

Consultation Report:

Water Allocation Plan for the Far North Prescribed Wells Area

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1 Introduction

This document is the consultation report for the draft Water Allocation Plan for the Far North Prescribed Wells Area (the draft Plan). This report outlines:

- The consultation process and comments/submissions received through consultation (sections 2 and 3),
- The amendments proposed to the draft Plan as a result of the consultation process (section 4), and
- The proposed steps forward for issues raised during the consultation process which do not directly relate to the draft Plan (section 5).

1.1 Background

The Far North Prescribed Wells Area (PWA) covers an area of about 315,000 square kilometres, equivalent to 32% of the State, in the north east corner of South Australia. The Far North PWA is located in the South Australian Arid Lands (SAAL) Landscape Management Region (Figure 1.1) and with the exception of the district Council of Coober Pedy there are no local government areas within the Far North PWA. However, the area does include the towns and settlements of Oodnadatta, William Creek, Marla and Innamincka. Other service centres are the Cadney Homestead on the Stuart Highway and the Mungerannie Roadhouse and Hotel along the Birdsville Track.

The Far North PWA was prescribed on 27 March 2003 and the first Water Allocation Plan (the inaugural Plan) was adopted on 16th February 2009. The prescription covers all wells drilled in the aquifers of the Far North PWA, including the South Australian portion of the Great Artesian Basin (GAB).

A statutory review of the inaugural Plan was conducted by the then South Australian Arid Lands Natural Resources Management Board (the NRM Board) and subsequently the Board resolved to draft a revised Plan (the draft Plan), with the NRM Board's Water Advisory Committee providing oversight to the development of the draft Plan, including community engagement strategies. The Water Advisory Committee was comprised of members of the NRM Board and key stakeholders with an interest in water management in the Far North and was supported by staff from the regional NRM Board and the Department for Environment and Water who provided technical, planning and administrative advice.

Section 55 of the [Landscape South Australia Act 2019](#) (the Act) outlines the measures that need to be undertaken with regard to consultation associated with the amendment of a water allocation plan. It outlines the need to provide for a period of public consultation for at least 2 months from the time the draft Plan is released to the public. In seeking approval from the Minister to adopt the Plan, the Board must provide the Minister a report on the consultation undertaken for the draft Plan. The report on the consultation processes is required to provide information about any matters raised during consultation and may propose amendments to the draft Plan based on the feedback received during this period. This report has been developed in accordance with section 55(4) of the Act and has been prepared to support the adoption of the Water Allocation Plan for the Far North Prescribed Wells Area 2020 by the Minister for Environment and Water.

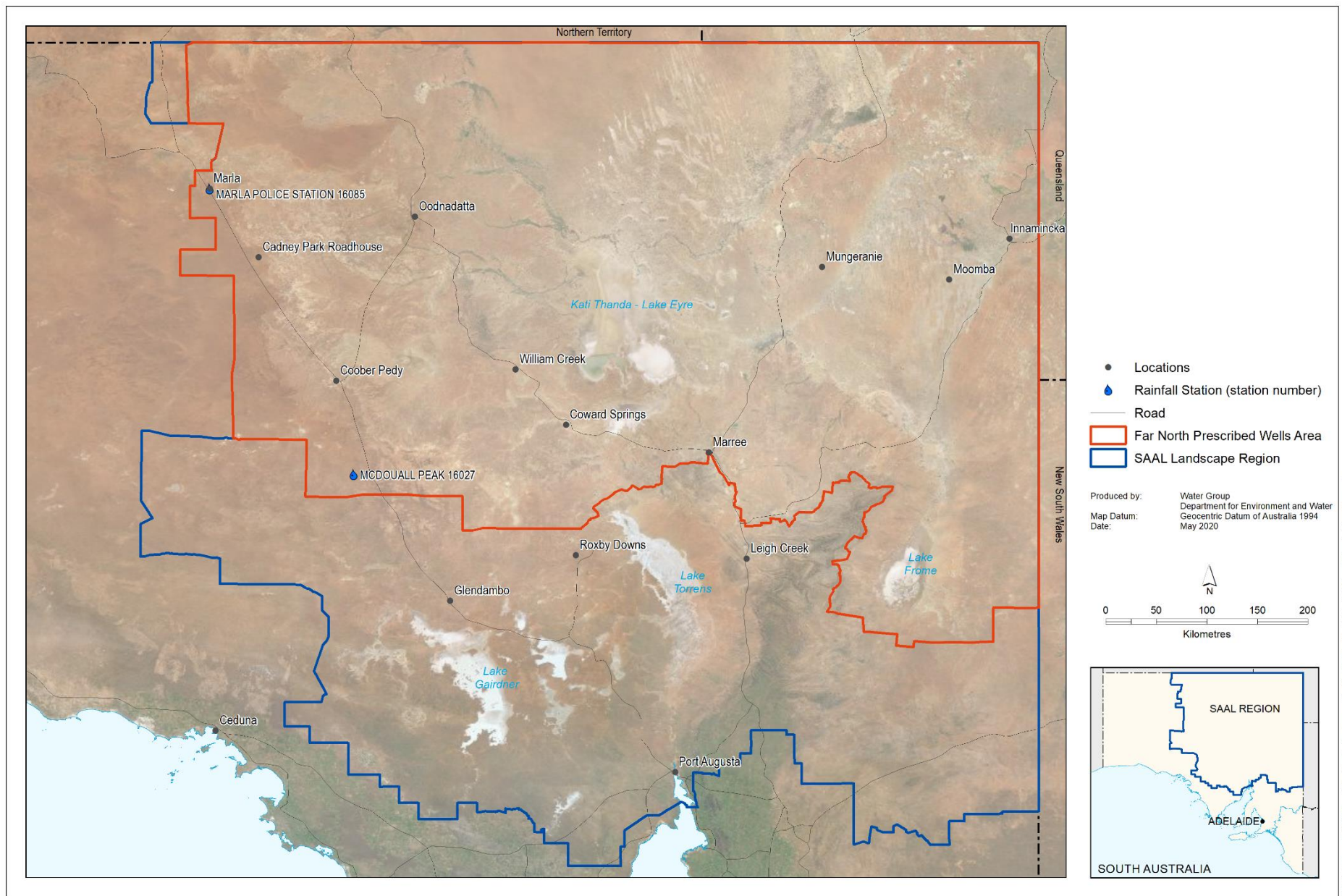


Figure 1.1. Far North Prescribed Wells Area

2 Development of the draft Plan

The Board and Water Advisory Committee have worked closely with the community throughout the development of the draft Plan. They have held meetings with industry and community members directly impacted by policy changes to seek their input into policy development prior to finalising the draft Plan for broader community consultation.

As part of the development of the draft Plan, the Board acknowledged the need to engage with licensees and the community in a meaningful and consistent manner. To that end, a three-phase Engagement and Communication Strategy was developed and endorsed (Appendix A2). The three phases were:

- Preliminary stakeholder engagement
- Development and testing of policies
- Statutory consultation on a draft Plan (see section 3)

2.1 Phase 1 – Preliminary stakeholder engagement

Purpose: To inform stakeholders about the development of the draft Plan, to seek their feedback on what worked and didn't work in the inaugural Plan and what should be considered in the development of the draft Plan.

2.1.1 Phase 1 engagement activities

An Engagement and Communication Strategy was developed to guide the communications and engagement for the development of the draft Plan. Before engagement strategies were implemented, an analysis of the key stakeholders was undertaken, the likely benefits they get from the groundwater resources and the likely key concerns that may be raised based on previous discussions and engagement processes undertaken by the Board (Table 2.1). This helped to guide the communications and engagement strategies for each of the stakeholders.

Table 2.1. Summary of analysis of key stakeholders, main benefits and key concerns raised by stakeholders

Key stakeholders	Main benefits stakeholders are likely to get from the groundwater resources	Key concerns raised by the stakeholders in previous discussions and engagement processes
Pastoralists	Water supply for cattle and domestic use. Recreation within bore fed wetlands.	Loss of pressure in GAB reduces margins for livestock production. Tighter controls on bore fed wetlands.
Mining companies	Camp/town water supplies. Water for mining processes.	Inability to extract up to approved rates. Cumulative impacts from third parties.
Petroleum companies	Camp water supply. Water Pressure aids in hydrocarbon recovery.	Cap on daily use of co-produced water limits industry growth.
First Nations	Cultural heritage. Water supply. Economic opportunities.	Lack of recognition of cultural water and sites. Loss of cultural sites if there is a loss in GAB pressure.
Towns and settlements	Water supply for locals, travellers and tourists. Recreation within artificial wetlands.	Higher costs to pump water if loss in pressure. Tighter controls on bore fed wetlands.

Tourists and Tourism operators	Springs and artificial wetlands are tourist destinations. Income from tourism. Recreation within artificial wetlands.	Loss of pressure in GAB reduces quality of tourism destinations.
Conservation interests	Protecting water dependent ecosystems. Specific spring ecosystems.	Loss of pressure in GAB reduces viability of springs. Species extinction.
SA Government	Gross domestic product and employment. Occupation of arid lands.	Reduced economic activity. Loss of natural heritage. Relocation of arid inhabitants.

The Engagement and Communication Strategy outlined the key engagement activities to be undertaken:

- Media releases
- Email / letter and online survey for water licensees and interested stakeholders
- Meetings with peak bodies and Government agencies
- Meetings with relevant SAAL NRM district groups (Marla-Oodnadatta and Maree-Innaminka)
- Discussions as part of consultation of Great Artesian Basin Strategic Management Plan

Specific engagement activities were planned for First Nations people with the purpose of building relationships and establishing engagement protocols. This involved a series of face-to-face meetings with appropriate representatives from each Nation. Once relationships were established efforts were directed to explaining the details about the inaugural Plan, and commence a dialogue about defining the need for cultural water and the values associated with it to be considered in the development of the draft Plan.

2.1.2 Phase 1 outcomes

Stakeholders and interested people were consulted in mid to late 2017 to identify issues with the inaugural Plan and opportunities for improvement. Below summarises these engagement findings.

SAAL NRM Board

At the December 2017 meeting, the Board considered a range of issues, and then asked to record their individual responses in relation to each issue (Table 2.2). The responses were narrowed to four options of direction for each issue including;

- need to consider the issue during the development of the draft Plan
- need further information to inform my decision on the issue
- refer the issue to the Board's Water Advisory Committee, and
- not interested in addressing this issue.

Table 2.1 shows the percentage of responses for each option, and a summary of the comments received. The results show that the Board was supportive of considering the following key policy issues: co-produced water, water trade, bore fed wetlands, monitoring, compliance, the sunset clause for water tight delivery systems, basis of allocation for stock and domestic use, and allocation by purpose. The Board was keen for further information about allocations for Aboriginal economic development, unbundling of water licences and metering before progressing these issues. A few Board members suggested that a number of issues be referred to the Water Advisory Committee including (but not limited to) bore fed wetlands, basis of allocation for stock and domestic use, and allocation by purpose. No

issue was clearly suggested to be not addressed, although some Board members were not supportive of the development of rules for disposal of co-produced water or water metering.

Table 2.2. Responses from the Board on key water allocation planning issues

Issue	Need to consider in Plan	Need more info	Refer to the WAC	Not for consideration	Summary of Comments
Co-produced water (increased allocation & apply rules for disposal)	83%	0%	8%	8%	Need equitable rules, and allocations based on modelling. Consider the goal of non-surface disposal, and explore reuse for economic development.
Aboriginal economic development allocation	36%	55%	9%	0%	Uncertainty how this allocation would work.
Water trade	67%	22%	11%	0%	Uncertainty if market conditions exists. Need to think about trade rules.
Allocations for bore fed wetlands	73%	9%	18%	0%	Provide minimal allocations, and only allocate to existing wetlands. Need to account for use.
Unbundling of water licences	36%	55%	9%	0%	Uncertainty about what unbundling is. Suggested to be useful for capping and piping requirements.
Metering	40%	40%	10%	10%	Concerns about the practicalities of metering in SAAL, and who pays for them.
Monitoring	82%	9%	9%	0%	Critical to determine state of water resource and integrity of wells. Use data to inform decisions and long term planning. Need investment from industry to support.
Compliance	82%	9%	9%	0%	Need staff capacity and supporting strategies to assist implementation. Suggested to focus on education.
Sunset clause on water tight delivery system	89%	11%	0%	0%	Need to maintain 2019 clause and enforce.
Basis of allocation for stock and domestic	50%	30%	20%	0%	Revisit how stock and domestic use is calculated and accounted for.
'Allocation by purpose' philosophy.	60%	20%	20%	0%	Potential for perceived inequities between industries. Suggested to review current allocation philosophy.

Water Licensees and Community

As part of the development of the draft Plan, the Board endeavoured to engage with licensees and the community in a meaningful and consistent manner. The first stage of consultation included:

- A mail-out to water licensees of the Far North PWA and interested parties was undertaken advising of the Board's intent to develop a draft Plan and sought comment on policy issues and the feedback on the appropriateness of the inaugural Plan via a questionnaire.
- A letter was sent to all registered Native Title Organisations within the Far North PWA inviting participation in a meeting in Port Augusta on 27th November 2017. This initial gathering gauged the representatives' level of familiarity with water allocation planning and established future consultation arrangements.

- Meetings were held with the Board's district NRM groups of Marree-Innamincka and Marla-Oodnadatta. The meetings explained the proposed development of the draft Plan and sought verbal feedback on policy issues and the appropriateness of the inaugural Plan.

In summarising the responses, it is worth noting that most of the respondents are licensees, and the majority of licensees own or operate a pastoral lease. Findings are summarised as follows:

- Most of the respondents indicated that they were at least aware of the inaugural Plan (84%). Most indicated that they value the groundwater for a range of reasons, predominately for its economic return (84%) but also strongly for the ecosystems it supports (68%).
- Many respondents (85%) cited the greatest threats to the resource as being increased demand and waste of water with a number of particular uses and users identified as wasting water in this regard.
- Many respondents also made reference to the maintenance of pastoral infrastructure, both in terms of the need to enforce compliance with the closed pipe delivery and the ongoing cost of maintaining this infrastructure.
- Respondents were supportive of the objectives of the inaugural Plan with a range of suggestions for inclusion to be considered for the development of the draft Plan. Suggested themes of objectives included:
 - Conserve water and limit extraction to maintain the GAB, unique water habitats and cultural sites.
 - Minimise water wastage by encouraging reuse and reinjection of water currently disposed of to the lands surface.
 - Balance the allocation of water to meet economic, social and environmental needs.
 - Allocate water based on sound science that is underpinned by a comprehensive numerical model.
 - Allocate water for cultural purposes and Aboriginal economic development.
 - Ensure equitable and sustainable water access and use.
 - Develop clear and transparent allocation rules.
 - Ensure water licensees abide by their licence conditions and their statutory obligations.
 - Ensure on-going maintenance of artesian bores by developing a bore assurance scheme.
 - Develop an equitable water levy.

Outcomes from phase 1 guided the development of the policy direction for the draft Plan, which were then tested with stakeholders in phase 2.

2.2 Phase 2 – Development and testing of policies

Purpose: To engage with stakeholders about specific aspects being considered in the development of the draft Plan and seek feedback on the policy approaches.

2.2.1 Phase 2 engagement activities

Key engagement activities included:

- Written Communications – preparation of fact sheets which summarised the policy direction being considered for the draft Plan. The fact sheets were used to test the suitability of the policy direction with key stakeholders.
- Interviews and discussions with key stakeholders – one-on-one discussions and small group meetings with identified key stakeholders prior to the release of the draft Plan for statutory public consultation to ensure an understanding of the science and policy underpinning the draft Plan.

- Use of established reference groups for consultation - targeted engagement with existing working groups (including NRM Groups) on the policies being considered for the draft Plan. Engagement of existing groups aimed to minimise the time pressures on community to be engaged and the financial costs associated with consultation.

2.2.2 Phase 2 outcomes

In phase 2, specific issues and policy positions were discussed through a series of meetings with licensees, stakeholder groups, the Water Advisory Committee and the Board. The outcomes of which resulted in the development of the draft Plan. Key issues and potential options that were discussed included:

Consumptive pools:

- One consumptive pool for entire PWA
- Consumptive pools based on depth:
 - Three consumptive pools: above GAB, GAB, below GAB
 - Seven consumptive pools defined by basins and stratigraphy, including: Lake Eyre, Hamilton & Billa Kallina (overlying - Quaternary & Tertiary); GAB (middle / upper on western extent - Jurassic-Cretaceous); and Cooper, Pedirka & Arckaringa (underlying - Permian)
- Aquifer based consumptive pools (one consumptive pool per aquifer)
- Consumptive pools which are geographically zoned which consider vertical interconnectivity
- Purpose based consumptive pools:
 - One pool for each purpose of use: recreation, commercial, irrigation, industrial, town water supply, camp water, bore fed wetland, stock, mining, co-produced water
 - Two consumptive pools: one for stock and domestic purposes, one for all other purposes
- Spatially defined consumptive pools:
 - Two consumptive pools, one to the east of the Torrens Hinge Zone & Peake and Denison Inlier and one to the west of this zone
 - Four consumptive pools, one to the east of the Torrens Hinge Zone & Peake and Denison Inlier for the GAB, one for the overlying aquifers, one for the underlying aquifers, and one consumptive pool to the west of the Torrens Hinge Zone & Peake and Denison Inlier

Judicious use of water:

- Continue arrangement and enforce the sunset clause with regard to closed delivery systems
- Require licensees to install a meter and report on annual use
- Develop conditions for licences which specify the expected standard of infrastructure and use of water
- Revise allocations with an aim to reduce water wastage and increase compliance presence

Water trade:

- Passively pursue water trade by designing consumptive pools with spare allocation for future development
- Actively pursue water trade by:
 - Designing consumptive pools with a conservative cap
 - Remove restrictive transfer rules and pursue metering and increase compliance presence
- Actively discourage water trade by:
 - Not specifying a cap for consumptive pools
 - Include restrictive transfer rules, including restricting trade between licence types

Cultural water:

- Engage with First Nations and include objectives and principles in the WAP to provide greater protection for areas that are culturally significant.
- Engage with First Nations and make licensed allocations for cultural purposes only.
- Engage with First Nations and make licensed allocations for economic purposes and create a cultural water reserve for use in the future.

Bore-fed wetlands:

- Retain policy position with minimal changes: no allocation for new wetlands, use amended criteria to allocate water. Allocations cannot be not reduced through trials; require management plans/agreements; allocations must not be transferred.
- Allow allocations for new bore-fed wetlands.
- Require a flow regulator, metering and annual water use reporting.

Protection of springs and other Groundwater Dependent Ecosystems (GDEs):

- Retain current policies
- Enhance current policies to:
 - Include a baseline pressure level to assess impacts.
 - Develop assessment principles to assess impacts on springs & GDEs not reliant on the GAB.
 - Include an out-clause on the 5 km exclusion zone to allow a hydrogeological assessment to prove no impact.
 - Remove the management zones and the associated controls, and replace with a 50 kilometre buffer zone.
- Include an adaptive management approach that adjusts allocations based on defined trigger levels and monitoring.
- Prioritise springs across the Far North PWA, and concentrate management on high priority springs only.

Pastoral water:

- Water accounting measures (accounting for water use is required, however what is the best approach to accounting for water – i.e. meters may not be suitable in all cases)
- Basis for allocation – principles for allocation for stock use and volumes assigned for stock allocations.
- Identifying sources of water on licences.
- Transfer criteria applying to stock water allocations (limit transfer or enable transfer – within industry only or across industries).
- Reducing allocations to take into account use of surface water.

Petroleum and co-produced water:

- Retain current provisions with no changes (i.e. maintain cap of 60 ML/day).
- Remove the extraction limit and assess applications based on likely impacts on the resource and other users and actions by the applicant to reduce/reuse /reinject co-produced water.
- Remove the extraction limit and add principles that requires no disposal to the surface for evaporation of co-produced water in an effort to encourage industry led innovation in reduction, reinjection or reuse of co-produced water.
- Increase the extraction limit but maintain a cap.
- Require site use approvals for co-produced licences regulating how water is used/disposed to the lands surface for evaporation.

Mining:

- Continue with current arrangements.
- Add principles to encourage mining industry to use alternative water sources including reuse of wastewater or co-produced water.
- Add principles to account for the ongoing evaporative losses from open pit mines (e.g. water losses after the expiry of the mining lease, which cannot be reallocated).
- Licence mining exploration activities and remove the authorisation under section 105 of the Landscape Act enabling water to be taken without a licence for the purpose of mining exploration purposes.

The outcomes of the discussions on the issues raised above were considered during the development of the draft Plan. As required by the legislation, the draft Plan also reflects the unbundling of the various components of water rights from a single water licence into multiple water management authorisations (water access entitlement, water allocation, water resource works approval and site use approval). In addition to containing provisions for the unbundling of water licences, the development of the draft Plan also considered:

- Changing demands on the resource since the inaugural Plan's adoption in 2009.
- Community values collected to inform the SAAL Regional NRM Plan update.
- Any new science which improved the understanding of the resources within the Far North PWA.

The key points guiding the development of the draft Plan as a result of phase 2 consultation were as follows:

- The draft Plan to provide further acknowledgement of Aboriginal water interests and the inclusion of a Cultural Water consumptive pool
- Protection of significant GDEs beyond the springs
- The removal of a volumetric cap on the water which can be used for any purpose within the Far North PWA
- The removal of purpose based allocation rules (all users to be treated equitably)
- Improved water use efficiency through principles requiring reuse or re-injection of co-produced water unless it is deemed not reasonably practical
- Variation of domestic allocations to 1.5 ML to better reflect the use for this purpose with remaining entitlement to be for amenity purposes. The overall volume issued to licensees does not change, but it is separated into differing purposes
- Limit trade of pastoral water to only within the pastoral community (i.e. no trade of stock water to another purpose)
- Development of two consumptive pools for licensed purposes; one that is for stock and domestic water use only and one that is for water use for any other purpose.

The development of key policies and the drafting of the Plan was undertaken through regular consultation with the Water Advisory Committee and the Board.

3 Statutory consultation on the draft Plan

Purpose: To engage with stakeholders on the draft Plan and to seek their feedback on the content of the draft Plan.

3.1 Phase 3 engagement activities

The Board consulted on the draft Plan (Appendix A1) as the third phase of the consultation process, in accordance with section 55 of the Act. The draft Plan was released for public consultation on 12 November 2019 with the consultation phase extending to 17 April 2020. The consultation process was guided by the Engagement and Communications Strategy (Appendix A2).

Key engagement activities included:

- Public forums – a number of public forums, in addition to meetings with key stakeholder groups, were held to provide opportunity for the community/stakeholders to learn more about the policies being proposed in the draft Plan, including question and answer sessions and an opportunity for community to provide feedback on the content of the draft Plan.
- Seeking written submissions – provision of a five month consultation period for the community to submit written submissions on the draft Plan.
- Web presence – use of the Board website and other Board communications (such as letters directly to licensees and other key stakeholders, articles in the Across the Outback e-bulletin) to raise awareness of the opportunity to have input during the statutory consultation phase.

The community was invited to make written submissions on the draft Plan, to attend a drop in session or a formal meeting, or to make contact with key staff to discuss the draft Plan and supporting documents. Meetings were also undertaken with key stakeholders to discuss policy changes, to hear their thoughts on the draft Plan and to encourage them to make written submissions.

A media release was prepared to advise of the release of the draft Plan for consultation, and also to invite the public to attend a consultation session. The media release is attached at Appendix A3.

An advertisement (Appendix A4) seeking comments on the draft Plan and inviting the community to attend information sessions and official consultation sessions throughout the region was placed in print media on Thursday 30 January 2020. The advertisement appeared in the Adelaide Advertiser and the Stock Journal.

Information was disseminated to the public and key stakeholders through a number of means to provide a variety of opportunities for interested parties to find out more and provide comment. These included:

- Detailing relevant information on the Board's website, including a copy of the draft Plan and copies of all supporting documents.
- Providing a Consultation Feedback Form on the website that could be saved and used to guide feedback on key points.
- Hard copies of the draft Plan were made available for public viewing at the Board's office in Port Augusta.
- A letter was sent to all licensees and landholders advising of the consultation process, how to make a submission and where to find out more (Appendix A5).
- Six different emails were sent via Campaign Monitor to advise of:
 - 'Talking Water' meetings 12/11/19
 - Release of the draft Plan 12/11/19
 - Draft Plan email to attendees of the Talking Water sessions 10/01/20

- Draft Plan official consultation 05/02/20
- Marree and Innamincka draft Plan consultation meetings 02/03/20
- Rescheduled times for draft Plan consultation meetings 05/03/20
- Participants at a Pastoral Board Forum held at the Port Augusta Golf Club on 11 September 2019 heard from Regional NRM Manager Jodie Gregg-Smith and Principal Policy Officer Mr David Leek in response to questions previously raised in regard to the draft Plan.
- Targeted letters were sent to First Nations inviting them to attend a closed consultation session in Port Augusta. A number of follow up phone calls were made in the lead up to these meetings to confirm attendance.
- Copies of the draft Plan and associated documents were sent to government departments and agencies, local government, peak bodies and other organisations.
- The media release was printed in the Coober Pedy Times. Phone calls were made and emails sent to ABC North and West, however, the consultation was not picked up by these outlets.
- 'Talking Water' meetings were held in Coober Pedy and Maree in November 2019 which covered a range of water related matters including an overview of the draft Plan.
- Articles were included in the e-Across the Outback released in December 2019 and in the Across the Outback hard copy publication in April 2020.
- Face-to-face meetings were held that were designed part as a presentation and part as a drop in session (discussed further in section 3.1.1).
- Twelve different social media posts were published on Facebook as a reminder of the coming meetings, as well as providing a link to all documents relating to the draft Plan. This was the means used to announce the postponement of the meetings and the move for the meetings to be held through Zoom instead of face to face due to COVID-19 restrictions.

Information on how to make a submission was included in all communications materials distributed to the public and in all advertising, emails, Facebook posts and media release. Written submissions were accepted by post and email.

A copy of the draft Plan and consultation material was provided to the Minister for Environment and Water (The Minister) and any government department or other agency that had a direct interest in the draft Plan, peak bodies, NRM Groups, each constituent council for the region, SA Water, and any other interested parties.

3.1.1 Public meetings

To meet the statutory consultation requirements in relation to the development of the draft Plan in accordance with section 55 of the Act, public meetings were held throughout the region, as follows:

- Pre-consultation session 'Talking Water' in Coober Pedy on 22 November 2019 and Marree on 23 November 2019.
- Monday 17 February 2020, 1pm-4pm, Coober Pedy Golf Club, Coober Pedy.
- Tuesday 25 February 2020, 11am-2pm, Railway Station Board Room, Port Augusta.
- Thursday 27 February 2020, 4pm-7pm, Adelaide Science Exchange, Adelaide.

Two further meetings were scheduled for:

- Tuesday 3 March 2020, 1pm-4pm, Marree Hotel, Marree; and
- Wednesday 4 March 2020, 10am-1pm, Innamincka Hotel, Innamincka.

These meetings were first postponed due to expected rain that would close roads in the district, preventing public from either attending, or returning home. Before revised dates could be set, COVID-19 restrictions were put in place that limited the meetings to an online platform. Two Zoom meetings were held on Saturday 4 April 2020 at 9:30am and again at 5pm to replace these face to face meetings.

All the meetings were led and facilitated by the Regional Manager, SAAL as delegated by the Board.

