



## News release

# Secret to clean water is dirt-simple, say scientists

The secret to a steady supply of good-quality fresh water might be just under our feet.

Soil can act as a bio-filter, useful for rehabilitating waste water, according to Professor Emeritus Robert E White, past chair of the Australian Society of Soil Science Inc (ASSSI).

The society has supported work researching the different ways that soil can scrub water.

“Contaminants carried in waste water can be removed when passed through the soil,” said Prof White. “The water is recycled and can be returned to the environment or used again.”

He said that soil provides an ecosystem service by filtering water flowing out of undisturbed bush and grasslands to provide clean fresh water for human and animal consumption.

Plants growing in soil also help filter runoff water, he added. “The soil-plant combination buffers the damaging effects of heavy rainfall and reduces sediment input to rivers and streams.”

Maintaining healthy soils is vital for the effective filtration of water.

“Healthy soils support a great variety and number of microorganisms,” he said. “These organisms break down pesticides and organic contaminants and store heavy metals in their cells, resulting in a healthier environment.”

Currently, 12% of Australia’s rainfall runs off and is collected in rivers.

The removal of sediment – material such as silt, sand, gravel and chemical precipitates – from runoff prevents phosphates and heavy metals from entering rivers.

Less than 10% of Australia’s waste water is currently treated and reused and so can be considered an under-utilised resource.

ASSSI is the not-for-profit organisation that seeks to advance soil science in the professional, academic and technical fields.

**ENDS**



Pic caption: Professor Emeritus Robert E White: Use soil to scrub recycled water clean.

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