

# SDAPP Explained

Building design for a sustainable future



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The protection of our environment is an important global and local responsibility. Council wants to help lead the transformation in how we live and use our resources in the future.

Today, buildings produce 20% of Australia's greenhouse gas emissions through the use of energy during operation. What's more, the construction of buildings, including demolition waste, contributes 40% of all the materials sent to landfill. And in operation, buildings use large amounts of potable water for non-drinking purposes.

For environmental, economic and social reasons, Council supports you in creating a more sustainable lifestyle. Therefore, Council's planning application process includes sustainable design considerations.

This fact sheet explains what this means for applicants and what resources and assistance are available.

## What is sustainable design?

Sustainable design is a key priority in the development of today's built environment. Sustainable design protects our environment, secures today's living standards and future-proofs our community against rising energy, water and waste disposal costs.

Several Victorian Councils have developed a consistent and transparent sustainable design assessment process. This process offers a high level of planning certainty relevant to sustainable design, and ensures that it has been considered during the early project phase – when it achieves the greatest benefits at the lowest cost.

## Sustainable design in your planning application

Sustainable design is critical to any building project – be it minor alterations or a large new development. Council has established different application categories that relate to the size and type of your application.

The chart overleaf explains whether your planning application falls into the 'Small', 'Medium' or 'Large' category and whether sustainable design-related information needs to be submitted with your application.

## What is the SDAPP program?

The SDAPP (Sustainable Design Assessment in the Planning Process) program refers to the inclusion of key environmental performance considerations into the planning permit approvals process in order to achieve more sustainable building outcomes for the long-term benefit of the wider community.

SDAPP is:

- Your guide to achieving more sustainable building outcomes.
- A practical approach to assessing sustainable development matters during the planning permit application process.
- The consistent inclusion of key environmental performance standards into the planning permit approvals process.

“SDAPP is an excellent tool to foster collaborative design at a project's early design stage. In my experience, the planning approval process is the key stage to lock in best practice sustainable design outcomes.”

Tim Angus,  
Sustainable Design Architect

## Submitting sustainable design information

### Submitting sustainable design information

All applicants are encouraged to consider the 10 Key Sustainable Building Categories within their design. However, Council will request certain applications (based on size) to specifically address these criteria. On the back page of this fact sheet you will find an overview of these categories and relevant design considerations. Council has also developed detailed fact sheets for each of these categories, highlighting the key benefits and strategies to implementing them.

### Sustainable Design Assessment (SDA)

#### When is an SDA requested?

An SDA is required for medium developments, comprising of two to nine residential dwellings or 100m<sup>2</sup> to 1000m<sup>2</sup> of non-residential Gross Floor Area (GFA).

#### What is an SDA?

An SDA is a simple sustainability assessment of a proposed design at the planning stage. The assessment will support your planning application by showing how you intend to address the 10 Key Sustainable Building Categories.

Regardless of the formal requirements of the planning scheme, we encourage you to strive for excellence, creativity and innovation. By using free web-based tools, such as BESS, combined with a brief description of how the project responds to the above categories, you can easily demonstrate that your project meets Council's best practice standards for sustainable design. Generally, an SDA can be prepared by the applicant and it is not necessary to engage a sustainability expert.

