

21.10 **ECOLOGICALLY SUSTAINABLE DEVELOPMENT**

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21.10-1 **Overview**

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Manningham is committed to Ecologically Sustainable Development (ESD), which recognises, values and protects the natural environment and ecological process on which life depends both now and in the future.

Council supports and encourages land use planning and development, design and construction using ESD principles. Key ESD principles include energy conservation, water conservation, protecting human health, and protecting and enhancing the built, natural and cultural environments. ESD initiatives should incorporate current best practice, emerging technology and continuous innovation.

Building energy management

Many buildings use active mechanisms and non-renewable energy sources to provide thermal comfort. Effective passive heating and cooling relies on building orientation, window design and placement

Water sensitive design

Water is a scarce resource and needs to be conserved. Manningham Council has developed a Sustainable Water Management Plan titled *Water15 – Sustainable Water Management Plan* (2005). Council has also set a target for reduction in water usage of 15% (based on 2001-2004 water consumption levels) by 2015. It is essential to reduce the amount of water used through water conservation and recycling. Water sensitive design offers an alternative to traditional approaches to water management.

External environmental amenity

Ensuring appropriate acoustic quality within residential and work environments, including the placement of plant and equipment (eg exhaust fans), has been proven to improve the productivity and well-being of building occupants.

Waste management

Council encourages a reduction in waste generated by building occupants. Therefore design strategies should include easily accessible recycling facilities on site and in public spaces.

Quality of public and private realm

Public and private spaces should be safe and accessible, promote activity and enhance the quality of the development.

Transport

Moving and transporting people, materials, equipment and systems impacts on the environment. 14% of greenhouse emissions are related to transport in Australia. *Linking Melbourne: Metropolitan Transport Plan (2004)* has set a target to increase public transport use to 20% by 2020.

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Building energy management

Key issues

- Poor orientation, siting and design of buildings.
- The consumption of non-renewable energy resources and generation of waste and emissions.

Objectives

- To encourage appropriate siting and design, to minimise non-renewable energy consumption and greenhouse gas emissions.

Strategies

Strategies to achieve these objectives include:

- Orientate a development's most used spaces (e.g. living rooms and work areas) to face north to take advantage of winter solar heat gain and natural light.
- Shade north facing windows from the summer sun by horizontal projections, such as eaves, overhangs, awnings, pergolas, upper floor balconies or deciduous vegetation.
- Encourage east and west facing windows to be externally shaded with vertical devices such as blinds, shutters and awnings.
- Encourage reliance on natural daylight into internal spaces.
- Encourage the preparation of sustainability management plans for developments, where appropriate, which minimise use of non-renewable resources, waste, emissions and energy.

Implementation

These strategies will be implemented by:

Zones and overlays

Policy and exercise of discretion

- Implementing the *Doncaster Hill Strategy* (2002).

Further strategic work

- Developing Ecologically Sustainable Development Guidelines for the municipality.
- Investigating the appropriateness of a Local Planning Policy to guide ecologically sustainable development for the municipality.

Other actions

- Promoting and distributing the *Doncaster Hill Sustainability Guidelines* (2004).
- Encouraging Best Practice Environmental Design through suitable building and development, including best practice in resource use, demonstrating low environmental impact.

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Water sensitive design

Key issues

- The capture and re-use of water.
- Poor water quality of our waterways and creeks.

Objectives

- To minimise water use.
- To encourage the capture and re-use of water.
- To reduce the demand on potable water.
- To improve the quality of water in our waterways and creeks.
- To encourage water sensitive urban design.

Strategies

Strategies to achieve these objectives include:

- Encourage the installation of rainwater tanks to reduce the use of potable water.
- Encourage the re-use of grey water.
- Encourage landscape design and plant selection, which minimises the reliance on irrigation.
- Promote the detention and absorption of stormwater where practicable through use of permeable paving, pebble paths, lawns and gardens.
- Encourage the provision of appropriate on-site detention systems to reduce loadings on the stormwater systems after heavy rains.
- Encourage the use of pollutant traps to prevent garbage entering the waterways.
- Ensure water sensitive urban design elements are incorporated into subdivisions and developments.
- Encourage proposals for residential subdivisions and developments to include measures for control of potential environmental impacts during construction, in particular, to adopt good site construction techniques and to be consistent with the *Manningham Stormwater Management Plan* (2001).
- Encourage the provision of sustainability management plans for developments (where appropriate) which minimise use of resources, waste, emissions and energy.

Implementation

These strategies will be implemented by:

Zones and overlays

Policy and exercise of discretion

- Implementing the *Doncaster Hill Strategy* (2002).

Further strategic work

- Investigating appropriate options for the capture and recycling of water.
- Developing Ecologically Sustainable Development Guidelines for the municipality.
- Investigating the appropriateness of a Local Planning Policy to guide ecologically sustainable development for the municipality.

Other actions

- Encouraging best practice water sensitive design.
- Providing/distributing information on water sensitive design.
- Promoting and distributing the *Doncaster Hill Sustainability Guidelines* (2004).
- Encouraging Best Practice Environmental Design through suitable building and development, including best practice in resource use, demonstrating low environmental impact.
- Encourage compliance with the *Manningham Stormwater Management Plan* (2001).
- Implementing the *Manningham Drainage Strategy 2004 to 2014* (2004).
- Implementing Manningham's *Water15 - Sustainable Water Management Plan* (2005).

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External environmental amenity

Key issues

- Impact of noise on residential and working environments.
- Stormwater pollution.

Objectives

- To reduce the impact of noise pollution.
- To minimise site disturbance and pollution of stormwater.

