

## 21.08 NATURAL ENVIRONMENT AND ENVIRONMENTAL RISK

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### 21.08-1

#### Natural Heritage

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Hume supports a rich natural heritage which contributes to the municipality's character and provides the community with a range of social, economic, ecological and health benefits. Hume's landscape is characterised by undulating basalt plains punctuated by volcanic hilltops and deep incised valleys and waterways.

Hume's remnant vegetation is amongst the most endangered in Victoria. This vegetation exists as scattered trees, woodlands, grasslands, scrub-lands and riparian vegetation. Hume's remnant landscape continues to support both common and threatened native plants and animals.

Sites of particular note include Organ Pipes National Park, Woodlands Historic Park, Cooper Street Grassland, Evans Street Wildflower Grassland Reserve, Kalkallo Commons Grasslands, Mt. Ridley Nature Reserve and the waterways of Deep, Emu, Jacksons, Merri and Moonee Ponds Creeks and their associated tributaries.

Improving public access to a greater number and diversity of natural landscapes has the potential to improve the overall health and wellbeing of Hume's community and increase their understanding of its natural heritage values.

The Melbourne Strategic Assessment (MSA) is the Victorian Government's approach to managing the impact of urban development in Melbourne's growth areas on significant vegetation communities, plants and animals. The MSA program is endorsed by the Commonwealth Government under the Federal Environment Protection and Biodiversity Conservation Act 1999. It streamlines the development process in Melbourne's growth corridors by assessing the impacts of development on certain native plant and animal species in a consolidated process, rather than property by property. The MSA takes the cumulative effects of development on the environment into account, and sets out actions to address the impacts, giving better protection for species in strategically located conservation areas and reserves.

Within Hume three precinct areas are subject to Native Vegetation Precinct Plans which directly enact the requirements of the MSA – Greenvale North (R1), Craigieburn (R2) and Greenvale West (R3).

Outside of these precincts the Biodiversity Conservation Strategy 2013 is the primary strategic framework which enacts the MSA. In the Hume growth areas 12 Conservation Areas are identified for retention including the Mt Ridley Woodland, Kalkallo Creek, Merri Creek, Jacksons Creek and Emu Creek.

#### Key issues

- Incremental loss of native vegetation through urban and rural development.
- Protecting and restoring biodiversity, natural habitats and ecological linkages.
- Increasing community and public access to natural landscapes.

#### Objective 1

To protect, conserve and enhance natural heritage for biodiversity, amenity and landscape character purposes.

#### Strategies

- 1.1 Ensure development seeks to preserve the diversity and long term security of terrestrial and aquatic species and their environments.
- 1.2 Ensure development seeks to retain native vegetation, including scattered indigenous trees.
- 1.3 Conserve and re-establish areas of natural habitat where appropriate.

- 1.4 Protect and enhance existing habitat and open space corridors, including waterways, with significant landscape and/or flora and fauna values.
- 1.5 Ensure development and the planning of new areas connects areas of native vegetation identified for protection with the wider landscape and open space network.
- 1.6 Ensure conservation assets in existing and future urban areas are well integrated with the built environment and incorporate opportunities for the public to access and enjoy these spaces.
- 1.7 Ensure new areas contribute towards an increase in tree canopy cover throughout the landscape.
- 1.8 Encourage the use of indigenous species in landscaping and planting work.

**Decision guidelines – native vegetation decision criteria**

Council will consider the following criteria (as appropriate) when assessing proposals which involve the removal or retention of native vegetation:

- The Melbourne Strategic Impact Assessment, including the Biodiversity Conservation Strategy, any approved native vegetation precinct plan and any other State approved biodiversity policy.
- The context of the site and its surrounds with regard to the network of existing and future reserves.
- The presence of indigenous and non-indigenous cultural heritage values.
- The capacity to maintain the ongoing viability of the populations of flora and fauna species and vegetation communities and the role of the site in providing habitat connectivity.
- The capacity to manage bushfire, grassfire and public safety risks.
- The capacity of the land to support the proposed activity including slope, land subsidence potential and protection of water quality including the role of native vegetation in preventing soil erosion or landslip.

**Further strategic work**

- Prepare a Precinct Structure Plan for Craigieburn West that protects the areas of woodland identified in the Biodiversity Conservation Strategy along with other scattered trees and remnant patches of local significance, and integrates and connects them as part of the wider open space network in the Mickleham and Craigieburn precincts.
- Prepare a Precinct Structure Plan for the western end of the Inter Urban Break that protects the biodiversity values, including scattered trees, across the site in conservation and open space areas, and connects them into the wider open space network in the Mickleham and Craigieburn precincts.
- Prepare a structure plan for Kalkallo Township that protects the Kalkallo Commons, the Kalkallo Creek and the Kalkallo Cemetery with the provision of appropriate public access.
- Prepare structure plans for the Sunbury area that protect Jacksons Creek and Emu Creek and their tributaries and escarpments and integrates “nature conservation” and “open space” areas identified in the Biodiversity Conservation Strategy with the wider open space network.
- Review the planning controls of identified sites of environmental and landscape value to update existing overlays and apply new zones and overlays where relevant.
- Prepare a non-urban HIGAP spatial and delivery strategy to guide the planning of Hume’s rural areas, including the application of overlays to protect sites and

areas of environmental and landscape significance and identify areas at risk of significant erosion.

**21.08-2 Environmental Land Management**

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Significant change has occurred to the natural landscape, including land clearance, habitat degradation and the introduction of invasive species. Other threats to land health in Hume include invasive plants and animals, soil degradation, and climate change.