The face to face sessions provided the opportunity for community members to find out more about the draft Plan and other water-related issues. Staff from the Board and the department were available to discuss the draft Plan with attendees. Copies of the draft Plan, a frequently asked questions document, multiple fact sheets, a description of items that are changing from the inaugural Plan and a Consultation Feedback Form were printed and available at the meetings. The number of attendees for each public forum are provided in Table 3.1.

Table 3.1. Public forum attendees

Date	Location	Number of attendees
22 November 2019	Coober Pedy	17
23 November 2019	Marree	23
17 February 2020	Coober Pedy	10
27 February 2020	Adelaide	6
4 April 2020 (9:30am)	Zoom	12
4 April 2020 (5:00 pm)	Zoom	10

A record of the questions asked and comments provided at each of these sessions is detailed at Appendix B1 and a summary of key issues raised is provided at section 3.2.1.

3.1.2 Key stakeholder meetings

Staff were available throughout the consultation period to meet with stakeholders, either individually or through presentations if requested. Staff met with the following groups throughout the consultation period:

- PIRSA – 4 December 2019
- Petroleum Industry – 30 January 2020
- Mining Industry - 30 January 2020
- Department of Energy and Mining - 24 February 2020
- First Nations – 25 February 2020
- Pastoral Board – 27 February 2020
- Friends of Mound Springs – 28 February 2020

Attendance at the First Nations meeting in Port Augusta was lower than expected. This was because a death in the Aboriginal community resulted in a funeral being scheduled at the same time as the meeting. Representatives attending the meeting were given the opportunity to get in touch with staff to arrange another meeting, if required, after they had considered the information provided with their communities. The number of attendees for each stakeholder meeting are provided in Table 3.2.

Table 3.2. Stakeholder meeting attendees

Date	Stakeholder	Number of attendees
4 December 2019	PIRSA	11
30 January 2020	Petroleum	9
30 January 2020	Mining	19
24 February 2020	Department of Energy and Mining	5

25 February 2020	Traditional Owners	4
27 February 2020	Pastoral Board	12
28 February 2020	Friends of Mound Springs	2

3.1.3 Written submissions

A total of 15 written submissions were received on the draft Plan. A summary of de-identified individual comments in each submission is provided at Appendix B1. Comments are grouped by when and how they were received (i.e. at a consultation meeting or within a written submission). In total 422 comments have been identified and considered through the verbal comments at the public and stakeholder consultation meetings and through the written submissions. For further information on the changes made as a result of comments received during consultation, refer to section 4.

3.2 Phase 3 outcomes

The consultation period ended on 17 April 2020. All comments received on the draft Plan, both through verbal feedback at public and stakeholder meetings and through written submissions, were collated, considered and detailed responses were developed including where changes to the draft Plan were recommended (see Appendix B1). Many comments were of a general nature while others were related to specific policies included in the draft Plan. Changes made to the Plan are discussed in section 4 and detailed in a Table of Changes (see Appendix B2). A summary of comments provided and issues raised around key topics is provided below.

3.2.1 Key issues identified during consultation

The key issues raised in submissions related to the draft Plan were around the following topics:

- Aboriginal water interests
- Aquifer recharge and reuse or re-injection of co-produced water
- Assessment/approval processes
- Bore-fed wetlands
- Climate change
- Compliance
- Domestic water allocation
- Environmental protection (springs)
- Levies
- Monitoring
- Process - consultation, draft Plan review and adoption
- Protection of non-spring GDEs
- Reporting requirements
- Stock water requirements
- Water accounting
- Water allocations and water licences
- Water trading

3.2.2 Comments received related to policies included in the draft Plan

Aboriginal water interests

Many comments were seeking clarification of existing processes or requirements in the draft Plan in regards to seeking First Nation approval prior to approval of a well permit and the role of Indigenous Land Use Agreement's (ILUA) in this process. There were also questions around cultural water and how it will operate and be provided. Other comments included:

- Sacred sites are not often registered on the 'Register of Aboriginal Sites and Objects'. Consultation with Aboriginal groups is encouraged rather than a search of the register as is the current practice with new well locations.
- There should be an onus on landholders and the Department for Environment and Water to ensure cultural sites are maintained and protected.
- The draft Plan could go further in examining potential economic opportunities involving the use of water for Aboriginal people.
- There should be a mechanism to issue licences for commercial purposes in order for Traditional Owners to be in line with everyone else. Traditional Owners shouldn't be starting from a point of disadvantage.
- It is important to understand culturally the impact of increased water consumption. Aboriginal understanding and knowledge could be used.
- Water for economic purposes by Aboriginal people should be subject to the same rules as everyone else for equity.

Aquifer recharge and reuse or re-injection of co-produced water

Comments sought clarification on conditions relating to re-injection of water rather than disposal to the surface. Comments also raised queries generally around the percentage of water injected that can be taken and why, and how recharge credits work and when recharged water can be taken. The key issues raised were concern regarding the quality of water reinjected and potential contamination issues as well as the limitations of repurposing or reinjecting water from tailings facilities as evaporation may be the only option for disposal. Other comments included:

- A target should be set for evaporation ponds rather than 'minimising' evaporation over 10 years. Closed delivery systems is supported for pastoralists, but this demonstrates there is no equity between users.
- Several concerns raised with Principle 27 - to minimise within 10 years water disposal by means of evaporation will require significant re-engineering of plant and operations. Requirements on licensees are inequitable - any obligations around groundwater pressure or impact mitigation should be fair and equitable across all users and industries.
- How can it be demonstrated that surface water disposal has been 'minimised' after 10 years?
- Water that has been taken then recharged, but not reused, shouldn't be allowed to be carried over to the next year. Reinjection was seen as a water efficiency measure to benefit the resource for all users.

Assessment and approval processes

Many comments were related to the application and assessment process and included queries regarding requirements for permit approval, water resource works approval, the application process, whether new bores can be drilled, how to prove there is no impact on GDEs and the costs of licence applications and assessments. Suggestions were made to streamline the approval process as much as possible and to provide adequate support to applicants throughout the application process. In addition, the following comments were made:

- Concerns raised around impacts on resource and springs from proposed fracking
- How are cumulative impacts managed?

- Suggest strict safeguards for GAB springs and the use of rigorous science and the 'precautionary principle' when it comes to the Minister's discretion
- Suggest shorter application process timeframes due to drought conditions
- The draft Plan needs to ensure existing water user rights are protected

Bore-fed wetlands

Key issues raised in comments were primarily around the concept of issuing water licences for bore fed wetlands. Some comments indicated that this has been an ongoing issue for decades and issuing licences for this purpose contradicts all other water savings that have been made by other users. It was also raised that all jurisdictions have agreed that bore drains that deliver water to stock can no longer be justified, yet licences have been issued for this purpose. It was suggested that a management plan is needed to reduce flows on existing man-made wetlands for the health of the GAB.

Another issue raised related to the use of the term 'amenity'. It was suggested that this term is problematic as the term implies private benefit and bore-fed wetlands also have public benefits.

Climate change

Comments received stated that climate change was noticeably absent from the draft Plan. It was noted that there is no mention of reduction in rainfall and what impact that may have on vegetation or industry. It was suggested that alternative uses of water should be highlighted, which may have economic opportunities. Another comment noted that climate change may mean that pastoral land will become increasingly unviable in the Far North and demand for water for this purpose is likely to decrease.

Domestic water allocation

Many comments sought clarification of 'domestic' and how that definition would apply in practice. The key issues raised were around the change in volume for domestic use and the moving of water to an 'amenity' category. Some comments rejected the methodology used to determine the domestic volume and called for the 2009 volumes to remain in place. Other comments suggested that the volume required for the Far North should not be based on a national average. It was also suggested that a domestic allocation should not be allowed to be traded.

Environmental protection (springs)

Many comments received sought clarity around how buffer zones were established and the process for new allocations within the zones. The key issue raised was around concerns that there seems to be scope for new wells within 5km of GAB springs and this could result in additional pressure on springs. Other comments suggested flexibility in assessments in recognition of the limited knowledge about individual GDEs. One comment suggested incentivising the protection and management of mound springs by lessees.

Protection of non-spring GDEs

Comments raised concerns about the data on GDEs, knowing where the GDEs are located and how to recognise them. Clarity was also requested around the application process and how it could be demonstrated that there will be no impact from the taking of water on non-spring GDEs. It was stated that this could have a significant cost if consultants need to be engaged.

Reporting requirements

Comments raised practical questions on the costs of salinity testing and whether testing should be undertaken from each bore or per bore field. The key issues raised were whether the AWUR section should be limited to a specific volume i.e. only water take over 1 ML/day as per the 2009 Plan, and the concern on the additional costs and financial burden of reporting, when many water users already monitor their wells with due diligence. It was also noted that reporting dates in the draft Plan do not align with reporting requirements under industry primary controlling regulation.

Water allocations, licences and water rights

Many comments sought clarification on how allocations were determined, why some uses require a licence and the process for new allocations if additional volumes are required. There were comments regarding the new licensing system and that it was considered to be administratively more complex and would increase red tape. Some comments suggested that water use should be better categorised to reflect different uses, like tourism and wetlands, and that the purpose should be retained on a licence if water is from the same consumptive pool. It was suggested that sub-artesian and artesian aquifers should be differentiated. Comments also supported the protection of existing users and their water rights in the area.

Water trading

There were comments asking questions on temporary trade and whether water can be traded to a different purpose. Some comments suggested that trade should be allowed to occur irrespective of industry or consumptive pool to allow greater flexibility, provided that the use would remain sustainable and within the intent of the draft Plan. Others said that trade should be restricted to within the consumptive pool only to avoid issues experienced with trade in other regions and that there were concerns with water moving from low value industry to high value industry. A key concern raised was around the separation of water licences from pastoral leases, and that this could lead to a lease being sold or transferred without a guaranteed source of water - it was suggested that water licences should remain attached to pastoral leases.

3.2.3 Other topics and issues raised during consultation on the draft Plan

Compliance

Compliance was raised a number of times and comments highlighted the importance of ensuring that over-use of water and ongoing poor water management practices are addressed, and that the same controls should apply to everyone. One comment suggested including best practice guidelines in the Plan, and another raised the issue of wasted water through burst pipes. It was also asked what is being done about old problem wells that are not being repaired. It was suggested that the Department for Environment and Water and PIRSA need to work together on compliance.

Levies

In discussions on the water levy, questions were raised around whether a levy would be charged on stock and domestic allocations. It was suggested that a higher proportion of the money raised through the water levy should go back into managing the resource. An example was given that funds could be invested in sustainable water management initiatives. It was noted that there is no reference in the draft Plan around best practice water pricing and that under the Key Elements of the National Water Initiative, the draft Plan should provide clear direction around the setting of levies and the pricing of water. Another comment suggested that the water levy should be based on volume of water used, rather than volume of water allocated.

Monitoring

Comments raised the question of what is being done to ensure the objectives related to springs and non-spring GDEs are being monitored and one comment suggested that more of the water levy be assigned for monitoring, reporting and evaluating the effectiveness of the draft Plan. The key issue raised was a request for more information to be provided about the process for evaluation of monitoring data.

Process – consultation, draft Plan review and adoption

Comments queried the level of consultation involved in the development of the draft Plan and some suggested that wider consultation would have been useful with more people around the table, including local NRM community groups. A key issue raised was around the timing of the adoption of the draft Plan and that the process should be put on hold until: the Landscape Board is fully operational; the GAB simulation model is complete; the review of the *Pastoral Land Management and Conservation Act 1989* (PLMC Act) is completed; the *Landscape South Australia Act*

2019 is fully operational and investigations on the options to re-inject, reuse or create other efficiencies regarding co-produced water are completed.

Stock water requirements

The key issue raised in regards to stock water requirements was around the volume allocated for this purpose. Multiple comments suggested that the allocation provided for stock is based on old data, and doesn't appropriately account for native and feral animals also accessing the water. Others suggested that the 100L per day per head is sufficient. It was suggested that additional volumes are required to account for climate change, to cool stock especially during periods of extreme heat. If a volume of water for stock welfare is not provided, it was suggested that grants should be considered for stock shade shelters to keep stock cool. It was also queried whether the draft Plan considered temporary or permanent increases in stocking maximums, as allowed by the PLMC Act.

Water Accounting

A number of comments related to the practicalities of metering and water accounting. The main issues raised were the suitability of water meters to measure water use, the high cost and difficulty in getting meter installation and servicing expertise due to the location, and the additional financial burden that metering would place on water users. Suggestions were made for metering trials to test meter types and suitability, and to consider other options for water accounting, such as estimating flows through alternative accounting approaches or metering high risk areas only. Further consultation on metering was suggested and that the approach should be localised and suitable for the region. Other comments included:

- Whether there can be any exemptions from metering
- Concerns that installing meters will lead to charging for water
- Further clarity around responsibilities for managing and reading meters was sought
- All water consumers should be subject to the same level of requirements
- Suggested that shut off valves would improve water use efficiency and reduce waste
- Water use from closed systems can be estimated using formulas and shouldn't need to meter

4 Amendments to the draft Plan

As a result of the consultation process, the Board has considered all the comments made and recommended a number of changes to the draft Plan. In addition, minor amendments have been made to provide greater clarity, to improve readability or to add context, and do not change the intent of the principles in the draft Plan.

The draft Plan has been revised to incorporate the recommended changes. A summary of the key changes is provided below. All changes and the reasons behind each change are provided at Appendix B2.

Many comments received were of a general nature or were not directly related to the requirements of a water allocation plan. These have been noted but no change has been made to the draft Plan (discussed further in section 5). The comments have helped to identify broader issues or concerns and have been useful to help better understand where work may need to be focussed in other planning processes. Where applicable, comments have been provided to relevant bodies to progress through other means.

Key changes to the draft Plan include:

Aboriginal water rights

In response to the comments provided, amendments have been made to the draft Plan to clarify the role of ILUAs in permit approval processes. References to the Register of Aboriginal Sites and Objects has been removed in acknowledgement that not all sites and objects are included on this register. Changes to principles are as follows:

- Principle 41 – *well construction permit referral to first nations*, amended to state that in cases where an Indigenous Land Use Agreement (ILUA) exists which refers to matters relating to water, this will be consulted prior to referring the application to the Registered Native Title Body Corporate (RNTBC).
- Recommendation in section 3.3 to refer to the Register of Aboriginal Sites and Objects to identify the likely impact upon a site of cultural significance, has been removed from the draft Plan and rather the current practice of referral to the RNTBC for a new well construction is emphasised. Removal of reference to impact upon cultural sites from water resource work approvals (principles 26(e), 29(a)(vi) and 45(f)) and instead the referral to the RNTBC is reinforced for the drilling of new wells (principle 41). Appendix C – *Requesting a search of the register of Aboriginal sites and objects* has been removed.

Aquifer recharge and reuse or re-injection of co-produced water

A number of principles have been removed or amended in response to comments received to provide discretion to licensees around how they ensure water is not disposed of to the lands surface for evaporation. Clarity has also been provided around the recharge and extraction location requirements, and that reinjection requirements do not apply to contaminated water (for example in tailings facilities). Changes to principles are as follows:

- Limitation of 15km placed on the distance between recharge location and extraction location in an aquifer recharge scheme.
- Principles 27(a)(ii) – *water is reused*, and 27(a)(iii) – *water is reinjected into an aquifer*, removed to provide discretion to the licensee about how they ensure water is not disposed of to the lands surface for evaporation.
- Principles 27(a)(vi) separated into two principles for clarity. Reworded to provide clarity that this applies to the current volume of water allocated for the purpose of petroleum production, and a further sub principle provided in relation to mine dewatering or depressurisation.
- A principle is included after principle 27 to state that 27(a)(vi) – *volume of water currently disposed of to the lands surface is minimised within 10 years of adoption of the Plan*, does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste, as this water is contaminated.

- Principle 54c and 57, which required site use approvals for mining activities authorised to dispose of water to the lands surface through the related statement of environmental objectives, have been removed as this is no longer relevant due to the addition of the principle included after principle 27, to state reinjection is not required for contaminated water.

Assessment/approval process and water allocations, licences and water rights

In response to comments received, additional information has been included in the draft Plan to clarify application processes. A flow chart has been added to set out the steps for assessment for non-spring GDEs. More information has been provided in section 6 of the Plan with regard to the separation of land and water rights in South Australia and the need for buyers to ensure a sale of land includes a sale of water management authorisations. Changes to principles are as follows:

- Principle 8 and 10 – *issuance of Water Access Entitlements*, amended to include that "A water access entitlement will not be granted without a water resource works approval to enable the take of the water issued. The water resource works approval is subject to the principles outlined in section 7 of this Plan ". This prevents speculative buying of water without a location to take the water.
- Flow chart of assessment steps for non-spring GDEs included in section 2.2.3. Principles 29b – *allocation transfer or variation requiring consideration of impacts on non-spring GDEs* and Principle 45c – *WRWA assessments requiring consideration of impacts on non-spring GDEs*, content with regard to impact on refuge GDE sites moved to a new principle after principle 40 stating that a new well can be drilled if it is outside of zone A and the 100m buffer for refuge GDE sites, and is not intercepting the GAB aquifer, nor likely to impact on an existing users ability to take water and will be taking the same volume of water already authorised. Or if the applicant is targeting the unconfined aquifer within the Refuge GDE buffer, the GDE flow chart demonstrates that the taking of water from the new well is unlikely to impact upon the refuge GDE.
- Section 6 updated to provide more information about the separation of land and water rights and the separation of water management authorisations. The importance of buyers ensuring that water management authorisations are included in the sale of land has been added.

Bore-fed wetlands

In response to feedback received during consultation, the amenity water concept has been removed with the domestic water remaining at the full allocation within the stock and domestic consumptive pool. Where the term amenity was used it has been replaced with 'bore-fed wetland' as this is now the only source of water it refers to. No other changes were made, however it is noted that bore-fed wetlands will be subject to the issuance of a site use approval. The site use approval requires that water for bore fed wetlands must be taken in line with a wetland management plan and that the volume of water applied does not exceed the volume of water required to maintain the values of the wetland. Changes to the draft Plan are as follows:

- Where the term amenity is referred to (section 1.2, table 5.1, section 5.3, principle 53a and 54) it has been removed and replaced with bore-fed wetland where appropriate.

Climate change

In response to feedback, additional context around climate change and potential impacts has been included in the draft Plan. Additional information has also been included around possible diversification of industry in response to climate change. Changes to the draft Plan are as follows:

- Inclusion of subsection after Hydrogeology in the introductory chapter on Impacts of Climate Change.
- Discussion on increased opportunities for economic development and possible diversification of industry included in new 1.6 Impacts of Climate Change. Under Pastoral Demand section 5.3.3 included some text about diversification opportunities. Included section in demands titled Irrigation Demand about future possible demand from the irrigation sector. Sections 1.3 - *Economic, Social and Cultural Information* and 1.7

- *Water for People, Industries and the Environment* amended to include content about irrigation in suitable areas.

Domestic water allocations

In response to comments received, the volume of water for domestic allocation has been changed from 1.5 ML to 3.65 ML per household per year and reflects the provisions of the 2009 Plan. In response to concerns around changing the domestic allocation volume on existing licences, changes to the draft Plan now mean that existing licences will not be updated to the new volumes. Any new applications, if approved, will also be granted the same rate. In addition, the proposal to separate domestic allocations into two categories – ‘domestic’ and ‘amenity’ – has been removed from the draft Plan. The definition of ‘domestic’ has also been updated to better reflect the water use within the Far North region. Changes to the draft Plan are as follows:

- Section 5.3.6 – *domestic water supply demands*, updated to reflect a domestic water allocation of 3.65 ML per dwelling. Amendment of principle 11 – *water access entitlements for domestic purposes shall not exceed 1.5 ML per household per year*, to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing users licences.
- Definition for dwelling included in the glossary of the draft Plan and in section 5.3.6.
- Replaced current Act definition for domestic water in the glossary with a description more appropriate for the region’s needs.

Environmental protection (springs)

In response to comments received regarding the protection of springs, additional information has been included in the draft Plan to clarify how buffer zones were determined. Further clarity has also been provided around the approvals required for the taking of water from priority springs. Changes to the draft Plan are as follows:

- Section 2.1.3 – *environmental water provisions of springs*, updated to include information on how Zone A and Zone B were determined.
- Clarity provided in section 2.1.3 around how existing users’ licences will be issued and that site use approvals are required to enable the taking of water from priority springs.
- Principles 54b and 56b - *site use approvals for springs*, amended to refer only to priority springs.

Monitoring

Additional information has been added to section 8.5 of the draft Plan in response to feedback that insufficient detail was included on the evaluation of monitoring data and the effectiveness of the Plan in meeting objectives. The development of a Monitoring, Evaluation, Reporting and Improvement Plan (MERI Plan) is proposed. The Board will engage with key stakeholders during the development of the MERI Plan. Changes to the draft Plan are as follows:

- Section 8.5 – *Monitoring, Evaluation, Reporting and Improvement*, revised to provide clarity that the MERI Plan will be developed as an implementation task of the Plan and that the Board is responsible for developing the MERI Plan, as well as undertaking any engagement with stakeholders during its development.

Protection of non-spring GDEs

In response to comments received, a flow chart has been added to the draft Plan showing the permit application process related to non-spring GDEs. To provide access to data around non-spring GDEs, a new subsection has been added to the draft Plan that will provide links to data available on NatureMaps. Due to the scale of GDE locations, it is difficult to provide this information on a static map in the draft Plan. Changes to the draft Plan are as follows:

- Flow chart for permit applications process for within 100m of refuge non-spring GDEs included in section 2.2.3 of the draft Plan.

- New subsection added to draft Plan in introduction chapter titled Data Locations. When the draft Plan is finalised and layers are put on NatureMaps, direct links to these layers in this section will need to be added to the version of the Plan loaded to the web.

Reporting requirements/annual water use reports

In response to comments, the draft Plan has been amended to clarify that Annual Water Use Reporting only applies to the take of water of more than 1 ML/day for purposes other than pastoralism. It has also been clarified that reporting is not due until the December after the relevant water use year, to better align with other industry reporting requirements. Changes to the draft Plan are as follows:

- Principle 51e amended to state that:
 - It only applies if authorised to take more than 1 ML/day for purposes other than pastoralism,
 - where appropriate, additional monitoring may be required at the request of the Minister,
 - the report is not due until December after the relevant water use year,
 - salinity is required from the aquifer, not from every well on the licence.

Water accounting

In response to comments received, further clarity has been provided in the draft Plan regarding responsibility for managing and maintaining meters or other water accounting mechanisms, in cases where they are required. Reference to the Water Accounting Implementation Plan has replaced the term metering, to provide flexibility should there be other mechanisms to account for water used. Changes to the draft Plan are as follows:

- Principle 51b - *conditions on a WRWA*, edited to state water must be taken in line with the Water Accounting Implementation Plan rather than referring to meters.
- Text in section 7.2 – *The management of water wells*, included to state that it is the responsibility of the holder of the water management authorisation to purchase and maintain a water accounting mechanism.
- Additional text included in section 8.3 - *monitoring demands*, about the development of the Water Accounting Implementation Plan.

It was acknowledged that metering is a complex issue for the Far North PWA and further work is required to determine the best approach to water accounting. The requirement to account for water is led by state policy not the Plan. The Department for Environment and Water will develop a Water Accounting Implementation Plan, in consultation with the Board and the community, which will outline the circumstances under which water accounting is not required, what water accounting mechanisms are able to be used, and how any water accounting measures will be implemented.

Water trading

In response to comments, the draft Plan has been updated to clarify that a water allocation can only be traded within the same consumptive pool. Additional information has been included in section 6 of the draft Plan to highlight the importance of a buyer ensuring that a sale of land includes access to water through water management authorisations. Changes to the draft Plan are as follows:

- While a matter of law, included a principle after principle 37 for clarity, to state that a water allocation may only be transferred to another person where it remains a water allocation for the Consumptive Pool from which it was initially granted.
- More information provided in section 6 of the Plan with regard to the separation of land and water rights in South Australia and the need for buyers to ensure a sale of land includes a sale of water management authorisations.

Clarification/minor amendments

An editing process was undertaken to correct grammar and sentence structure. Other inconsequential changes were made to improve readability or to add context. These changes did not change the intent of policies or principles in the draft Plan.

- Correction of numbers and grammatical changes throughout, where appropriate further text included to provide clarity. Reworded objectives, updated maps and graphs, tables, etc. Reference to relevant sections of *Landscape SA Act 2019* rather than NRM Act.

5 Key feedback received not addressed in the draft Plan

In addition to the topics listed above that resulted in changes to the draft Plan, a number of topics were discussed in comments and submissions that are out of scope of the draft Plan. These will be addressed through other processes, as detailed below:

Stock water requirements

The draft Plan currently leaves stock water requirements at 100 L/d/head cattle and 20 L/d/head sheep (+20% buffer for natives and feral animals). The Board recognised that further work would assist in updating data and has advised that it will undertake a study to estimate stock water requirements in the Far North through trials. The findings can then be utilised to undertake a targeted amendment to the Plan at a future date, if required.

Water accounting

The requirement to account for water is led by the South Australian Licensed Water Use Meter Policy, not the Plan. As discussed above, the Department for Environment and Water will develop a Water Accounting Implementation Plan, in consultation with the Board and the community, which will outline the circumstances under which water accounting is not required, what water accounting mechanisms are able to be used, and how any water accounting measures will be implemented. The Water Accounting Implementation Plan will consider the local conditions and complexities around water sources and water supply arrangements.

Levies

While the setting of levies is not able to be addressed in the draft Plan, comments received will be considered by the Board in their Business Planning process. A water levy cannot be imposed on the taking of water for domestic purposes or for watering stock that are not subject to intensive farming as this is explicitly excluded under section 76(14) of the Act, and there is no intention to change this.

Compliance

The feedback relating to compliance has been forwarded to the Department for Environment and Water for its consideration as part of its responsibility to implement the Plan through the administration of water licences and permits.

Appendices

Appendix A – Consultation Material

A1 – Draft Water Allocation Plan for the Far North Prescribed Wells Area released for consultation

A2 – Engagement and Consultation Strategy

A3 – Media Release

A4 – Advertisement

A5 – Letter to licensees and landholders

Appendix B – Submissions & Board Analysis

B1 – Consultation comments and responses

B2 – Table of changes arising from submissions

Draft Water Allocation Plan for the Far North Prescribed Wells Area

South Australian Arid Lands Natural Resources Management Board

August, 2019



DRAFT - For Consultation

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Source: DEW

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1 Introduction

1.1 Background to the Water Allocation Plan

This document is the amended Water Allocation Plan for the Far North Prescribed Wells Area (this Plan) and supersedes the Water Allocation Plan for the Far North Prescribed Wells Area (SAALNRMB 2009). It has been prepared pursuant to the [Natural Resources Management Act 2004](#) (SA) (the NRM Act) and is consistent with the objects and requirements of the NRM Act.

This Plan has been produced using the [Intergovernmental Agreement on a National Water Initiative](#) (NWI) (COAG 2004) as a guiding document. The NWI is an agreement signed by all state and territory governments and the Australian Government. It provides for a nationally compatible market, regulatory and planning based system of managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes. The NWI provides principles which relate to matters such as the need for science-based water planning, adaptive management of the resource, open engagement with communities, secure water rights for consumptive purposes, and the provision of environmental water requirements. This Plan is a statutory document that provides for:

- management of water property rights through a legally robust water licensing regime,
- protection of existing user's ability to maintain access to water,
- protection of water dependent ecosystems and sites of cultural significance dependent on the water resource, and
- management of the taking and use of water for current and future users of the resource and the transfer of water rights between users.