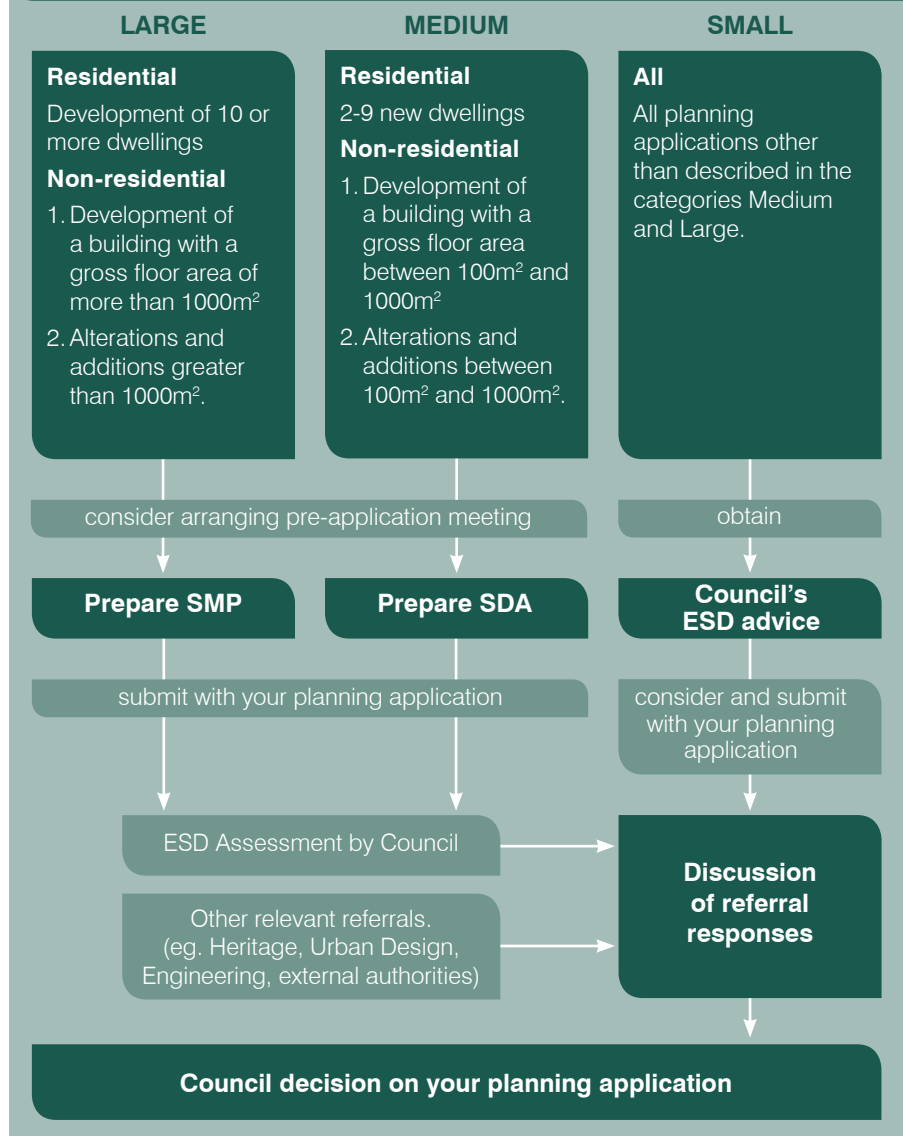
Please also refer to the SDA guidelines and resources on our website for further information.

### Sustainable Management Plan (SMP)

#### When is an SMP required?

An SMP is required for all larger developments, comprising of ten or more residential dwellings or more than 1000m<sup>2</sup> of non-residential Gross Floor Area (GFA).

## Determining your SDAPP category



#### What is an SMP?

An SMP is a detailed sustainability assessment of a proposed design at the planning stage. An SMP identifies beneficial, easy to implement and best practice sustainability initiatives. It addresses the 10 Key Sustainable Building Categories and demonstrates that a holistic sustainable design review has been undertaken during a project's early design stage.

In relation to these categories, an SMP must:

- identify relevant sustainability targets or performance standards

- document the means by which the appropriate target or performance will be achieved.

The nature of larger developments provides the opportunity for increased environmental benefits and the opportunity for major resource savings. Hence, greater rigour in investigation is justified. It may be necessary to engage a sustainability professional to prepare an SMP.

Please also refer to the SMP guidelines and resources on our website for further information.

# The 10 Key Sustainable Building Categories

## 1.0 Indoor Environment Quality

Objective: to achieve a healthy indoor environment quality for the wellbeing of building occupants.

Examples of design decisions:

- daylight
- thermal comfort
- natural ventilation.

## 2.0 Energy Efficiency 2.1 Sunshading

Objective: to ensure the efficient use of energy, to reduce total operating greenhouse emissions and to reduce energy peak demand.

Examples of design decisions:

- effective shading
- building fabric enhanced above the minimum Building Code of Australia (BCA) requirements
- efficient heating and cooling services.

## 3.0 Water Efficiency

Objective: to ensure the efficient use of water, to reduce total operating potable water use and to encourage the appropriate use of alternative water sources.

Examples of design decisions:

- use efficient fixtures and fittings
- avoid the use of mains water for landscape irrigation
- re-use water (e.g. greywater).

## 4.0 Stormwater Management 4.1 Site Permeability

Objective: to reduce the impact of stormwater run-off, to improve the water quality of stormwater run-off, to achieve best practice stormwater quality outcomes and to incorporate the use of water sensitive urban design, including rainwater re-use.

Examples of design decisions:

- minimise watercourse pollution
- maximise stormwater capture
- maximise onsite rainwater re-use (e.g. for flushing toilets and irrigation).

## 5.0 Building Materials

Objective: to minimise the environmental impacts of materials used by encouraging the use of materials with a favourable lifecycle assessment:

Examples of design decisions

- embodied energy of materials
- use of materials with recycled content
- future recyclability of materials.