Areas of the municipality, particularly around Sunbury are highly susceptible to soil erosion due to the steep landforms and fragile soil types. Risk of erosion may be increased in these areas through inappropriate land management and development.

**Key issues**

- Reducing the amount of earthworks required by land development.
- Managing the effects of large scale earthworks on rural land.
- Minimising the visual and amenity impacts associated with large scale fill in inappropriate locations.
- Ensuring that land uses do not compromise the long term sustainability of soils and waterways.

**Objective 2**

To improve the land health of the natural environment.

**Strategies**

- 2.1 Ensure development avoids, minimises or mitigates the impacts of erosion.
- 2.2 Encourage the appropriate use of protective measures for erosion including geotechnical recommendations, storm water flow and volume measures, and the appropriate use of construction materials, landscaping, watering systems and impervious surfaces.
- 2.3 Ensure development is sited and designed to avoid the expansion of areas affected by erosion or the creation of new erosion affected areas.
- 2.4 Discourage and restrict development on soils with extreme erosion capacity.
- 2.5 Encourage the retention of vegetation on erosion prone soils.
- 2.6 Ensure development works avoid, minimise and mitigate the generation of fill.
- 2.7 Encourage development that requires earthworks to create a balance between cut and fill and to minimise the amount of fill taken off site.
- 2.8 Ensure recipient sites for large scale fill deliver improvements to the land which generates a net improvement to the natural landscape.
- 2.9 Ensure that the placement of fill on rural land is controlled through an Environmental Management Plan.
- 2.10 Ensure that potentially contaminated land is identified, and appropriately managed and remediated to a standard suitable for the intended use or development.

**Decision guidelines**

- Where appropriate ensure development proposals prepare a Conservation, Vegetation or Environmental Management Plan for the management of remnant vegetation, faunal habitat and geological features to be retained, and areas requiring restoration or revegetation.
- Where appropriate ensure development proposals prepare a Construction Environmental Management Plan that provides measures to mitigate the impact of development on the environment.

**Further strategic work**

- Investigate sites of known or potential contamination to apply the Environmental Audit Overlay.

**21.08-3 Water Quality and Conservation**19/10/2017  
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Hume is located within the Port Phillip and Western Port Catchment region, and falls within both the Maribyrnong and Yarra River catchments. Significant waterways include Deep, Emu, Blind, Kismet, Jacksons, Merri, Merlynston, Aitken, Malcolm, Yuroke and Moonee Ponds Creeks. Hume's waterways provide habitat corridors, support a variety of flora and fauna species, and also contain cultural heritage values and a range of environmental services.

Land use and development within the municipality significantly influences local waterways and the overall health of both the Yarra and Maribyrnong catchments. The intensification of urban development will inevitably result in the increased discharge of water in local waterways. There is a need to ensure that the quality and quantity of this discharge is controlled through development design and mitigation measures.

**Key issues**

- Protecting and improving the water quality of Hume's waterways.

**Objective 3**

To protect water quality and ensure that water resources are managed in a sustainable way.

**Strategies**

- 3.1 Encourage development to be designed to minimise wastewater and stormwater discharge and maximise reuse.
- 3.2 Ensure land use and development proposals identify and consider their impact on surrounding waterways and have the capacity to manage storm water onsite.
- 3.3 Ensure that development within the Greenvale Reservoir catchment area is compatible with the protection of the reservoir and provides for the integration of protection measures.
- 3.4 Ensure industrial and commercial land uses incorporate stormwater treatment measures into the design of development.
- 3.5 Ensure the siting, design, operation and rehabilitation of landfills minimises impacts on groundwater and surface water.

**Policy guidelines**

When deciding on an application for use, development or subdivision the following local policies will be considered, as appropriate:

- Clause 22.19 Industrial Stormwater Management.

**Other actions**

- Work with Melbourne Water and Yarra Valley Water to deliver recycled water to new development areas and to reduce the volume of stormwater entering waterways.
- To work with Melbourne Water to assist with the preparation of drainage master plans (Development Services Schemes) for new development areas.

**21.08-4 Bushfire and Flood Risks**19/10/2017  
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The municipality encompasses areas of significant bushfire (grassfire) and flood risk. It has been impacted by bushfire and floods in the recent past and the risks persist today.

### **Key issues**

- Minimising bushfire and flood risks to urban areas.

### **Objective 4**

To minimise the risk to life, property and the environment from flood and bushfire.

### **Strategies**

- 4.1 Ensure that subdivisions are appropriately designed to mitigate flood and bushfire risk.
- 4.2 Ensure that development is appropriately sited to provide protection from flood and bushfire.
- 4.3 Encourage planning decisions to prioritise protection of human life and adopt a precautionary approach.
- 4.4 Consider the following principles for development in areas at risk of bushfire:
  - direct development to locations of lower bushfire risk and away from areas of high bushfire risk
  - avoid development in areas of extreme bushfire risk (BMO)
  - avoid development in areas where planned bushfire protection measures may be incompatible with other environmental objectives.

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### **Reference documents**

- Hume Biodiversity Planning Policy, Hume City Council, 2016
- Hume Corridor HIGAP Spatial Strategy and Delivery Strategy, Hume City Council, 2015
- Hume Open Space Strategy 2010-2015, Hume City Council, 2010
- Industrial Stormwater Code of Practice, Hume City Council, 2008
- Sunbury HIGAP Spatial Strategy and Delivery Strategy, Hume City Council, 2012
- Hume Land and Biodiversity Plan 2015-2019, 2015