

21.04 SUSTAINABLE ENVIRONMENT

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21.04-1 Climate Change Resilience

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Moonee Valley's population is growing, and greenhouse emissions will increase if no action is taken. Council has set targets to reduce emissions, as the best way to prevent the worst effects of climate change and its damaging economic, social and environmental consequences.

Objective 1

- To adapt the urban environment to the impacts of climate change, in particular more extreme storms, extended droughts, and more heatwaves.

Strategies

- Design for microclimate in buildings, streets and open spaces to minimise their contribution to greenhouse gas emissions, wind impacts, the urban heat island effect and to contribute to urban cooling.
- Assist resilience against droughts and waterway impacts by adopting water sensitive urban design principles in buildings, landscapes and streetscapes including stormwater harvesting, water recycling and reuse, and attenuating stormwater flow.
- Ensure that flood risk is mitigated or managed by designing, constructing and maintaining infrastructure and built form to accommodate expected change in storm and rainfall patterns.
- Encourage new buildings and additions to reduce the impacts of future heat waves through material selection, energy efficient design and landscaping.

Objective 2

- To reduce greenhouse emissions

Strategies

- Encourage development which reduces dependence on private motor vehicle travel with design solutions.
- Encourage developments that reduce energy and greenhouse gas emissions through the use of passive systems to achieve comfortable indoor conditions.
- Support new developments that minimise the building's embodied energy through the choice of materials, construction and the retention of building fabric that can be reused.
- Support on-site renewable energy generation, such as solar hot water, photovoltaic cells, wind powered turbines in all new developments.
- Promote waste management that reduces waste and improves management of emissions from landfill.

21.04-2 Urban Ecology

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The City of Moonee Valley values its responsibility as custodians of both species and habitats of State and National significance. Areas of remnant vegetation provide important ecological services and in a highly urbanised environment, function as a "living museum"

for residents and visitors alike. Climatic zones, migration patterns, genetic compositions and species lifecycles are all shifting under climate change.

Despite being highly urbanised, Moonee Valley is home to unique remnant vegetation, including nationally significant Temperate Grassland sites, particularly along its creek corridors. However, with less than 100 hectares of remnant vegetation left in the municipality, on both public and private land, a particular challenge will be to preserve these spaces and enhance their ecological value. Moonee Valley will also need to protect the nationally significant species it plays host to.

Streetscapes, backyards and local parks play an important role in increasing habitat, shade and amenity, linking isolated remnants, and encouraging the movement of fauna. All vegetation types contribute important ecosystem services by moderating temperature, increasing humidity, supporting biodiversity, reducing windspeeds, providing shade, and reducing the quantity and rapid flow of stormwater.

Objective 1

- To protect and enhance the natural assets of the City.

Strategy

- Preserve the trees identified as being of significance in the *Moonee Valley City Council Significant Tree Register Review 2014*.

Objective 2

- To maintain and enhance flora and fauna diversity in the public and private realm and encourage the creation of new habitats.

Strategies

- Encourage planting and landscaping in the public realm on and around buildings to support urban ecosystems.
- Incorporate the planting of vegetation within development proposals to extend and continue vegetation corridors and linkages.

Objective 3

- To discourage development that undermines the environmental significance of Moonee Valley's remnant grasslands.

Strategies

- Ensure the construction of buildings and works do not impact on the health and viability of areas of native vegetation or habitat value.
- Minimise the impacts of introduced flora and fauna on native vegetation.

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Ecologically Sustainable Development

Council is committed to encouraging best practice and improving the sustainability of Moonee Valley's built environment. In order to achieve this we need to plan our communities to reduce car travel and design more environmentally sustainable buildings that reduce our energy and water use and reduce waste and pollution. To assist the

community move towards living more sustainably, Council has set the following targets for improvement from our 2001 levels:

- 40 per cent reduction in mains water use by 2020
- 20 per cent reduction in stormwater pollution
- 65 per cent recovery rate (by weight) of municipal solid waste for reuse and recycling by 2014.

