Northern Territory Government

FACT SHEET

Rural Water Management

No matter where you live, your land and water use is an essential part of the overall hydrologic cycle. This cycle includes evaporation to form clouds, rainfall, run off from the land via surface streams, infiltration to recharge groundwater reserves and oceans. The connection between the hydrologic cycle and your land is vital and demonstrates the importance of water and wastewater

What is Water Management?
Water management is the sustainable use of the natural resource without waste and the disposal of used water in such a way that the quality of the receiving environment is not degraded. Proper disposal practices will maintain the quality of water supplies and protect health.

What is Water Mismanagement?
Mismanagement happens when water becomes unnecessarily polluted. Common examples are:

- dumping rubbish in creeks or lagoons;
- ineffective sewage disposal practices;
- overuse of pesticides; and
- unprotected wells/bores which allows access to groundwater by animal activity (eg carcasses, faeces).

Mismanagement by one water user could have an adverse effect on many neighbouring water users. Mismanagement by many water users may cause long term damage to the water resources of an area.

How can I better Manage my Waste?

You can help preserve the quality and status of the water resources by:

1. Improving the construction and equipment standard of your bore or well
Poor construction and equipment standards are major contributors to pollution of groundwater supplies. The construction of the bore should be such that no animals or even insects can enter the bore.

2. Make sure the area around the bore or well is well drained.
Provide a concrete block at least one metre wide around, and sealed to the casing. The top of the casing should be sealed so dirt, small animals, birds and insects cannot get in. If you have stock or poultry, a five-metre perimeter fence should be erected around the bore/well.

Pumps and drives should be kept in good condition so that water leakage cannot carry contaminates (grease/oil etc) into the groundwater. Protect your bore or well from surface contamination.

3. Improve the pumping regime of your bore or well
It is common practice to equip bores and wells with pumps of a high capacity in order to be able to fill tanks quickly or provide pressure for sprinklers. The result is that the pump operates for short periods at high flow rates and can cause the following problems:

- high iron content in water;
- silting or collapse of bores;
- malfunction or wear of pumps and switch gear;
- providing favourable conditions for the entry of contaminates into the bore or well;
- reduced life of bore or well; and

- higher operating costs;
- and potential for impact on neighbouring bores.

The preferred operating mode is to have the bore or well pumped continuously at the minimum rate necessary to satisfy all your water needs. This may require a storage tank, but promotes a stable aquifer and minimises changes in water quality. Overall operating costs are also reduced. Change your bore or well to continuous low rate pumping.

4. Maintain your wastewater system

An inadequate or ineffective wastewater system can be a danger to the water that you drink. Periodically check your septic tank. De-sludge it when sludge levels have accumulated to a depth of 250 millimetres. Provide a separation distance of at least 100 metres from your neighbour's effluent disposal system.

To reduce loadings on the system:

- Repair leaking taps and cistern;
- Refrain from over-watering plants close to effluent drains;
- Ensure stormwater is directed away from the effluent drains; and
- Do not flush cooking oil or fat down the kitchen sink.

To keep your sewerage system in good working order, do not overload it.

4. Limit Potential for Pollution

If you have penned stock or poultry, does stormwater runoff or wash-water drain towards your bore or your neighbours' bores or well? If it does, there is a real risk of contaminating water supplies. Improve or divert drainage, shift the stock or poultry to a more appropriate place and do not concentrate stock or poultry without careful drainage and manure control.

6. Prevent Soil Erosion

Depletion of vegetation by clearing results in reduced rainfall retention and increased erosion. Rainfall runs off the land rapidly and this reduces groundwater recharge. This action will strip your land of its topsoil.

The combination of high rainfall, rapid runoff and reduced stream cross section can produce flooding. Consider the contour of the land when designing paddocks and ploughing. Minimising erosion helps to maximise crop yield, prevent soil loss and limit nutrient loss.

For assistance, contact the Water Management Branch:

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- **Katherine**
  Randazzo Arcade, 16 Katherine Terrace, Katherine NT 0850, Ph: 89 738100
- **Alice Springs**
  1st Floor Alice Plaza, Todd Mall, PO Box 1120 Alice Springs NT 0871, Ph: 89 519215

Internet Site : www.nt.gov.au/nreta/naturalresources/publications/index.html