'Massive Beetaloo Water Allocation puts the Roper River at risk'
Georgina Wiso Water Allocation Plan Submission Writing Guide

The issue

Despite the risks to tourism, pastoralists, and Territory communities, the government is forging ahead with its plan to allocate billions of litres of water from the Cambrian Limestone Aquifer by declaring a water allocation plan in the Beetaloo Basin to comply with gas industry timelines.

This aquifer keeps the Roper River flowing all year round. Its stunning hot springs, world class fishing, and wetlands teeming with life are a unique and iconic part of the Northern Territory.

The release of the draft Water Allocation Plan for the Beetaloo Basin is a flawed and rushed process that threatens Northern Territory water resources, including the iconic Roper River and Mataranka Springs.

The amount of water the plan estimates can be extracted "sustainably" (262 billion litres per annum) is the biggest water allocation ever made in the Northern Territory.

The water allocation plan has not been developed by water advisory committees in accordance with standard Northern Territory Government practice, and the National Water Initiative. It has also been prepared before vital baseline studies recommended by the Scientific Inquiry into Hydraulic Fracturing have been completed.

Water allocation plans should be informed by the best available science, comply with the National Water Initiative, and be subject to proper public scrutiny – this plan does not implement these things.

Key Terms

Ownership of water: "Property" in all water, whether surface or ground, is vested in the Crown in the Northern Territory (ie it is owned by the Northern Territory).

Water Act (NT): the Water Act is the key legislation governing the management of water in the Northern Territory. It is administered by the Department of Environment, Parks and Water Security. The responsible Minister is Eva Lawler. The purpose of the Water Act is to allocate, manage, and assess water resources in the Northern Territory. It treats water as an extractive resource to be allocated to competing users.

Water Control District: Water Control Districts (WCDs) can be declared (there are currently 8). Such districts are typically in more heavily populated areas with higher competition for water.

Water Allocation Plan: Water Allocation Plans (WAPs) can be declared by the Minister within WCDs. The aim of WAPs is to strategically manage and plan for water management in defined areas. WAPs are "developed on a priority basis in areas where there are competing demands for human consumptive needs and/or where natural aquatic ecosystems have significant ecological or social values". WAPs include a description of the water resource, current and projected demand, an estimated sustainable yield, and allocation to various uses, among other matters. They allocate water between various non-consumptive uses (environmental and cultural) and consumptive uses (including rural stock and domestic, public water supply, aquaculture, industry and agriculture). WAPs involve a degree of public participation, since water advisory committees are often appointed to advise on the development of a WAP and draft WAPs are generally exhibited for public comment prior to their declaration.

Water Licence: water licences are the tool by which water is granted for consumptive uses in the Northern Territory to particular users (eg agriculture, water supply). They can be for groundwater or surface water extraction and can be granted anywhere in the Northern Territory (they do not need to be granted within a WCD or WAP area). However, water licences granted within a WAP area must comply with that WAP (for example, they must be granted within the estimated sustainable yield in the WAP).

Water Allocation Planning Framework: the water allocation planning framework is a two-page policy document that guides water licensing decisions. It states that in the Top End, in the absence of specific scientific information or a WAP, the 80:20 rule will apply to licensing decisions (ie that 80% of the annual recharge of aquifers, and river flows, must be allocated for cultural and environmental uses, leaving a 20%

consumptive pool). It permits the unsustainable "mining" of aquifers' in the arid zone of the Northern Territory. The Framework is not legally binding, and is frequently departed from by decision-makers.

Water Controller: the Water Controller is empowered to grant ground and surface water extraction licences.

Pro-forma Submission:

Dear Minister Moss,

I'm writing to ask you to urgently intervene to protect everyone and everything that relies on freshwater, from the largest water allocation in the Territory's History.

The Georgina Wiso Water Allocation Plan gives away 200 billion litres, 13x more than all groundwater currently used in the area, to unregulated industries like fracking, cotton and mining.

I am a (*Insert short description of who you are and your connection to this issue e.g. I grew up fishing on the roper and I want the opportunity to do just that with my kids one day.)*

I implore you to delay the declaration of the Georgina Wiso Water Allocation Plan for the following reasons:

Non-compliance with the NWI

The NWI requires that water sharing plans be:

> "developed in consultation with all relevant stakeholders on the basis of best scientific and socio-economic assessment, to provide secure ecological outcomes and resource security for users" (see Schedule B(i)).

The NTG did not establish a water advisory committee to develop the plan, which is inconsistent with normal NT practice and the National Water Initiative. There is no evidence that it will provide secure ecological outcomes, nor that it is based on best scientific and socio-economic assessment.

The draft plan states that a water advisory committee will be established after the plan is declared "where appropriate".

Structure

The NTG has released three documents for consultation, but only one will be gazetted (the plan itself). This is the only document with legal effect. It is very sparse, effectively just allocating water to different beneficial uses.

Estimated sustainable yield

The draft WAP refers to "the Territory's commitment to the Intergovernmental Agreement on a National Water Initiative 2014, which defines 'environmentally sustainable level of extraction' to mean 'the level of water extraction from a particular system which, if exceeded would compromise key environmental assets, or ecosystem functions and the productive base of the resource'". However, no information is provided regarding whether key environmental assets, ecosystem functions or the productive base of the resource would be compromised (see further below).

