

What's under your feet?

Understanding groundwater
in the Northern Territory



1 What is groundwater?

Groundwater is water that has filtered down through soil and rock to collect in underground layers called aquifers.

When rain falls on the NT — whether it's a monsoon deluge in Darwin or a rare flood event in Alice Springs — some of that water makes its way deep into the ground, where it can be stored for months, years or even centuries.

There are two main aquifer types in the NT:

- **Unconfined aquifers:** Shallower, recharged more easily by seasonal rainfall. Common in the Top End.
- **Confined aquifers:** Deeper layers of water trapped under rock. Slower to recharge, but often very large reserves. Common in Central Australia.

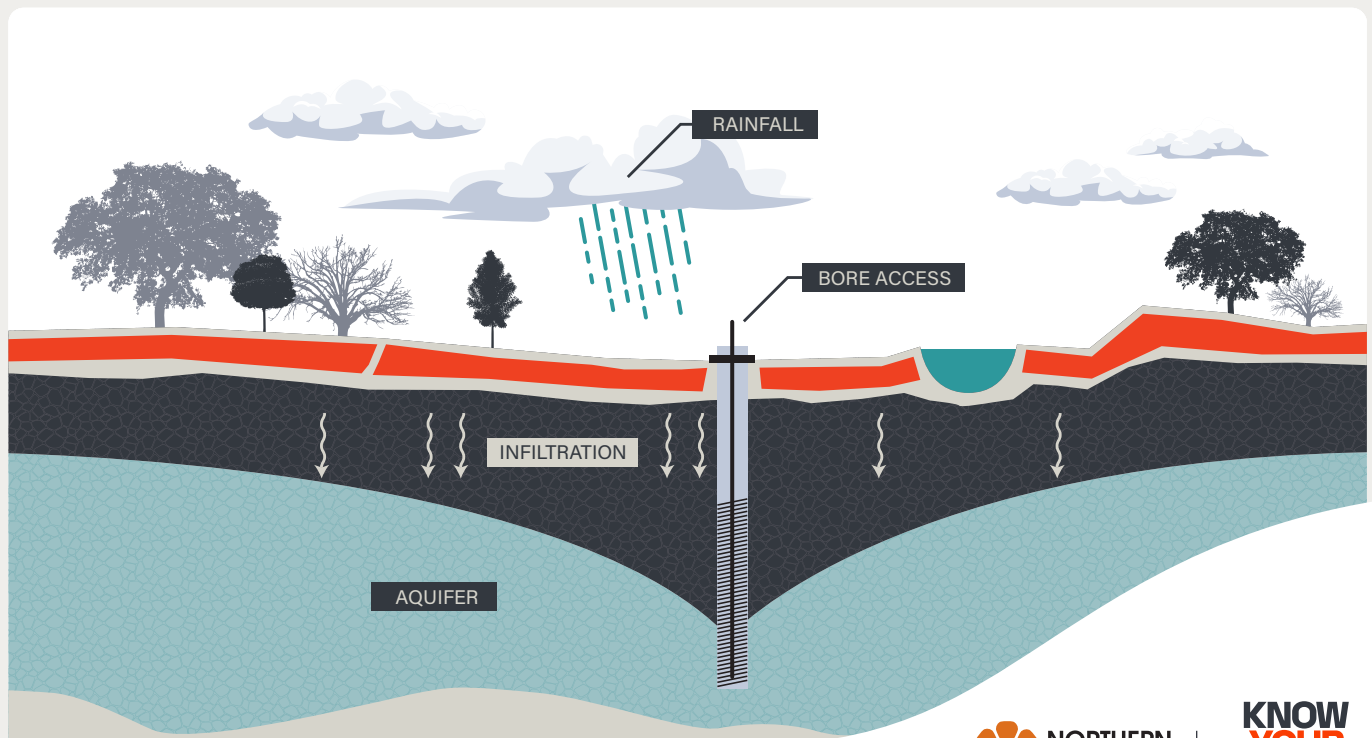


You might not see it, but groundwater is working hard beneath the Territory every day — supplying our towns, sustaining our stations and keeping remote communities going.

2 Where does NT groundwater come from?

Most NT groundwater originates as rainfall — a process called recharge. In the Top End, the Wet season dumps enormous volumes of water onto the landscape, and a portion of this soaks down to replenish aquifers. In the Arid Region, big rain events — though less frequent — are the primary recharge mechanism.

Some NT aquifers hold water that is thousands of years old, recharged under different climate conditions. Understanding recharge rates helps determine how much water can be sustainably taken.



3 How groundwater is used in the NT

Groundwater underpins life in the Territory. It is used for:

- Town water supply — Darwin, Katherine, Tennant Creek, Alice Springs and many smaller communities.
- Remote communities — often the sole drinking water source, accessed via bores.
- Pastoral stations — livestock water and property use.
- Agriculture and horticulture — irrigation of food crops.
- Industry — mining and other commercial operations.



4 How is it managed?

The NT Government monitors groundwater levels and quality across the Territory through a network of monitoring bores and data systems. The NT Water Data Portal provides public access to this information.

Anyone extracting groundwater for commercial or large-scale use must hold a water extraction licence. This ensures use stays within sustainable limits — enough for today, and for tomorrow.



For more information:

watersecurity.nt.gov.au

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