Sustainability Management Plan Guidelines

**Sustainable Design**

Hobsons Bay City Council’s planning permit application process includes Environmentally Sustainable Design (ESD) considerations. The Sustainable Design Assessment in the Planning Process program is:

* A practical approach to assessing sustainable development matters during the planning permit application process.
* The consistent inclusion of key environmental performance considerations into the planning approvals process.
* Your guide to achieving more sustainable building outcomes for the long-term benefit of the wider community.

**Sustainability Management Plan**

A Sustainability Management Plan (SMP)is a detailed sustainability assessment of a proposed design at the planning stage. It demonstrates that a comprehensive ESD review has been undertaken during a project’s early design stages. It identifies best practice initiatives to be implemented in the development.

The nature of larger developments provides the opportunity for increased environmental benefits and the opportunity for major resource savings. It may be necessary to engage a sustainability consultant to prepare an SMP.

**ESD Matters on Architectural Drawings**

Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes, sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans. The site’s permeability should be clearly noted. It is also recommended to indicate water catchment areas on roof- or site plans to confirm water re-use calculations.

# 1. Indoor Environment Quality (IEQ)

**Objectives:**

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| **To achieve a healthy indoor environment quality for the wellbeing of building occupants.**  **To provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices.** |

**Issues:**

Topics to be addressed may include:

* Daylight
* External Views
* Hazardous Materials and Volatile Organic Compounds
* Glare Prevention
* Electric Lighting Levels
* Thermal Comfort
* Acoustics
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* Green Star, BREEAM and LEED provide benchmarks for relevant issues
* Good Environmental Choice Australia Standards
* Australian Green Procurement
* BCA provisions provide minimum standards; improvements on these minimum requirements are strongly encouraged

**References and useful information:**

Good Environmental Choice Australia Standards [www.geca.org.au](http://www.geca.org.au)

Australian Green Procurement [www.greenprocurement.org](http://www.greenprocurement.org)

Residential Flat Design www.planning.nsw.gov.au

Your Home [www.yourhome.gov.au](http://www.yourhome.gov.au)

# 2. Energy Efficiency

**Objectives:**

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| **To ensure the efficient use of energy.**  **To reduce total operating greenhouse emissions.**  **To reduce energy peak demand.**  **To reduce associated energy costs** |

**Issues:**

Topics to be addressed may include:

* Efficient HVAC system
* HVAC zoning
* Efficient Shading
* Operating Energy
* Energy Sub-Metering
* Lighting Power Density
* Lighting Zoning
* Peak Energy Demand Reduction
* Air leakage minimised
* Building Fabric enhanced over minimum BCA requirements
* Efficient onsite generation of electricity
* Allowance for efficient fans and pumps (e.g. Variable Speed Drives)
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* Green Star, BREEAM and LEED provide benchmarks for relevant issues
* Window Efficiency Rating Scheme (WERS) compares summer and winter performance
* Minimum Energy Performance Standards (MEPS) Regulations in Australia
* Energy Ratings are available for various appliances, incl. air-conditioning
* BCA provisions provide minimum standards; improvements on these minimum requirements are strongly encouraged

**References and useful information:**

House Energy Rating [www.makeyourhomegreen.vic.gov.au](http://www.makeyourhomegreen.vic.gov.au)

First Rate [www.sustainability.vic.gov.au](http://www.sustainability.vic.gov.au)

Building Code Australia www.abcb.gov.au

Window Efficiency Rating Scheme (WERS) www.wers.net

Minimum Energy Performance Standards (MEPS) [www.energyrating.gov.au](http://www.energyrating.gov.au)

Energy Efficiency [www.resourcesmart.vic.gov.au](http://www.resourcesmart.vic.gov.au)

# 3. Water Resources

**Objectives:**

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| **To ensure the efficient use of water.**  **To reduce total operating potable water use.**  **To encourage the collection and reuse of stormwater.**  **To encourage the appropriate use of alternative water sources (e.g. grey water).**  **To minimise associated water costs** |