Further, this Plan has been developed using the draft Great Artesian Basin Strategic Management Plan (draft GAB SMP) as a guiding document. At the time of preparing this Plan, the draft GAB SMP (Australian Government, unpublished) was due to be considered by the relevant water Ministers, consequently it was used to assist in setting the objectives and principles in this Plan to deliver consistent water management objective with other states who manage the water resources of the basin. This delivers a Plan that is consistent with the seven guiding principles in the draft GAB SMP, that have been developed by basin governments and community and industry representatives to achieve economic, environmental, cultural and social outcomes, those being:

1. coordinated governance,
2. a healthy resource,
3. Aboriginal and Torres Strait Islander values, cultural heritage and other community values,
4. secure and managed access,
5. judicious use of groundwater,
6. information, knowledge and understanding for management, and
7. communicate and educate.

The agreed principles capture the collective values and objectives for future management of the basin and have guided the development of this Plan's desired outcomes.

This Plan aims to achieve an equitable balance between the economic, social and environmental needs for water and also sets out rules for those water affecting activities that are in addition to those contained in the [Regional Natural Resources Management Plan \(Volume 2 – Appendix 1\)](#) (SAALNRMB 2017). These extra controls on water affecting activities apply only to the prescribed groundwater resources covered by this Plan. It does not encompass the management of the take and use of surface water or water in watercourses as these resources are not prescribed within this region.

1.2 History of Groundwater Management

In the Far North Prescribed Wells Area (PWA), groundwater is the principal source of water for commercial, irrigation, industrial, town water supply, domestic, amenity, watering stock, and petroleum and mining production purposes. The surface expression of groundwater, for example springs, continues to support traditional Aboriginal cultural values, as well as more recent cultural values from European settlement.

Pursuant to the [Water Resources Act 1997](#), the wells in the Far North PWA were declared as prescribed wells on 27 March 2003 as a means of encouraging responsible use of groundwater. Subsequently a water allocation plan (the previous Plan) was developed for the Far North PWA, pursuant to the [Natural Resources Management Act 2004](#), to regulate the taking of water from wells and to facilitate the broader management of the groundwater resources. The previous Plan aimed to eliminate wasteful practices (such as requiring water for stock and/or domestic purposes to be delivered through a water-tight delivery system within 10 years of the Plans adoption), stabilise decreasing groundwater pressures in the Great Artesian Basin (GAB), clarify the rights and responsibilities of users of the groundwater in this region and ensure the health of ecosystems dependent on the prescribed resources. With respect to the latter point, such ecosystems specifically referred to as the '[community of native species dependent on natural discharge of groundwater from the Great Artesian Basin](#)' are identified as endangered on the list of threatened ecological communities under the Commonwealth [Environment Protection and Biodiversity Conservation Act 1999](#) and therefore require protections from the taking of groundwater from within the Far North PWA. The previous Plan was adopted on 16 February 2009. The South Australian Arid Lands Natural Resources Management Board (SAALNRMB) reviewed the previous Plan in 2013 and subsequently made the decision to amend it.

1.3 Economic, Social and Cultural Information

The Great Artesian Basin (GAB) is Australia's largest underground water resource, underlying approximately 1.7 million km², or 22 % of the Australian continent (Habermehl 1980). It is also the world's largest and deepest artesian basin, with measured water temperatures ranging from 30 to 100 degrees Celsius.

The GAB provides the only reliable source of fresh water through much of inland eastern and central Australia. It has been vital in sustaining Aboriginal people over thousands of years, has important cultural, environmental and heritage values, and for more than 100 years, it has sustained much of the pastoral and community needs of a fifth of Australia's landmass. The first artesian bore was drilled in the GAB in the late 1870s and since then groundwater has been instrumental in the economic and social wellbeing of the pastoral and town people who live in the Basin (Australian Government 2017).

The Far North PWA is vast and sparsely populated. Much of the land is leasehold and utilised for pastoral production, mining, gas and petroleum production. Maintaining the social infrastructure and industries in this area is vital to South Australia. The GAB is the life blood of many communities, landholders and industries, and it supports diverse natural ecosystems and cultural values that have national and international significance. It provides most of the groundwater supplies in the Far North PWA. The active participation of water users and other community interests has always been an essential part of managing use of the GAB to sustain water supplies and protect community values. It is one of the few major artesian basins in the world that has not been severely over exploited (Australian Government 2017).

The first people to make use of GAB water were First Nations for whom it was critical to survival. There are a number of native title claims over the area and there is evidence that water from the GAB sustained Aboriginal people for thousands of years prior to European settlement. The natural springs of the GAB provided a critical source of fresh water, and supported valuable food sources including birds, mammals, reptiles, crustaceans and insects, creating an abundant hunting ground for First Nations. The plants and trees around the artesian springs were used for food, medicine, materials and shelter. The springs provided semi-permanent oases in the desert and supported trade and travel routes

which evolved around them. Ceremonies and other events were held at spring wetland areas which remain precious cultural and sacred sites. Numerous Creation stories feature a connection to groundwater. Many people from these nations live in the area and care for their country.

1.4 The Prescribed Area

The Far North PWA covers an area of approximately 315 000 km² (32% of the State) in the north east corner of South Australia and lies outside the State's surveyed Hundreds and within the unincorporated areas of South Australia, with the exception of Coober Pedy. The main townships, settlements and the smaller service centres located on arterial roads near or through the South Australian Arid Lands region within the PWA are displayed in Figure 1.1. Additionally, Santos Ltd maintains a large oil and gas processing plant and camp at Moomba, however this is a restricted company settlement which excludes public access.

The Far North PWA is located in the South Australian Arid Lands (SAAL) Natural Resources Management Region which takes its name from the distinctive arid landscapes that cover the north of the State. There are few reliable permanent fresh surface water resources within the arid lands, with a number of ephemeral (not always present) salt lakes scattered across the landscape. Sandy and gibber stone deserts dominate the Far North PWA, with the Gawler Ranges and the Flinders Ranges located south of the PWA.

Rainfall is generally less than 250 mm per year, ranging on average between 153 mm/year (McDouall Peak, weather station 16027) to 234 mm/y (Marla Police Station, weather station 16085) (BoM 2018). However, rainfall in the arid areas of the State is unpredictable and consequently, averages can be misleading. Rainfall occurrence can be sporadic; sometimes the region may go without significant rainfall for years, while the intensity of rainfall can be highly variable with a single event capable of delivering average annual totals. Rainfall is predominantly generated from weak winter cold fronts and can vary significantly year to year and location to location. Average annual evaporation can be around 3500 mm, resulting in the rapid evaporation of accumulated surface water.

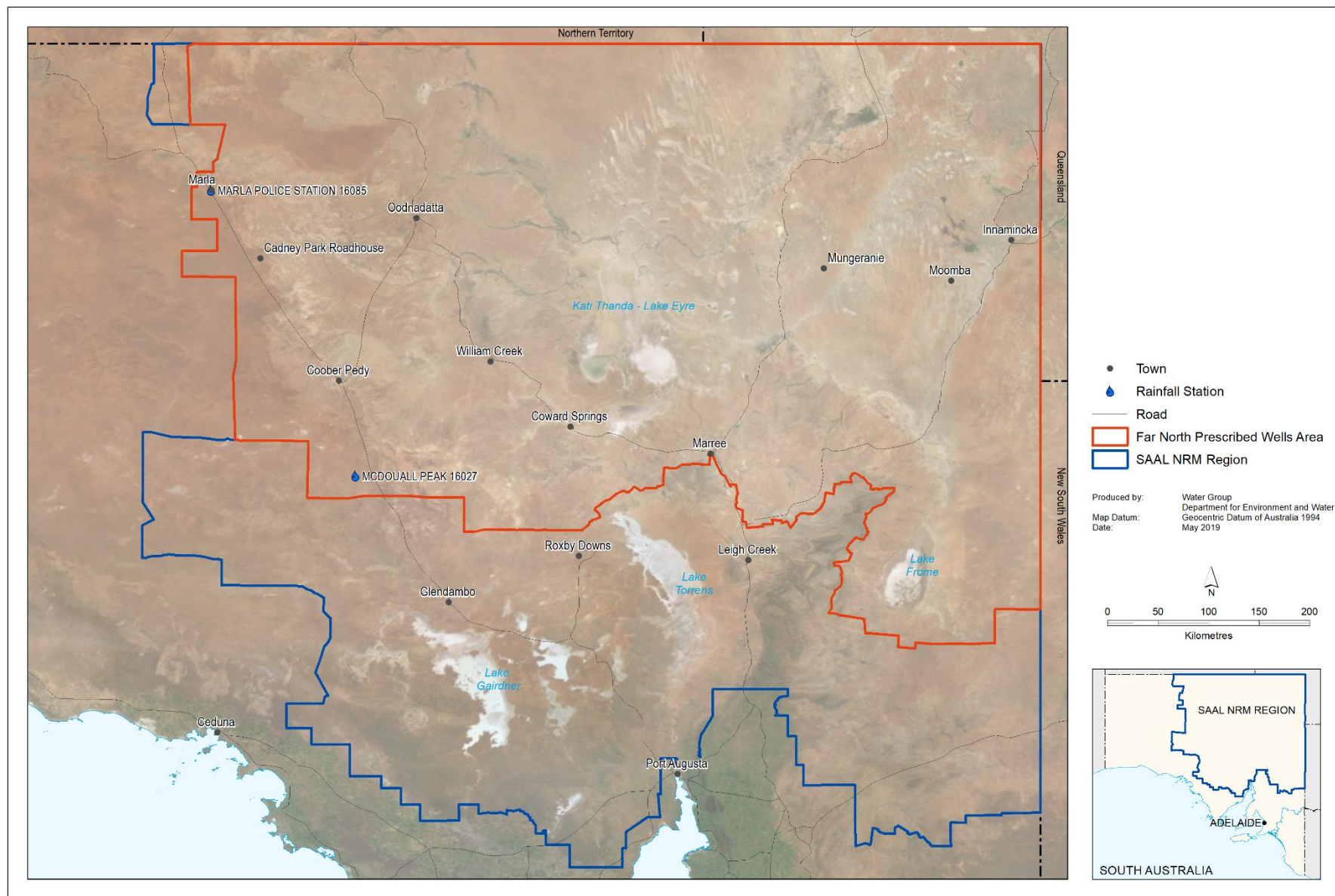


Figure 1.1. Location of the Far North PWA

1.5 Hydrogeology

The groundwater resources of the Far North PWA are found within:

- the shallow Quaternary and Tertiary sedimentary aquifers, including the Lake Eyre basin,
- the Jurassic to Cretaceous sediments of the Great Artesian basin (GAB) aquifers,
- the underlying Permo-Carboniferous to Early Triassic sediments of the Cooper, Arckaringa and Pedirka basins, and
- the basement crystalline fractured rock aquifers.

The GAB provides most of the groundwater supplies in the Far North PWA, although there is also significant groundwater extraction from other aquifers including the Arckaringa and Lake Eyre basins. In addition, minor volumes of water are extracted from the Cooper basin.

Within the Far North PWA, the aquifer units within the GAB of primary importance are the Cadna-owie Formation and Algebuckina Sandstone (and equivalents). As a single unit, they are described as the Jurassic-Cretaceous (J-K) aquifer with the acronym "J-K" derived from the abbreviations for the Jurassic and Cretaceous geological periods. The GAB refers to both a stratigraphic and hydrogeological entity which is the equivalent of the Eromanga Basin within South Australia. The majority of wells completed in the GAB aquifer within the Far North PWA are artesian wells.

The hydrogeology of the PWA is displayed and described in Appendix A, Figures A.1 and A.2 and Tables A.1, A.2 and A.3. More detailed information on the hydrogeology of the Far North PWA can be found in the following documents:

- [Far North PWA Groundwater Level and Salinity Status Report](#) (DFW 2011)
- [Hydrostratigraphy, hydrogeology and system conceptualisation of the Great Artesian Basin](#) (Ransley and Smerdon 2012)
- [Water Resource Assessment for the Great Artesian Basin](#) (Smerdon *et al.* 2012)
- [Hydrogeological Framework of the Western Great Artesian Basin](#) (Keppel *et al.* 2013)
- [Arckaringa Basin and Pedirka Basin Groundwater Assessment Projects](#) (Wohling *et al.* 2013)
- [Lake Eyre Basin Bioregional Assessment Reports](#) (Australian Government 2018)
- A review of groundwater resources and management principles in the Far North Prescribed Wells Area (Keppel unpublished)

1.6 Management Approach

The management approach adopted by this Plan must take into account the unique characteristics of the groundwater resources within the Far North PWA. The nature of the aquifers of the Far North PWA, the extensive area and the large storage capacity of the GAB, make volumetrically quantifying the SA portion of the water resource difficult. The J-K aquifer alone has an estimated storage capacity of 7.5 million GL (Keppel unpublished). Understanding the volume, conditions and processes that maintain groundwater pressure levels that sustain artesian flows will ensure existing users of the resource continue to have access to groundwater, and will help to ensure that the management regime will maintain flows to dependent ecosystems and sites of cultural significance. Given the nature of the aquifers of the Far North PWA, it is reasonable that new allocations be granted to provide for the taking of water for licensed purposes, as long as it does not impact on the capacity of the groundwater resource to continue to meet the water requirements of the environment and the existing users.

Excessive water extraction in an area may have unacceptable impacts on the water pressure or levels within an aquifer. This may impact on the water balance and result in effecting an existing user's ability to access water or reducing natural discharges to sites of cultural or ecological significance. Changes to groundwater pressures and natural flow directions

may result which would affect groundwater flow gradients toward the springs which are important in maintaining functional ecological communities and refugia within the landscape.

This Plan contains principles which allows for water to be taken only from locations where the take of water would not cause unacceptable impacts. Taking water from the Far North PWA will only be authorised if the taking of water for licensed purposes is deemed not to cause an undesired impact upon pressure levels within the aquifer maintaining springs, upon the flow of groundwater toward sites of cultural significance or other ecological sites, or upon an existing user's ability to access water.

Applicants need to be aware that the granting of a water licence does not result in an ability to take the water. The approval to take water is the issuance of a water resource works approval and this is dependent on meeting the specific criteria in relation to the location of take, outlined in section 7 of this Plan. Effectively there is no limit to the volume of groundwater in the Far North PWA which can be made available for licensed purposes. Rather, approval to take water must meet the principles in section 7 of this Plan.

The absence of a volumetric limit to water take for licensed purposes, does not mean that the resources of the Far North PWA are infinite. Rather, particularly for the GAB, recent investigations (Love *et al.* 2013, Ransley and Smerdon 2012 and Welsh *et al.* 2012) indicate that the groundwater resources are in a state of natural decline, albeit over very long timescales, due to discharges from the resource, both natural and anthropogenic, exceeding the recharge to the system. This means that even if humans were not extracting water, the volume of water and water pressure in the GAB would continue to fall. As the extraction of water has increased so too has the speed of this decline.

This Plan seeks to encourage actions which ensure judicious use of water by all water users, to protect key environmental and cultural assets and maximise economic opportunities within the Far North PWA.

1.7 Water for People, Industries and the Environment

The management approach adopted by this plan must take into account the needs and values of all water users and the unique characteristics of the Far North PWA. The GAB and the overlying shallow aquifers are the only reliable sources of water for almost all human activity in the Far North PWA. Providing access to sustainable water supplies for the industries, residents and visitors to the Far North is essential to the prosperity of South Australia. GAB water supports the mining, petroleum, pastoralism and tourism industries which collectively are worth more than \$3 billion/year (Frontier Economics 2016, DEM 2019). The high value industries dependent on GAB water in SA include:

- stock (pastoral and intensive)- \$105 million annually,
- mining- \$2.8 billion annually,
- petroleum production- \$1.2 billion annually, and
- tourism at GAB springs and areas using artesian water in mineral spas, approximately \$150 million annually.

Significant public and private funds have been invested in developing and protecting the GAB water resource to support and sustain its economic, social and environmental values. Residents in the Far North PWA have traditionally provided critical human and land management services across these more remote parts of the State, and the outback community continues in this role today (Yelland L and Brake L 2006).

1.8 Objectives

This Plan aims to achieve the following objectives:

- Provide security of access to water for current and future users of the resource.
- Ensure that the taking of water for licensed consumptive purposes is undertaken in a manner that provides for the long-term viability of the water resource.
- Support Aboriginal people's water interests through the provision of access to the water resource.
- Recognise and incorporate the traditional knowledge of Aboriginal people in the management of the take and use of water from the groundwater resource.
- Ensure the taking of water will not damage, disturb or interfere with any site of cultural significance.
- Authorise the taking of water, for equitable economic and social development within resource management limits and sustainable environmental limits.
- Minimise the impact of the authorised taking of water on:
 - the ability of current licence holders to access groundwater,
 - other water resources (adjacent, underlying or overlying water resources), and
 - springs and other groundwater dependent ecosystems.

2 Assessment of the Water Needs of Groundwater Dependent Ecosystems

The arid zone of South Australia is one of the driest locations in Australia. It does, however, contain a diverse and dynamic range of ecosystems and land types, including wetlands that have been isolated by desertification of the surrounding environment over the past 25 million years (Krieg 2000). Surface water from floods and in watercourses is ephemeral (not always present) and thus groundwater is the only reliable water source for the ecosystems that depend on it as well as the people inhabiting the region. Wetland species that were once widespread during wetter climatic periods are now restricted to isolated areas where their water needs can be met; this makes them vulnerable to impacts from groundwater development. There are a number of ecosystems in the Far North PWA that are considered to be Groundwater Dependent Ecosystems (GDEs). This means that they require access to groundwater, on a permanent or intermittent basis, to meet all or some of the water needed to maintain their community of plants and animals, and the ecological processes and ecosystem services they provide. The NRM Act requires this Plan to assess the water needs of these GDEs and include information about water that is to be set aside for the environment.

This Plan identifies two distinct types of GDEs:

- 1) 'Springs' that depend on the GAB or other aquifers; and
- 2) 'Non-spring GDEs' which are GDEs that are not springs but which have been identified by this Plan to be features or locations within the landscape which have a high probability of groundwater connection in the Far North PWA.

The dependence of the springs and the non-spring GDEs on groundwater is described in further detail in Appendix B in terms of their 'environmental water requirements' (EWRs). Risks to these environmental assets from extracting water will be managed through the policies and principles described in sections 6 and 7 of this Plan.

Terrestrial fauna that drink from groundwater, such as migratory and wetland birds, can be considered a separate GDE component. For the purposes of this Plan it is assumed that their water needs will be met by providing water to the GDEs listed below, and as such are not specifically considered in this Plan.

2.1 Springs

Springs are important ecological features of the arid zone providing permanent habitats for aquatic flora and fauna (e.g. fish) that need standing water, and a reliable source of water for visiting fauna. These habitats are like islands where species that depend on a continuous flow of groundwater for their existence have evolved independently of each other (Harris 1981). The ecological communities associated with these springs, especially those dependent on the GAB aquifer, are rich in species that do not live anywhere else (endemic) and have great environmental, cultural, social and tourism value. The presence of permanent freshwater in arid environments, and this high level of uniqueness of the plants and animals that inhabit them, gives the springs an ecological importance much greater than would be expected from their small area (Harris 1992).

The Great Artesian Basin Springs (GAB Springs) are a key focus of management of the Far North PWA. A number of State and National policy documents refer to their protection, for example [The community of native species dependent on natural discharge of groundwater from the Great Artesian Basin](#) are listed as endangered on the [Environment Protection and Biodiversity Conservation Act 1999](#) (EPBC Act) [List of Threatened Ecological Communities](#). This listing means that the communities of native species dependent on the GAB Springs are considered a Matter of National Environmental Significance for which the highest level of protection from threatening processes are afforded. They are amongst the

most important groundwater dependent ecosystems in Australia and are considered to be ecological and evolutionary 'hot spots' (Gotch *et al.* 2008; Murphy *et al.* 2009; Fensham *et al.* 2010; Murphy *et al.* 2010; Hale and Brooks 2011, NWC 2013). It is important to note that some springs in the Far North PWA, for example, Tarlton Spring, are fed by aquifers other than the GAB.

2.1.1 Locations of Springs in the PWA

In the Far North PWA there are more than 170 spring groups containing an estimated 5000-6000 vents (NWC 2013). Since the adoption of the previous Plan, additional GAB springs and springs supported by other aquifers have been identified. The GAB springs occur mostly around the margin of the GAB and are clustered into 13 major regional spring supergroups (NWC 2013). Springs dependent on other aquifers are scattered throughout the PWA. As information on the spring within the Far North PWA is likely to grow and change throughout the life of this Plan, the springs identified in the South Australian SA_Geodata database, as amended from time to time, is considered the point of truth at any point in time. At the date of adoption of this Plan, the springs identified in the South Australian SA_Geodata database are displayed in Figure 2.1.

2.1.2 Environmental Water Requirements (EWRs) of Springs

For the entire year, the groundwater needs to be in direct contact with the spring source and over the long term needs to maintain the spatial extent of the wetland tail, allowing for seasonal and multi-year fluctuations.

2.1.3 Environmental Water Provisions (EWPs) of Springs

Environmental water provisions are those portions of the EWRs (presented above) that can be met at any given time by controlling the levels and/or locations of groundwater extraction through water allocation policies and principles (sections 6 and 7).

The GAB and other springs rely on artesian pressure for the provision of their water needs. Therefore, it is essential that this pressure is maintained at a level that provides a continuous flow of groundwater to maintain the springs, whilst allowing sustainable extractions for consumptive purposes (Fig. 2.2).

The principles in section 7 of this Plan reflect the importance of managing the take of water from the resource in a manner which does not result in a decline in groundwater pressures or levels that would adversely impact on groundwater discharge to the springs.

This Plan employs the use of buffer zones around springs (Zone A – 5 km from a spring, and Zone B – 5 to 50 km from a spring, Fig. 2.1) within which specific principles outlining the acceptable change in water pressure applies to the taking of water (sections 6 and 7). These principles do not apply to existing users, unless the user is applying to increase the volume of water they wish to take from within these buffer zones, or change the location of take to a well which is located within the buffer zone.

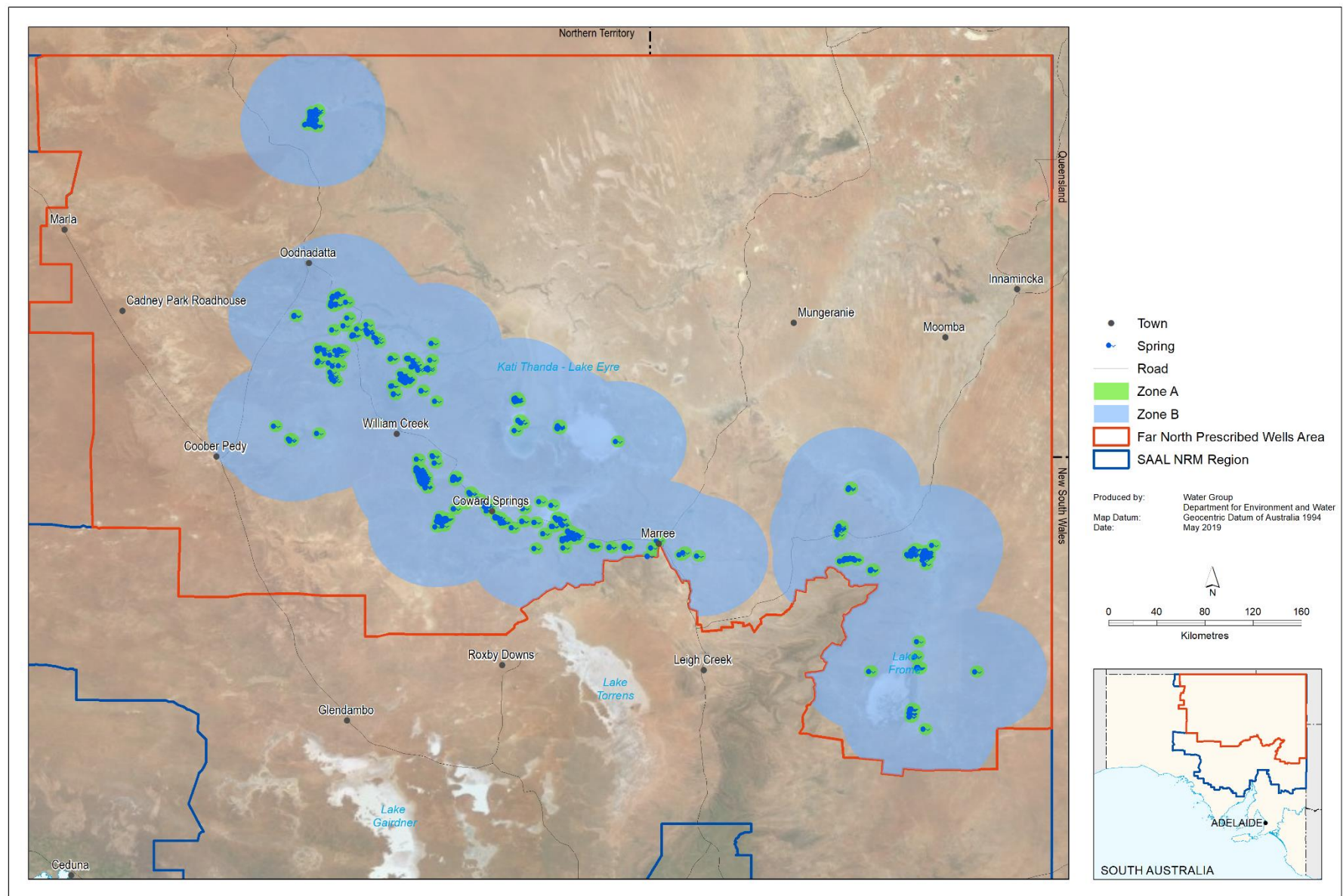


Figure 2.1. Location of the springs, Zone A and Zone B in the Far North PWA

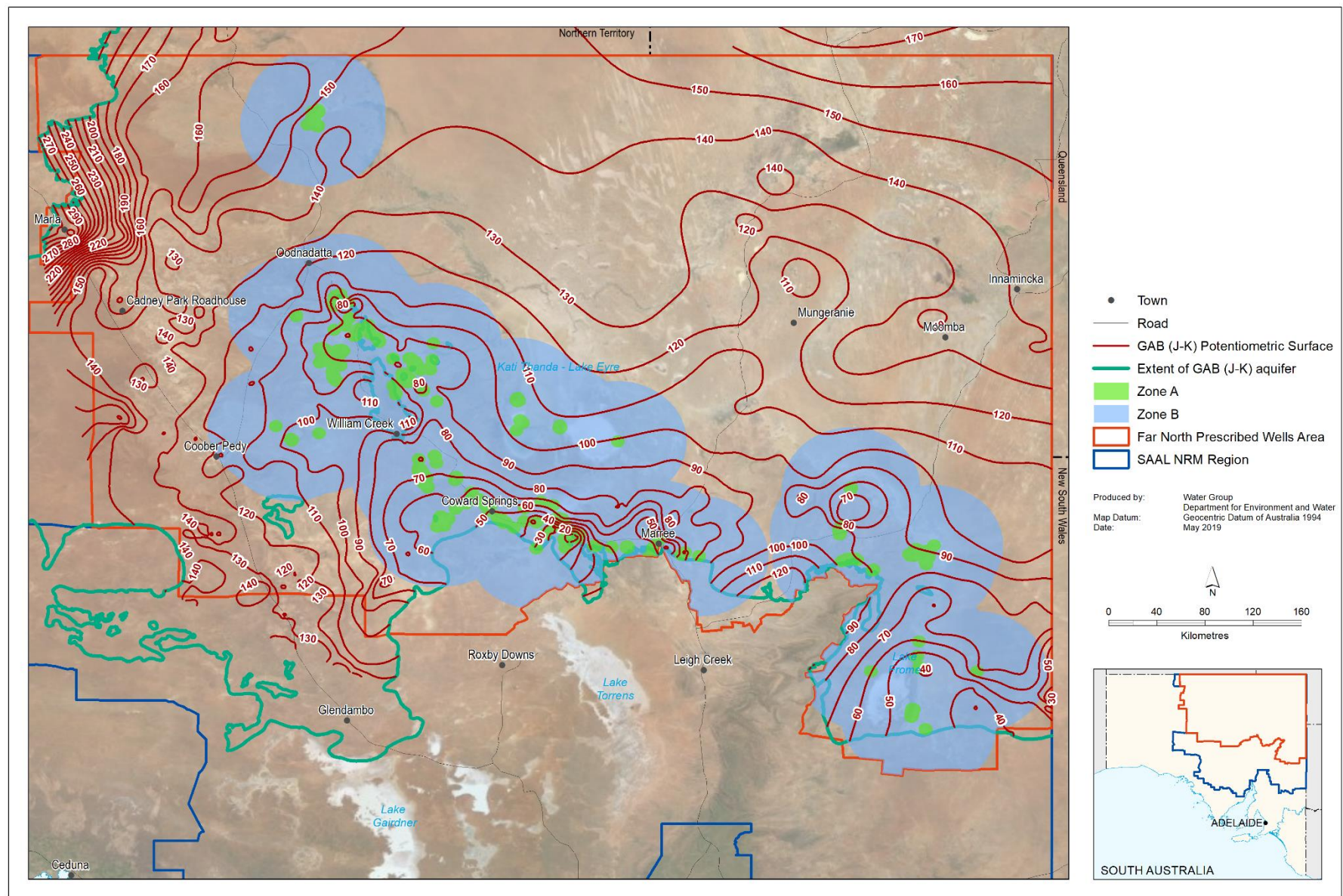


Figure 2.2. Potentiometric surface of the GAB (J-K) aquifer in the Far North PWA

2.2 Non-spring GDEs

Recent studies (Scholz and Deane 2010, Mancini 2013, Gotch 2013, Hooper and Miles 2015, Hobbs *et al.* 2018) have identified important GDEs or features within the landscape which have a high probability of groundwater connection, other than springs, that were not considered in the previous Plan but are identified in this Plan, including:

- Diffuse discharge areas: areas where groundwater expressed to the soil surface supports wetland plants;
- Wetlands: areas of permanent or periodic/intermittent inundation that support wetland plants and rely on groundwater inflows (some or all of the time) as a critical component of their water regime;
- Refuge waterholes: significant regional refuge areas of deep, permanent standing water that rely on groundwater inflows (some or all of the time) to maintain their water quality and minimum levels, especially during cease-to-flow periods. In the PWA, this refers to large, permanent waterholes such as Cullyamurra and Algebuckina;
- Riparian vegetation: vegetation alongside some watercourses and wetlands that relies on shallow groundwater, some or all of the time, but especially in between river flows or floods;
- Phreatophytic vegetation: deep-rooted vegetation that relies on shallow aquifers, or the unsaturated soil above them, for some or all of their water needs; and
- Salt lakes: groundwater dependency is primarily driven by discharge from shallow aquifers but there may also be upward leakage from the deep GAB aquifers into some salt lakes. Examples include *Kati Thanda* - Lake Eyre (South and North) and Lake Frome, which support a number of endemic terrestrial invertebrates.

