

STORMWATER MANAGEMENT REQUIREMENTS

The City of Cape Town's stormwater management policy (*Management of Urban Stormwater Impacts Policy Version 1.1 dated 27 May 2009 C 58/05/09*) requires that stormwater generated from new developments must be managed to improve the quality and control the quantity and rate of discharge. Treatment facilities must be provided to achieve these goals by way of a combination of on-site (individual property developments) and regional off-site measures.

The City of Cape Town will provide a regional stormwater management system to cater for the major portion of infrastructure required to do the off-site stormwater management for compliance with the stormwater policy.

On-site stormwater management measures will be required for all types of individual property developments except single residential. Detail of these facilities have to be indicated on site development plans and building plans for approval. The on-site facilities required will entail the following:

1. Treatment to improve quality

Treatment of Roof water:

- Stormwater runoff from roof areas on all developments except single residential, and irrespective of roof size, shall be treated to improve the quality to the required standard as per the City's policy document.
- A treatment system has to be established on site and landscaped areas can be utilised for this in an appropriate location to receive roof water. Examples of treatment systems are Bioretention cells with a combined area of 5% of the total roof area, or surface sand filters in prefabricated tanks or under grassed cover.
- The design and construction of the treatment system needs to comply with acceptable BMP design standards.

Litter treatment

- Stormwater catchpits have to be designed and constructed to prevent litter from entering the underground system.
- Gully grids and special rakes on kerb inlets will be required.
- Certain industries may require a litter trap to be constructed immediately upstream of the municipal stormwater connection.

Oil/grit interceptor

- Mechanical workshops, transportation and storage yards will require oil/grit interceptors to be constructed immediately downstream of these facilities to remove spillages from stormwater runoff.

- Stormwater discharge from the site will be permitted to the flow (runoff) generated by a critical storm with a return period of 1:5 years for industrial and commercial developments, and 1:2 years for residential developments.
- Control devices should be provided at the site boundary to limit discharge to the permitted flow.
- Sufficient detention capacity should be provided to cater for storms up to 1:50 year return interval.
- The detention volume provided by the treatment system for roof water (as per section 11.1 above) can be taken into account when calculating the detention requirements.
- Location of detention facilities
- Detention facilities can be combined with the treatment facilities for roof water.
- Detention capacity can be spread around the site to utilise parking and other paved areas.

2. Treatment to control quantity

- The implementation of operational procedures and on-going maintenance of infrastructure is essential to achieve a sustainable stormwater system.