The ESY for the Georgina Basin is calculated at 40% of recharge (apparently in response to community concerns regarding using the arid zone rules). The basis upon which 40% of recharge is said to be sustainable is not addressed in the plan or other documents. It is double the contingent allocation for the "Top End" in the NT water allocation planning framework. The recharge calculation is problematic for the reasons given below.

The ESY is calculated at 243,360ML per annum for the Georgina Basin and 19,200ML per annum for the Wiso Basin (total of 262,560ML pa). This is the largest allocation in the Northern Territory's history. By comparison,

the controversial Western Davenport WAP has an ESY of 168.5GL per annum. The Katherine Tindall WAP has an ESY of 38.4GL per annum.

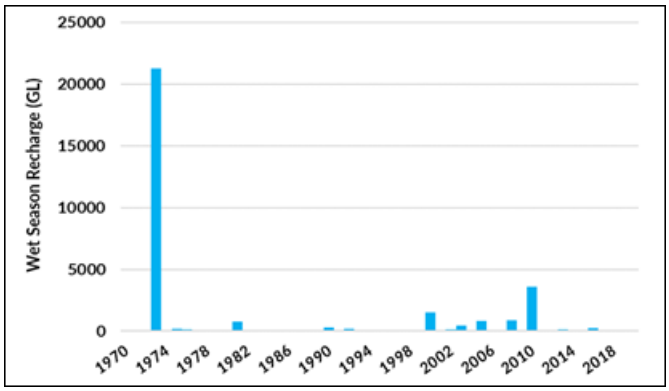
Of this, 10,000ML is allocated for petroleum (fracking), and 205,559ML is allocated for other consumptive industry including agriculture. NT Farmers has indicated publicly that this will be used for broadacre cropping (including cotton). However, the section on water trading makes clear that trading can occur between beneficial uses (with the exception of public water supply), rendering these categories largely nugatory.

Calculation of recharge

Per the draft plan, the annual recharge for the Georgina Basin appears to be very high, at 608,400ML per annum (note that there is a great deal of uncertainty re the recharge, and Tickell and Brewer estimated it could be as low as 71GL per year in the Georgina Basin). The recharge they have used appears to have been calculated using the average (over X years), rather than the median recharge. However, the recharge for this basin appears to be very low and episodic. There was a very significant recharge event in 1974 of over 20,000GL which has skewed the average. If the median is used instead, the annual recharge is 0.5GL.

Per the background report:

> "**Recharge** across the plan area varies significantly with precipitation, topography, karstic features, overlying rock and sediment formations.
>
> Current estimates of total annual diffuse recharge to the Gum Ridge Formation and Anthony Lagoon Formation in the plan area range from about 71 to 230 GL (Tickell and Bruwer 2017; Knapton 2020), the proportion received by each aquifer is uncertain. Modelled recharge to these aquifers is estimated in the range of 0 GL/year – 21,280 GL/year, with a median of 0.5 GL/year and average of 608 GL/year."



Water mining

The starting volume of the Georgina/Wiso Basin is 747,605GL. The ESY (262.56GL per year) over 100 years is 26,256GL. Therefore, this rule allows for 3.5% drawdown over 100 years. Even if you take into account recharge (median – 0.5GL per year over 100 years), this appears to constitute water mining.

No management zones

There are only two management zones (Georgina and Wiso Basin). This means that the whole yield for the Georgina or Wiso could be extracted in one place. This could cause significant localised drawdown and change the groundwater table/gradient and cause the aquifer to flow in a different direction (as per secret memo).

No cultural or environmental objectives

The plan contains no cultural or environmental objectives. It makes no reference to key dependencies which the community has been concerned about for many years (including Flora and Mataranka spring complexes, and the Roper and Daly Rivers). No scenario modelling is provided to show the impacts of the modelled extraction on

key dependencies. No limits of acceptable change have been identified in the plan. It is thus not possible to ascertain from the face of the plan itself whether the proposed yield would compromise key environmental assets.

The background document states the following under the heading "environmental water":

> Predominately the groundwater resources in the plan area are greater than 40m below the ground and have limited independency with groundwater dependant ecosystems (GDEs). Identifying the key environmental values to be maintained and managed through the plan will occur during implementation of the plan.

This is very scant and appears to be inconsistent with research regarding connectivity between the Georgina/Wiso Basin and the Roper and Flora rivers (and associated spring complexes). In any case, this is not in the plan itself had has no legal effect.

An Aboriginal reference group is to be established after the plan to agree cultural assets.

Water trading

Water trading is permitted within the huge WAP area, which could have significant localised impacts. There is no requirement for water trading to be publicly advertised in the NT. There can also be trades within different beneficial uses (making these categories largely meaningless).

Scientific studies incomplete

The background report concedes that scientific baseline studies (recommended by the Scientific Inquiry into Hydraulic Fracturing) are not yet complete:

> The SREBA is expected to be completed by the end of 2022. The information will be collated and prepared into a final report and database. Any recommendations from final reports will used to inform the implementation of this plan.

The background report states that the groundwater model will not be completed until 2024.

The evidence is clear that this Water Allocation Plan is not backed by science and should not be declared.

I trust you will have the courage to make the right decision for the sake of our home.

Please delay the declaration of the Beetaloo WAP.

Regards

Next Steps:

- **Submissions are due Friday, 16 December 2022**
- **Email your submission to:**
  - waterresources@nt.gov.au
  - Minister.Moss@nt.gov.au
  - Chief.Minister@nt.gov.au
- Sign up here (https://www.ecnt.org.au/nature_territory) to stay up to date with the Territory's water.