Opportunities exist for improving the environmental performance of our current and future building stock through the incorporation of building design elements that reduce reliance on non-renewable natural resources and improve occupants' health and well being. Council has adopted the Sustainable Tools for Environmental Performance Strategy (STEPS) for residential development and the Sustainable Design Scorecard (SDS) for non-residential development, as an evaluation tool to assess the environmental performance of new developments as well as extensions.

Objective 1

- To use resources more efficiently to reduce our impact on the environment and improve the long-term health and wellbeing of the community through the use of ecologically sustainable design principles.

Strategies

- Consolidate urban development around nodes of activity and public transport to reduce car dependency.
- Facilitate sustainable transport modes via design that prioritises walking and cycling and connectivity to public transport.
- Encourage developments that meet the requirements of STEPS, SDS or Green Star evaluation tools, as appropriate.
- Incorporate water sensitive urban design principles and treatments within new development, and retro fit where opportunities arise.
- Encourage the siting of new buildings and works to protect renewable energy devices and passive solar elements on adjoining buildings or land.
- Encourage the provision of energy efficient devices and practices and the use of alternative energy sources.
- Encourage design for materials efficiency, future reuse, recycling and deconstruction.
- Encourage development proposals to address how their design enables flexibility for future uses, to address changing needs over time.
- Use the Stormwater Management (Water Sensitive Urban Design) Policy (Clause 22.03) to promote the use of water sensitive urban design, including stormwater re-use, in the consideration of planning applications.

Application Requirements

Request the following classes of applications provide, as appropriate, a Sustainable Design Assessment using STEPS/SDS or another approved assessment tool for assessing the sustainability of new development:

- Residential/mixed-use:
 - Development of three to nine dwellings.
- Commercial/industrial:

- Development with a 100m² to 10,000m² gross floor area (GFA).
- Alterations and additions between 100m² to 10,000m².

Request the following classes of applications provide, as appropriate, a Sustainability Management Plan. The Sustainability Management Plan may use Greenstar or another approved assessment tool for assessing the sustainability of new development:

- Residential/mixed-use:
 - Development of ten or more dwellings.
- Commercial/industrial:
 - Development with a gross floor area (GFA) of more than 10,000m²
 - Alterations and additions greater than 10,000m².

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Open Space and linkages

The Moonee Valley Open Space Strategy 2009 builds on the excellent system of existing open space already established in Moonee Valley, to cater for the growing and changing needs of the community and the environment.

Changes to the way open space is used can impact on surrounding residential properties. There is need to preserve, manage and maintain open space areas for health, safety, aesthetic and conservation reasons for the existing community and future generations.

Objective 1

- To significantly enhance the quality and quantity of open space areas.

Strategies

- Complete the development of continuous linear pathways to function as open space trails for movement and to provide wildlife biodiversity corridors along the three major watercourses within the City (the Maribyrnong River, Steele Creek and Moonee Ponds Creek) in partnership with adjoining municipalities.
- Ensure that there is no net loss of the area of publicly available open space within the municipality, and secure new public open space where opportunities arise.
- Ensure that open space areas are safe and accessible.
- Ensure that development within open space areas is compatible with the purpose of the open space area, and will improve the use and access to the open space.

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River and Creek Corridors

Moonee Valley is located within the Maribyrnong River catchment and has a series of rivers and creeks that traverse the municipality. These waterways, which include the Moonee Ponds Creek, Steele Creek and Five Mile Creek, are an important part of the environment that contain significant remnant vegetation, function as habitat corridors and link major parks and open spaces across the City.

The Maribyrnong River, Steele Creek and Moonee Ponds Creek are rated 'moderate', 'poor' and 'very poor' respectively under Melbourne Water's Index of Stream Condition, (2004). It is a high priority for Council to ensure that the health and quality of these water assets are enhanced and improved utilising a best practice approach.