Despite specific investigations and assessments undertaken in recent years there are thousands of individual non-spring GDEs in the Far North PWA which have not been surveyed in detail. As further studies are undertaken on non-spring GDEs within the prescribed area, more information on the environmental water requirements will become available.

2.2.1 Locations of non-spring GDEs in the PWA

While the types of GDEs listed above exist in many places within the Far North PWA (Figure B.3), there are locations where it is considered likely that the taking of shallow groundwater in close proximity to these features has the potential to impact upon these GDEs (Figure 2.3).

2.2.2 Environmental Water Requirements of non-spring GDEs

To maintain the groundwater components of the overall water and salinity regime within the range that the GDEs' ecological communities and species need or can successfully adapt to.

2.2.3 Environmental Water Provisions (EWPs) of non-spring GDEs

Environmental water provisions are those portions of the EWRs (presented above) that can be met at any given time by controlling the levels and/or locations of groundwater extraction through water allocation policies and principles (sections 6 and 7).

Non-spring GDEs could be placed at unacceptable levels of risk if unmanaged groundwater extraction occurs close a GDEs, as it may generate a localised reduction in groundwater level that could reverse the groundwater flow direction or reduce flows and thus deprive the GDE of sufficient water to meet its environmental water needs (Gotch 2013).

Excessive groundwater extraction that results in significant drawdown of groundwater levels is therefore, a primary threat to the provision of a non-spring GDE's environmental water requirements. The principles in section 7 of this Plan reflect

the importance of managing the take of water from the resource in a manner which does not result in a decline in groundwater pressures or levels that would adversely impact on groundwater discharge to the non-spring GDEs.

Wilson *et al.* (unpublished) completed a risk assessment to determine which types of non-spring GDEs were likely to be impacted upon due to the taking of shallow groundwater (see Appendix B). Information on the locations of non-spring GDEs which are likely to be impacted upon by the taking of shallow groundwater within the Far North PWA is likely to grow and change throughout the life of this Plan through further scientific investigations or through input from landholders. As such, the non-spring GDEs identified in the Department's Far North PWA Non-Spring GDE Database, as amended from time to time, is considered the point of truth of the non-spring GDEs which are protected by the use of management controls through this Plan, at any point in time. At the date of adoption of this Plan, the non-spring GDEs identified in the Department's Far North PWA Non-Spring GDE Database are displayed in Figure 2.3.

This Plan utilises a 100 meter environmental buffer around the non-spring GDEs identified in the Department's Far North PWA Non-Spring GDE Database (Fig. 2.3) within which specific principles apply to the taking of water (sections 6 and 7). These principles do not apply to existing users, unless the user is applying to increase the volume of water they wish to take from within these buffer zones, or change the location of take to a well which is located within the buffer zone.

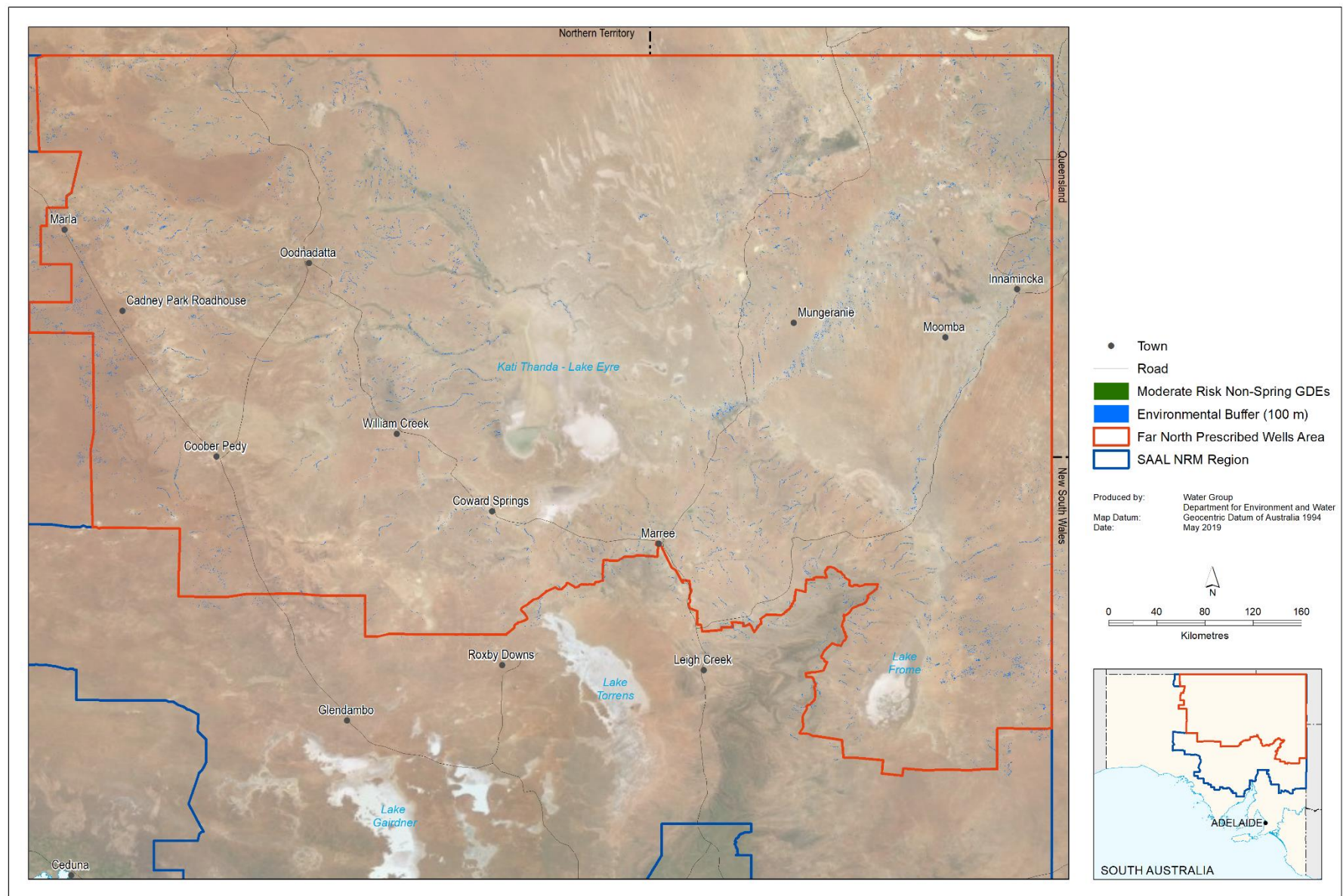


Figure 2.3. Location of non-spring GDEs identified in the Department's Non-Spring GDE Database and the relevant environmental buffer in the Far North PWA

3 Assessment of the Water Needs of Aboriginal People

Aboriginal connection to the Far North area is expressed through creation stories (cultural and spiritual histories) about the Country. These stories reveal the significance of the relationship between the Country and the people, both practically and spiritually. For Aboriginal nations, water is life – it provides life to everyone and everything that ever lived, and everyone and everything that ever will live. In this way, water is the lifeblood of the landscape and is intimately connected to all the other elements of the landscape, supporting spiritual, cultural, environmental, social and economic life. Water, and all of the connected elements, must be managed to allow it to remain healthy, and continue to function and support people to live as it has for many thousands of generations.

The springs of the *Kati Thanda* - Lake Eyre region have particular cultural importance to Aboriginal people. Numerous stories and song lines are associated with different springs and it is essential that the cultural values of the landscape are protected for all future generations of Australians.

The NRM Act requires that a water allocation plan must, when allocating water, *"take into account the present and future needs of the occupiers of land..."*¹ where an occupier includes a person *"who is entitled to use the land as the holder of native title in the land"*². Native title has been determined to exist over the majority of land within the Far North PWA. The native title rights and interests which exist include the right to access, use and enjoy the land within the Far North PWA.

A 'native title holder' is defined as *'the person or persons who hold, or claim to hold, the native title in relation to the lands and waters according to their traditional laws and customs'*³. Areas with native title determinations applicable at the date of adoption of this Plan are shown in Figure 3.1. The native title areas are managed through Registered Native Title Body Corporates as listed.

The present and future needs for water by native title holders and nations which have not claimed title, must therefore be taken into account when allocating water.

In relation to the assessment of the water needs of Aboriginal People, the objectives of this Plan aim to:

- Support the water interests of Aboriginal people through the provision of access to the water resource.
- Recognise and incorporate the traditional knowledge of Aboriginal people in the management of the take and use of water from the groundwater resource.
- Ensure the taking of water will not damage, disturb or interfere with any site of cultural significance.

The NWI demonstrates a commitment by all states and territories to include Aboriginal representation and incorporate Aboriginal social, spiritual and customary objectives and values in water planning, and take account of the existence of native title rights to water (COAG 2004).

Recognising the social, spiritual and customary objectives and values of Aboriginal people in water planning has been limited to date, with the exception of the SA Murray-Darling Basin. There is, however, recognition of the need to work in partnership with Aboriginal Nations to better understand the water landscape and apply the cultural knowledge learnt

¹ Section 76(4)(c) of the [NRM Act](#)

² Section 3 of the [NRM Act](#)

³ As per definition in the [Notice of Authorisation to Take Water for Native Title Purposes](#) in The South Australian Government Gazette published 13 September 2012, page 4437

over thousands of years to the management of water as a resource. This approach takes time. Therefore, this version of the Far North WAP does not identify or quantify current and future Aboriginal water needs. Instead, the drafting process of this Plan was used to start conversations with Nations to begin to understand cultural objectives for the prescribed water resource.

3.1 Supporting the Water Interests of Aboriginal People Through the Provision of Access to the Water Resource

In consultation with the Aboriginal people of the Far North PWA, the following preliminary objectives in relation to the provision of access to the water resource were identified:

1. an ability to take water in the future for any purpose;
2. an ability to take water for amenities at sites of cultural significance to encourage more Aboriginal people to visit these sites; and
3. an ability to take water for the maintenance of cultural sites including the springs (including not taking the water but leaving the water in the ground to assist in preserving these sites for cultural purposes).

This Plan contributes to meeting these identified objectives as follows:

1. An ability to take water in the future for any purpose – The ability to take water for economic development may be met through the principles outlined in sections 6 and 7 of this Plan. The taking of water by Aboriginal people for economic/commercial purposes is subject to the same requirements as any other prospective licensee, these being:
 - issuance of a water access entitlement, authorising access to a portion of the resource,
 - issuance of a permit to authorise the drilling and construction of a water well, and
 - issuance of a water resource works approval, which enables the water access entitlement and corresponding allocation to be taken from a specified well or wells within the prescribed area.

It is acknowledged that while Aboriginal people have the same rights to take water for economic/commercial purposes as other prospective licensees, there are still barriers for Nations in achieving economic/commercial water use. While this Plan is an enabler for water related business, continued conversations with Nations to both clarify barriers and consider options to reduce these barriers is necessary to aid in progressing Aboriginal economic/commercial use of the water resources in the area.

2. An ability to take water for amenities at sites of cultural significance to ensure more Aboriginal people will visit these sites – Pursuant to section 128 of the NRM Act, a notice of authorisation to take water for native title purposes was published in the South Australian Government Gazette on 13 September 2012, page 4437. This authorisation allows for *"the taking of water from any prescribed watercourse, lake or well, or surface water prescribed area within the State of South Australia by a person who is a native title holder in relation to the land or waters on or in which that watercourse, lake, well, or surface water prescribed area is situated and the taking is for the purpose of satisfying that person's personal, domestic, cultural, spiritual or non-commercial communal needs where they are doing so in the exercise or enjoyment of their native title rights and interests, providing that the taking does not involve stopping, impeding or diverting the flow of water for the purpose of collecting the water or diverting the flow of water from a watercourse."*

Native title holders therefore have the right to take and use water within a particular area in relation to satisfying their personal, domestic, cultural, spiritual or non-commercial communal water needs. Given the importance of access to water for cultural purposes, including the use of water for this purpose by Aboriginal people who are not native title holders, this Plan authorises the use of groundwater through the creation of a Cultural Water Consumptive Pool. Water from this pool is authorised to be used for the purpose of satisfying an Aboriginal person's personal, domestic, cultural, spiritual or non-commercial communal needs where they are doing so in the exercise

or enjoyment of their cultural interests. Water licences are not required to be issued in relation to this consumptive pool, rather the Cultural Water Consumptive Pool acknowledges the inherent right of Aboriginal people to have access to water to continue to practice culture upon country.

If the intention is to access groundwater via a well in order to supply water for amenities such as toilets at the ceremonial site, the principles in section 6 and 7 of this Plan are relevant as they manage the location and construction specifications for drilling a well. Other legislation, such as the [Development Act 1993](#) or the [Pastoral Land Management and Conservation Act 1989](#), may be applicable in providing for the permits to undertake construction of the amenities.

In order to take water for these purposes, the following is required:

- a water access entitlement, which provides a right to a portion of the resource,
- a permit to authorise the drilling and construction of a water well; and
- a water resource works approval, which enables the water access entitlement and corresponding allocation to be taken from a specified well or wells within the prescribed area.

Depending on the volume of water being used and the purpose of use, this water may be defined under the NRM Act as being utilised for a domestic purpose, that being the taking of water which does not include -

- (a) *taking water for the purpose of watering or irrigating land, other than land used solely in connection with a dwelling; or*
- (ab) *without limiting paragraph (a)—taking water for the purpose of watering or irrigating more than 0.4 of a hectare of land; or*
- (b) *taking water to be used in carrying on a business (except for the personal use of persons employed in the business)*

Under the NRM Act, water for domestic purposes is exempt from being charged a levy⁴.

3. An ability to take water for the maintenance of cultural sites including the springs (including not taking the water but leaving the water in the ground to assist in preserving these sites for cultural purposes) – This objective relates to maintaining the current groundwater dependent sites of cultural significance within the landscape. The overarching objectives of this Plan aim to minimise the impact of the taking of water on the groundwater pressure levels required to maintain the springs and non-spring GDEs, whilst ensuring that the taking of water will not damage, disturb or interfere with any site of cultural significance. As such, an entitlement for the purposes of maintaining groundwater flow to these sites is not required as the principles in sections 6 and 7 of this Plan specify that water cannot be taken from the resource if it will result in unacceptable changes to the groundwater pressures which maintain these sites.

3.2 Recognising and Incorporating the Traditional Knowledge of Aboriginal People in the Management of the Take and Use of Water from the Groundwater Resource.

Incorporating the traditional knowledge of Aboriginal people in the management of the take and use of water from the groundwater resource is integral in achieving successful water planning outcomes. Collaboration with Aboriginal people in the Far North PWA in relation to water management will take time and whilst the drafting of this Plan commenced conversations with Nations there is still significant work to be undertaken to truly incorporate the traditional knowledge

⁴Section 101(13) of the [NRM Act](#)

of Aboriginal people in the water planning framework. While these conversations continue, it is imperative that Aboriginal voices are heard in the decision making process for the placement of new wells and for the taking of water from wells which may compromise the cultural significance of particular sites.

There is an opportunity for Aboriginal input into the decision making process in relation to where new wells can be drilled. Within the Far North PWA a permit is required for the drilling of a well, applications for a permit are submitted to the Department. In instances where a permit falls within an area where a native title determination exists, the Department refers the application to the relevant native title holder to provide the opportunity for comment. The relevant native title holder has 60 days to respond to the request (principle 41).

Further, principles 30 and 46 of this Plan requires Aboriginal input into the decision making process where an applicant wishes to breach the groundwater pressure levels specified in principles 29 or 44 and 45, but in doing so they must demonstrate that the taking of water would not result in any undesired impacts to the groundwater resource, springs, non-spring GDEs or to existing users of the resource, and will not damage, disturb or interfere with any site of cultural significance, or diminish the cultural value of a spring or site of ecological significance. This principle acknowledges that whilst an impact to a spring or site of ecological significance may be assessed as acceptable from an environmental perspective, the impact may diminish the cultural value of the site. In order to determine if the taking of water is likely to impact upon the cultural value of the site, the applicant must consult the relevant Registered Native Title Body Corporate and/or other relevant Aboriginal peoples and communities.

3.3 Ensuring the Taking of Water will not Damage, Disturb or Interfere with any Site of Cultural Significance.

In order to ensure that Aboriginal sites of cultural significance are respected and protected, an application for a water resource works approval by any applicant within the Far North PWA requires consideration whether the taking of water is likely to damage, disturb or interfere with any site of cultural significance.

Sites of cultural significance are those Aboriginal sites identified on the [Register of Aboriginal Sites and Objects](#), as amended from time to time and required to be maintained under the [Aboriginal Heritage Act 1988](#).

The Register of Aboriginal Sites and Objects is part of the Central Archive and contains information about Aboriginal sites, objects and remains. Information about Aboriginal heritage can be extremely sensitive, and there are legislative and cultural restrictions related to whether and how this information is shared. The Register of Aboriginal Sites and Objects is not an exhaustive record of all Aboriginal heritage sites in South Australia. People looking to take water from the Far North resources may consider speaking with the relevant Registered Native Title Body Corporate or other relevant Aboriginal people when seeking information about the location of Aboriginal sites in a project area, in addition to requesting a search of the Register of Aboriginal Sites and Objects.

The process for identifying the presence of a site of cultural significance is outlined in Appendix C and is the responsibility of the applicant and not the Minister.

If a culturally significant site is identified, engagement with the relevant Aboriginal community is required to determine if the taking of water is likely to damage, disturb or interfere with the culturally significant site.

Identifying the Aboriginal peoples, communities and representative organisations relevant to a proposal is a crucial element to ensure an engagement process is effective. This is especially important in situations where there is more than one relevant Aboriginal community or traditional owner group (Commonwealth of Australia 2016). Engagement should be commenced as early as possible.

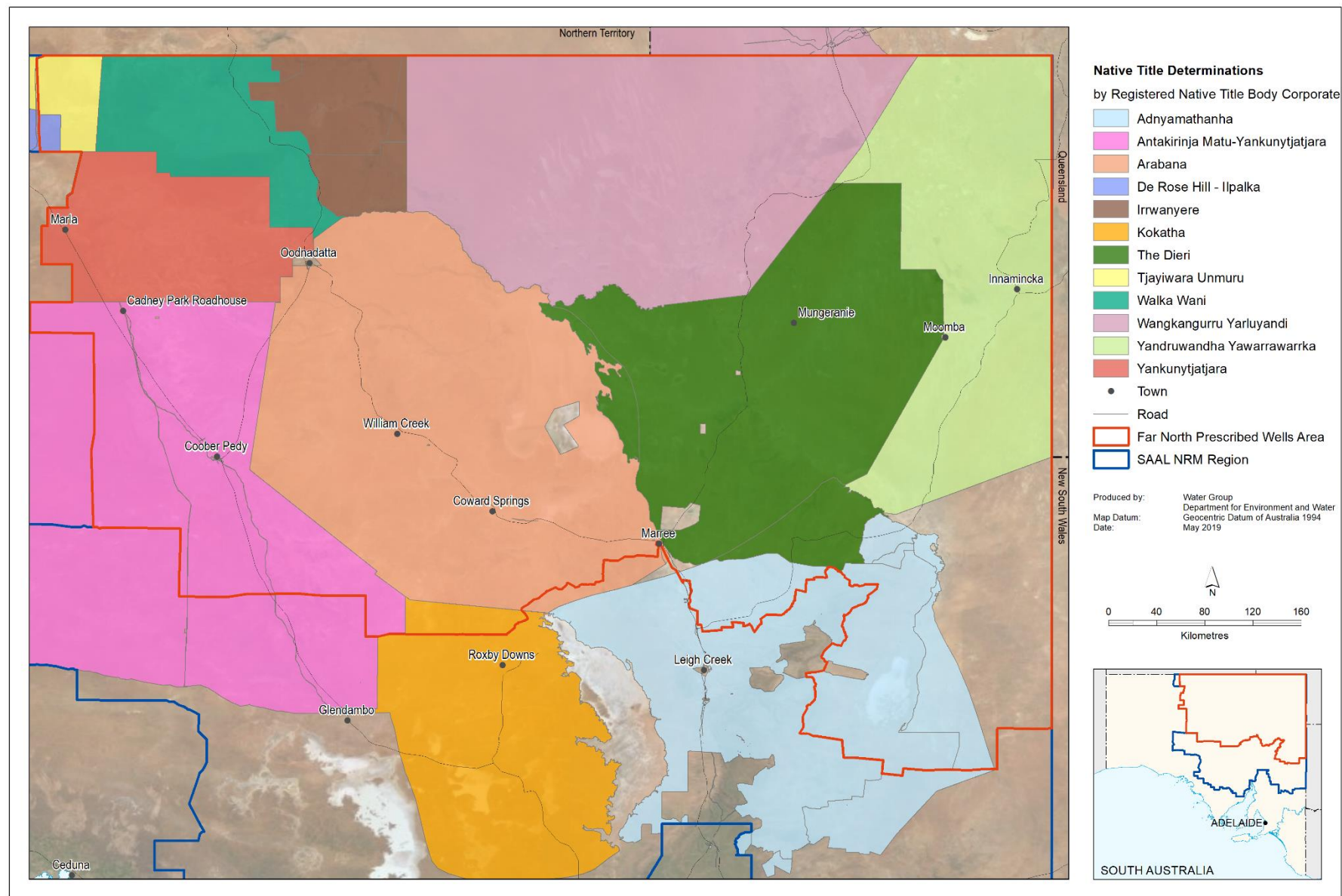


Figure 3.1. Far North PWA Native Title Determinations

4 Assessment of the Effects of Taking Water on Other Water Resources

The extraction of groundwater may have an impact on the groundwater resource, and it is the role of this Plan to ensure that any potential impacts on the groundwater resource itself, users of the resource and ecosystems dependent on the resource are within acceptable limits. Around each point of extraction, there is likely to be a zone of influence where drawdown (or a decline in water level, often referred to as a 'cone of depression') may be observed. Outside of this zone, the impact on water levels and groundwater flow is likely to be insignificant, not only within the same aquifer from which the extraction is occurring but also in nearby aquifers, particularly where hydraulic connectivity may be limited.

The following sections outline the connections and likely effects of extraction on other water resources or extraction from other resources on the groundwater resource within the prescribed area.

4.1 Surface Water

There are a number of major rivers and watercourses that drain into *Kati Thanda* - Lake Eyre (Macumba, Arckaringa, Neales, Finke, Warburton and Coopers Creeks); wetlands (e.g. Coongie Lakes and Strzelecki Creek Wetlands); and other salt lakes (e.g. Lakes Eyre, Frome and Callabonna) within the prescribed area. Many of the river and creek systems in this area are ephemeral and dependent on rainfall and surface runoff to maintain flows. In this area rainfall events are sporadic; sometimes the region may go without significant rainfall for years, while the intensity of rainfall may be highly variable with a single event capable of delivering average annual totals. Large rainfall events fill these rivers and creeks which may result in recharge to some of the shallow unconfined aquifers within the prescribed area. In dry periods, water in the rivers and creeks can be sustained as a result of high rainfall events further upstream in Queensland.

There are some waterholes along these rivers which remain wet for an extended period of time after a rainfall event. It is thought that Algebuckina and Peak Creek waterholes may have some connection with groundwater as they remain wet almost permanently. This is likely to be from shallow aquifers which would be locally recharged and is unlikely to be affected by the take of groundwater from deeper artesian aquifers.

Similarly, there are wetlands which may depend on shallow groundwater for some or all of their water needs, for example Coongie Lakes and the Strzelecki Creek Wetlands. These wetlands have the potential to be impacted by the taking of groundwater from the surface aquifers.

Vertical leakage from the shallow aquifers can occur to the salt lakes of the region. The impact of reduced vertical leakage, due to the taking of water on the water balance of the shallow aquifer and the significance of this groundwater discharge on the salt lake ecosystems is not known.

4.2 Groundwater

The aquifers within the Far North PWA are not considered individually within this Plan, rather the principles outlined in section 7 generally apply regardless of which aquifer the water is proposed to be taken from. The extraction of groundwater from one aquifer is likely to impact on connected aquifers, however, the highly variable nature of the connections and the limited knowledge of hydraulic connectivity means that it is difficult to define or quantify the effect that taking water from one resource may have on a connected resource, which will vary across the PWA.

