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Aboriginal Areas Protection Authority
protecting sacred sites across the territory

Water Resources
Department of Environment, Parks and Water Safety
Northern Territory

Via email: waterresources@nt.gov.au

To whom it may concern,

Draft Western Davenport Water Allocation Plan 2023-2033

Thank you for the opportunity to review the Draft Western Davenport Water Allocation Plan 2023-2033.

It is timely to plan for future water allocation in the Western Davenport region, given the projected impact of the Singleton Horticulture Project on groundwater levels. The integrity of water dependent Aboriginal sacred sites are likely to be affected by this project, which is further confirmed by the modelling estimations of groundwater drawdown outlined in the Draft Plan.

Impacts to water dependent Aboriginal sacred sites will have significant implications for the Aboriginal community and the individuals who are responsible for the care of those sites. The Authority asserts that the Western Davenport Water Plan, and any water plan, should be explicit that all sacred sites are protected under the Northern Territory Aboriginal Sacred Sites Act.

Specific comments in relation to the Draft Plan are set out in attached table.

Should you wish to discuss these matters further, please contact Travis Kelly, Water Resources Specialist, on 8999 4347 or by email at travis.kelly@nt.gov.au.

Yours sincerely,

Dr Ben Scambary
Chief Executive Officer
12 May 2023

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1. Draft Western Davenport 2023-2033 Background Report

a. Section 3.2.1 - Climate Change, p. 12-14

The Report notes the inherent uncertainty in relation to climate change modelling used for the assessment of impacts to groundwater. However, as climate change models predict wetter conditions in the future, and the 2001-2022 period has been wetter than the entire record since 1900, the post-1970 rainfall record has been used in groundwater modelling, being wetter than pre-1970.

Despite being wetter it does not mean there will not be drought periods that would lead to greater drawdown than modelled. The estimated sustainable yield should be tested for impacts in a worst case situation which would be an extended drought.

b. Section 3.5.2 - Natural Water Balance, p. 29

We note that new calculations have determined that the consumptive pool will be slightly smaller over this Draft Plan than the previous Plan, based on the natural water balance estimate from the groundwater model. There are significant differences between the estimates of recharge and evaporation in the current and previous Plan water balances, however the reasons for the changes are not described.

c. Section 4.1.1 - Terrestrial groundwater dependent ecosystems, p. 33

It is noted that work has been undertaken to refine the groundwater dependent ecosystems (GDE) map, with the 50% probability of GDE map now to be used for impact assessment based on new investigations with Landsat imagery. Field work determined the 50% probability map is most accurate, with 30% and 70% misclassifying more GDE sites. Most of these sites were found to have a water table less than 10m depth. This measurement has been used to define the GDE distribution in the Draft Plan area rather than the 20m depth previously used, thus reducing the GDE area.

The implications of this change is that groundwater drawdown rules will be less restrictive across a larger area of the Draft Plan. This means that some groundwater dependent Aboriginal sacred sites (which are not considered to be GDEs, for example soaks) are at greater risk of damage from drawdown.

d. Section 6.1.2 - ESY determination, p. 39

We support the decision not to use the Arid zone framework rules for determining the consumptive pool, as the framework does not provide for sustainable water resource management.

The estimated sustainable yield is based on the maximum volume available until guideline limits on impact to GDEs are reached, over a 50 year model duration.

However, the modelling shows the drawdown area from licensed extraction is growing over time. Declining groundwater levels are due to approximately half the consumptive

pool being utilised for the Singleton Horticulture Project; exceeding the water available from recharge and inflows to this part of the Central Plains management zone.

Because the groundwater levels are declining, the estimated sustainable yield may not align with the Draft Plan's limits of acceptable change with respect to preserving 70% of GDEs at a time beyond 50 years. This implies that to remain within the Draft Plan's limits of acceptable change in the future, licensed volume reductions may be required.

The estimated sustainable yield may represent a measure of sustainable yield at the Draft Plan scale but ongoing drawdown in particular areas indicates that it is not a sustainable yield at the local scale.

AAPA is concerned about potential impacts at the local scale, noting that Aboriginal sacred sites may be, for example, soaks, trees or waterholes. All Aboriginal sacred sites should be protected by the Plan.

e. Section 6.3. Significant water extraction licences, p. 41

We support the staging of large licensed volumes, with release of entitlements dependent on monitoring, verification of the model predictions and ongoing protection of Aboriginal sacred sites.

2. Draft Western Davenport 2023-2033 Water Allocation Plan

a. Section 3.2 - Objectives of water sharing, p.9 (also, at Section 2.1 – Risk Assessments, Implementation actions)

Ensure water licence decisions consider Aboriginal and other cultural values dependent on water.

The Draft Plan states that key Aboriginal cultural sites that rely on water are appropriately accounted for in water planning and licensing. However, this statement is problematic given that the Plan permits 30% of GDEs to be impacted, some of which will likely be Aboriginal sacred sites.

It is not clear how the Plan can protect Aboriginal cultural sites within a predicted groundwater drawdown area associated with a water extraction licence.

AAPA has previously identified to the NTEPA that the Singleton Horticulture Project puts large numbers of groundwater dependent Aboriginal sacred sites at risk of damage from groundwater drawdown (submission dated 13 February 2023).

3. Draft Western Davenport 2023-2033 Implementation Actions

a. Section 2.2 - Adaptive management, p. 6

Water monitoring is described as critical to adaptive management. AAPA agrees with this statement and has received several applications for Authority Certificates in relation to DEPWS's expanded monitoring bore network. AAPA will work with DEPWS to implement the monitoring program.

b. Section 4.1 - Actions related to water requirements of key environmental values, p.10

We welcome the implementation Action item 4.1.2 to improve knowledge of aquifer interconnectivity.

c. Section 4.2 - Actions related to water requirements of key Aboriginal and other cultural values, p. 11

We support the mapping of Aboriginal sacred sites through the AAPA register.