The Maribyrnong River is an important gateway and edge to the City. The *Maribyrnong River Valley Design Guidelines (2010)* focus on the characteristics of the river valley that

need to be conserved, repaired or enhanced. The Guidelines identify three distinct character lengths along the river within Moonee Valley:

- Steele Creek – secluded river
- Maribyrnong – a suburban river
- Racecourse – river flats

Moonee Ponds Creek and Steele Creek are important natural assets in Moonee Valley and there is potential to expand and enhance the open space corridors along these waterways and improve links as opportunities arise.

Objective 1

- To protect and enhance river and creek corridors as key public, landscape and environmental assets.

Strategies

- Maintain and strengthen the vegetation dominated landscape backdrop and escarpment edges to the Maribyrnong River, Moonee Ponds Creek, Steele Creek, Five Mile Creek and adjacent parklands.
- Ensure that new development within the Maribyrnong River valley has regard to the preferred character type as outlined in the Maribyrnong River Design Guidelines 2010, for each Distinct Character Length.
- Encourage the planting of native vegetation on public and private land adjacent to the Maribyrnong River, particularly the upper reaches of the river and Steele Creek and Moonee Ponds Creek.
- Ensure that buildings do not visually dominate the Maribyrnong River corridor, Moonee Ponds Creek and Steele Creek viewshed and ridgelines.
- Encourage appropriate high quality and sustainable urban development adjacent to the site that harmonises with the Maribyrnong River valley context that enhances the environmental qualities of the Maribyrnong River Valley.
- Encourage new development, facilities and services to complement existing activities along the Maribyrnong River.
- Discourage fixed jetties, pontoons and moorings on private property along the Maribyrnong River.

Objective 2

- To ensure the biodiversity and health of all waterways is maintained and enhanced.

Strategy

- Ensure proposals for buildings and works within the immediate valley environs of all waterways, minimise nutrient and sediment run-off and the extent of hard surface in sensitive areas.

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Potentially Contaminated Land

Redevelopment of some sites in Moonee Valley today creates pollution risks which must be managed to ensure that no contamination of soil, groundwater or waterways occurs as a result of development.

Some land use practices, such as those associated with industry and waste disposal, have the potential to generate contamination detrimental to human health and the environment. Land and groundwater contamination can also be as a result of past land use and poor practices in handling, storing and disposing of hazardous waste and chemicals.

Objective 1

- To manage contaminated land to protect human health and the environment and optimise the future use of the land.

Strategies

- Ensure that potentially contaminated land is identified, appropriately tested and remediated and managed to a standard suitable for the intended use or development.
- Encourage best practice solutions to remediation and management of contaminated land.

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Waste

In addition to the financial costs associated with wastes, a large number of hidden costs are linked to waste disposal. These costs include greenhouse gas emissions from waste collection vehicles, greenhouse gases emitted from landfills and the loss of valuable resources including embodied energy and water. Actions to reduce waste, either by the more efficient use of resources or by enabling the recovery and reuse of discarded material, are a critical element of sustainable waste management practices.

Moonee Valley is seeing an increase in higher density developments and the associated challenges with the waste collection of such developments. Currently, a limited amount of high density developments receive a waste and recycling service from Council and the remaining developments utilise private contractors for collection.

When planning for this higher density, Council needs to consider waste collection vehicle accessibility, bin storage and bin size. Where Council cannot provide a waste collection service, a system will need to be in place to ensure developments are diverting waste from landfill.

Objective 1

- To encourage the recycling of waste.

Strategies

- Integrate waste management and recycling facilities into new developments.
- Encourage design for organic, reuse, recycling and landfill collections that encourage users to reduce waste to landfill.

Objective 2

- To achieve best practice in waste minimisation and kerbside recycling.

Strategy

- Require easily accessible recycling facilities on site to encourage use by tenants and facilitate ease of collection by contractors.

Application Requirements

- Require developers of new multi-unit developments, where applicable, to submit a waste management strategy with planning permit applications, as appropriate.

