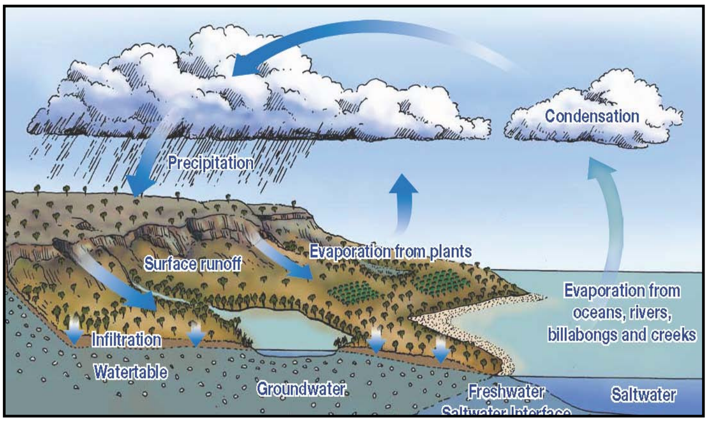
Northern Territory Government

TERRITORY WATER RESOURCES

greening the Territory
A Territory Government initiative

Managing Water on Your Block

No matter where you live, water is an essential part of our lives. Water is continually moving through a cycle which includes evaporation to form clouds, rainfall, run off from the land via creeks and rivers, infiltration to recharge groundwater reserves and oceans. The connection between water cycle and your land is vital and demonstrates the importance of water and wastewater.



What is Sustainable Water Management?

Sustainable water resource systems are those designed and managed to fully contribute to the objectives of society, now and in the future, while maintaining their ecological, environmental and hydrological integrity (ASCE, 1998; UNESCO, 1999).

This means using water in a manner which ensures that your water supply will be ongoing, does not become contaminated and does not significantly impact the needs of others and the environment.

How Can I do Things Better?

You can help preserve the quality and status of your water resource 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. Don’t spray herbicides or pesticides around the bore head.

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 fill tanks quickly or provide pressure for irrigation systems. The result is that pumps operate for short periods at high flow rates which can cause the following problems:

- higher operating costs;
- malfunction or wear of pumps and switch gear;
- silting or collapse of bores;
- reduced life of bore or well;

- providing favourable conditions for the entry of contaminates into the bore or well;
- high iron content in water; 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 pump to one that provides a continuous low rate pumping regime.

4. Maintain Your Septic System

An inadequate or ineffective septic 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.

5. Limit Potential for Pollution

Ensure your bore is upslope from possible pollutants eg. septic systems, chemical stores and penned stock.

Decrease the use of agricultural chemicals within the vicinity of bores.

Be careful to properly dispose of used containers of agricultural chemicals and fuel.

6. Prevent Soil Erosion

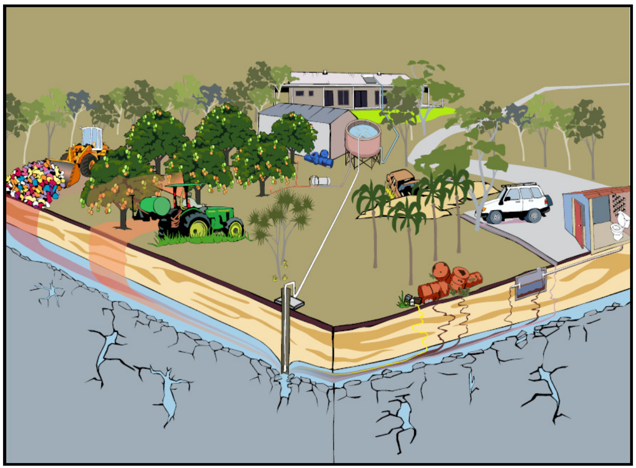
Removal of large areas of native vegetation on blocks can result in reduced rainfall infiltration and increase erosion potential. Rainfall runs off the land quickly reducing its opportunity to infiltrate the soil and replenish groundwater systems. This action can strip your land of its topsoil washing it onto neighbouring blocks or into drains, creeks and wetlands. Consider the contours of your block before building, installing septic systems, locating bore sites and designing paddock for livestock. Minimising erosion in the short term will help to maximise long term crop yield, prevent soil loss and limit nutrient loss.

Things to Avoid

Common examples of things to avoid are:

- Dumping rubbish in creeks or lagoons;
- Ineffective sewage disposal practices;
- Over-use of agricultural chemicals;
- Inappropriate storage of chemicals near bore heads; and
- Un-protected wells/bore heads which allows access to groundwater by animals. (eg snakes, frogs and goannas).

Poor management by one water user could have an adverse effect on many neighbouring water users; multiplying this by many water users has the potential to cause long term damage to the water resources of an area.



Sources of Groundwater Pollution

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