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**December 11, 2020**

## **ALEC Submission on the Alice Springs Water Allocation Plan 2016 - 2026 Review**

The Arid Lands Environment Centre (ALEC) is central Australia's peak environmental organisation that has been advocating for the protection of nature and ecologically sustainable development of the arid lands since 1980. ALEC actively contributes to the development of water policy and planning through written submissions and active participation with water advisory committees. Our advocacy in water policy is focused on ensuring the equitable and sustainable use of water resources to maintain full ecological function and protect cultural values.

ALEC is pleased to have the opportunity to provide a submission on the Alice Springs Water Allocation Plan 2016-2026 (the Plan) as part of its five year review.

ALEC considers it essential that the existing water allocation plan is scrapped and replaced with a new plan. Significant changes have occurred since 2016, requiring the plan to be updated to its contemporary water context. In addition, the current plan fails to confront key issues within the Alice Springs Water Control District (the District). A new plan is necessary to ensure the sustainable use of water for the environment, culture, public drinking water and development.

This submission will begin by providing background information around the District. Then, the submission will focus on five key areas, which will provide the basis for why ALEC considers it integral that a new water allocation plan is required. The five key areas of focus are: Aboriginal Strategic Water Reserves; water security; demand management; hydraulic fracturing; and, conventional gas. Throughout our response, we emphasise the importance of elongating the supply of public drinking water within the District.

### **Background to the Water Control District**

Alice Springs is the third largest town in the Northern Territory, with close to 30000 water users within the District. Water use is almost entirely sourced from groundwater. The District covers an area of 8200km<sup>2</sup>, and comprises a series of different aquifers, with the Mereenie aquifer the most significant. The Roe Creek Management Zone within the Mereenie aquifer is where public water is currently sourced from within the Plan. Water



from Roe Creek is estimated to be 10000 - 30000 years old, with limited recharge events occurring. The Plan ensures that extraction of groundwater will not exceed 80% of storage levels (to 300 metres below ground level). The Roe Creek aquifer has been mined, with groundwater levels dropping approximately 1 metre per year since 1964. Current allocation of water from Roe Creek is 8000ML per year. It is predicted that by 2050, Roe Creek's supply of potable water will be exhausted. At this point, Rocky Hill would become the predominant source of drinking water for the District. This will continue until 2113. After 2113, the drinking water supply for Alice Springs will deteriorate in quality, with water quality between 500-1000mg/L of total dissolved salts compared to the existing water quality of less than 500mg/L. This supply is predicted to last until 2284. The District is a water scarce environment. The threats to water security are known and understood, but this is not integrated into the existing plan. Water mining of the Mereenie aquifer will exhaust the better quality water supply by 2113. This is potentially within the lifetime of the current youngest residents of Alice Springs. The Plan is unsustainable, outdated and ignores key factors integral to the ongoing allocation of water in the District.

## **A new water allocation plan for the Alice Springs Water Control District**

**Recommendation 1:** Scrap the existing plan and create a new water allocation plan that is linked to best available science and focuses upon key issues impacting water security within the District.

### 1. Aboriginal Strategic Water Reserves

The current plan does not include any Aboriginal Strategic Water Reserves. Following the Northern Territory Government's Strategic Aboriginal Water Reserve Policy Framework in 2017, amendments were made in 2019 to the Water Act, legislating Aboriginal Strategic Water Reserves. These changes were made to ensure the Aboriginal stakeholders could have a greater opportunity at accessing water resources for economic development. The existing plan is outdated and the new plan must allocate water to these reserves.

**Recommendation 2:** The new plan establishes Aboriginal Strategic Water Reserves within the District.

### 2. Water security

The existing plan acknowledges the insecure nature of water resources within the District. Beyond that, the plan does not address how water resources should be managed in this context. Instead it just accepts that aquifers will be depleted and eventually will no longer be viable. The water issues within the District are significant and the current plan ignores longer-term considerations. The new plan needs to prioritise the longevity of public drinking water supply from the Mereenie aquifer system. This is acknowledging that the cap on water distribution upon Power and Water was scrapped for the District in 2013.



In addition, it is vital that when considering water resources, public benefit is central to the allocation. In a water stressed environment with a finite resource, it is inconceivable that the NTG continues to give water away to corporations for free. It is integral that the most precious resource is not just handed out to eligible traders at a whim. We acknowledge that the Northern Territory Government is currently considering water pricing regulatory changes. The plan is severely outdated, affecting our understanding of current estimates and ideas around water security. While stating that it is based upon the “best available science”, the plan simultaneously acknowledges that “since 2007, no revision of previous water availability estimates has been undertaken, and there have been no major adjustments made to the allocations available within the Management Zone Area.”<sup>1</sup> Some of the existing estimates could have been made years before 2007. Greater research and investigation is required to ensure that the new plan is synced to the best available data, having used the best available technology. This new research must provide greater clarity on the future impacts of climate change upon the water resources within the District.

