

## Design and Construction Note 201.01

Drainage Design

## Introduction to Drainage Design

Reviewed: 16/08/2018

## <u>01.3 - Water Sensitive Urban Design (WSUB)</u> & Water Sensitive Road Design (WSRD)

WSUB involves the intergration of urban stromwater, water supply and wastewater issues during the planning and design of urban developments with the objective that water is used in a resource sensitive and ecologically sustainable manner.

WSRD should focus on water sensitive stormwater management within parks and road reserves. These principles can be applied to urban roads when it is considered as an alternative drainage design. Basic design tools incorporated in to WSRD are:

- minimising the extent of impervious surfaces;
- stormwater detention and retention;
- stormwater treatment systems;
- pollution containment systems; and
- appropriate street landscaping.

## 01.4 - Stormwater Management Plan (SMP)

A Stormwater Management Plan (SMP) shall set out management activities within a catchment and should be provided for a proposals which are likely to:

- alter stormwater runoff volume, rate, duration and/or frequency; and/or
- adversely affect the environmental values of the area receiving the water, including groundwater, downstream water and waterways such as the river.

An SMP should identify the proposed protection, treatment and management of the identified water ways and water bodies within the catchments area with respect to:

- the impact of stormwater on the features of the environment and their ecosystems; and
- the impact on the features of the stormwater

The two forms of SMP that should be developed as part of a new development are:

- 1) Urban Stormwater Quality Management Plan
- 2) Site Based Stormwater Management Plan

It is also necessary to develop a risk assessment of the proposal and develop a Risk Management Strategy, in accordance with "City of Perth Enterprise Risk Management Policy (COP Policy 19.1)" and "AS/NZS ISO 31000:2009 - Risk Management - Principles and Guidelines."