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Implementation

- Apply Public Use Zone 1 to watercourses and *Public Park and Recreation Zone* to adjoining parkland.
- Apply *the Public Park and Recreation Zone or Public Use Zone* to the following parcels of land along the Steele Creek corridor:
 - 20 Kelvin Court (Council Playground)
 - Rear 2-10 Persica Place
 - 9A Willowtree Crescent
 - 1A Grosvenor Street
 - Crown land directly adjoining north of 1A Grosvenor Street
 - North-west corner of Council owned Spring Gully Reserve, 206 Rachele Road and adjoining sites.
- Apply *the Environmental Significance Overlay – Schedule 2* to all trees (including Tree Protection Zones) identified as being of significance in the *Moonee Valley Significant Tree Register Review 2012*.
- Apply the *Environmental Audit Overlay* over potentially contaminated land.
- Apply Clause 22.02 Public Open Space Contributions and the Schedule to Clause 52.01.
- Apply the *Public Acquisition Overlay* to land identified for future open space purposes or linkages.

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Other Actions

- Provide significantly more planting along the entire Maribyrnong River corridor that will promote biodiversity and support the movement of urban wildlife along the important Maribyrnong River corridor.
- Where private land abuts the Moonee Ponds Creek, acquire additional land when possible for public recreation purposes.
- Create a cohesive linear parkland along the length of Steele Creek.
- Improve the connectivity of Steele Creek by bridging gaps in the shared path network and generally provide better access for cyclists and pedestrians.
- Develop masterplans to sustain and enhance natural areas and their biodiversity.
- Liaise with business owners to encourage the provision of healthy food retail options near homes.
- Integrate edible landscapes in public and open spaces.

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Further Strategic Work

- Develop Ecologically Sustainable Development Guidelines for the municipality to be used at the Planning Application stage, and investigate the appropriateness of a Local Planning Policy to guide ecologically sustainable development for the municipality.

- Develop an Environmental Significance Overlay to give effect to the priority actions and design guidelines recommended in the *Maribyrnong River Valley Design Guidelines 2010*.
- Undertake a feasibility study to examine the possible rezoning of the Council Depot (when the depot site is relocated), the Rezoning should include some Public Park and Recreation Zone.
- Investigate implementation of the draft *Moonee Ponds Creek Strategic Plan 2011* through the review of the Incorporated Plan Overlay along the length of Moonee Ponds Creek
- Investigate the inclusion of the Crown land parcel at south end of the Avenue, Niddrie into the Steele Creek Linear Park.
- Undertake a geotechnical investigation to identify whether there are any areas of the municipality susceptible to landslip or erosion, and investigate the introduction of an Erosion Management Overlay to address this.
- Investigate the introduction of an Environmental Significance Overlay or similar protective measures for conservation areas with Temperate Grassland of the Victorian Volcanic Plains.
- Prepare an Urban Ecology/Natural Heritage Strategy
- Prepare a Land Contamination Strategy
- Prepare development guidelines for the assessment of development within areas identified as potentially contaminated.
- Develop waste management guidelines for multi-unit developments.
- Prepare development guidelines for the assessment of wind impacts
- Grow and maintain knowledge of wider tree value to increasingly provide evidence-based design and planning for urban ecology and urban forest.

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C149**Reference Documents**

- Moonee Valley City Sustainability Policy 2013
- Moonee Valley Greenhouse Strategy 2010
- Maribyrnong River Interface Urban Design Guidelines 2001
- Maribyrnong River Valley Design Guidelines, Department of Planning and Community Development, 2010
- Maribyrnong River Master Plan 2012
- Steele Creek Linear Park Master Plan
- Moonee Ponds Creek Strategic Plan 2011
- Moonee Valley Waste Management Strategy 2008-2014
- Moonee Valley Water Strategy 2011
- Moonee Valley WSUD Guidelines 2011
- Moonee Valley City Council Significant Tree Register Review 2014
- Moonee Valley Public Health and Wellbeing Plan 2013-17
- Moonee Valley Open Space Strategy 2009
- Melbourne Water's Guidelines for Approval of Jetties