## 6.0 Transport

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

Examples of design decisions:

- providing convenient and secure bike storage
- providing access to showers and lockers at work
- Green Travel Plan for residents, visitors and staff.

## 7.0 Waste Management

Objective: to ensure waste avoidance reuse and recycling during the construction and operation stages of development.

Examples of design decisions:

- preparation of a construction Waste Management Plan
- adoption of a demolition and construction material recycling target
- preparation of a operational Waste Management Plan.

## 8.0 Urban Ecology 8.1 GreenRoofs, Walls and Facades

Objective: to protect and enhance biodiversity and to encourage the planting of indigenous vegetation.

Examples of design decisions:

- maintaining / enhancing the site's ecological value
- creating resident amenity
- encourage biodiversity areas.

## 9.0 Innovation 9.1 Melbourne Climate

Objective: to encourage innovative technology, design and processes in all development, so as to positively influence the sustainability of buildings.

Examples of design decisions:

- significant enhancements of best practice sustainable design standards
- introduction of new technology
- good passive design approach.

## 10.0 Construction and Building Management

Objectives: to encourage a holistic and integrated design and construction process and ongoing high performance.

Examples of design decisions:

- Building Users Guide that explains a building's sustainable design principles
- preparation of operation Environmental Management Plan
- contractor has valid ISO14001 (environmental management) accreditation.

## ESD Tools

What are ESD Tools?  
Why use them?  
Voluntary or mandatory?  
Which tool for SDAPP?

An overview of the following tools:

- BESS
- STORM
- MUSIC
- Green Star
- NatHERS
- NABERS

## Council's sustainability resources

On Council's website, you will also find reference documents that demonstrate how an SDAPP submission can be prepared. You may wish to adopt these documents for use in your planning application. To make sure that your project realises its full sustainable design potential, we encourage you to discuss your design approach and environmental targets with our Statutory Planning staff or Council's sustainable design experts.

## Mandatory Requirements and Council's Best Practice Standard

### Mandatory Requirements:

Meeting minimum sustainability standards as outlined by the National Construction Code of Australia and the relevant Planning Scheme clauses.

### Best Practice Standard:

In order to claim that your development has met Council's best practice standard, the development must:

- Meet or exceed best practice standards as described in each of the 10 Key Sustainable Building Categories.

## Where can I find out more?

### 10 Key Sustainable Building Categories Fact Sheets

Make sure you download your fact sheets on the 10 Key Sustainable Categories from Council's website.

[www.yarracity.vic.gov.au](http://www.yarracity.vic.gov.au)

### BESS

Built Environment Sustainability Scorecard. Developed by local government members of CASBE (Council Alliance for a Sustainable Built Environment), BESS is a free and simple online assessment rating tool for most types of development. BESS has been tailored to suit the SDAPP program and help applicants demonstrate 'best practice' in the following categories:

- Indoor Environment Quality
- Energy Efficiency
- Water Efficiency
- Stormwater Management
- Transport
- Waste
- Urban Ecology
- Management

[www.bess.net.au](http://www.bess.net.au)

### FirstRate

A software tool developed under the Nationwide House Energy Rating Scheme (NatHERS). FirstRate estimates your home's future energy demands for heating and cooling. The calculations consider your building's orientation, thermal insulation and other major design attributes. The higher the rating the less demand the building will have on mechanical heating and cooling therefore reducing operational energy demand. An energy rating may be required to apply for a residential building permit but we recommend confirming your rating in advance to ensure compliance with both planning and building standards.

Please note that FirstRate is only one of the accredited energy rating tools, alternative tools such as BERS Pro or AccuRate can also be used to confirm compliance.

Refer to the following websites for more information about Victoria's 6 Star Standard.

[www.makeyourhomegreen.vic.gov.au](http://www.makeyourhomegreen.vic.gov.au)  
[www.buildingcommission.com.au](http://www.buildingcommission.com.au)

### NABERS

NABERS rates the operational impacts of non-residential buildings on the environment. It can be used during building's operations as well as during the design phase to predict base building ratings and establish benchmarks and likely outcomes. NABERS distinguishes between the tenancy and base building and therefore can identify and detail areas for improvement.

NABERS applies to offices, hotels and retail buildings. The areas of sustainability considered are:

- Energy Efficiency
- Water
- Indoor Environment Quality
- Waste

[www.nabers.com.au](http://www.nabers.com.au)

### Green Star

Green building rating tools from the Green Building Council Australia (GBCA). These tools for large scale building projects represent a comprehensive national environmental rating scheme. The tools evaluate the design and achievements of buildings in all sustainable design categories.

[www.gbca.org.au](http://www.gbca.org.au)