4.3 Water Resources in adjacent Non-Prescribed Wells Areas

The groundwater resources in the adjacent non-prescribed areas are generally of poor quality and are low-yielding, however, it should be noted that the many of the basins present within the prescribed area including the GAB, the Lake Eyre Basin, the Hamilton Basin, the Pedirka Basin, the Cooper Basin and the Arkaringa Basin extend beyond the boundary of the PWA (Fig. 4.1). Depending on the extent of the extraction, there is potential for extensive extraction in the non-prescribed adjacent resource to have significant impact on the resources of the Far North PWA. Likewise, significant extraction within the prescribed area close to the boundary of the Far North PWA is also likely to have a significant effect on the non-prescribed groundwater resources.

The taking of water from the artesian aquifers can potentially have a detrimental effect on users of the same aquifer in New South Wales, Queensland and the Northern Territory, for example the GAB, the Lake Eyre Basin, the Cooper Basin and the Pedirka Basin. Principles in section 7 of this Plan require the interstate jurisdictions be consulted in relation to an application to take water if it is likely to result in a cumulative drawdown in excess of 10% of the potentiometric surface level measured at the State border.

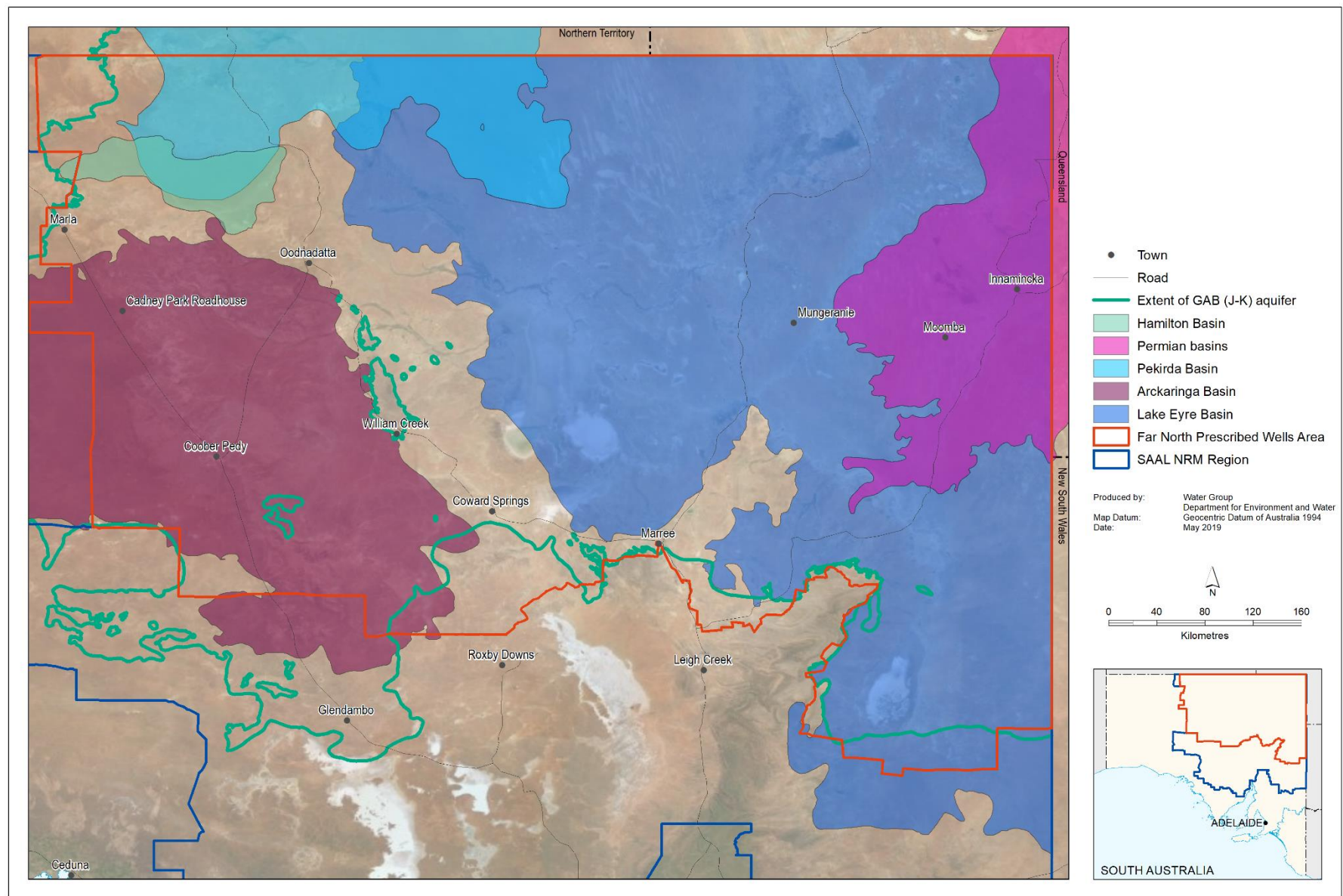


Figure 4.1. Extent of groundwater basins which extend outside of the Far North PWA

5 Assessment of the Demands on the Water Resource

The NRM Act requires this Plan to consider the current and future demands for water from the resource by the occupiers of the land. The needs for water by the occupiers of the land, both current and future, can be referred to as the consumptive demands on the resource. Consumptive demand refers to both the taking of water for a purpose which does not require an authorisation under the NRM Act (non-licensed water use), and the taking of water for a purpose which does require an authorisation under the NRM Act (licensed water use).

5.1 Current Non-Licensed Demand

Non-licensed demand includes the provision of water for domestic use if taking less than 100 litres per person per day for the purposes of drinking and cooking¹ and any water taken pursuant to an authorisation under section 128 of the NRM Act.

Whilst authorisations the Minister may make in relation to the taking of water are subject to change, at the date of adoption of this Plan the following authorisations in relation to section 128 of the NRM Act were relevant to the Far North PWA and were issued through Notice in the [South Australian Government Gazette](#):

- a. authorisation to take water for the purposes of drilling, construction or testing of a hydrocarbon exploration well by a person authorised under the [Petroleum and Geothermal Energy Act 2000](#) to – [published 30 August 2001, page 3442](#)
- b. authorisation to take water for the purposes of public road making – [published 27 November 2003, page 4268](#)
- c. authorisation to take water for the purposes of firefighting – [published 27 November 2003, page 4268](#)
- d. authorisation to take water for the purpose of the application of chemicals to non-irrigated crops and non-irrigated pasture and for the control of pest plants and animals – [published 16 February 2006, page 559](#)
- e. authorisation to take water in the Far North PWA for the purpose of supply of water to exploration camps including, but not limited to seismic and drilling camps, for the extraction of water for the drilling and construction of wells, for the extraction of water for pump testing of wells, for the extraction of water for the construction of private roads required for exploration purposes, excluding the take of water within 5 km of a spring – [published 14 January 2010, page 44](#)
- f. authorisation to take water for Native Title purposes, for the purpose of satisfying a person's personal, domestic, cultural, spiritual or non-commercial communal needs where they are doing so in the exercise or enjoyment of their native title rights and interests – [published 13 September 2012, page 4437](#)

Non-licensed demands are difficult to quantify as there is no requirement for the person taking water to meter their extraction or estimate and report the volumes of water being used, as such an estimate of the non-licensed demand is not able to be determined. However, the volume of water used for these purposes should not be underestimated, especially in relation to mining and petroleum exploration where water use varies from 0.42 ML/year per well for conventional oil, to 5.7 ML/year per well for unconventional gas. The taking of water from the Far North PWA for the purposes listed above is not required to be compliant with the principles in section 6 and 7 of this Plan.

¹ Section 124(6) of the [NRM Act](#) and regulation 12 of the [Natural Resources Management \(General\) Regulations 2005](#)

5.2 Current Licensed Demand

Since the 2008-09 water use year, the Department has kept a record of the licensed groundwater allocations for the Far North PWA in the State Water Register. In addition the [Roxby Downs \(Indenture Ratification\) Act 1982](#) (the Indenture) provides for specific arrangements for the taking of water for the Olympic Dam Mine and associated productions.. The provisions of the Indenture take precedence over the provisions of the NRM Act. In instances of inconsistency between the provisions in the Indenture and the provisions in the NRM Act, the Indenture prevails. Water taken for the mine from the Far North PWA is not subject to the licence provisions under this Plan. Table 5.1 and Figure 5.1 show the volumes of water authorised for taking for various purposes as at May 2019.

Table 5.1. Annual volumes of water authorised for taking in the Far North PWA as at May 2019

Purpose	Current Demand (ML/yr)
Recreation	6
Commercial	79
Irrigation	115
Industrial	530
Town Water Supply	630
Domestic	940 ¹
Camp Water	1058
Amenity	2025
Stock	9779
Co-Produced Water	21900
Mining	27490 ²
Total	64552

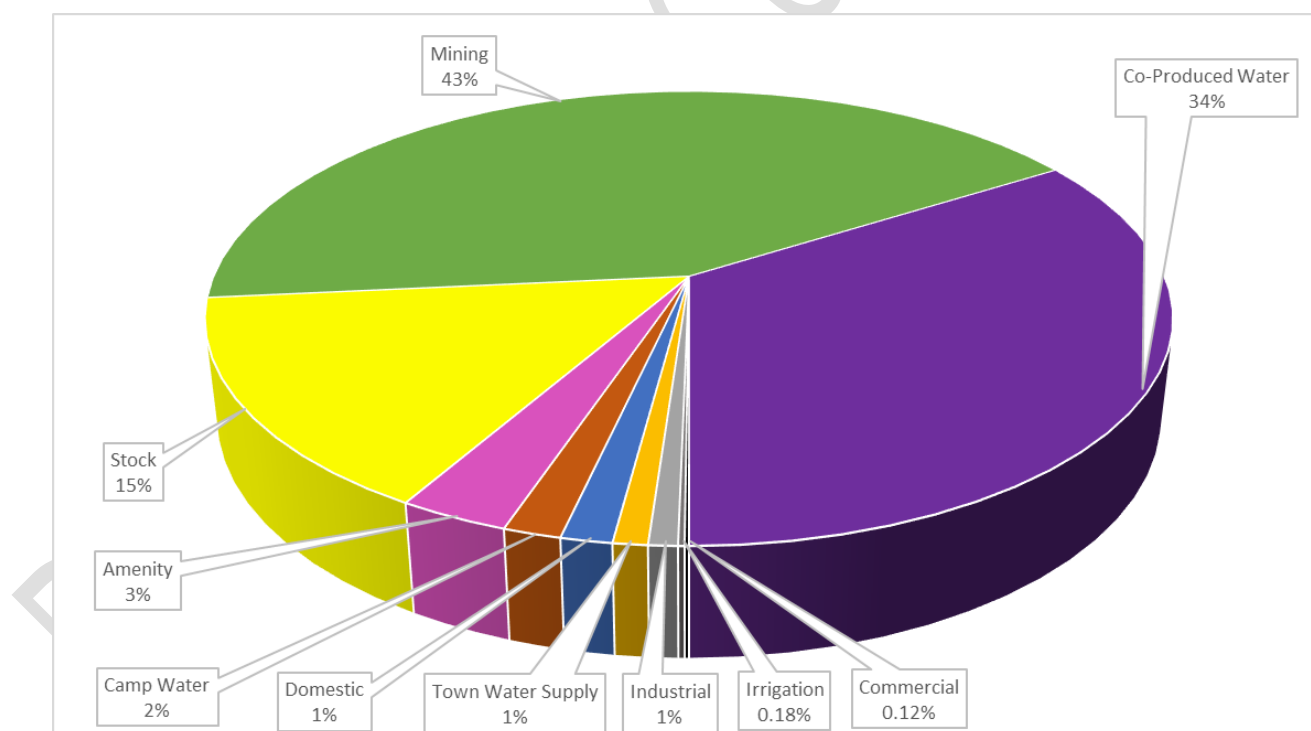


Figure 5.1. Percentage of water authorised for taking in the Far North PWA for various purposes as at May 2019

¹ This volume will be reduced upon adoption of this Plan when existing allocations for domestic purposes are issued in accordance with principle 20 of this Plan

² Includes the water currently authorised for taking by Olympic Dam Mine (15.3 GL/a) under the [Roxby Downs \(Indenture Ratification\) Act 1982](#)

5.3 Future Demands

The content of this section has been mostly informed by the [South Australian Arid Lands Demand and Supply Statement](#) (DEWNR 2013), which provides a long-term (40 years) overview of water supply and demand in the South Australian Arid Lands (SAAL) region. The SAAL Demand and Supply Statement (DSS) outlines the state of all water resources in the region for drinking water and non-drinking water and lists the major demands on these water resources. The SAAL DSS is based on the SAAL NRM Region boundary as shown in Figure 1.1 and therefore also provides information on the demand for, and supply of, water outside of the Far North PWA.

It should be noted that whilst the demand for water is likely to increase throughout the life of this Plan, the objectives of this Plan to use water in a judicious manner (for example; taking water in accordance with management plans for amenity water, taking water through closed delivery systems for pastoral use, and limiting the ability to dispose of water to the surface for evaporation from the mining and petroleum industries), changes in industry practices to reduce, reuse and reinject water, and investment in the Great Artesian Basin Sustainability Initiative (GABSI) all work to conserve water within the PWA which may reduce the current demands on the resource.

The GABSI - Phases 1-4 (1999-2013) saved the South Australian portion of the GAB approximately 48,961 ML of GAB water per year through controlling 51 bores, eliminating 342 bore drains and through the installation of 344 km of efficient piping. This involved extensive funding and facilitation of governments (State - \$13.8 million and Commonwealth - \$11.5 million) and landholder contributions of approximately \$3.7 million (Frontier Economics 2016, Australian Government 2019).

The SAAL DSS identifies the following sectors as likely requiring future demand for water.

5.3.1 Mining, Petroleum, Gas and Geothermal Demand and Expansion

Demand for water from the Far North PWA is likely to increase in the future due to expansion occurring in oil production, mining, to a lesser extent gas production and possibly geothermal activities. In accordance with State Government policy (DWLBC 2009), mining ventures must source their own water supplies within the sustainable framework of natural resources management planning. Within prescribed areas, with the exception of taking water for the purposes of mining and hydrocarbon exploration authorised by a Notice under section 128 of the NRM Act (see section 5.1), mining and petroleum companies are required to hold a water licence and therefore a water access entitlement to take water in the same way as other water users would be required to do so.

5.3.2 Road Building and Maintenance Demand

The SAAL DSS advises that the Department of Planning, Transport and Infrastructure manages around 9,500 km of sealed and unsealed roads in the South Australian Arid Lands NRM Region and estimate an annual water usage for road building and maintenance activities of approximately 140 ML. Mining and petroleum expansion in the region may require additional road building and maintenance activities increasing the water requirements for this purpose.

5.3.3 Pastoral Demand

Current water licences for pastoral purposes were issued based on the maximum stock levels specified on the associated pastoral lease provided by the Pastoral Board in line with the [Pastoral Land Management and Conservation Act 1989](#) therefore licensees are currently limited in the number of stock they can run. If the limitation of a maximum stock level were varied, stock rates may increase and the demand for water from this sector may grow.

5.3.4 Population and Tourism Growth

Population growth trends will be largely influenced by the timing of the decision to expand the Olympic Dam mine at Roxby Downs. Whilst Roxby Downs falls outside of the prescribed area, it obtains water from the GAB aquifer within the prescribed area, which is then supplied to the mine site, township, including Andamooka.

The Department of Planning, Transport and Infrastructure project a population increase from 10,000 to 15,565 people from 2011 to 2036 assuming the expansion goes ahead. This increase in population may have a corresponding increase in the water supply from the prescribed area to meet the water demand.

The SAAL DSS states that the Flinders Ranges and Outback Regional Strategic Plan (2009) was aiming for 10% increase per annum in tourism expenditure over the period 2009/10 to 2013/14 and although there was no specific target for growth in tourist numbers, tourist expenditure would likely come from growth in tourist numbers. The SAAL DSS assumed 265 ML of water being used by the tourism sector in 2009, with a likely increase in the supply of water to meet the tourism industry to 428 ML in 2014. If the trend were to continue at the rate of 10% increase in tourism numbers per annum, it is expected that the water requirements of the tourism industry by 2029 would be approximately 1787 ML for the entire SAAL Region. Tourism to the area may be further increased if access to the region is improved through such initiatives such as sealing of roads or even through advances in car manufacturing, making the current roads more accessible to other modes of transport.

5.3.5 Town Water Supply

Improved services and infrastructure within the current towns in the Far North PWA may encourage population growth resulting in additional requirements for water through the public water supply system. Further, transitions to more secure water supplies for townships through a change from reliance on surface water systems to groundwater supplies may place further demands on the groundwater resource, in the absence of population growth.

5.3.6 Domestic Water Supply

Pastoral properties within the Far North PWA generally source their water supply from the groundwater resources. For consistency with Queensland's approach to determining water utilised for domestic purposes, as set out in the Great Artesian Basin and Other Regional Aquifers Water Plan (DNRM 2016), water issued on licence for domestic purposes under this Plan shall be determined at the following rate:

- 0.5 ML per household per year (375 L/person/day assuming 4 people per household); and
- 1 ML/year for irrigation of lawn of up to 2000 m² associated with the household (10 L/m²/week) or other domestic purposes;

equating to a total of volume of 1.5 ML/year/household. If a property has more than one household present, for example if a pastoral property has three houses on the lease, each house would be allocated 1.5 ML/year, a total of 4.5 ML/year for the licence in relation to the property.

6 Consumptive Pools, Water Access Entitlements and Water Allocations

Within the Far North PWA, a person may only lawfully take water from the prescribed water resource:

- a. pursuant to an authorisation under section 128 of the NRM Act;
- b. pursuant to a water allocation that relates to the water resource (which includes taking water for stock or domestic purposes¹); or
- c. for the purposes of drinking or cooking if the rate of taking does not exceed the rate prescribed by regulation, namely 100 litres a day per person².

The NRM Act requires that a water allocation plan be prepared for each prescribed water resource. A key aspect of a water allocation plan is that it establishes a water licensing regime to regulate the taking of water from the resource. The first step in establishing this licensing regime is determining a consumptive pool or pools.

A water allocation plan must “*determine, or provide a mechanism for determining, from time to time, a consumptive pool, or consumptive pools for the water resource*”. A consumptive pool is defined as the water “*that will from time to time be taken to constitute the resource within a particular part of a prescribed water resource for the purposes of Chapter 7...*”³. This Plan must therefore determine a consumptive pool or pools, so as to account for all the water that may be lawfully taken from the Far North PWA. The Minister must further determine, from time to time, the volume of water that is to be made available for allocation from a consumptive pool⁴. The consumptive pools determined for this Plan are outlined in section 6.1 and are based on purpose of use. Each of the consumptive pools relate to all of the aquifers within the geographical boundary of the Far North PWA.

A water licence provides the holder with a water access entitlement, which entitles the water licence holder to gain access a share of the water available for allocation in the consumptive pool⁵. A water allocation may be obtained on account of a water access entitlement under a water licence. While a water access entitlement represents the licence holder’s ongoing right to a share of the resource, a water allocation will relate to a specified period of no more than 12 months⁶ and is the volume of water that may be taken during the specified period. Sections 6.2-6.5 of this Plan outline the process for granting of water licences, water access entitlements and water allocations.

The water management provisions in the NRM Act have been amended since the previous Plan for the Far North PWA was adopted in 2009. This Plan therefore provides for the transition of existing water licences and allocations in the Far North PWA to water licences which provide a water access entitlement and a subsequent water allocation. Licensees also require a water resource works approval in order to take the allocation and in some cases a site use approval in order to apply the water to a site. Where wells are maintained or operated for a purpose, other than the purpose of taking water, for example for the purposes of taking petroleum, a water resource works approval is not required as these wells are regulated under the [Petroleum and Geothermal Energy Act 2000](#). The water management authorisations to be administered under this Plan and how they relate to a water licence under the previous Plan can be seen in Figure 6.1.

¹ Section 7(5) and (6) of the [Water Resources Act 1997](#) and regulation 4(2) of the [Water Resources \(Far North Prescribed Wells Area\) Regulations 2003](#)

² Section 124(6) of the [NRM Act](#) and regulation 12 of the [Natural Resources Management \(General\) Regulations 2005](#)

³ Sections 76 (4)(ab) and 3(1) of the [NRM Act](#)

⁴ Section 146(4) of the [NRM Act](#)

⁵ Section 146(2) of the [NRM Act](#)

⁶ Section 152(7) of the [NRM Act](#)

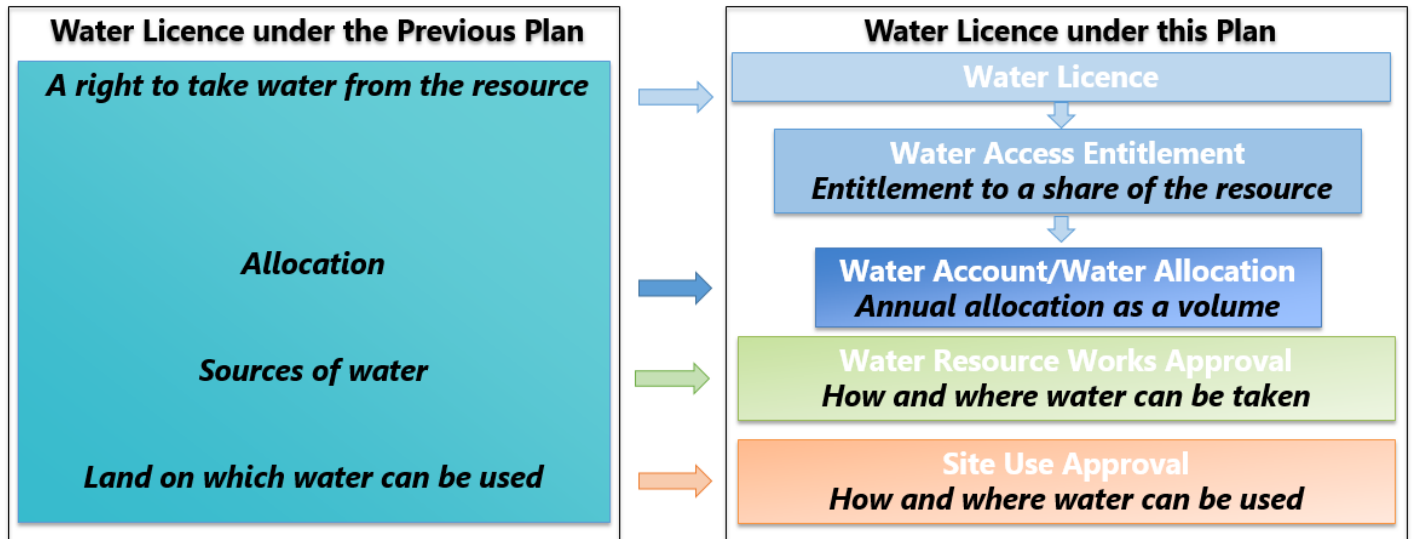


Figure 6.1. Water licence structure under the previous Plan and under this Plan

The Minister may grant new water licences with respect to the wells in the Far North PWA in accordance with this Plan and the NRM Act. The taking and use of such water will be subject to the rules outlined in section 7 of this Plan, to ensure the taking of water will not cause undesired impacts to the springs, non-spring GDEs or existing users of the resource, and will not damage, disturb or interfere with any site of cultural significance. Applicants are advised to secure a water resource works approval prior to applying to the Minister for a water licence and subsequent water access entitlement, or seeking a transfer of water from another user, to ensure the water will be authorised to be extracted from the chosen location.

Sections 6 and 7 of this Plan require the provision of information to support an application for an authorisation in some circumstances. This information allows for the Minister to consider the application against the requirements of this Plan, and informs his decision to either grant or refuse an application. Where an applicant is required to demonstrate a matter to the satisfaction of the Minister, the onus of undertaking the relevant hydrogeological or other investigation necessary to satisfy the Minister of the relevant matter, and the associated cost, lies with the applicant and not the Minister or the South Australian Government.

Applicants are advised to consider if the proposed taking of water is consistent with other legislation including, but not limited to, the [Pastoral Land Management and Conservation Act 1989](#), the [Aboriginal Heritage Act 1988](#), the [Native Title Act 1993](#), the [Environment Protection and Biodiversity Conservation Act 1999](#). For example if the proposed extraction of water could have a [significant impact](#) on 'the community of native species dependent on natural discharge of groundwater from the Great Artesian Basin', then the proposed action may be required to be referred to the relevant Commonwealth Minister for consideration pursuant to the [Environment Protection and Biodiversity Conservation Act 1999](#).

The principles in this section, numbered 1 to 61 below, apply to all applications for new water management authorisations made after the date of adoption of this Plan, and to all applications to vary existing water management authorisations. The transitional arrangements in sections 6.5 and 7.9 of this Plan discuss how licensees under the previous Plan will be issued water management authorisations under this Plan.

6.1 Consumptive Pools

1. For the purposes of this Plan, there shall be three consumptive pools determined by way of fixed geographic boundary and purpose of use. The consumptive pools are defined as:
 - a. the "Cultural Water Consumptive Pool",
 - b. the "Stock and Domestic Consumptive Pool", and
 - c. the "All Purpose Consumptive Pool".

Each consumptive pool applies separately to the total of the geographical boundary of the Far North PWA as defined by the red line in Figure 1.1.

2. The Cultural Water Consumptive Pool is the water which is available to be used by an Aboriginal person from within the Far North PWA, for the purposes of satisfying an Aboriginal person's personal, domestic, cultural, spiritual or non-commercial communal needs where they are doing so in the exercise or enjoyment of their cultural interests.
3. The Stock and Domestic Consumptive Pool is the water which is available to be taken from any well within the Far North PWA for stock and/or domestic purposes¹.
4. The All Purpose Consumptive Pool is the water which is available to be taken from any well within the Far North PWA for any purpose with the exception of the purpose assigned to the Cultural Water Consumptive Pool defined in principle 2 or the Stock and Domestic Consumptive Pool defined in principle 3 of this Plan.
5. The Minister may, from time to time, by publishing a notice in [The South Australian Government Gazette](#), advise of the determination of an additional consumptive pool, and in determining the consumptive pool, may assign a particular purpose to that consumptive pool.

6.2 Water Licences

6. A water licence is not required to authorise the taking of water in relation to the Cultural Water Consumptive Pool.
7. The Minister may grant a water licence in respect of the Stock and Domestic Consumptive Pool or the All Purpose Consumptive Pool. A water licence provides a water access entitlement to the holder of the licence to gain access to a specified volume of the water available within the consumptive pool.

6.3 Water Access Entitlements

8. The Minister may grant a new water access entitlement in respect of the Stock and Domestic Consumptive Pool or the All Purpose Consumptive Pool. The taking and use of water granted on a water access entitlement will be subject to the rules outlined in section 7 of this Plan to ensure the taking of water will not cause undesired impacts to the springs, other groundwater dependent ecosystems in the prescribed wells area or existing users of the resource, and will not damage, disturb or interfere with any site of cultural significance.

¹ As defined in the [NRM Act](#) and the glossary of this Plan.

