

CASE STUDY: Integrated Water Cycle Management

APPENDIX 3: Storm water impacts

(extracted from Info Sheet 5-3 of the *Porters Creek Wetland CD-ROM* available to Schools through Gosford and Wyong Councils).

Stormwater Impacts

Stormwater is rain water running off urban and agricultural catchments. The Stormwater System of Wyong Shire is the network of drains and pipes that collects rainwater runoff from all the towns, suburbs and industrial areas of Wyong Shire and transports it to wetlands, streams, lakes and the ocean. The stormwater system reduces flooding in our towns and suburbs and helps them dry out more quickly after rain.

The Stormwater System has several possible kinds of environmental impact:

1. It reduces the amount of rain that soaks into the ground throughout the Shire. It does this by collecting rain that falls on roofs, paths, roads and carparks. This means that there is less ground water to feed our bushland, wetlands and creeks during dry periods. Unless they are very carefully designed, additions to our stormwater system can reduce the availability of water in bushland areas.
2. It increases the amount of rain that is flushed into natural streams and wetlands. This changes the environments of those places and can cause some plants and animals to die because of erosion, sedimentation and too much wetting. Unless they are very carefully designed, additions to our stormwater system can overload and degrade natural streams and wetlands.
3. It increases the amount of pollution that is flushed into natural waterways. As stormwater flows off buildings, carparks, roads and factory yards, it collects many types of pollution (see pollution list below). Since the stormwater system is designed to move water quickly, it also works like a pollution expressway. Even harmless things such as leaves from trees, can become pollution when large amounts of them are dumped at the end of a drain. The stormwater system is separate from the Sewerage System and so stormwater is not treated at Sewerage Treatment Plants. Although some drains have gross pollution traps or other ways of filtering stormwater, unless they are carefully designed, additions to our stormwater system can increase the pollution into our wetlands, streams and lakes waterways.
4. It uses rainwater inefficiently by rapidly flushing it away into creeks, the lakes and the sea. Wyong Shire Council is working to reduce all of these potential stormwater impacts by improving stormwater treatment in our major drains and by introducing Water Sensitive Urban Design in the new urban areas.



Gosford City and Wyong Shire Councils currently collect and reuse more than 50 million litres of stormwater a year.



CENTRAL COAST



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