

22.04 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

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This policy applies throughout Knox to residential and non-residential development specified in Table 1 of this clause.

22.04-1 Policy basis

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Knox City Council is committed to creating an environmentally sustainable city. Critical to achieving this commitment is for development to meet appropriate environmental design standards. This policy aims to integrate environmental sustainability principles into land-use planning, new developments and redevelopment of existing infrastructure. This policy provides a framework for early consideration of environmental sustainability at the building design stage in order to achieve the following efficiencies and benefits:

- Easier compliance with building requirements through passive design;
- Reduced running costs over the life of the building;
- Improved affordability over the longer term through reduced running costs;
- Improved amenity and liveability;
- More environmentally sustainable urban form; and
- Integrated water management.

If environmentally sustainable design is not considered at the time of planning approval the ability to achieve environmentally sustainable development (ESD) may be compromised by the time these matters are considered as part of a building approval. In addition, there may be difficulties or extra cost associated with retro-fitting development to implement environmentally sustainable design principles.

This policy does not prescribe performance outcomes. This policy enables the provision of information and decision guidelines that will assist determining whether development achieves ESD objectives.

This policy complements a range of non-statutory measures aimed at encouraging ESD. These measures include: educating residents and applicants, assisting applicants to use ESD tools, leading by example with Council projects and promoting exemplary private projects and the use of materials with favourable life cycle impacts.

22.04-2 Objectives

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The overarching objective is that development should achieve best practice ESD, from the design stage through to construction and operation.

In the context of this policy, best practice is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

It is a policy objective to support innovative technology, design and processes in all development which positively influence the sustainability of buildings.

The following objectives should be satisfied, where applicable:

Energy performance

- To improve the efficient use of energy, by ensuring development demonstrates design potential for ESD initiatives at the planning stage.
- To reduce total operating greenhouse gas emissions.
- To reduce energy peak demand through particular design measures (for example appropriate building orientation, shading to glazed surfaces, optimise glazing to exposed surfaces, space allocation for solar panels and external heating and cooling systems).

Water resources

- To improve water efficiency.
- To reduce total operating potable water use.
- To facilitate the collection and reuse of stormwater.
- To support the appropriate use of alternative water sources (e.g. greywater).

Indoor environment quality

- To provide a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation and natural daylight.
- To provide thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by encouraging the use of materials with low toxic chemicals.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Stormwater management

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To facilitate best practice stormwater quality outcomes.
- To support the use of water sensitive urban design (WSUD), including stormwater re-use.

Transport

- To facilitate built environment that is designed to promote the use of walking, cycling and public transport in that order.
- To minimise car dependency.
- To support the use of low emissions vehicle technologies and supporting infrastructure.

Waste management

- To support waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To facilitate durability and long term reusability of building materials.
- To require that space is allocated for future change in waste management needs, including (where possible) composting and green waste facilities.

Urban ecology

- To protect and improve biodiversity within the municipality.
- To provide environmentally sustainable landscapes and natural habitats, and minimise the urban heat island effect.
- To facilitate the retention of significant trees.
- To support the planting of indigenous vegetation.

- To support the provision of space for productive gardens, particularly in larger residential developments.

22.04-3 Policy

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It is policy that applications for the types of development listed in Table 1 to this clause be accompanied by information that demonstrates how relevant policy objectives will be achieved.

22.04-4 Application requirements

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An application must be accompanied by either a Sustainable Design Assessment or a Sustainability Management Plan as specified in Table 1 to this clause, as appropriate.

A Sustainable Design Assessment that:

- Provides a simple assessment of the development. It may use relevant tools from the examples listed in Table 1 to this clause or an alternative assessment approach to the satisfaction of the responsible authority; and,
- Identifies ESD measures proposed in response to policy objectives, having regard to the site's opportunities and constraints.

A Sustainability Management Plan that:

- Provides a detailed assessment of the development. It may use relevant tools from the examples listed in Table 1 to this clause or an alternative assessment approach to the satisfaction of the responsible authority;
- Identifies achievable environmental performance outcomes having regard to the objectives of this policy (as appropriate);
- Demonstrates that the building has the design potential to achieve the relevant environmental performance standards outcomes, having regard to the site's opportunities and constraints; and,
- Documents the means by which the performance outcomes can be achieved.