**Issues:**

Topics to be addressed may include:

* Minimising Amenity Water Demand
* Water Meter
* Landscape irrigation
* Heat Rejection Water
* Fire Systems Check Water Consumption
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* Green Star, BREEAM and LEED provide benchmarks for relevant issues
* Water Efficient Labelling Scheme (WELS) provides information on appliances and fittings; highest available ratings are recommended
* Water Services Association of Australia, The national Water Conservation Rating and Labelling Scheme
* BCA provisions provide minimum standards; improvements on these minimum requirements are strongly encouraged

**References and useful information:**

Water Efficient Labelling Scheme (WELS) www.waterrating.gov.au

Water Services Association of Australia [www.wsaa.asn.au](http://www.wsaa.asn.au)

Melbourne Water STORM calculator www.storm.melbournewater.com.au

Sustainable Landscaping www.ourwater.vic.gov.au

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# 4. Stormwater Management

**Objectives:**

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| **To reduce the impact of stormwater run-off.**  **To improve the water quality of stormwater run-off.**  **To achieve best practice stormwater quality outcomes.**  **To incorporate water sensitive urban design (WSUD) principles**. |

**Issues:**

Topics to be addressed may include:

* STORM rating (<http://www.storm.melbournewater.com.au>)
* Discharge to Sewer
* Watercourse Pollution
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* STORM rating, minimum 100% is required
* Meeting Victoria’s best practice storm water targets is strongly recommended
* Green Star, BREEAM and LEED provide benchmarks for relevant Issues
* Water Sensitive Urban Design
* Environmental Protection Authority Victoria
* Water Services Association of Australia, The national Water Conservation Rating and Labelling Scheme
* BCA provisions and the Building regulations provide minimum standards; improvements on these minimum requirements are strongly encouraged

**References and useful information:**

Melbourne Water STORM calculator www.storm.melbournewater.com.au

Water Sensitive Urban Design Principles www.melbournewater.com.au

Raingardens <http://raingardens.melbournewater.com.au>

Environmental Protection Authority Victoria [www.epa.vic.gov.au](http://www.epa.vic.gov.au)

Water Services Association of Australia www.wsaa.asn.au

Sustainable Landscaping www.ourwater.vic.gov.au

# 5. Building Materials

**Objectives:**

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| --- |
| **To minimise the environmental impacts materials used by encouraging the use of materials with a favourable lifecycle assessment based on the following factors:**   * **Fate of material** * **Recycling/Reuse** * **Embodied energy** * **Biodiversity** * **Human health** * **Environmental toxicity** * **Environmental responsibility** |

**Issues:**

Topics to be addressed may include:

* Storage for Recycling Waste
* Reuse of Materials and other Recycled Materials
* Embodied Energy of Concrete
* Embodied Energy of Steel
* Sustainable Timber
* Design for Disassembly
* Environmental toxicity
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* Green Star, BREEAM and LEED provide benchmarks for relevant Issues
* Forest Stewardship Council Certification Scheme
* BCA provisions provide minimum standards; improvements on these minimum requirements are strongly encouraged

**References and useful information:**

Building Materials, Technical Manuals www.yourhome.gov.au

Embodied Energy Technical Manual www.yourhome.gov.au

Good Environmental Choice Australia Standards [www.geca.org.au](http://www.geca.org.au)

Forest Stewardship Council Certification Scheme www.fsc.org

Australian Green Procurement [www.greenprocurement.org](http://www.greenprocurement.org)

# 6. Transport

**Objectives:**

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| **To minimise car dependency.**  **To ensure that the built environment is designed to promote the use of public transport, walking and cycling.** |

**Issues:**

Topics to be addressed may include:

* Minimising the provision of car parks for conventional vehicles
* Providing bike storage
* Providing Access to Showers
* Electric vehicles infrastructure
* Car sharing
* Green Travel Plan
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**

