

DETAILS

With the lack of desirable capacity in both the City's and the Water Corporation's drainage systems, in recent times developers have been requested to retain stormwater on site. Retention of the stormwater on site by the use of soakwells helps recharge the ground water table and places much of the responsibility for maintenance of the property's stormwater disposal system onto the property owners.

The use of a relief overflow from soakwell systems to the City's drains has been permitted to cater for exceptional storms. Where retention on site is not possible as in many inner city sites, an on-site detention system has been requested with a restriction on the outflow from the site to the City's drainage system. This method requires the construction of on-site holding tanks which release the stormwater to the City's drains, either by gravity flow or pumping, at a restricted rate and thus reducing the peak discharge from storms.

The use of these detention systems is in line with practices of other capital cities and will greatly relieve the pressure on both the City's and the Water Corporation's stormwater drainage systems. This practice also allows properties to connect to the City's drainage system where the existing system could not adequately cater for the full discharge.

The use of detention systems designed to limit the peak runoff to that which would have occurred during a once in 20 year storm on the original undeveloped site is a generally accepted practise. This restriction creates a volume of water which must be detained on site. An analysis has been carried out of catchments within the city area to determine the maximum allowable site discharge rate and the minimum detention storage volume required to comply with the criteria (refer Schedule 1). Some concessions have been adopted in the criteria used to allow for city conditions. Based on these calculations, it is considered that for each hectare of development, the rate of discharge should be limited to 120 litres per second and the minimum storage required is 185 cubic metres.

The adoption of this practice as policy for all developments would reduce the necessity for costly upgrades of existing systems to cope with the parameters set by modern standards and community expectations.