Various 'tools' have been listed in Table 1 to this clause which may be used to assess how the proposed development addresses the objectives of this policy, as appropriate.

Table 1 – ESD Application Requirements

Type of development	Application requirements	Example tools
Accommodation and Mixed Use with residential component of:		
<ul style="list-style-type: none"> ▪ 2 - 9 additional dwellings; or ▪ Development of a building for accommodation (other than a dwelling), with a gross floor area between 500sqm and 1000sqm; or ▪ Alterations and additions of 500sqm or more of additional gross floor area (excluding outbuildings). 	Sustainable Design Assessment (SDA)	BESS STORM MUSIC
<ul style="list-style-type: none"> ▪ 10 or more additional dwellings; or ▪ Development of a building for accommodation (other than a dwelling), with a gross floor area of more than 1000sqm. 	Sustainability Management Plan (SMP)	BESS Green Star MUSIC STORM
Non Residential		
<ul style="list-style-type: none"> ▪ Development of a non-residential building with a gross floor area between 500sqm and 2000sqm; or ▪ Alterations and additions of between 	Sustainable Design Assessment (SDA)	Green Star BESS MUSIC

Type of development	Application requirements	Example tools
500sqm and 2000sqm.		STORM
<ul style="list-style-type: none"> ▪ Development of a non-residential building with a gross floor area of more than 2000sqm ; or ▪ Alterations and additions greater than 2000sqm. 	Sustainability Management Plan (SMP) Green Travel Plan (GTP) ³	Green Star BESS MUSIC STORM

Note 1: Development (in Table 1 to this clause) has the same meaning as in Section 3 of the Planning and Environment Act 1987, but does not include subdivision. To remove any doubt, development also includes alterations and additions. In the case of alterations and additions, the requirements of the Policy apply only to the alterations and additions.

Note 2: Mixed Use developments are required to provide the information applicable to each use component of the development.

Note 3: Applications for a warehouse are excluded from requiring a Green Travel Plan.

22.04-5 Decision Guidelines

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In determining an application, the responsible authority will consider as appropriate:

- The extent to which the development meets the objectives and requirements of this policy from the design stage through to construction and operation.
- Whether the proposed ESD performance standards are functional and effective to minimise environmental impact.
- Whether the proposed ESD initiatives are reasonable having regard to the type and scale of the development and any site constraints.
- Whether an appropriate assessment has been used.
- Whether an ESD plan or framework has previously been approved by the responsible authority (whether under a planning provision or otherwise).

22.04-6 Reference Documents

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BESS (Built Environment Sustainability Scorecard), Council Alliance for a Sustainable Built Environment (CASBE), 2015, bess.net.au

Green Star, Green Building Council of Australia, <http://new.gbca.org.au/green-star>

Guide for Best Practice for Waste Management in Multi-Unit Developments, Sustainability Victoria, 2010

Knox Integrated Transport Plan – A Transport Vision for Knox 2015-2025, Knox City Council, 2015

Knox Urban Design Framework 2020, Knox City Council, 2003

Nationwide House Energy Rating Scheme (NatHERS), Department of Climate Change and Energy Efficiency, www.nathers.gov.au

STORM, Melbourne Water, storm.melbournewater.com.au

Urban Stormwater Best Practice Environmental Management Guidelines, CSIRO, 2006

Water Sensitive Urban Design (WSUD) Policy, Knox City Council, 2015

Water Sensitive Urban Design (WSUD) Procedure, Knox City Council, 2012

Water Sensitive Urban Design & Stormwater Management Strategy, Knox City Council, 2010

Your Home Technical Manual, Australian Government, Department of Industry, Innovation and Science, 2016, yourhome.gov.au

Note: The above reference documents and websites may be amended from time to time. It is intended that these documents and websites (or amended versions) are relevant reference documents to this policy.

22.04-7 Commencement

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The ESD Application requirements in Table 1 to this clause do not apply to applications received by the responsible authority before the gazettal date of this clause.

22.04-8 Expiry

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This policy will expire on 30 June 2019, or earlier if it is superseded by an equivalent provision of the Victoria Planning Provisions.