* Green Star, BREEAM and LEED provide benchmarks for relevant issues
* Council Legislation

**References and useful information:**

Off-setting Car Emissions Options [www.greenfleet.com.au](http://www.greenfleet.com.au)

Sustainable Transport [www.transport.vic.gov.au/doi/internet/icy.nsf](http://www.transport.vic.gov.au/doi/internet/icy.nsf)

Bicycle Victoria www.bv.com.au

7. Waste Management

**Objectives:**

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| --- |
| **To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.**  **To ensure long term reusability of building materials.**  **To ensure a Waste Management Plan has been created where required.** |

**Issues:**

Topics to be addressed may include:

* Construction Waste Management Plan
* Construction Environmental Management Plan
* Operation Waste Management Plan
* Operation Environmental Management Plan
* Storage spaces for recycling and green waste
* Contractor has valid ISO14001 accreditation
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* Green Star, BREEAM and LEED provide benchmarks for relevant issues
* Section 3 / 4 of the NSW Environmental Management Systems Guidelines 1998 or 2007
* ISO14001 Environmental Management System (EMS)

**References and useful information:**

Construction and Waste Management www.sustainability.vic.gov.au

Preparing a Waste Management Plan [www.epa.vic.gov.au](http://www.epa.vic.gov.au)

Waste and Recycling [www.resourcesmart.vic.gov.au](http://www.resourcesmart.vic.gov.au)

Better Practice Guide for Waste Management in Multi-Unit Dwellings (2002) and

Waste reduction in office buildings (2002) [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

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# 8. Urban Ecology

**Objectives:**

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| **To protect and enhance biodiversity.**  **To provide sustainable landscaping.**  **To protect and manage all remnant indigenous plant communities.**  **To encourage the planting of indigenous vegetation.** |

**Issues:**

Topics to be addressed may include:

* On site topsoil retention
* Reuse of already developed land
* Maintaining / Enhancing Ecological Value
* Reclaiming contaminated land
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* Green Star, BREEAM and LEED provide benchmarks for relevant issues
* Council Legislation

**References and useful information:**

Department of Sustainability and Environment www.dse.vic.gov.au

Australian Research Centre for Urban Ecology [www.arcue.botany.unimelb.edu.au](http://www.arcue.botany.unimelb.edu.au)

Greening Australia [www.greeningaustralia.org.au](http://www.greeningaustralia.org.au)

Green Roof Technical Manual www.yourhome.gov.au

# 9. Innovation

**Objective:**

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| **To encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.** |

**Issues:**

Topics to be addressed may include:

* Significant enhancements to the environmental performance
* Innovative social improvements
* New technology
* New design approach
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* Green Star, BREEAM and LEED provide benchmarks for relevant Issues
* Exceeding typical performance benchmarks or enhancing typical building processes
* BCA provisions provide minimum standards; improvements on these minimum requirements are strongly encouraged

**References and useful information:**

Green Building Council Australia www.gbca.org.au

Victorian Eco Innovation lab [www.ecoinnovationlab.com](http://www.ecoinnovationlab.com)

Business Victoria [www.business.vic.gov.au](http://www.business.vic.gov.au)

Environment Design Guide www.environmentdesignguide.com.au

# 10. Ongoing Building and Site Management

**Objective:**

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| --- |
| **To encourage a holistic and integrated design and construction process and ongoing high performance.** |

**Issues:**

Topics to be addressed may include:

* Construction Environmental Management Plan
* Contractor has valid ISO14001 accreditation
* Operation Environmental Management Plan
* Building Tuning
* Building User’s Guide
* Other

**Applicant Responses:**

The applicant is required to address the above applicable criteria and demonstrate how the design meets the intent.

**Relevant Standards**:

* Green Star, BREEAM and LEED provide benchmarks for relevant issues

**References and useful information:**

* ASHRAE and CIBSE Commissioning handbooks
* International Organization for standardization – ISO14001 – Environmental Management Systems