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Factsheet

Right place, biggest return

Salinity in the Lockyer Valley

Managing wastewater

Healthy land & water

Salinity in the Lockyer Valley Managing wastewater

Why manage on-site wastewater?

Large inputs of household wastewater in combination with a poorly maintained wastewater treatment system, concentrated application of water or leaks can result in increased water movement to groundwater and lateral water flow in soils with limited permeability (Figure 1). Conversely, an efficient system with a large disposal area and less volume of input water is less likely to exacerbate salinity problems (Figure 2). Managing wastewater effectively on site can:

- Minimise the release of pollution to the environment.
- Minimise the spread of disease causing organisms.
- Ensure people do not come into contact with hazardous material.
- Keep water supplies free from pollutants.
- Reduce deep drainage through the soil to the groundwater.

More efficient wastewater treatment facilities also require less maintenance and have a longer life span.

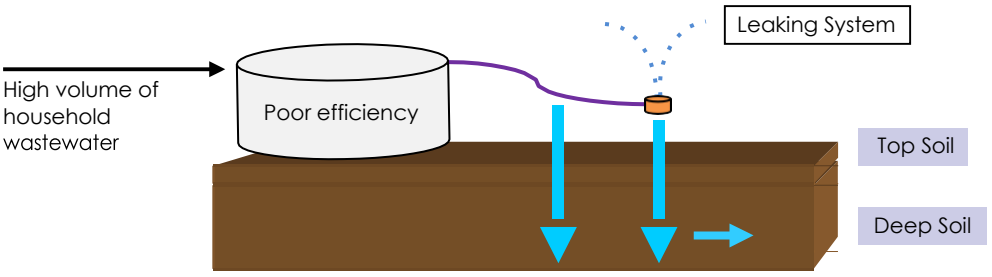

Figure 1: *An inefficient system with high inputs of household water, a small disposal area, or leaking fittings can increase the quantity of water moving off site, contributing to salinity*

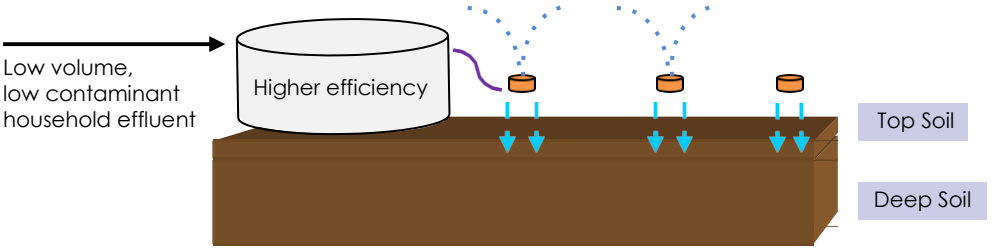

Figure 2: *Lower volume and concentration of inputs of household wastewater distributed over a large disposal area will have a lower impact on the environment.*

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Reducing salinity

Altering the water balance can have an impact on salinity. This can occur by:

- Introducing water to an area through the addition of rural subdivisions;
- Removing trees and other vegetation that previously transpired water back to the atmosphere;
- Slowing water movement from a catchment through dams; and
- Accelerated erosion leading to reduced stream flow.

Generations of land clearing, development for new housing and increased water use in existing homes can add to the problem. This can result in rising water tables in some catchments, bringing underground salt to the surface, which can negatively affect surrounding land. Poorly maintained wastewater disposal systems can also increase the areas of shallow watertables in parts of a catchment and lead to rising groundwater and salinity problems.

How to manage your waste treatment plant

There are various ways that you can managing your onsite waste treatment plant.
Some of these are outlined below:

- Spread wastewater over a large disposal area over a long period of time. This reduces the pooling of wastewater on the surface and the likelihood of contaminant movement off-site in surface runoff during periods of rainfall;
- Use treatment system sprinklers and move them regularly. This helps to distribute the water over the entire disposal area;
- Avoid the soil becoming too wet in one place to reduce effluent drainage below the root zone in the soil;
- Repair leaking pipes and taps;
- Maintain healthy plant cover in the disposal area;
- Divert overland flow away from the disposal area; and
- Manage your rainwater collection system.

Options to reduce your household water use

Using water efficiently around the home reduces the demands on your wastewater treatment system, is better for the environment and saves you money. Less water usage around the home results in less water leaching into the soils and potentially adding to salinity problems. Ways to reduce your household water use include:

- Minimise the amount of water you use in your home;
- Stick to four minute showers;
- Fit water saving devices including dual flush toilets and water efficient shower heads;
- Check the water efficiency rating of appliances including dishwashers and washing machines;
- Turn the dishwasher and washing machine on only when you have enough items for a full load;
- Use environmentally sensitive detergents and household products that are low in sodium and phosphorous;
- Repair leaks and dripping taps;
- Use collected rainwater. If possible, have your rainwater plumbed into the house;
- Plant native plants adapted to wet conditions in your disposal area and hardy native plants elsewhere in your garden; and
- Monitor and record the trends in your water use.

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