps in the open space network.

Where residential subdivision activities occur in existing areas of the city that has an identified shortfall or will cause a shortfall of open space Council could seek an open space contribution to be used to provide additional open space or to upgrade existing open space to meet future resident

needs. Developing this statutory mechanism is an important recommendation of this strategy along with developing an updated Hume Open Space policy to ensure that the Open Space Standards are integrated into the Hume Planning Scheme.

Partnerships

Council and the Victorian State Government could collaborate to clarify responsibilities for providing regional level active open spaces and to formalise the planning and use of active open spaces located within schools to better enable shared access and use by the community.

Council could identify additional or ongoing partnership opportunities with relevant state government agencies and public land managers regarding the identification, lease, use and development of their surplus land for open spaces including connectivity and trail opportunities.

Acquisition

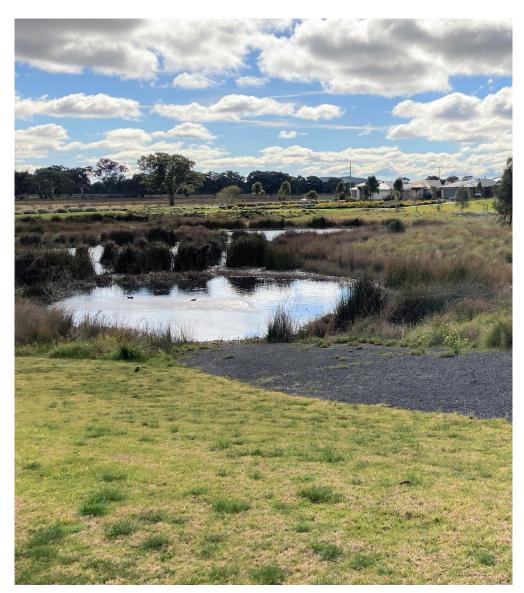
New park land may be required to meet gaps in the open space network, and to establish conservation connections along creek corridors, in particular Attwood Creek and Merri Creek.

Projects can be identified where new open space is to be acquired by Council and a new park infrastructure is to be delivered in line with the Desired Standard of Service relevant to the park type or an established Masterplan.

As the population grows there may be sites that require acquisition over time, (especially as the Housing Diversity Strategy is implemented) and these can be identified with a Public Acquisition Overlay.

Upgrading and reclassifying existing open space

This analysis has identified that supply and coverage of some open space types within each hierarchy level falls short of the desired service standard. Where it is not practical to secure additional land. upgrading some lower order parks to higher order standards consistent with the Desired Standards of Service may address needs. This approach is best suited to precincts with poor existing amenity. An assessment of each open space be should be undertaken using the Desired Standards of Service and, where the quality is considered inadequate. action be undertaken (where feasible) to upgrade each open space to meet these standards.



1110 Mickleham Road, Greenvale

Improving open space quality, use and safety

The quality of open spaces is important to how they are used and valued by the community. The existing Playspace Planning Framework and Reference Guide (2012) could be updated to ensure that open spaces are designed and managed to best meet all community needs, irrespective of age, ability, culture or gender.

Ensuring that future open space developments, upgrades and renewals are consistent with the hierarchy and embellishments outlined in strategy's Desired Standard of Service tables will ensure consideration and encouragement of physical activity, connectivity improvements, health and fitness, safety and social interaction.

Sufficient and sustainable upgrade budgets and resources

will be required moving forward to support these improvements.

Categorising these upgrades by type (scale, need, rationale) will ensure parks across the network are upgraded as needed in line with the Desired Standards of Service and this will allow Council to respond to community needs and expectations.

Immediate Response Upgrades

Similar to the Covid response program 2020-2021, these upgrades will consider minor changes to address small improvements in parks across the open space network. These can include but not be limited to minor path connections, seating, provision of shade, drinking water fountains and minor changes to playspace facilities. This will allow Council an opportunity for quicker delivery to respond to frequent community requests for these items

Further work will be required to consider:

- A Needs assessment for these items across all 13 precincts
- Site assessment to be undertaken to ensure it doesn't conflict other larger scale upgrades.



Anzac Park, Craigieburn

Minor Upgrades – Landscaping and Tree Planting

These upgrades will be considered for parks with little to no tree canopy coverage or landscaping. These upgrades will aid Council to meet its Urban Canopy cover targets. These projects can also be community tree planting opportunities.

Minor Upgrades – Playspace and Seating Only

These upgrades will be considered when the park has good landscaping treatment and only requires playspace replacement identified in the external playspace audits to comply with the Australian Standards. However, these will not be like for like replacements, they will need to consider changes in demographics and any changing settlement patterns in the surrounding area.

