

What is an estimated sustainable yield?

An **estimated sustainable yield (ESY)** is established under a water allocation plan for the water resources it manages. Water resource management in the Northern Territory (NT) balances productive use of water with the long-term viability of the resource and the ecosystems that depend on it, underpinned by water science, monitoring and assessment.

What is an ESY?

The ESY is the amount of water that can be allocated from a water resource to support declared beneficial uses. It's a key part of water allocation planning.

- Total water use in a plan area must stay below the ESY
- An ESY can be set for each water management zone where resource characteristics vary across a plan area
- Water under the ESY isn't automatically available for extraction — it's still subject to a water licensing process that considers local impacts

What is taken into account in an ESY?

A range of factors are considered when determining an ESY:

- The characteristics of the water resource, including natural variability over time
- The environmental values of the resource, including cultural values where described
- The demand for water, including domestic and economic drivers
- How the resource responds, or is predicted to respond, to extraction over time
- The NT's water sharing priorities

The NT's water sharing priorities keep most water in the system to support non-consumptive uses, ecological functions, and cultural and social values. A comparatively low proportion is allocated for drinking and economic development — the reverse of most other jurisdictions — keeping the Territory precautionary as it grows regional and remote communities and economies.



How is the ESY estimated?

1 Understand

Build a natural water balance showing how water moves through the system. Study environmental, cultural and economic/ domestic water requirements.

2 Decide what's acceptable

Involve the community in trade-off discussions, usually through a Water Advisory Committee, to agree what impacts from water take are acceptable.

3 Test scenarios

Model different extraction scenarios and compare them against what's acceptable for the resource.

4 Settle the ESY

The Minister for Water Resources considers the whole process and settles the ESY by declaring the water allocation plan.

Outside of plan areas

ESYs only apply within declared plan areas. Outside these areas, water licensing must still take into account water availability and the impacts of extraction, guided by the NT Water Allocation Planning Framework and the Surface Water Take Wet Season Flows Policy – including setting aside water for the environment first.

Verifying the ESY

Water allocation plans use an adaptive management approach. The ESY is monitored and evaluated through:

- Mandatory five-year water allocation plan reviews
- Reviews triggered by plan-specific criteria (e.g. licence entitlements nearing allocation limits)
- Ongoing water monitoring programs to check for unacceptable impacts on water users or the resource



More information

To find out more about water resource management go to our [water policies and guidelines](#) page.

