

## SDAPP

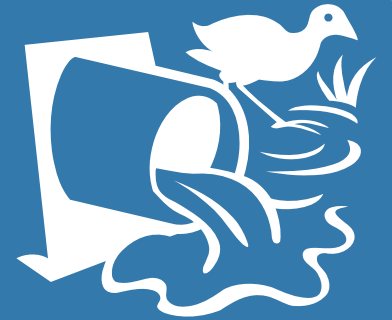
Sustainable Design Assessment  
in the Planning Process  
10 Key Sustainable Building Categories



# 4.0

# Stormwater Management

Building design for a sustainable future



## What's included in this fact sheet:

Why do we need to change our Stormwater Management practices?

How will best practice Stormwater Management benefit me?

How does my choice of Stormwater Management strategies impact on the environment?

Some basic guidelines to manage stormwater:

- Rainwater tanks
- Porous paving
- Raingardens
- Drought tolerant landscaping

Measuring Stormwater Management performance

Where can I find out more?

Mandatory Requirements

Council's Best Practice Standard.

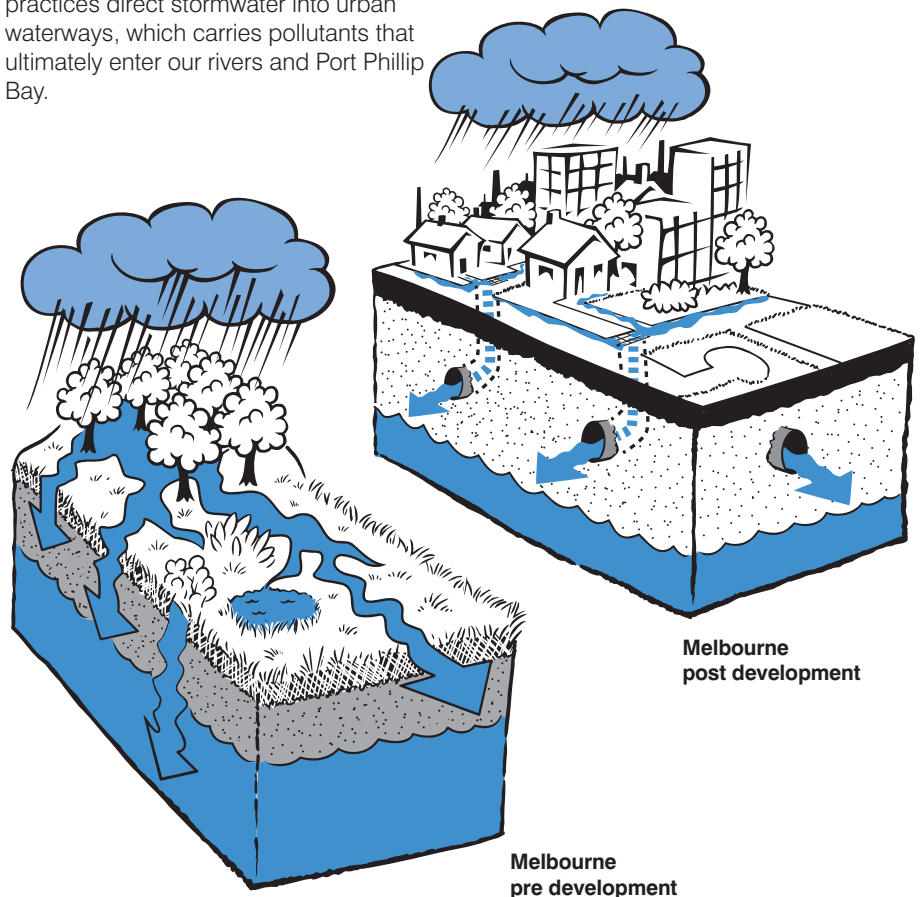
This fact sheet will assist you in making informed decisions about Stormwater Management practices to minimise negative impacts on the environment.