Major Upgrades – Landscaping and Playspace

These upgrades will be considered where the current facilities do not meet community needs or expectations and will be fully upgraded in line with Desired Standard of Service relevant to that park type.

Major Upgrades – Highly Embellished Parks, Including Water Play

Consideration of locations for increased play embellishments and potential waterplay will also be assessed as part of the assessment process within each precinct.

Off Road Walking and Cycling

Improving key connections from residential areas to open space and identifying new connections to improve walking and cycling access to open space and other local amenities.



Water play at Kalkallo

Activation Of Open Space

Parks with features suitable for the development of activation plans to address key concerns in each precinct can be identified. This can include but not be limited to health and physical activity such as classes in the park, Ride/Walk to School days, Youth Activations. Arts and Culture opportunities through murals and public art, as well as actions outlined in the Live Green plan such as tree planting days, Bush Kinder and Hume Xplorer. A staged approach to activation will consider the following:

- Stage 1 Support existing initiatives under the Live Green Plan 2021-2026
- Stage 2 Simplifying the process to use parks and remove barriers to allow community to be proactive in activating parks.
- Stage 3 Funding small grants for the community to undertake activities in parks.

On-site marketing, such as banners, posters, and signs, have proven effective at increasing park use and physical activity, and many cities are effectively using social media to connect people with parks. One study¹² found that park departments deploying these kinds of publicity saw a 62% increase in users and a 63% increase in physical activity.

Resourcing a promotion and marketing officer for Hume's parks and open spaces would return a significant improvement in physical, mental and social health outcomes. This role could also provide additional online resources such as access to interactive maps and userfriendly information on Council website and program social media content across all platforms regarding parks and open space, outside of consultation processes.

Resources for activating parks will be subject to appropriate operational budgets.



Lakeside Drive, Roxburgh Park

7.1 LINKS FOR FURTHER READING

WHO/Europe | Urban health - Urban green space interventions and health: A review of impacts and effectiveness. Full report (2017)

White, M.P., Alcock, I., Grellier, J. et al. Spending at least 120 minutes a week in nature is associated with good health and wellbeing. Sci Rep 9, 7730 (2019). https://doi.org/10.1038/s41598-019-44097-3

Greenspace could increasingly impact property prices https://thefifthestate.com.au/urbanism/planning/greenspace-could-increasingly-impact-property-prices/ Article published 28 April 2021

Planning Practice Note 70 – Open Space Strategies – June 2015 https://www.planning.vic.gov.au/_data/assets/pdf_file/0025/97333/PPN70-Open-space-strategies_Junes-2015.pdf

Metropolitan Open Space Strategy – Open Space for Everyone – June 2020 https://www.environment.vic.gov.au/suburban-parks/open-space-for-everyone

Hume Reconciliation Action Plan https://www.hume.vic.gov.au/
Your-Council/Governance/Council-Plans-Reports-and-Policies/
Council-Strategies-and-Plans/Reconciliation-Action-Plan-2020-2022

Housing Diversity Strategy 2020 https://participate.hume.vic.gov.au/a-home-for-everybody

Skate Scooter BMX Plan 2013 https://www.hume.vic.gov.au/Your-Council/Governance/Council-Plans-Reports-and-Policies/Council-Strategies-and-Plans/Skate-Scooter-and-BMX-Plan-2013



Craigieburn Gardens, Craigieburn

7.2 REFERENCES

- 1 Urban Green Space and Health A Review of Evidence, World Health Organisation 2017
- 2 Spending at least 120 minutes a week in nature is associated with good health and wellbeing | Scientific Reports 2019
- 3 Greenspace could increasingly impact property prices The Fifth Estate 2021
- 4 Project PARK https://www.deakin.edu.au/ipan/our-research/project-park
- 5 Urbanisation-Induced Land Cover Temperature Dynamics for Sustainable Future Urban Heat Island Mitigation (nespurban.edu.au)
- 6 Insufficient physical activity Australian Institute of Health and Welfare (aihw.gov.au)
- 7 COVID-19: What the pandemic has told us about access to green space | World Economic Forum (weforum.org)
- 8 Game, Set, Match: Calling Time on Climate Inaction | Climate Council
- 9 Shade for Everyone: A practical guide for shade development. Carlton: Cancer Council Victoria; 2004.
- 10 Local-Government-Guide-For-Engaging-With-The-Visitor-Economy.pdf (visitvictoria.com)
- Informal Sport Report Clayton: Monash University 2021 https://www.monash.edu/__data/assets/pdf_file/0007/2710879/392061_Informal-Sport-Report_FA.pdf
- Healthy Parks, Healthy Cities https://www.nrpa.org/parks-recreation-magazine/2018/december/active-parks-healthy-cities/