9. For the purpose of this Plan, any additional water that is available for licenced use but has not yet been granted on a water access entitlement will be known as excess water.
10. The Minister may issue a new water access entitlement or amend an existing water access entitlement in relation to excess water, on the basis of applications submitted to the Minister under procedures determined by the Minister as being appropriate in the relevant circumstances¹.
11. A water access entitlement issued for domestic purposes shall not exceed 1.5 megalitres per household per year².
12. A water access entitlement issued for stock purposes shall not exceed 100 litres per day per head of cattle or 20 litres per day per head of sheep, in addition to a 20% buffer to account for native and feral animal water losses³.
13. A water access entitlement, provided by a water licence in respect of principle 8, will be expressed as a specified maximum volume of water over a specified period of time.
14. The period specified for the purposes of a water access entitlement under principle 13, is the recurrent water-use year.
15. Where water from the wells in the Far North PWA is required to be taken in the conduct of activities permitted by a lease or licence granted pursuant to the [Mining Act 1971](#), the Minister shall grant a separate water access entitlement to the holder of each lease or licence issued pursuant to the [Mining Act 1971](#) including, but not limited to retention licences or production licences.

6.4 Water Allocation

16. A water allocation may be obtained on account of a water access entitlement under a water licence either:
 - a. by the holder of the relevant water licence, on the basis that the water allocation is being granted by the Minister under the terms of the water licence; or
 - b. by a person, whether or not the person is the holder of a water licence, on the basis of a transfer of a water allocation that has been provided by the Minister under the terms of a water licence.
17. A water allocation provided under principle 16 may be subject to the conditions outlined in section 6.7 of this Plan.

6.5 Transitional Arrangements

18. At the date of adoption of this Plan, all water access entitlements in respect of the wells in the Far North PWA will relate to the Stock and Domestic Consumptive Pool or the All Purpose Consumptive Pool.
19. Subject to principle 20, at the date of adoption of this Plan, the holder of a water licence granted under the previous Plan will be provided with a water licence and therefore a water access entitlement under this Plan. The volume of water to be granted to the water access entitlement holder shall be determined by

¹ Section 147(2) of the [NRM Act](#)

² See section 5.3.6 of this Plan.

³ As per the previous Plan

converting the volume of water on allocation in the 2019/20 water-use year to the licensee as an equivalent specified maximum volume of water over a specified period of time.

20. Further to principle 19, where the taking of water is for stock or domestic purposes, the water access entitlement will be issued in accordance with principles 11 and 12¹.
21. A water access entitlement provided under the transitional arrangements in principle 18 may be subject to the conditions outlined in section 6.7 of this Plan.

6.6 Allocation of Water Drained or Discharged into a Well

The following principles apply to the allocation of water previously drained or discharged to a well/s in accordance with a permit under Section 127(3)(c) of the NRM Act and section 7.5 of this Plan.

22. The Minister may grant a water licence for the recovery of water previously drained or discharged into a well during a water use year (recharge water licence).
23. The water access entitlement issued on account of the recharge water licence will be calculated as²:
 - a. 80% of the volume of water drained or discharged in the water use year, under a permit issued pursuant to section 127(3)(c) of the NRM Act, or
 - b. a specified percentage of the water drained or discharged in the water use year, under a permit issued pursuant to section 127(3)(c) of the NRM Act if the applicant can demonstrate to the satisfaction of the Minister that the taking of up to 100% of the water drained or discharged into the well would not contravene the criteria specified in principles 44 to 46.
24. A water allocation (recharge allocation) may be obtained on account of the water access entitlement referred to in principle 23. The water allocation will be credited to the licensee's water account during the relevant water-use year.
25. At the end of a water use year, if a holder of the recharge allocation referred to in principle 24 has not recovered the total allocation issued, the unused allocation may be carried over into the next water use year, but only in circumstances where it does not contravene the criteria specified in principles 44 to 46.

6.7 Terms and Conditions for Consideration on a Water Licence or Water Allocation

The NRM Act allows for a water licence or water allocation to be subject to conditions endorsed on the water management authorisation by the Minister³. The licence remains in force unless it expires under the terms of the licence⁴.

26. For the purposes of this and subsequent sections:
 - a. Zone A is a 5 km buffer around each of the springs identified in the South Australian SA_Geodata database, as amended from time to time. At the date of adoption of this Plan, the areas comprising Zone A are displayed as the areas coloured green in Figure 2.1.

¹ Section 149(1)(c) of the [NRM Act](#).

² Section 76(4b)(e) of the [NRM Act](#)

³ Section 148(c)(ii) and section 152(5)(b) of the [NRM Act](#)

⁴ Section 148(e)(ii) of the [NRM Act](#)

- b. Zone B is the 45 km buffer around Zone A, as amended from time to time. At the date of adoption of this Plan, the areas comprising Zone B are displayed as the areas coloured blue in Figure 2.1.
 - c. Non-spring GDEs are groundwater dependent ecosystems (GDEs) identified in the Department's Far North PWA Non-Spring GDEs Database, as amended from time to time. At the date of adoption of this Plan, the Non-Spring GDEs are displayed as the areas coloured green in Figure 2.3.
 - d. the buffer around non-spring GDEs is the area identified in blue in Figure 2.3.
 - e. sites of cultural significance are those Aboriginal sites identified on the [Register of Aboriginal Sites and Objects](#), as amended from time to time and maintained in accordance with the [Aboriginal Heritage Act 1988](#), or any other site identified as a site of cultural significance by an Aboriginal person. At the date of adoption of this Plan, the Register of Aboriginal Sites and Objects is maintained by the Department of Premier and Cabinet.
 - f. the South Australian Geodatabase and the Department's Far North PWA Non-Spring GDEs Database will be updated throughout the life of this Plan to reflect the results of ongoing monitoring and investigations in the Far North PWA.
27. When issuing, granting or transferring a water licence or water allocation, the Minister may give consideration to endorsing a condition to the effect that:
- a. the water that is the subject of the authorisation must be taken, used and/or disposed of in an efficient manner so that, unless the Minister deems it is not reasonably practicable:
 - i. water wastage is reduced; or
 - ii. water is reused; or
 - iii. water is reinjected into an aquifer; or
 - iv. water is taken and distributed through a water tight delivery system, or
 - v. water exceeding a total volume of 21,900 ML/year in relation to the production of petroleum is not disposed of by means of evaporation on the land's surface; or
 - vi. the volume of water disposed of by means of evaporation to the land's surface is to be minimised within 10 years from the date of adoption of this Plan.
28. If the Minister is satisfied that the ability of third parties who are authorised to take water under the NRM Act will be affected by the grant of the licence, the Minister may determine and impose a condition on the licence requiring the licence holder to provide an alternative supply of water to such parties.
29. In addition to principles 27 and 28, when issuing, granting or transferring a water allocation for use in the co-production of water in the course of activities permitted by a licence granted pursuant to the [Petroleum and Geothermal Energy Act 2000](#), the Minister may give consideration to endorsing a condition on the water allocation to the effect that:
- a. the water taken pursuant to the allocation must not be taken unless the applicant can demonstrate to the satisfaction of the Minister that the taking of the allocation will not:
 - i. impact on the ability of another water licence holder to access water through an existing operational production well unless by agreement with the existing licence holder; or
 - ii. detrimentally impact upon the groundwater pressure levels and gradients required to maintain the ecology of a spring or springs if taken from a well located within Zone A; or

- iii. result in a cumulative decline in groundwater pressure of 0.5 m or more at the boundary of Zone A in the Great Artesian Basin, when compared with the potentiometric surface presented in Figure 2.2 of this Plan, when measured anywhere at the boundary of Zone A or as measured by any other means determined by the Minister; if the water proposed to be taken from a well located in Zone B; or
- iv. result in a cumulative decline in groundwater pressure of 1 m or more at the boundary of Zone B in the Great Artesian Basin, when compared with the potentiometric surface presented in Figure 2.2 of this Plan, when measured anywhere at the boundary of Zone B or as measured by any other means determined by the Minister, if the water is proposed to be taken from a well located outside of Zone A or Zone B; or
- v. result in a cumulative drawdown in excess of 10% of the potentiometric surface level in the Great Artesian Basin, measured at the state border with Queensland, New South Wales or the Northern Territory, in relation to the potentiometric surface presented in Figure 2.2 of this Plan, or as measured by any other means determined by the Minister, unless allocated in consultation with the relevant interstate authority; or
- vi. damage, disturb or interfere with any site of cultural significance.
- b. the water taken pursuant to the water allocation must not be taken from a well drilled into the unconfined aquifer within the areas identified as non-spring GDEs or environmental buffers in Figure 2.3, unless the applicant has demonstrated to the satisfaction of the Minister that the water taken from the well will not detrimentally impact upon the groundwater levels required to maintain the ecology of the associated groundwater dependent ecosystem.
- c. the water taken pursuant to the water allocation must be taken from wells operated in a manner consistent with provisions of the statement of environmental objectives required under the [Petroleum and Geothermal Energy Act 2000](#).
- d. the holder of this water allocation must provide, to the Minister:
 - i. a list of the wells through which the water allocation was taken for the relevant allocation period;
 - ii. the salinity of the water taken through each well, measured at least once throughout the relevant allocation period; and
 - iii. the volumes of water extracted per well.

30. Notwithstanding Principle 29, the Minister may issue, grant or transfer a water allocation for use in the co-production of water in the course of activities permitted by a licence granted pursuant to the [Petroleum and Geothermal Energy Act 2000](#), where the applicant identifies that the criteria in principle 29 cannot be met, but that the applicant can demonstrate to the satisfaction of the Minister that the issue, grant or transfer of a water allocation would not result in any undesired impacts to the groundwater resource, springs, other groundwater dependent ecosystems in the PWA or existing users of the resource, and will not damage, disturb or interfere with any site of cultural significance or diminish the cultural value of a spring or additional site of ecological significance. In determining the impact upon the cultural value of the site, the applicant must consult the relevant Registered Native Title Body Corporate and/or other relevant Aboriginal peoples and communities.

31. When issuing, granting or transferring a water licence intended to be used in the conduct of activities permitted by a lease or licence pursuant to the [Mining Act 1971](#), the Minister may give consideration to endorsing a condition on the water allocation to the effect that:
- the water licence remains in force only for the period that the associated mining lease or licence remains in force, and will expire on 30 June following the cancellation, cessation, relinquishment, surrender or expiry of the associated mining lease or licence; and
 - the holder of the licence must notify the Minister upon cancellation, cessation, relinquishment, surrender or expiry of the associated mining lease or licence.
32. When issuing, granting or transferring a water licence intended to be used in the conduct of activities permitted by a lease or licence pursuant to the [Petroleum and Geothermal Energy Act 2000](#), the Minister may give consideration to endorsing a condition on the water licence to the effect that:
- the water licence remains in force only for the period that hydrocarbon production from the Cooper Basin region continues by the water licence holder, and will expire on 30 June following the cessation of hydrocarbon production from Cooper Basin region by the water licence holder; and
 - the holder of the licence must notify the Minister upon cessation of hydrocarbon production from the Cooper Basin region.
33. When issuing a water allocation for the recovery of water previously drained or discharged into a well, the Minister may give consideration to endorsing a condition on the water allocation to the effect that:
- the water taken pursuant to the water allocation must only be taken from the aquifer into which the water was drained or discharged; and
 - the water taken pursuant to the water allocation will be deemed to have been taken prior to any other allocation listed on the water account.

6.8 Transfers

34. Subject to the NRM Act¹, the holder of a water licence:
- may transfer the water licence to another person; or
 - may transfer a water access entitlement, or part of a water access entitlement under the licence, to another person.
35. A water licence or water access entitlement may only be transferred to another person where it remains a water licence or water access entitlement for the Consumptive Pool from which it was initially granted.
36. The transfer of a water licence or water access entitlement may be absolute or for a limited period.
37. Subject to the NRM Act², the holder of a water allocation may transfer the water allocation, in part or in full, to another person for the period of time for which the allocation is current (up to 12 months).

¹ Section 150 of the [NRM Act](#)

² Section 152 of the [NRM Act](#)

7 Management of the Take and Use of Water

Water affecting activities are managed by the objectives and principles set out in the [Regional Natural Resources Management Plan \(Volume 2 – Appendix 1\)](#) (Regional NRM Plan) (SAALNRMB 2017). A Regional NRM Plan must set out the matters that the relevant authority will take into account when exercising a power to grant or refuse a permit for a water affecting activity¹. In addition, to the extent that the Regional NRM Plan does not so provide, this Plan is required to set out matters that should be taken into account when a relevant authority is exercising a power to grant or refuse a permit for a water affecting activity within the Far North PWA².

The Minister is the relevant authority for the granting of permits for the drilling, decommissioning, sealing, repairing, replacing or altering the casing, lining or screen of a well; and the draining or discharging of water directly or indirectly into a well. The SAAL NRM Board is the relevant authority for all other water affecting activity permits.

The Regional NRM Plan sets out matters which the Minister must take into account when deciding whether to grant or refuse a permit with respect to wells. However the Regional NRM Plan states:

The conditions under which the relevant authority will grant or refuse a permit is outlined in either the Regional NRM Plan or the Far North Prescribed Wells Area Water Allocation Plan (WAP). The principles of the Water Allocation Plan for the Far North Prescribed Wells Area take precedence over the principles of the Water Affecting Activity policy framework in the Regional NRM Plan if there is any conflict in their intent.

This Plan also sets out the matters which the Minister must take into account when deciding whether to grant or refuse a permit with respect to wells. To the extent that any of the matters set out in this Plan are inconsistent with the matters set out in the Regional NRM Plan, the matters set out in this Plan prevail.

The NRM Act provides that a water resource works approval is required to construct, maintain or operate any works for the purposes of taking water from a prescribed water resource³. A water resource works approval must specify the site where the work/s are located and the nature and extent of the work/s that are authorised⁴.

A water resource works approval enables a person with a water licence to extract their water allocation from the resource through the works (well) listed on the approval. Water cannot be taken from the resource without a water resource works approval. The only exception to this is if the works are maintained or operated for a purpose other than the purpose of taking water, for example for the purposes of taking petroleum, in this case a water resource works approval is not required. As a water resource works approval is specific to a particular location, applicants are advised to secure a water resource works approval prior to applying to the Minister for a water licence to ensure the water will be authorised to be extracted from the chosen location of take.

7.1 General Principles

38. An authorisation to construct, maintain, operate, and take water from a well in the Far North PWA will only be granted in circumstances where the Minister is satisfied that the construction, maintenance and operation of the well and the taking of water from the well and the proposed manner of taking, will not

¹ Section 75(3)(k) of the [NRM Act](#)

² Section 76(4)(h)(i) of the [NRM Act](#)

³ Section 127(5a)(a) of the [NRM Act](#)

⁴ Section 160(1) of the [NRM Act](#)

damage disturb or interfere with a site of cultural significance and will not have an undesired impact upon, and has consideration of:

- a. the water resource;
- b. springs;
- c. other groundwater dependent ecosystems in the PWA; or
- d. existing water users.

7.2 The Management of Water Wells

A permit is required for the drilling, decommissioning or sealing of a well and the repairing, replacing or altering of the casing, lining or screen of a well¹. Further, the NRM Act states that a person must not construct, maintain or operate any works for the purposes of taking water from the relevant water resource unless authorised to do so by a water resource works approval².

Wells constructed, operated and maintained for the purpose of taking water that does not require a water allocation are exempt from requiring a water resource works approval³. However, a permit under the NRM Act is still required.

For the purpose of this Plan, 'well' has the same meaning as stated in the NRM Act and means:

- *An opening in the ground excavated for the purpose of obtaining access to groundwater;*
- *An opening in the ground excavated for some other purpose but that gives access to groundwater; or*
- *A natural opening in the ground that gives access to groundwater.*

It should be noted that springs comprise natural openings in the ground that give access to groundwater, and therefore they are wells for the purposes of the NRM Act. The owner of the land on which a spring resides requires a water access entitlement if water from the springs is to be used for a purpose which requires a licence, such as stock watering.

The occupier of land on which a well is situated is subject to a general obligation to ensure that the well, including the casing, lining, and screen of the well, the headworks of the well and the mechanism (if any) used to cap the well, are properly maintained⁴.

39. A permit to drill a well in the Far North PWA may only be granted if the Minister is satisfied that the proposed well will be installed in accordance with the [General Specifications for Well Drilling Operations Affecting Water in South Australia](#), and constructed in accordance with the [Minimum Construction Requirements for Water Bores in Australia, Edition 3](#), as amended from time to time, or any subsequent edition.
40. A permit to drill a well in the Far North PWA may only be granted if the Minister is satisfied that the proposed location of the well (coordinates) will meet the criteria set out in sections 7.3 and 7.4 of this Plan.
41. A permit to drill a well within a native title determination area, within the Far North PWA is subject to referral to the relevant native title holder for comment. The native title holder has 60 days to respond to the request. The native title determination areas current at the date of adoption of this Plan are displayed in Figure 3.1.

¹ Section 127(3)(a) and (b) of the [NRM Act](#)

² Section 127(5a)(a) of the [NRM Act](#)

³ Section 127(5b)(a) of the NRM Act and regulation 14A(1) of the [Natural Resources Management \(General\) Regulations 2005](#)

⁴ Section 144 of the [NRM Act](#)

7.3 The Management of the Taking of Water

42. A water resource works approval for the taking of water from a 'new well'¹ will only be granted if the proposed taking of water meets the criteria for 'Taking Water from a Well' in section 7.4 below.
43. Principle 42 does not apply where the well is to be used for investigation and monitoring purposes, and where the total volume to be extracted does not exceed 2 ML per program, per year.

7.4 Taking Water from a Well

44. Subject to principle 46 and the transitional provisions in section 7.9 of this Plan, a water resource works approval, which permits the taking of water from a 'new well', will only be granted or varied where:
 - a. the applicant has demonstrated to the satisfaction of the Minister that the taking of water from the well is unlikely to impact on the ability of another water licence holder to access water through an existing operational production well unless by agreement with the existing licence holder;
 - b. the water is proposed to be taken from a well located outside of Zone A or Zone B within the Great Artesian Basin and the applicant has demonstrated to the satisfaction of the Minister that the taking of water from the well will not result in a cumulative decline in groundwater pressure of 1 m or more at the boundary of Zone B, when compared with the potentiometric surface presented in Figure 2.2 of this Plan, when measured anywhere at the boundary of Zone B or as measured by any other means determined by the Minister;
 - c. the well, having previously been used for mining or petroleum production purposes, and being proposed to be used for an alternative purpose:
 - i. has been converted from a mineral well to a water well and meets the [Minimum Construction Requirements for Water Bores in Australia](#), Edition 3; and
 - ii. a transfer of ownership has been sought through the Department and a deed of transfer has been signed by both parties and provided to the Department.
 - d. the applicant has demonstrated to the satisfaction of the Minister that the taking of water from the well within the Great Artesian Basin will not result in a cumulative drawdown in excess of 10% of the potentiometric surface level, measured at the state border with Queensland, New South Wales or the Northern Territory, in relation to the potentiometric surface presented in Figure 2.2 of this Plan, or as measured by any other means determined by the Minister. In cases where the drawdown exceeds 10% a water resource works approval can be granted or varied only in consultation with the relevant interstate authority.
45. Subject to principle 46 and the transitional provisions in section 7.9 of this Plan, a water resource works approval will not be granted or varied:
 - a. for the taking of water from a well located within Zone A, unless, the applicant has demonstrated to the satisfaction of the Minister that the water taken from the well will not detrimentally impact upon the groundwater levels or groundwater pressure levels and gradients required to maintain the ecology of the associated spring or springs;

¹ See glossary

- b. for the taking of water from a well within the Great Artesian Basin located within Zone B, unless the applicant has demonstrated to the satisfaction of the Minister that the taking of water from the well will not result in a cumulative decline in groundwater pressure of 0.5 m or more at the boundary of Zone A, when compared with the potentiometric surface presented in Figure 2.2 of this Plan, when measured anywhere at the boundary of Zone A or as measured by any other means determined by the Minister;
 - c. for the taking of water from a well drilled into the unconfined aquifer within the areas identified as non-spring GDEs or environmental buffers in Figure 2.3, unless the applicant has demonstrated to the satisfaction of the Minister that the taking of water from the well will not detrimentally impact upon the groundwater levels required to maintain the ecology of the associated groundwater dependent ecosystem;
 - d. for the taking of water from a well in the Great Artesian Basin, unless the applicant has demonstrated to the satisfaction of the Minister that the taking of water from the well will not result in a salinity rise of greater than 10%, in relation to the groundwater salinity measured over the preceding 5 years, at the point of taking;
 - e. for the taking of water from a well which has access to the water resources below the Eromanga Basin in the Cooper region, unless the applicant can demonstrate the capability to manage the take of water with high pressures and temperatures;
 - f. if the taking of water from the well would damage, disturb or interfere with any site of cultural significance.
46. Notwithstanding principles 44 and 45, the Minister may grant or vary a water resource works approval where the applicant identifies that the criteria in principles 44 and 45 cannot be met, but can demonstrate to the satisfaction of the Minister that the granting or varying of the water resource works approval would not result in any undesired impacts to the groundwater resource, springs, non-spring GDEs or existing users of the resource, and will not damage, disturb or interfere with any site of cultural significance or diminish the cultural value of a spring or additional site of ecological significance. In determining the impact upon the cultural value of the site, the applicant must consult the relevant Registered Native Title Body Corporate and/or other relevant Aboriginal peoples and communities.

7.5 Draining or Discharging Water into a Well

A permit is required for the draining or discharging of water directly or indirectly into a well¹. In addition, the drainage and discharge of water into a well must comply with the [Environment Protection Act 1993](#) and any associated policy.

Note: Injection of water containing water treatment chemicals or antibiotics, with a discharge volume greater than 50 kilolitres per day, requires authorisation under the [Environment Protection Act 1993](#) which may be in the form of a licence issued by the Environment Protection Authority.

- 47. Prior to the granting of a permit to drain or discharge water into a well the following is required to be undertaken by the applicant to the satisfaction of the Minister:
 - a. a risk assessment that is consistent with the [National Water Quality Management Strategy – Australian Guidelines for Water Recycling: Managing Health & Environmental Risks, Phase 2-](#)

¹ Section 127(3)(c) of the [NRM Act](#)

Managed Aquifer Recharge (DOE 2008), as amended from time to time or any subsequent guidelines current at the time.

- b. a risk management and monitoring plan, based on the findings of the risk assessment, which demonstrates that operational procedures and risk mitigation strategies are in place to avoid any negative consequences identified through the risk assessment.
48. Principle 47 does not apply to water drained or discharged into a well:
- a. by means of gravity, or roof runoff (surface water) which is proposed to be drained or discharged into a well via a closed system of capture and transport, provided that the system is equipped with a mechanism to divert first flush water and is drained under gravity, or
 - b. by means of a small scale managed aquifer recharge scheme where less than 5 megalitres per year of source water, such as storm water or watercourse water, is to be drained into an aquifer.
49. A permit may only be granted for the draining or discharging of water to an aquifer where the applicant can demonstrate to the satisfaction of the Minister that such draining or discharging will have no negative consequence on:
- a. the quality of the water in the receiving aquifer;
 - b. the integrity of the receiving aquifer (e.g. must not cause the overlying confining beds to hydraulically fracture or fail);
 - c. groundwater dependent ecosystems or native vegetation;
 - d. the ability of another water licence holder to access water through an existing operational production well;
 - e. surface and near-surface drainage including, but not limited to, waterlogging of soils, creating perched water tables or excessive increase in the height of water tables; or
 - f. buildings, roads and infrastructure due to direct or indirect damage.
50. When granting a permit to drain or discharge water into a well the Minister may give consideration to endorsing a condition on the permit which requires the permit holder to provide an annual drain and discharge report which includes the following information:
- a. the total amount of water drained or discharged into a well, as measured by each meter, in the water-use year, and where applicable each month;
 - b. the groundwater level/pressure for the relevant aquifer accessed by the injection well/s, as measured by wells specified on the permit, at intervals specified on the permit (where applicable);
 - c. the salinity and other specified chemical components of the water drained or discharged into a well, as well as the receiving native groundwater (as determined on a case by case basis).

Additional authorisations may be required under the [Environment Protection Act 1993](#)

7.6 Conditions on Water Resource Works Approvals

Pursuant to the NRM Act¹, a water resource works approval is subject to conditions prescribed from time to time by the regulations, specified from time to time by the relevant water allocation plan, or endorsed on the approval by the Minister.

51. All water resource works approvals which authorise the taking of water from a well are subject to the following conditions:
 - a. water must only be taken from the nominated works described on this approval;
 - b. water taken from the well authorised by this approval must be taken through a water meter approved by the Minister or the Minister is satisfied that the taking of water is consistent with the Meter Implementation Plan for the Far North PWA;
 - c. the headworks of the well from which the water is taken pursuant to this approval must be maintained and constructed so that the extraction of water from the well can be metered without interference;
 - d. the taking of water from the well authorised by this approval must not exceed the maximum annual water extraction limit of [insert maximum annual water extraction limit for the works];
 - e. the approval holder must complete an Annual Water Use Report, in a form approved by the Minister for each water use year. The Annual Water Use Report must be submitted to the Minister on or before 31 July after the end of the water use year to which the report relates and must include:
 - i. the volume of water actually taken through a water meter and recorded on each meter during the water use year (i.e. opening and closing meter readings); and
 - ii. the salinity of the water taken through the well measured once throughout the water use year.
 - f. if the land upon which the well authorised by this approval is located is subject to a change of ownership or, in the case of a pastoral lease, a change in the holding of that lease (e.g. by expiry, cancellation, relinquishment or surrender) then, unless this approval has been varied to reflect that change, it will expire on the following 30 June; and
52. Further to principle 51d, the maximum annual water extraction limit for the works can be varied as required in relation to a trade of allocation, or increase in water access entitlement, subject to meeting the criteria specified in Principles 44 to 46.
53. The conditions specified in principle 51 are additional to, and subject to the conditions endorsed on a water resource works approval issued pursuant to section 7.9 of this Plan.

7.7 The Management of the Use of Water

The NRM Act states that a person must not use water taken from a prescribed water resource unless authorised to do so by a site use approval, except in prescribed circumstances². A site use approval must specify the purposes for which the water is proposed to be used, the place at which the water is proposed to be used and prescribed information about the proposed extent, manner and rate of use of the water³. A person is exempt from the requirement to have a site use

¹ Section 160(1)(b) of the [NRM Act](#)

² Section 127(5b)(b) of the [NRM Act](#)

³ Section 164A(1)(a) of the [NRM Act](#)

approval if the water allocation plan for the prescribed resource provides the specified circumstances or situations in which no site use approval is required¹.

54. For the purposes of this Plan, a site use approval is not required, except where water is used for:
- amenity purposes; or
 - watering of stock, where the water is not supplied through a water tight delivery system or is taken from a spring (natural well); or
 - disposal on the surface as part of mining activities, except where suitable alternative arrangements are provided for in the statement of environmental objectives provided under the [Mining Act 1971](#).

7.8 Conditions on Site Use Approvals

A site use approval may be subject to conditions as specified by the relevant water allocation plan².

55. Subject to principle 54a, a site use approval for amenity purposes is subject to the following conditions:
- the water must be used in accordance with the relevant Management Plan, or
 - if a Management Plan does not exist, one shall be prepared by the applicant to the satisfaction of the Minister, which outlines the rate at which water can be used at the site to maintain the amenity values with a minimal amount of bore flow (the maximum permissible volume of bore flow), and
 - the use of water at the site shall not exceed the maximum permissible volume of bore flow as identified by the relevant Management Plan.
56. Subject to principle 54b, a site use approval for the watering of stock where the water is not supplied through a water tight delivery system or is taken from a spring, is subject to the following conditions:
- the water must not be used and/or disposed of by means of evaporation on the land's surface, and
 - the use of water from a spring must not disturb the processes or structures required to maintain the ecological functionality of the spring.
57. Subject to principle 54c, a site use approval for the disposal on the surface as part of mining activities, except where suitable alternative arrangements are provided for in the statement of environmental objectives provided under the [Mining Act 1971](#), is subject to the following conditions:
- the water must not be disposed of by means of evaporation on the land's surface.
58. Additional conditions may be endorsed on a site use approval at the Ministers discretion.