## Why do we need to change our Stormwater Management practices?

Melbourne's continued urbanisation and expansion has resulted in a dramatic increase in areas of hard and impervious surfaces, such as buildings, roads and car parks. Consequently, the majority of the rain that falls in urban areas is converted into run off, or stormwater.

Traditional stormwater management practices direct stormwater into urban waterways, which carries pollutants that ultimately enter our rivers and Port Phillip Bay.

The increase in stormwater negatively affects the health and amenity of our waterways for people, plants and animals. Additionally, the large volumes of stormwater entering our waterways can cause flooding that damages both natural and built environments.



Melbourne post development

Melbourne pre development





# Some basic guidelines to best practice Stormwater Management



## Measuring Stormwater Management performance

To address and measure stormwater quality outcomes, the Best Practice Environmental Guidelines (BPEG) were developed and published by the Victorian Stormwater Committee. These guidelines establish specific stormwater quality objectives, to assist in determining the level of stormwater management necessary to meet the State Environment Protection Policy (SEPP) requirements. These guidelines are now a referenced document in the State Planning Policy Framework. The best practice performance objectives from the BPEG aim to remove:

- 80% of suspended solids
- 45% of total Nitrogen
- 45% of total Phosphorus
- 70% of typical urban annual litter load.

When applying for a planning permit, you may be required to demonstrate that your development proposal will meet these performance targets. This can be done through the use of different tools.

For small and medium sized developments, Melbourne Water developed STORM, a free and simple online stormwater calculator that helps you assess and improve your design's stormwater performance. Exceeding the 100% benchmark in the STORM tool confirms that your building design will meet Council's performance targets.

For large sized developments, we recommend using proprietary tools such as MUSIC and Urban Developer to simulate urban stormwater systems and their performance. These tools require a sound knowledge of urban stormwater management principles and practices.

## Mandatory Requirements and Council's Best Practice Standards

### Mandatory Requirements

You must meet:

The National Construction Code (NCC) requirements for water efficiency.

New developments may be required to install a rainwater tank. For a single dwelling, a rainwater tank must;

- have a storage capacity of at least 2,000 litres
- be connected to a roof catchment of at least 50 square meters
- be connected to all internal toilets.

**Meet the objectives and standards of the local planning scheme including permeability, site coverage, stormwater management and water sensitive urban design (as applicable).**

### Council's Best Practice Standards

- Exceed Victoria's best practice stormwater performance targets, set out in the Urban Stormwater Best Practice Environmental Management Guidelines (BPEMG) and local integrated water management plans. These targets may be demonstrated by a STORM rating of at least 100% or equivalent modelling results (MUSIC, Urban Developer).
- Note: rainwater tanks sized for retention are in addition to any required for detention in storm events.

Developments, which seek to vary from these best practice standards, must demonstrate how best practice stormwater management can be satisfactorily achieved.

## Where can I find out more?

### STORM calculator

Melbourne Water  
[storm.melbournewater.com.au](http://storm.melbournewater.com.au)

### Tankulator

Alternative Technology Association  
[www.tankulator.ata.org.au](http://www.tankulator.ata.org.au)

### Raingardens

Melbourne Water  
[www.melbournewater.com.au/water-data-and-education/environmental-issues/why-we-need-save-water/tips-saving-water/raingardens](http://www.melbournewater.com.au/water-data-and-education/environmental-issues/why-we-need-save-water/tips-saving-water/raingardens)

### General stormwater information

Melbourne Water  
[www.melbournewater.com.au](http://www.melbournewater.com.au)

### Stormwater Management Education Programs

Clearwater  
[www.clearwater.asn.au](http://www.clearwater.asn.au)

### Information about Victoria's water environments

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

### Information about water and wastewater services

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

### WSUD Guidelines

Refer to individual Council websites

**Other Fact Sheets in this series are also available to provide guidance on the 10 Key Sustainable Building Categories. For further information on Stormwater Management, consider the Fact Sheets entitled:**

- Water Efficiency
- Urban Ecology
- Site Permeability