Strategies

Strategies to achieve these objectives include:

- Encourage appropriate wall construction types to ensure that sound transmittance levels between rooms or buildings meet the appropriate levels for the intended use.
- Consider the location of uses and plant equipment, such as exhaust fans, in relation to noise generation.
- Ensure plant equipment is positioned and baffled to minimise any noise impact.

- Encourage the use of appropriate acoustic treatment such as double-glazing windows and acoustic fencing to minimise any noise impact.
- Encourage the preparation of construction management plans, which aim to minimise any environmental impacts.
- Minimise site disturbance, including protecting existing vegetation and top soil where appropriate.

Implementation

These strategies will be implemented by:

Zones and overlays

Policy and exercise of discretion

- Implementing the *Doncaster Hill Strategy* (2002).

Further strategic work

- Developing Ecologically Sustainable Development Guidelines for the municipality.
- Investigating the appropriateness of a local planning policy to guide ecologically sustainable development for the municipality.

Other actions

- Promoting and distributing the *Doncaster Hill Sustainability Guidelines* (2004).

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Waste management

Key issues

- Minimise materials going to landfill.

Objectives

- To encourage the provision of recycling facilities on site and in public spaces.

Strategies

Strategies to achieve this objective include:

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

Implementation

These strategies will be implemented by:

Zones and overlays

Policy and exercise of discretion

- Implementing the *Doncaster Hill Strategy* (2002).

Further strategic work

- Developing Ecologically Sustainable Development Guidelines for the municipality.
- Investigating the appropriateness of a Local Planning Policy to guide ecologically sustainable development for the municipality.

Other actions

- Promoting and distributing the *Doncaster Hill Sustainability Guidelines* (2004).
- Implementing the *Waste Management Strategy* (2005).

21.10-6 Quality of private and public realm

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Key issues

- Accessibility.
- Retention of vegetation and opportunities for landscaping.
- Safer design.
- Size and quality of open space areas for private and public realm.

Objectives

- To ensure that private and public spaces are safe and accessible.
- To ensure public spaces are appropriately designed and located to promote activity and use of these areas and enhance the quality of developments.
- To promote solar access to private and public spaces.
- To encourage appropriate landscaping within private and public spaces.

Strategies

Strategies to achieve these objectives include:

- Encourage development to be designed to meet the highest levels of accessibility.
- Site buildings to have regard to adjacent public and private space and limit unreasonable overshadowing.
- Improve accessibility by making attractive, vibrant, walkable environments.
- Encourage the design of buildings, subdivisions, street layout, car parks and public open space that are safe.
- Encourage the preparation of sustainability management plans for developments, where appropriate, which minimise use of resources, waste, emissions and energy.

Implementation

These strategies will be implemented by:

Zones and overlays

Policy and exercise of discretion

- Implementing the *Doncaster Hill Strategy* (2002).
- Using Local Policy to promote design that addresses public safety (*Safety through urban design policy, Clause 22.08*).
- Using Local Policy to promote the same level of access for people with limited mobility to buildings, public spaces, services and facilities as any other person (*Access for disabled people policy, Clause 22.09*).

Further strategic work

- Developing Ecologically Sustainable Development Guidelines for the municipality.
- Investigating the appropriateness of a Local Planning Policy to guide ecologically sustainable development for the municipality.

Other actions

- Promoting and distributing Council's Policy for *Disability Access to the Built Environment* (2003).
- Promoting and distributing the *Doncaster Hill Sustainability Guidelines* (2004).
- Encouraging Best Practice Environmental Design through suitable building and development, including best practice in resource use, demonstrating low environmental impact.

21.10-7 Transport

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Key issues

- Minimising car dependency
- Limitations of the local public transport system.
- Environmental impacts of vehicular traffic.

Objectives

- To encourage the design and construction of car parking areas for future adaptability.
- To ensure that the built environment is designed to promote the use of public transport, walking and cycling.
- To ensure equitable access to all services and activities.

Strategies

Strategies to achieve these objectives include:

- Provide appropriate bicycle parking and after trip facilities.

Implementation

These strategies will be implemented by:

Zones and overlays

Policy and exercise of discretion

- Implementing the *Doncaster Hill Strategy* (2002).
- Implementing the *Manningham Integrated Transport Strategy* (2004).

Further strategic work

- Developing Ecologically Sustainable Development Guidelines for the municipality.
- Investigating the appropriateness of a Local Planning Policy to guide ecologically sustainable development for the municipality.

Other actions

- Promoting and distributing the *Doncaster Hill Sustainability Guidelines* (2004).
- Conducting a review of the *Manningham Bicycle Strategy* (2001).
- Continuing to advocate to the State Government for improved public transport in Manningham.

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Reference documents

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- Department of Sustainability and Environment (2004) *Our Water Our Future: Securing Our Water Future Together*, Victoria.
- Department of Infrastructure (2004) *Linking Melbourne: Metropolitan Transport Plan*, Victoria.
- Manningham City Council (2002) *Doncaster Hill Strategy*, Manningham City Council, Doncaster.
- Manningham City Council (2004) *Doncaster Hill Sustainability Guidelines*, Manningham City Council, Doncaster.

- Manningham City Council (2004) *Manningham Drainage Strategy 2004 - 2014*, Manningham City Council, Doncaster.
- Manningham City Council (2004) *Manningham Integrated Transport Strategy*, Manningham City Council, Doncaster.
- Manningham City Council, Arup Transportation Planning (2001) *Manningham Bicycle Strategy*, Manningham City Council, Doncaster.
- Manningham City Council (2002) *Domestic Wastewater Strategy*, Manningham City Council, Doncaster.
- Manningham City Council (2005) *Water15 - Sustainable Water Management Plan (2005-2015)*, Manningham City Council, Doncaster.
- Manningham City Council (2001) *Manningham Stormwater Management Plan*, Manningham City Council, Doncaster.