7.9 Transitional Arrangements

59. At the date of adoption of this Plan, the holder of an existing water licence may be granted a water resource works approval or a site use approval under this Plan. The Minister may give consideration to endorsing conditions on the approval consistent with the conditions specified in section 7.6 or 7.8 of this Plan.

¹ Regulation 14A(3) of the [Natural Resources Management \(General\) Regulations 2005](#)

² Section 164(1)(b) of the [NRM Act](#)

60. When issuing a water resource works approval pursuant to principle 59, the Minister may give consideration to endorsing a condition on the approval which restricts the volume of water which may be extracted by means of the works to which the approval relates ("maximum annual water extraction limit").
61. The maximum annual water extraction limit referred to in principle 60 should be equivalent to the volume of water issued on the water access entitlement at the date of adoption of this Plan.

8 Monitoring, Evaluation, Reporting and Improvement

The objectives of this Plan (section 1.8) aim to ensure that water is allocated from the groundwater resources within the Far North PWA in a manner which does not result in undesired impacts to the springs, non-spring GDEs, the ability of existing users to maintain access to water, and will not damage, disturb or interfere with any site of cultural significance.

In order to assess the success of this Plan in achieving the objectives, a Monitoring, Evaluation, Reporting and Improvement (MERI) Plan shall be prepared to guide the development of a suitable monitoring program of; groundwater levels/pressures, groundwater salinity, extraction of groundwater and ecological characterisation, throughout the life of this Plan. The information collected through the MERI Plan will enable a robust review of the effectiveness of the principles in sections 6 and 7 in achieving the objectives of this Plan.

The monitoring requirements below provide an outline of the monitoring required, refinement of the monitoring may be undertaken by the Board at intervals throughout the life of this Plan.

8.1 Groundwater Monitoring

Sufficient monitoring of groundwater levels/pressures and groundwater salinity is required to enable an assessment of whether the principles in this Plan have been successful in achieving the objectives.

The Department maintains a baseline monitoring groundwater level and salinity network for the GAB aquifers which provides for *"regular observations to allow evaluation of the state and condition of a water resource and to inform knowledge of the long term baseline trend of the resource. Baseline surveillance sites provide a continuous long term data-set that provides information for assessing the health of a resource over time"* (Carboon and Chapman 2015).

The baseline monitoring network currently consists of 65 wells in the GAB aquifer which monitor groundwater level/pressure and 50 wells which monitor salinity on a bi-annual to annual basis. The monitoring needs may be reviewed, but will be maintained at a spatial and temporal scale sufficient to enable the assessment of the change in condition of water levels/pressures and salinities in the regional GAB aquifers. The monitoring locations at the date of adoption of this Plan can be seen in Figure 8.1. Groundwater monitoring sites in the shallow aquifers may be required to assess the impacts on the resource due to the taking of water from these aquifers.

Holders of water resource works approvals are required to complete an Annual Water Use Report as a condition of the approval, which requires the holder to collect a salinity sample from each well listed on the approval once throughout the water use year. This will provide valuable information about the salinity of all water resources utilised for the taking of water from within the Far North PWA.

Monitoring of the water level and salinity throughout the life of this Plan will provide information to assess the success of the principles in this Plan to achieve the objectives.

8.2 Groundwater Dependent Ecosystem Monitoring

Sufficient monitoring of representative groundwater dependent ecosystems is required to enable an assessment to determine if the principles in this Plan have been successful in achieving the objectives.

The water needs of groundwater dependent ecosystems are described in section 2 and Appendix B of this Plan and the principles for the maintenance and protection of springs and non-spring GDEs are included in sections 6 and 7. In order to evaluate the success of these provisions, a program targeting priority environmental assets in areas where extraction

is occurring and at representative control sites is required to observe changes in critical hydrogeological and ecosystem parameters.

8.3 Monitoring of Demands Placed on the Groundwater Resource

The Department will keep a record of the licensed groundwater extractions from the Far North PWA in the State Water Register.

8.4 Compliance with Conditions on Authorisations

The monitoring data obtained in sections 8.1 to 8.3 will assist in determining compliance with any conditions placed on a water licence, water access entitlement, water allocation, water resource works approval or site use approval and any relevant permits.

8.5 Evaluation

Evaluation is required at different stages to assess changes in the condition of groundwater resources and dependent ecosystems, periodically assess the effectiveness of this Plan in meeting objectives, and to inform future reviews.

Evaluation of monitoring data will be undertaken in a manner that considers the groundwater and groundwater dependent ecosystems condition trends, primarily in relation to the proximity of water affecting activities in the vicinity of GDEs, but also recognising that other factors such as climate variability and land management may be contributing to observed GDE condition. Further detail regarding the content, timing and responsibility for evaluation activities will be determined by the Board.

9 Consistency with other Plans and Legislation

This Plan was developed having regard to:

- the [Aboriginal Heritage Act 1988](#)
- the [Development Act 1993](#)
- the [Environment Protection Act 1993](#)
- the [Environment Protection and Biodiversity Conservation Act 1999](#) (Cth)
- [Intergovernmental Agreement on a National Water Initiative](#) , Council of Australian Governments 2004
- the [Mining Act 1971](#)
- the [Natural Resources Management Act 2004](#)
- the [Natural Resources Management Plan](#) for the South Australian Arid Lands Natural Resources Management Region 2017
- the [Pastoral Land Management and Conservation Act 1989](#)
- the [Petroleum and Geothermal Energy Act 2000](#)
- the [State NRM Plan 2012-2017](#), *Our Place Our Future*, 2012
- [Water for Good](#): A Plan to Ensure our Water Future to 2050, Government of South Australia 2010
- the [Great Artesian Basin Strategic Management Plan](#) (Cth)
- the [Water Act 2007](#) (Cth)

Units of Measurement

km² = Square kilometers

kL = Kilotitre (1000 litres)

kL/d = Kilotitres per day

ML = Megalitre (1,000,000 litres)

ML/d = Megalitres per day

GL = Gigalitre (1,000 megalitres)

GL/a = Gigalitre per annum (1,000 megalitres per year)

Shortened Forms

Board – South Australian Arid Lands Natural Resources Management Board

BoM – Bureau of Meteorology

DEW – Department for Environment and Water

GDE – Groundwater Dependent Ecosystem

NRM – Natural Resources Management

NWI – the Intergovernmental Agreement on a National Water Initiative

PIRSA – Department of Primary Industry and Regions South Australia

Plan – Water Allocation Plan

PWA – Prescribed Wells Area

Regional NRM Plan – Natural Resources Management Plan for the South Australian Arid Lands Natural Resources Management Region

Glossary

Aboriginal: Descendants of the original inhabitants existing in a land from the earliest times or from before the arrival of colonists. Aboriginal is used throughout this Plan instead of "Indigenous" as endorsed by the former SA Aboriginal State-wide Advisory Committee.

Aboriginal nations: A group or community of Aboriginal people who identify as descendants of the original inhabitants of the Plan area and may share a single common territory, or may be located as a nation within another larger nation. Where a native title determination has been made the native title holders will have native title interests within the nation and is the body that the Board will deal with for native title. It may also be the legal entity that represents the nation for other purposes or be included as a member of a wider group representing a nation (e.g. a Regional Authority).

Allocation: See Water Allocation.

Amenity: A desirable feature which enhances the pleasantness or attractiveness of a property requiring volumes of water which exceeds the limit ascribed to domestic use in this Plan.

Aquifer: An underground layer of rock or sediment that holds water and allows water to percolate through.

Aquifer test (or a pumping test): A test conducted to evaluate an aquifer by "stimulating" the aquifer through constant pumping, and observing the aquifer's "response" (drawdown) in observation wells. Aquifer testing is a common tool that hydrogeologists use to characterise the aquifers properties such as the hydraulic conductivity, and to determine the likely impact the taking of water from a well would have at the observation well allowing for the determination of a zone of influence.

Aquitard: A layer in the geological profile that separates two aquifers and restricts the flow between them.

Artesian: An aquifer in which the water surface is bounded by an impervious rock formation; the water surface is at greater than atmospheric pressure, and hence rises in any well which penetrates the overlying confining aquifer.

Buffer zone: An area within which certain management objective exist in order to protect a specific water resource or groundwater dependent ecosystem.

Consumptive pool: The water that will from time to time be taken to constitute the resource within a particular part of a prescribed water resource for the purposes of Chapter 7 of the NRM Act, as determined by this Plan.

Consumptive use: Licensed and non-licensed water use for the purposes of Chapter 7 of the NRM Act.

Date of adoption: The date that the Minister adopts this Plan.

Decommissioning: The permanent closure of a well no longer in use.

Department: The administrative unit designated from time to time, by the Minister, by notice in the Gazette as being the Department primarily responsible for assisting the Minister in the administration of the NRM Act, at the date of adoption of this Plan it is the Department for Environment and Water.

Domestic purpose: As per the NRM Act, being *in relation to the taking of water, domestic purpose does not include: (a) taking water for the purpose of watering or irrigating land, other than land used solely in connection with a dwelling; or (b) without limiting paragraph (a), taking water for the purpose of watering or irrigating more than 0.4 of a hectare of land; or (c) taking water to be used in carrying on a business (except for the personal use of persons employed in the business).*

Eromanga Basin: A large Mesozoic sedimentary basin, which in South Australia is synonymous with the Great Artesian Basin.

Existing operational production well: Either a well (unit number) that is identified on a water resource works approval issued for the Far North PWA, or a well which is known by the Department as part of a condition on an allocation as an existing operational production well.

Existing user: A person who held a water licence under the previous Far North Prescribed Wells Area Water Allocation Plan.

First flush water: The initial surface runoff of a rain event. During this phase, water pollution is typically more concentrated when compared to the remainder of the rain event.

Groundwater: Water occurring naturally below ground level or water pumped, diverted and released into a well for storage underground.

Groundwater Dependent Ecosystem (GDE): an ecosystem that requires access to groundwater, on a permanent or intermittent basis, to meet all or some of its water requirements to maintain the community of plants and animals, and the ecological processes and ecosystem services they provide.

Groundwater extraction: The process of taking water from an underground source, either temporarily or permanently.

Hydraulic gradient: In unconfined groundwater, the mean watertable gradient in the direction of groundwater flow. In confined aquifers, the pressure gradient in the direction of flow.

Hydrocarbon: a compound of hydrogen and carbon, such as any of those which are the chief components of petroleum and natural gas.

Hydrogeology: The study of groundwater, which includes its occurrence, recharge and discharge processes and the properties of aquifers.

Intensive farming: As per the NRM Act as being *"a method of keeping animals in the course of carrying on the business of primary production in which the animals are usually confined to a small space or area and usually fed by hand or by a mechanical means"*.

Licence: see 'water licence'.

Licensee: A person or entity who holds a water licence pursuant to section 146 of the NRM Act.

Managed aquifer recharge (or draining and discharging): The intentional draining and discharging of water to aquifers for subsequent recovery and use or for environmental benefit.

Megalitre (ML): one million litres.

Metered water use: Water volume measured through a water flow meter.

Minister: The Minister responsible for the administration of the NRM Act.

Monitoring: The systematic measurement of variables and processes over time to address a clearly defined set of objectives.

Native groundwater: Water occurring naturally below ground level that exists in the relevant aquifer absent of any such water drained or discharged to that aquifer by artificial means.

New well: Either a newly drilled or existing well which has not previously been authorised for the taking of water on a licence under the previous Plan or on a water resource works approval under this Plan

Non-consumptive use: water for maintaining natural processes, including but not limited to aquifer throughflow and discharge, and water for groundwater dependent ecosystems.

Non-spring GDEs: Locations in the Far North Prescribed Wells Area where it is considered likely based on data available that the taking of shallow groundwater has the potential to impact upon GDEs.

NRM Act (the): The [Natural Resources Management Act 2004](#).

Opening and closing meter readings: The reading on a water meter at the start of the water use year (1 July) and the reading on a water meter at the end of the water use year (30 June).

Person: As per the [Acts Interpretation Act 1901](#) being *"expressions used to denote persons generally (such as "person", "party", "someone", "anyone", "no-one", "one", "another" and "whoever"), include a body politic or corporate as well as an individual"*.

Potentiometric surface: The level to which water rises in a well due to the water pressure in the aquifer, measured in meters above sea level.

Prescribed well: A well declared to be a prescribed well under section 125 of the NRM Act.

Prescribed Wells Area (PWA): An area of land within which wells are prescribed.

SA Geodata database: A collection of linked databases storing geological and hydrogeological data, which the public can access through the offices of the Department of Primary Industries and Regions SA. Custodianship of data related

to minerals and petroleum and groundwater, is vested in PIRSA and DEW, respectively. DEW should be contacted for database extracts related to groundwater.

Site of cultural significance: Aboriginal sites identified on the [Register of Aboriginal Sites and Objects](#), as amended from time to time and required to be maintained under the [Aboriginal Heritage Act 1988](#) or any other site identified as a site of cultural significance by an Aboriginal person.

Site use approval: An approval which permits the use of water at a specific site for a particular purpose.

Stock water use: The taking of water to provide drinking water for stock other than stock subject to intensive farming.

Throughflow: Shallow groundwater flow through a soil sub-parallel to a hillside. If the underlying rock is reasonably permeable, then the infiltrated water percolates vertically, and there is no throughflow.

Unconfined aquifer: An aquifer in which the upper surface has free connection to the grounds surface and the water surface is at atmospheric pressure.

Water access entitlement: An entitlement to the holder of a water licence to gain access to a share of water available in the consumptive pool or pools to which the licence relates as per section 146(2) of the NRM Act, as specified by the licence and after taking into account any factors specified by the relevant water allocation plan or prescribed by the regulations.

Water allocation: The water obtained on account of a water access entitlement under a water licence as per section 152(1)(a) of the NRM Act. A water allocation may also be obtained by a person, whether or not the person is a holder of a water licence, on the basis of a transfer of a water allocation that has been provided by the Minister under the terms of a water licence as per section 152(2)(b) of the NRM Act. A water allocation will relate to a specified period of no more than 12 months as per section 152(7) of the NRM Act.

Water allocation plan: A plan prepared by a natural resources management board and adopted by the Minister in accordance with Chapter 4 Part 2 of the NRM Act.

Water management authorisation: a water licence; or a water access entitlement; or a water allocation; or a water resource works approval; or a site use approval.

Water resource works approval: An approval which permits the construction, operation and maintenance of works for the purpose of taking water from a prescribed water resource at a specific location and in a particular manner.

Water licence: A licence granted by the Minister under section 146 of the NRM Act, provides the holder with a water access entitlement, which entitles the holder to gain access to a share of the water available for allocation in the consumptive pool as per section 146(2) of the NRM Act.

Water-use year: A water use year runs from 1 July to 30 June in the following calendar year.

Well: As defined by the NRM Act, means (a) *an opening in the ground excavated for the purpose of obtaining access to underground water;* (b) *an opening in the ground excavated for some other purpose but that gives access to underground water;* and/or (c) *a natural opening in the ground that gives access to underground water.*

Wetland: An area that comprises land that is permanently or periodically inundated with water (whether through a natural or artificial process) where the water may be static or flowing and may range from fresh water to saline water and where the inundation with water influences the biota or ecological processes (whether permanently or from time to time).

Zone of influence: The area around a pumped well in which there is detectable drawdown due to the taking of water.

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SARIG – see South Australian Resources Information Gateway

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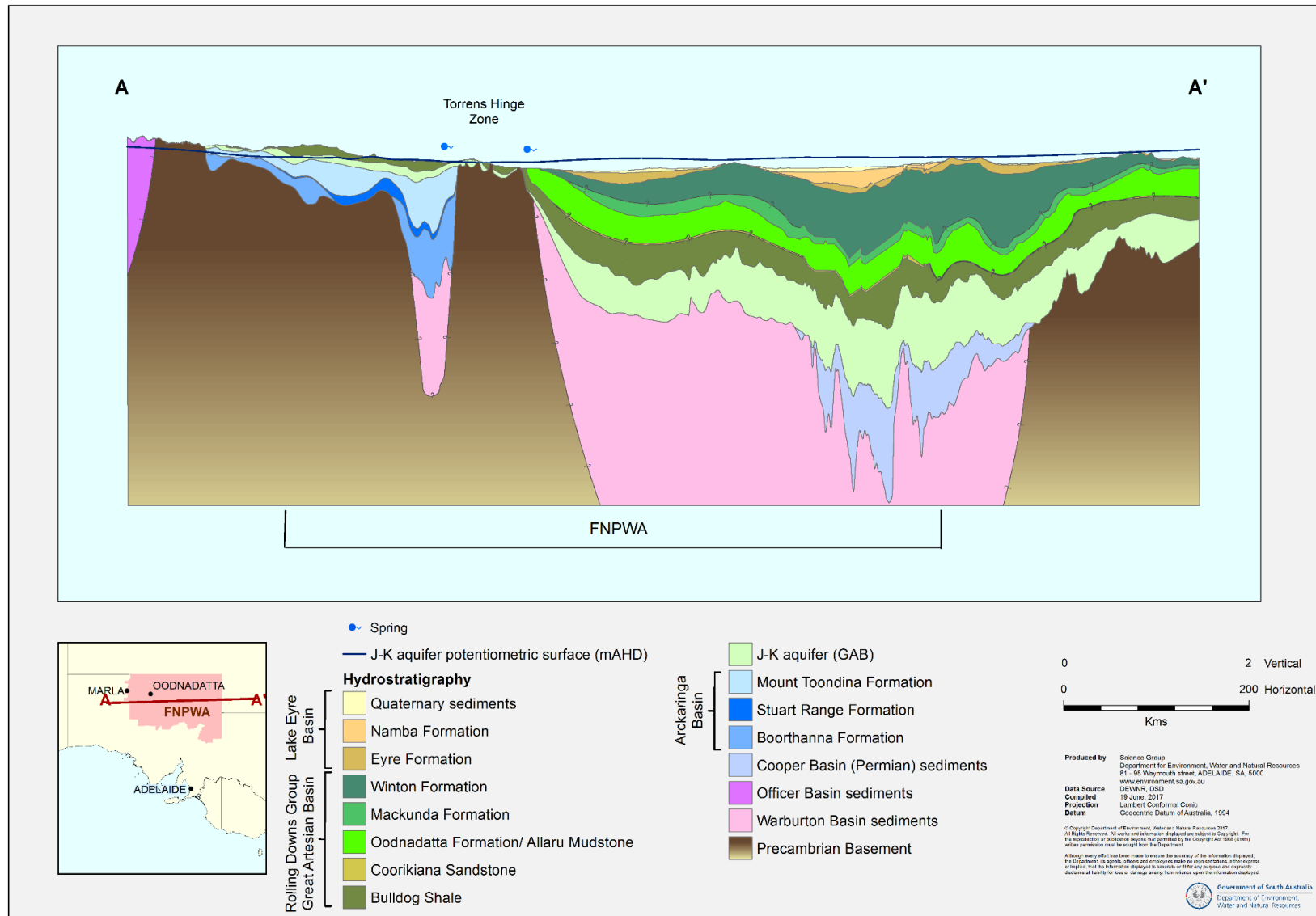
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Appendix A – Hydrostratigraphy of the Far North Prescribed Wells Area



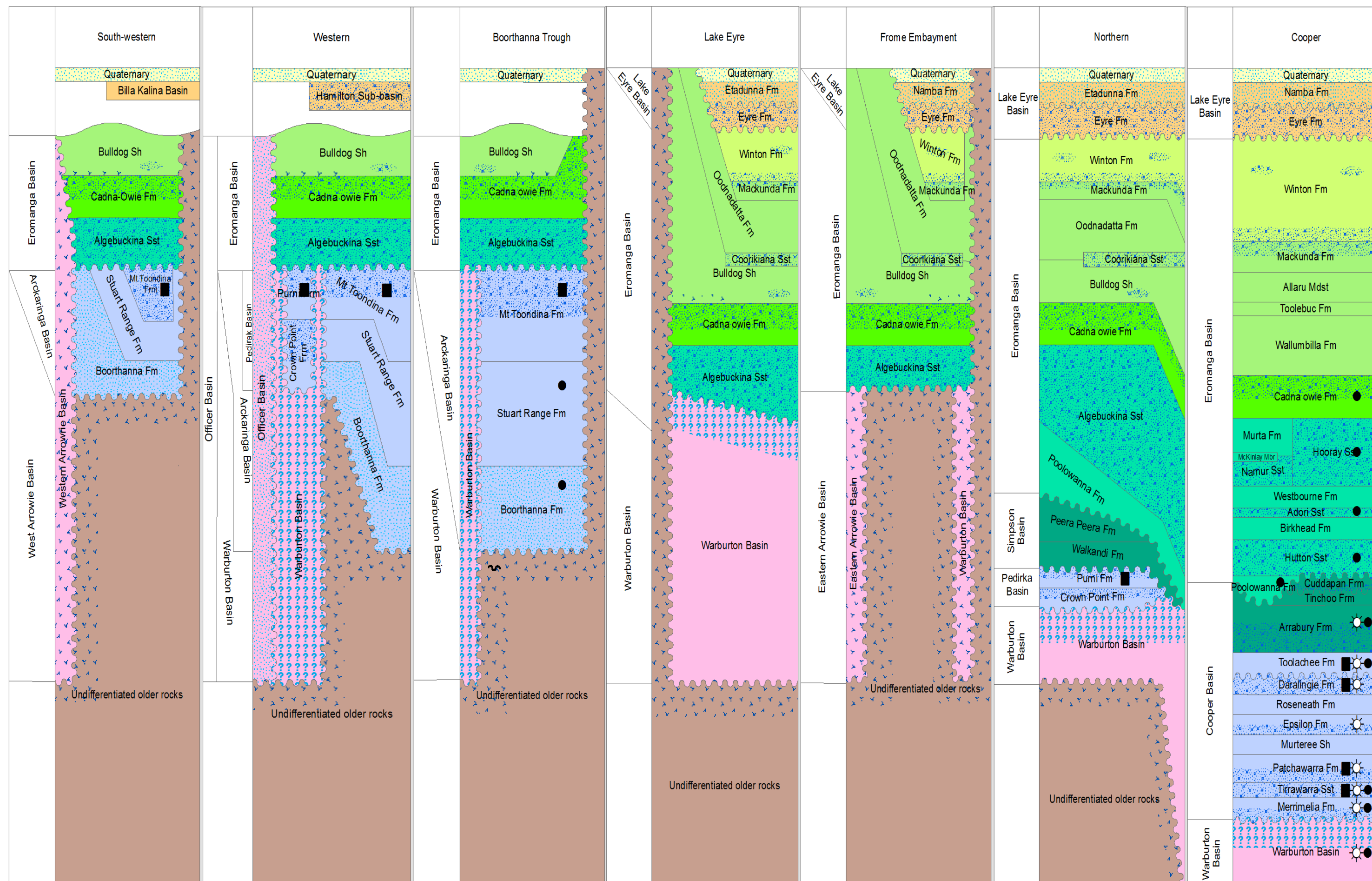


Figure A.2. Far North PWA Hydrostratigraphy (See Figure A.3 for locations and legend, adapted from Keppel unpublished)

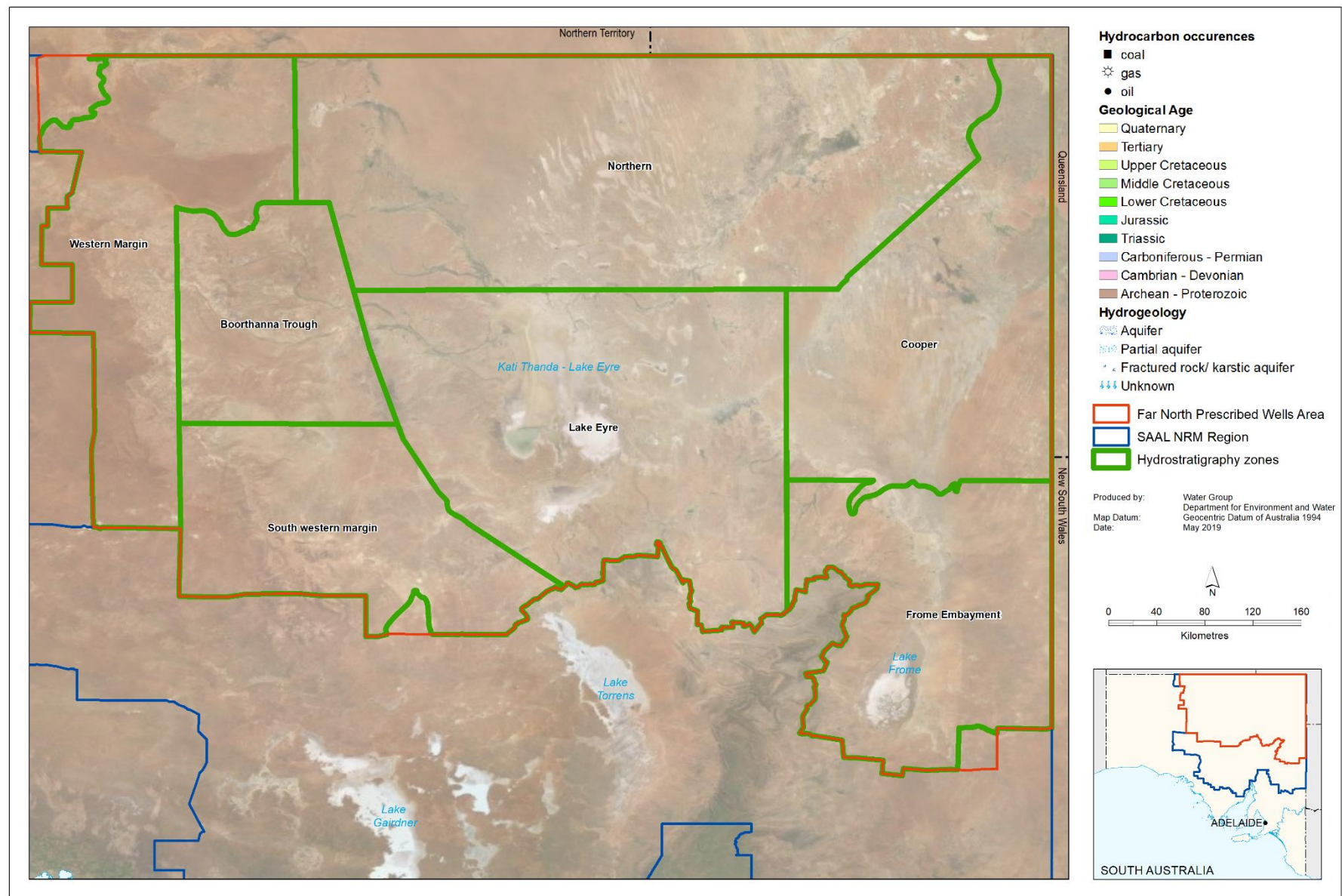


Figure A.3. Far North PWA Hydrostratigraphy Zones (legend for Figure A.2 adapted from Keppel unpublished)

Table A.1. Stratigraphy and hydrostratigraphy of the units of the South Australian portion of the Lake Eyre, Great Artesian and Cooper Basins (adapted from DFW 2011)