It is vital that the new plan establishes safeguards to protect water for the environment, cultural uses and the public drinking water supply. A test should be created to determine whether water intensive developments within the District are in the public interest ongoing.

Major changes have emerged to do with water security in the Northern Territory, which should form the basis of the new plan. In 2020, the Northern Territory Government established the new Office of Water Security. ALEC understands that the Office will fill in existing regulatory gaps, as well as developing a high-level strategic water plan. This strategic water plan will be a roadmap for government agencies and other water stakeholders. The strategic water plan which will be completed in 2021 should inform the new water allocation plan for the District.

**Recommendation 3:** Introduce a water pricing mechanism within the District.

**Recommendation 4:** The new plan incorporates contemporary research and technology to ensure that estimates central to allocations are as accurate and updated as possible.

**Recommendation 5:** The new plan provide greater clarity on the impact of climate change upon water allocations within the District

**Recommendation 6:** A test is established to determine whether water intensive industries should continue to operate within the District. This acts as a safeguard for water and ensures that development is sustainable and in the public interest.

**Recommendation 7:** The new plan is aligned with the strategic water plan currently being developed by the Office of Water Security.

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<sup>1</sup> Northern Territory Government, 2016. Alice Springs Water Allocation Plan 2016-2026. Department of Land Resource Management.

### 3. Demand management

It is understood that Alice Springs has among the highest rates of water consumption in Australia, with water use by households 2-3 times greater than in Victoria and South Australia. The existing plan does not acknowledge or consider the importance of demand management. This holistic approach to water allocations is integral to ensure the longevity of water within the District. Water is the most precious resource, and the new plan must address issues of demand management.

**Recommendation 8:** Demand management is a critical component in the new plan.

**Recommendation 9:** A cap is reintroduced into the Alice Springs Water Control District, tied to best available information.

### 4. Hydraulic fracturing

In 2018, the moratorium on hydraulic fracturing was lifted. As a result, the Government is in the process of establishing areas in which exploration and production of fracking will be permitted, and other areas where it will be a prohibited activity, known as 'no-go zones'. The Northern Territory Government plans to allow 51% of the Territory to be accessed by petroleum companies for hydraulic fracturing exploration. Included in the majority of the District.

Fracking is incongruent with drinking water supply. These risks are severe; aquifers need to be protected from pollution and contamination. The precedent set by Justice Pepper in 2018 with the 135 recommendations associated with the fracking process emphasises this. In addition, fracking is a highly water intensive process. It is not feasible for the industry to establish within the District - water is too precious and scarce a resource.

**Recommendation 10:** The District becomes a hydraulic fracturing no-go zone.

### 5. Conventional gas

The new plan should acknowledge the potentially significant expansion of conventional gas within the District. The following licences and permits are currently active within the Water Control District: production licence L7; retention licences RL4 and RL4; and, exploration permits EP82, EP105 and EP112. There are an array of exploration permits at the application phase within the District.

Production licence L7 currently has two development wells commercially operational, Dingo 2 and Dingo 3. On November 29, 2020, three more exploration wells were approved in the District. This includes Dingo 1 and Dingo 5 which will become development wells if a commercial supply of gas is found. An exploration well is also being established in the Orange gasfield. The proponent of these wells intends to substantially develop the Dingo and Orange gasfields if the commercial supply is present. Both of these gas fields lie within the District. In addition, a gas processing facility was completed at Brewer Estate in 2015,



also within the District. Conventional gas is a water-intensive industry, with the majority of water used at the processing stage<sup>2</sup>. Bores for the processing facility are located within the District.<sup>3</sup> These existing wells likely result in millions of litres of water consumed annually.

The expansion of the gas industry within the District is not congruent with the sustainable and equitable use of water. ALEC considers it essential that the encroachment of water-intensive industries into the District is heavily scrutinised and considered when determining allocations in the new plan. Gas proponents are not discreet about their motivations within the district - it is water intensive activities.

**Recommendation 11:** The new plan determines whether the Brewer Estate gas processing facility should mine water from within the District.

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<sup>2</sup> Clark, C.E., Horner, R.M. and Harto, C.B., 2013. Life cycle water consumption for shale gas and conventional natural gas. *Environmental science & technology*, 47(20), pp.11829-11836.

<sup>3</sup> Central Petroleum, 2014. Dingo gas field development project. Field environmental management plan summary.

## Recommendations

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Alexander Vaughan (Policy Officer)

