

# SOAKWELLS



Installation - Boronia Ridge, Walpole, WA.



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Completion - Boronia Ridge, Walpole, WA.



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## Further Information:

- Department of Water (2004-2007) "Stormwater Management Manual for Western Australia"
- Engineers Australia (2006) "Australian Runoff Quality"
- Argue, J.R. (Edition) 2004, Water Sensitive Urban Design: basic procedures for 'source control' of stormwater - a handbook for Australia Practice, Urban Water Resources Centre, University of South Australia.

## Key Principles

Soakwells are a commonly used small scale method of using infiltration to treat stormwater. Soakwells generally consist of vertical perforated liners which maximise the area of available infiltration into the surrounding soils.

## Key Design Factors

- Soil types and infiltration capacity
- Underlying groundwater levels
- Surface geological conditions, e.g. presence of rock
- Preventing ponding and mosquito breeding
- Sediment control

## Indicative Water Quality Performance

Pollutant	Pollutant Removal Effectiveness	Expected % Removal
Litter	High	>90%
Coarse Sediment	High	90% -100%
Total Suspended Solids	High	65%-99%
Total Nitrogen	Medium-High	50%-70%
Total Phosphorus	Medium	40%-80%
Heavy Metals	Medium-High	50%-95%

## Main Benefits

- Very effective and easy to implement in sandy sites
- Simple to construct and low maintenance
- Maintains site water balance



## Example of Soakwells in Road System

