

Safeguarding water resources

Inquiry findings

The Inquiry noted one of the key concerns the community raised about the onshore shale gas industry was the potential harm to water resources. The Inquiry found the risks to water resources included:

- competition between the onshore shale gas industry and other water users, including agriculture, tourism, recreational fishing, and local communities
- contamination of surface or groundwater causing harm to human health, the environment, and water used by Aboriginal people for cultural purposes
- changes to the distribution and movement of surface or ground water caused by seismic activity or new infrastructure, such as roads and pipelines.

The Inquiry found there were no strong water monitoring requirements to provide an early warning system and reduce the risks to water resources from onshore shale gas activities, including risks to water quality and quantity.

NT Government mitigations

- The NT Government has made sure water usage by the onshore shale gas industry is licensed and assessed against water protection and allocation policies by removing onshore gas industry exemptions from water licensing requirements. Licences are published online for transparency.
- The NT Government declared the Daly Roper Beetaloo Water Control District to improve management of the water resources in this region. Declaring the water control district enables the development of Water Allocation Plans which apply tailored allocation rules to water licence decisions in regions where there is competition for water.
- An interim framework for water charging was established from 1 January 2023. This will require the onshore gas industry to pay a fee for water extraction licences for hydraulic fracturing activities in the Territory, which will cover the cost of annual compliance monitoring inspections.
- The NT Government introduced requirements for the onshore gas industry to pay environmental securities. This makes sure there is money available to pay for wastewater disposal and the required environmental remediation and rehabilitation, ensuring the onshore gas industry bears this cost instead of the Territory.
- Environment Management Plans (EMPs) for drilling and hydraulic fracturing activities must be published so the community can comment on the management of water resource risks. The Minister for Environment, Climate Change and Water Security must consider public comments in deciding whether to approve an EMP.
- The NT Government has prohibited certain activities to prevent groundwater contamination. This includes prohibiting:
 - the use of harmful drilling fluid when drilling through aquifers
 - disposal of wastewater to ground and surface water
 - all surface water extraction for onshore gas activities
 - groundwater extraction within 1km of designated bores.
- Onshore gas companies must publicly report and assess the risks to human health from chemicals that will be used in hydraulic fracturing, flowback fluid, and water produced from hydraulic fracturing activities.
- The NT Government has introduced a legally enforceable Code of Practice which sets minimum standards for the onshore gas industry. This includes standards for water management monitoring, remediation and rehabilitation requirements.
- The NT Government introduced new laws to regulate the transport of dangerous goods, including chemicals used in the onshore gas industry to prevent leaks and spills which can contaminate water resources. The new laws include requirements for emergency plans to respond quickly to events which could cause contamination.
- The Strategic Regional Environmental Baseline Assessment (SREBA) study on water quality and quantity established a large body of research about the distribution and movement of groundwater and surface water resources in the Beetaloo region. This new baseline information will support the ongoing assessment of risks to water resources and provide evidence to improve decision-making.
- The NT Government introduced requirements for onshore gas companies to have an approved Well Operations Management Plan, for all wells. The plan must cover the lifetime of the well to reduce the risk

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of contamination to water resources, even when the well is no longer operational.

- The range and value of penalties for offences has been significantly increased.

Ongoing monitoring into the future

The Department of Environment, Parks and Water Security (DEPWS) will conduct statutory reviews of each Water Allocation Plan declared by the Minister for Environment, Climate Change and Water Security.

DEPWS will conduct regular compliance inspections in alignment with the regulatory framework for water licensing.

The NT Government requires the onshore shale gas industry to monitor and report on activities and impacts relating to water. This includes the amount of water extracted, groundwater pressure at different stages of hydraulic fracturing activities, and groundwater quality from different bores.

An independent assessment of the groundwater monitoring requirements will occur before onshore shale gas production commences to make sure the monitoring requirements are effective and continue to mitigate risks to water resources when industry activity increases.

Specialist petroleum engineers in the NT Government will implement the Orphan Well Monitoring Program to reduce the risk of water contamination from orphan wells. Their activities will include well monitoring and remediation work where required.

The Community Engagement and Information Program will continue engagement activities in communities to monitor community sentiment and identify ongoing information needs.

NT WorkSafe will monitor the transport of chemicals used by the onshore gas industry.

Where can I find more information?

Find out more about these reforms in Chapter 3 of the Scientific Inquiry into Hydraulic Fracturing Final Implementation Report.

Decisions made by the Controller of Water Resources in relation to water extraction licences are available to the public at depws.nt.gov.au/water

NT Government decisions about EMPs are available to the public on the DEPWS website at depws.nt.gov.au

Water Allocation Plans are also available on the water licensing portal on the DEPWS website.

The SREBA baseline reports, technical reports and data catalogue, are available at depws.nt.gov.au/sreba

Fact sheets and audio files in Aboriginal languages are available at hydraulicfracturing.nt.gov.au

To report regulatory breaches by the onshore gas industry, anyone can make a toll free, anonymous call to the Onshore Gas Non-Compliance Hotline. The hotline is available 24 hours a day on **1800 413 889**.