

Dramatic increase in pollutants predicted for Botany Bay Catchment

Computer modelling of stormwater patterns in the Botany Bay Catchment show large increases in stormwater pollution will be inevitable if current stormwater management and landuse trends continue.

Modelling scenarios that predict the likely impacts of future landuses show increases in pollutants of between 11% and 22% for 2030 and 24% - 46% for 2070.

Sediment loads in stormwater will increase steadily because of increased urban density and new developments in the catchment. The modelling results emphasise the need for change in the way pollutants are captured and removed from stormwater.

The modelling was carried out as part of the Botany Bay Coastal Catchments Initiative (BBCCI). Scenarios were projected for different pollutants and the results presented in graph form (see graph below for sediment load) to illustrate the levels before the catchment was settled (presettlement), the impacts of likely development, and what could be achieved if Water Sensitive Urban Design (WSUD) was adopted throughout the catchment (scenario 12 in the graph).

It shows that by embracing WSUD by 2070 we could improve the current pollutant loads well below their current levels (scenario 1) and yet still achieve the level of increased urban density and new development predicted.

John Dahlenburg from the Sydney Metropolitan CMA noted "This modelling shows the need for councils, the state government, developers and the community to tackle water quality improvement through the introduction of water sensitive urban design (WSUD) throughout the catchment.

"WSUD is a proven tool that can be used to minimise the amount of stormwater pollution getting into our creeks, rivers and the Bay. By using WSUD we can even reverse the trend and improve water quality in the Botany Bay catchment and still increase urban densification and new development."

The modelling was conducted as part of the BBCCI, which is seeking to achieve long-term protection of the surface waters of Botany Bay, its estuaries and its catchment. It is majority funded by the Commonwealth Government and part funded and project managed by the Sydney Metropolitan CMA. More information about the BBCCI can be found at:

www.sydney.cma.nsw.gov.au/bbcci

A full copy of the future landuse change modelling report can be downloaded from

<http://www.sydney.cma.nsw.gov.au/bbcci/StormwaterPol.html> or

<http://www.sydney.cma.nsw.gov.au/bbcci/Publications.html>

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Scenario Comparison TSS (T/yr)

Mean Annual Pollutant Export (T/yr)



TSS = Total Suspended Solids