Age		Basin	Unit	Lithology	Hydrogeology		
Cenozoic	Quaternary	Lake Eyre Basin (Hamilton sub basin)	Undifferentiated	Aeolian sands and alluvium, lacustrine and fluvial sands, silts and clays, occasional limestone beds	Unconfined aquifer		
	Tertiary		Eocene	Namba Formation	Alternating fine to medium-grained sand, silt and clay, with thin dolomite and limy, often oolitic, dolomite interbeds	Unconfined and confined aquitard; aquifer in many places	
			Oligocene	Etadunna Formation	White dolomite and limestone overlain by green and grey magnesium-rich claystone and fine sand	Unconfined and confined aquifer; aquitard in places	
			Eyre Formation	Fluvial, fine to medium-grained, quartz sandstone with lignite interbeds and a basal conglomerate	Unconfined, confined and artesian aquifer		
Mesozoic	Cretaceous	Great Artesian Basin (Eromanga Basin)	Late	Winton Formation	Interbedded fine to coarse-grained sandstone, carbonaceous and pyritic shale, siltstone and coal seams with conglomerates	Confined aquifers and aquitards	
			Early	Mackunda Formation	Interbedded, partly calcareous very fine-grained sandstone, siltstone and shale	Confined aquifers and aquitards	
				Oodnadatta Formation	Laminated and thin-bedded claystone and siltstone with interbeds of fine-grained sandstone	Aquitard	
				Coorikiana Sandstone	Fine-grained, silty, glauconitic, feldspathic and lithic sandstone, minor conglomerate with dark grey siltstone and mudstone interbeds at the base	Aquifer	
				Bulldog Shale	Dark grey, bioturbated and fossiliferous mudstone with minor interbeds of micaceous siltstone and very fine-grained sandstone	Aquitard	
				Cadna-owie Formation	Pale grey siltstone with very fine to fine-grained sandstone interbeds and minor carbonaceous claystone	Unconfined, confined and artesian aquifer	
	Jurassic		Early	Murta Formation	Grey siltstone, shale, very fine to fine-grained sandstone, minor medium and coarse-grained sandstone. Basal siltstone in Cooper region	Aquitard	
				Namur Sandstone	White to pale grey fine to coarse-grained sandstone with minor interbedded siltstone and mudstone	Confined aquifer	
				Westbourne Formation	Interbedded dark grey shale and siltstone with minor sandstone interbeds	Aquitard	
				Adori Sandstone	Well-sorted, sub-rounded, cross-bedded, fine to coarse-grained sandstone	Confined aquifer	
				Birkhead Formation	Interbedded dark grey and brown siltstone, mudstone and buff, fine to medium-grained sandstone with thin coal seams (<0.3 m)	Aquitard	
				Hutton Sandstone	Fine to coarse-grained quartzose sandstone with minor siltstone interbeds	Confined aquifer	
	Triassic	Late	Algebuckina Sandstone	White, fine to coarse-grained quartzose sandstone with granule and pebble layers and shale intraclasts common in coarser beds	Confined aquifer		
			Poolowanna Formation	Interbedded grey to brown carbonaceous siltstone, pale grey to buff sandstone and rare coal seams	Aquifer/aquitard		
	Palaeozoic	Permian	Cooper Basin	Middle	Cuddapan Formation	Basal sandstone with upwards increasing siltstone and coal interbeds; interbedded grey siltstone and off-white sandstone with minor mudstone	Aquifer
				Tinchoo Formation	Medium-grained quartzose sandstone. Light olive grey to brown and medium grey siltstone interbeds contain layers of coarse sand grains	Aquifer	
Late				Arrabury Formation	Mudstone and siltstone with thin fine to medium-grained quartzose sandstone interbeds overlain by sandstone with minor siltstone interbeds	Major aquitard between Cooper and Eromanga Basins	
Toolachee Formation				Interbedded buff to white, fine to coarse-grained sandstone, dark grey siltstone and dark grey to black carbonaceous shale, sometimes with thin coal seams (<3 m) and conglomerates	Aquifer		
Daralingie Formation				Carbonaceous and micaceous siltstone and mudstone, interbedded grey to brown sandstone	Both aquifer and aquitard		
Roseneath Shale				Brown-grey or olive-grey siltstone, mudstone and minor sandstone. Siltstones are micaceous with minor fine-grained pyrite. Sandstone interbeds are pale brown and fine grained	Aquitard		
Carboniferous		Late		Epsilon Formation	Fine to medium-grained quartzose sandstone with dark grey-brown carbonaceous siltstone and shale, and thin to occasionally thick (<2.20 m) coal seams	Aquifer	
				Murteree Shale	Black to dark grey-brown siltstone and fine-grained sandstone which is more sandy in the southern Cooper Basin. Fine-grained pyrite and muscovite are characteristic and carbonaceous siltstone occurs	Aquitard	
				Patchawarra Formation	Interbedded grey, buff or brown, fine to medium-grained, locally coarse-grained and pebbly sandstone, grey to black siltstone, shale and coal	Aquifer	
			Tirrawarra Sandstone	Composed chiefly of brown and white, fine to coarse-grained sandstone with minor shale interbeds and rare, thin coal seams	Aquifer		
Merrimelia Formation	Conglomerate, diamictite, sandstone, conglomeratic mudstone, siltstone and shale	Aquifer					

Table A.2. Stratigraphy and hydrostratigraphy of the units of the Arckaringa Basin (developed from DFW 2011)

Age			Basin	Unit	Lithology	Hydrogeology
Palaeozoic	Permian	Early	Arckaringa Basin	Mount Toondina Formation	Siltstone and sandstone interbedded with shale and coal. Coal generally restricted to upper part	Confined aquifer and aquitard
				Stuart Range Formation	Grey to dark grey, sometimes brown mudstone with minor white to grey, fine to medium-grained sandstone and mid to dark grey, carbonaceous siltstone	Aquitard
	Carboniferous	Late		Boorthanna Formation	Thick sandy to bouldery, pale grey or greenish grey, often calcareous claystone overlain by medium to coarse-grained sandstone grading into siltstone or silty shale	Basal unit is a confined aquifer, upper unit is an aquitard

Table A.3. Stratigraphy and hydrostratigraphy of the units of the South Australian portion of the Pedirka Basin

Age			Basin	Unit	Lithology	Hydrogeology
Palaeozoic	Permian	Early	Pedirka Basin	Purni Formation	Fluvial and paludal (swamp) interbedded sandstone, siltstone and claystone, as well as coal beds within the paludal sequences.	Aquifer/Aquitard
				Crown Point Formation	Glacio-fluvial and glacio-lacustrine sandstone and shale (diamictite).	Aquifer

Appendix B – Assessment of the Water Needs of Groundwater Dependent Ecosystems: Environmental Water Requirements and Provisions

The following section provides more detail on the environmental water provisions and requirements for springs and non-spring GDEs discussed in section 2 of this Plan.

Springs

Typically, springs occur where faults in the earth's crust provide a pathway for deep artesian groundwater to discharge to the soil surface, through the confining beds. This may occur where the aquifer abuts bedrock or where the pressurised water breaks through thin confining beds near the margins of the aquifer (Figure B.1; SAALNRMB 2009). This continuous discharge supports permanent spring areas within which aquatic biota such as small crustaceans, fish, snails, reeds and rushes can live. For more detailed ecohydrological conceptual modelling see Gotch *et al.* (2016) and Keppel *et al.* (2016).

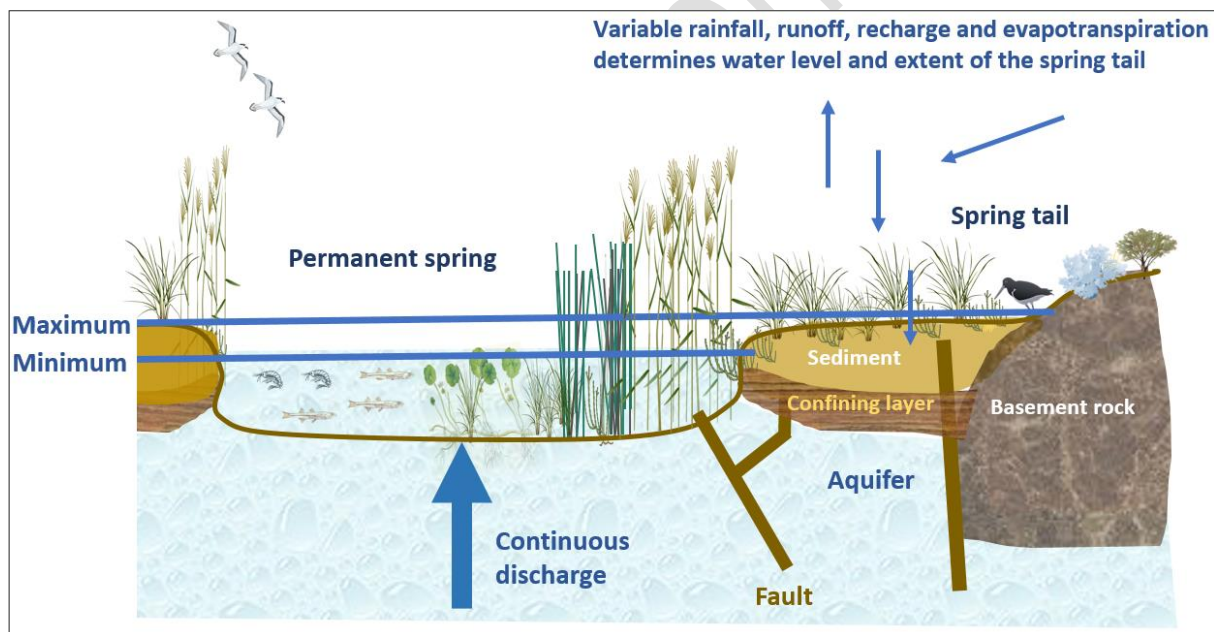


Figure B.1. Generalised conceptual diagram of groundwater dependence of the springs in the Far North PWA

Springs in the Far North PWA typically consist of a number of vents discharging water to a surface pool, pools surrounded by a wetland, or soaks with little free surface water. The diversity and distribution of springs are determined by the flow rates, water chemistry, landscape processes and structures that characterise individual springs. These characteristics vary greatly between spring complexes and therefore springs are highly variable in size, ranging from small individual soaks to large, established spring complexes that attain a total wetland area of almost 1300 ha (Lewis *et al.* 2013). Many springs have a distinct mound associated with them and the wetland that is created from the discharge is known as the tail, which changes in spatial extent due to the combined effects of local rainfall, recharge and evapotranspiration (evaporation from the water surface plus water use by plants known as transpiration).

Spring vegetation, such as reeds and rushes, is almost entirely dependent on groundwater (Gotch 2013). Patterns of plant growth around the spring reflect the patterns of water availability, whilst the geographic position of the spring is important in determining overall plant community composition. The number of plant species (diversity) at a given spring tends to decrease from east to west across the PWA as the habitat surrounding the springs becomes increasingly arid (Gotch 2013). Several endemic and relict (were more widespread in the past) plant species have also been identified in the springs (Gotch 2005; Fensham *et al.* 2010) that have evolved independently due to their isolation (Fatchen and Fatchen 1993). Plant species will opportunistically colonise available habitat created by the formation of any new springs, the seasonal shifts in spring tails or removal of other (more palatable) plants by grazing (Gotch 2013) provided that their dispersal, colonisation and growth requirements are met. As such they are indicators of short- and long-term changes in spring water quantity, water quality and the spatial extent of the tail.

Environmental Water Requirements (EWRs) of Springs

EWRs adopted for springs in the PWA: For the entire year, the groundwater needs to be in direct contact with the spring source and over the long term needs to maintain the spatial extent of the wetland tail, allowing for seasonal and multi-year fluctuations.

In determining the above EWRs for springs in the Far North PWA, water regime components such as the magnitude, frequency, duration and timing of inundation have not been detailed because the springs themselves are reliant on continuous flow of groundwater to the surface, which is not subject to defined seasonal variations. Short-term or seasonal variations in climatic factors such as evaporation, local rainfall and recharge, lead to short term changes in the extent of inundation of the tail area (Figure B.1). It is likely that vegetation on the outer edge of the tail would receive water less frequently (e.g. 1 in 10 years) than vegetation closer to the spring source (e.g. every year) and this will be reflected in species composition, distribution and changes in plant health over time

Factors such as groundwater salinity, groundwater flow rates and other environmental factors differ between springs and help determine a given spring's water requirement. The salinity and presence of other minerals in the water flowing to the springs are locally influenced by geological factors and mixing with shallow saline aquifers, surface conditions and, on a broader scale, by the different water sources within the Far North PWA (Gotch 2013). A narrow salinity range is important to maintain species diversity based on observations that the higher the groundwater salinity, the lower the species diversity in a spring. Gotch (2013) found that springs with a higher flow rate and a greater number of vents had a higher number of species, indicating that both the quantity and quality of water are important for springs. Disturbances by stock and other animals that use springs as a water source or other activities that change the surface conditions often lead to changes in surface water chemistry as well as surface structures, flow quantity and patterns. These changes can threaten the diversity and function of individual springs (SAALNRMB 2009). The strong linkages between the number of active vents in a group and the abundance of species, suggests that the springs in the Far North PWA can be treated in this Plan as a management unit rather than identifying EWRs for individual springs (Gotch 2013).

Non-spring GDEs

The presence of diverse GDEs across a landscape is driven by variations in groundwater flows across time and area that are related to geology, climate and land use (Doody *et al.* 2019).

For some of these non-spring GDEs groundwater inflows and local recharge are known to be essential for sustaining ecological populations between floods and maintaining the health of mature adults. This allows for successful recruitment, dispersal and recolonisation when river flows or floods do occur. The significance of groundwater discharge for other GDEs, such as salt lakes is not as well understood with respect to direct effects on the lake's water and salinity levels or indirect effects through changes to base flow in creeks feeding the lakes (SAALNRMB 2009).

While it is known that some contain populations of unique, endemic and threatened fauna and flora there are also many that have not been studied. It is widely recognised that many GDEs have immense cultural importance, to both Aboriginal and non-Aboriginal people.

Non-spring GDEs across the Far North PWA can be categorised into 6 key GDE types:

1. Channel floodplain - example: Kallakoopah Creek
2. Permanent waterhole - example: Algebuckina waterhole
3. Semi-permanent waterhole - example: Hookies Waterhole
4. Ramsar - example: Coongie lakes.
5. Isolated local aquifers - example: Small valleys identified in vicinity of Hookies Waterhole
6. Terminal lakes - example: Lake Hope

A risk assessment was undertaken by Wilson *et al.* (unpublished) in preparation of this Plan, for the purposes of identifying the non-spring GDE types listed above which are likely to be at risk due to the taking of shallow groundwater and therefore require a management response in this Plan.

The risk assessment considered what the likelihood and consequence of taking groundwater from the shallow aquifers at a rate of 10 ML/year (the likely extraction rate per well intercepting the shallow aquifers) for an ongoing period of 30 years, would have on the non-spring GDE type.

Of the non-spring GDE types listed above, only the isolated local aquifers GDE type was identified as being at a moderate risk due to the taking of shallow groundwater, whilst the remaining GDE types were assigned a low level of risk (Figure B2 and B3). It should be noted that the uncertainty surrounding the impact of taking water in proximity to these sites is higher than other GDE types given the uncertainty around the extent of the aquifer providing water to these sites. A higher uncertainty results in a higher risk assignment. As more information is acquired in relation to this GDE type, the uncertainty may be reduced and the risk evaluation may change.

The environmental values at risk for the isolated local aquifers GDE type are primarily associated with terrestrial vegetation that is dependent on groundwater. These terrestrial systems can be considered as refugia for vertebrates such as woodland birds. The loss of assets could impact threatened vertebrates, particularly where the asset is isolated. In general, the importance of these refugia is correlated with isolation, with increasing isolation leading to greater ecological importance and thus potential consequence.

Refugia sites were identified as locations in the landscape where within a 5 km radius of a particular site, there were less than 50 hectares of other isolated local aquifers identified, i.e. approximately 0.6% of the area within the 5 km radius is an isolated local aquifer GDE type.

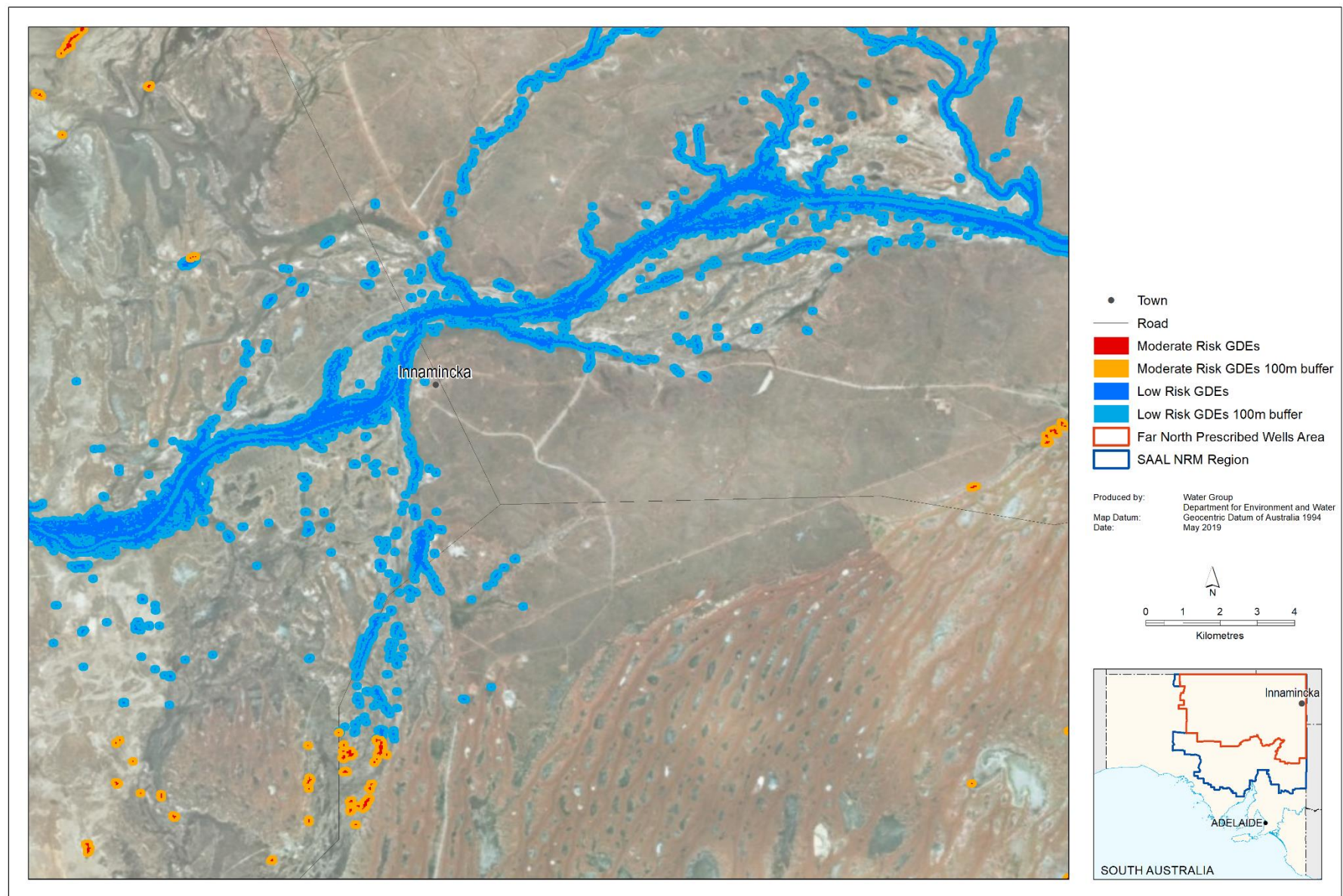


Figure B.3. Innamincka zoom of locations of known non-spring GDEs in the Far North PWA (100m buffer included for all sites to enable visualisation of locations)

Environmental Water Requirements of non-spring GDEs

EWRs adopted for non-spring GDEs: To maintain the groundwater components of the overall water and salinity regime within the range that the GDEs' ecological communities and species need or can successfully adapt to.

In determining the above EWRs for non-spring GDEs, it is acknowledged that there are a large number of diverse, relatively poorly-understood GDEs and it is not currently possible to document their specific water requirements in terms of the magnitude, frequency, duration and timing of inundation, as well as water quality considerations, to maintain them at a low level of risk (Doody *et al.* 2019). The adopted EWR for these sites focusses instead on the requirement for the groundwater component of the GDE's water regime that is the quantity and quality of groundwater discharging to the GDE or feeding the capillary fringe (Figure B.4). This needs to be maintained within the range that the ecological communities and species that inhabit the GDE need, can tolerate or can successfully adapt to without losing population resilience. Such an EWR allows for the risk posed by proposed groundwater extraction to be assessed in terms of the likelihood and consequences of significant, adverse impacts on the groundwater component of the GDE's water requirements occurring.

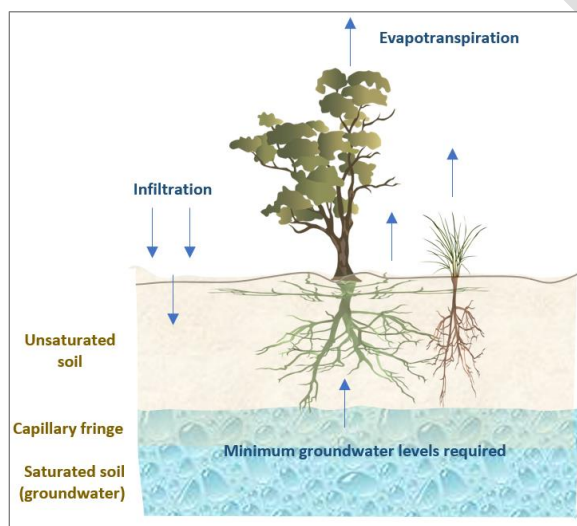


Figure B.4. Groundwater feeding the capillary fringe underneath deep-rooted vegetation (Phreatophyte)

The extent of groundwater-surface water interactions for GDEs other than the GAB springs are relatively poorly understood. It is thought that much of the Cooper Creek in South Australia is likely to be associated with shallow aquifers but monitoring data is scarce. It has been hypothesized that the distribution of red gums along the Cooper Creek is driven by groundwater salinity as much as surface water availability and that the dynamics of groundwater levels in response to recharge may contribute to mass die-off of riparian trees (Agnew *et al.* 2014). Cullyamurra Waterhole is the principal refuge of Cooper Creek and the entire *Kati Thanda* - Lake Eyre Basin. It is therefore a vital ecological asset and its groundwater inflows need to be maintained in order for it to continue to provide these vital ecosystem services.

Non-spring GDEs, especially those that are scattered in the landscape, are often defined by their capacity to support wetland plants. This is because plants will opportunistically colonise available habitat created by groundwater discharge (Gotch 2013) provided that their dispersal, colonisation and growth requirements are met. As such wetland plants and physical habitats can be used as indicators of short- and long-term changes in groundwater quantity and/or quality. EWRs of specific wetland habitats or wetland species that are supported at the non-spring GDEs can be stated as required to underpin robust risk assessments. For example, it is known that *Phragmites australis* (common reed) requires permanent water and thus groundwater levels need to be maintain those needs. Similarly, it is important that groundwater discharge maintains soil moisture within the unsaturated soil below long-lived, deep-rooted, riparian species such as red gums (*Eucalyptus camaldulensis*) and coolibah (*E. coolabah*) in between river flows or floods (Figure B.4).

Environmental Water Provisions

Groundwater extraction can adversely impact on GDEs through processes such as altering the hydrological connection between a GDE and the aquifer it depends on and reducing groundwater quality (see Doody *et al.* 2019 for more detailed analysis of causal pathways). Environmental water provisions are those portions of the EWRs (presented above) that can be met at any given time by controlling the levels and/or locations of groundwater extraction through water allocation policies and principles (sections 6 and 7).

It is difficult to quantify the minimum spring flow necessary to sustain the extent and biodiversity of spring ecosystems due to the general inability to measure spring flow accurately, the large number of diverse spring types and the differences in aquifer responses to extraction rates in different parts of the Far North PWA.

Modelling of the aquifers and evaluation of spatial data has been done to estimate the impacts on springs from reductions in pressure due to extractions of various magnitudes at specific locations (e.g. Doody *et al.* 2019, Peat and Yan 2015, SA Resources Information Gateway and the Department's GABFLOW model). The capacity of a given spring to recover from any associated changes in water chemistry or surface conditions, however, is not well researched.

Non-spring GDEs could be placed at unacceptable levels of risk if groundwater extraction leads to a significant reduction in the groundwater level, surface expression of groundwater or patterns of inundation that, in turn, adversely affects wetland biota or changes the ecological character of a GDE (Figure B.5). Soil processes may also be affected by a drop in groundwater. For example, wetting and drying of acid sulfate soils may change the pH of the water or mobilise heavy metals that harm the ecosystem.

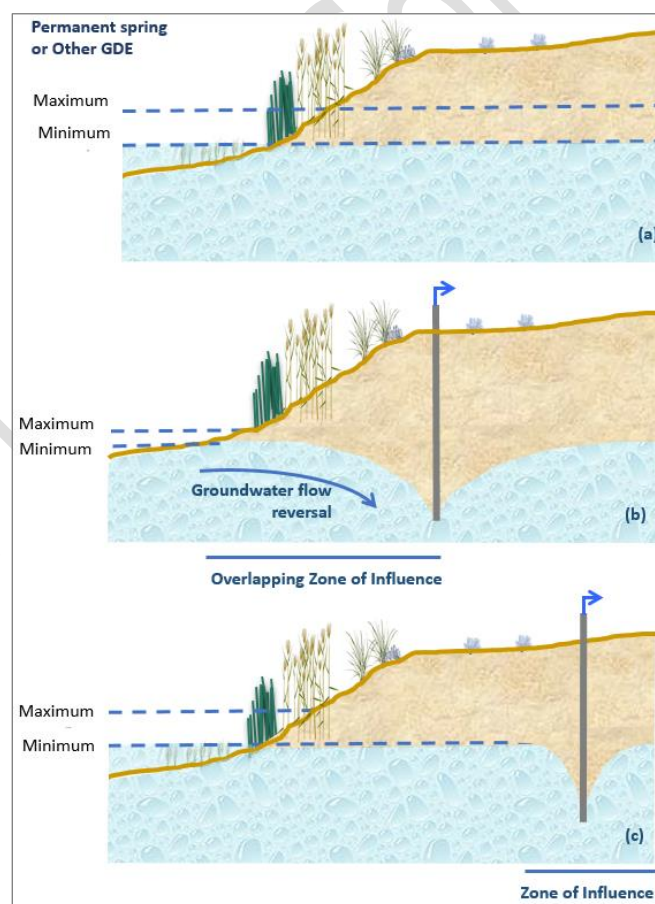


Figure B.5. Potential impacts of zones of influence from points of extraction. (a) = natural landscape showing water level maximum and minimum, (b) = unmanaged pumping with a zone of influence that overlaps the GDE leading to a cone of depression and drying of the GDE and (c) = managed pumping where zone of influence does not overlap the GDE's water source.

The principles in section 7 of this Plan reflect the importance of managing the take of water from the resource in a manner which does not result in a decline in groundwater pressures or levels that would adversely impact on groundwater discharge to the GDEs identified above.

As discussed in section 2, this Plan employs the use of buffer zones around springs and utilises environmental buffers around particular non-spring GDEs within which specific principles apply to the taking of water in order to ensure suitable provision of water for the GDEs dependent on the groundwater resource.

Appendix C – Requesting a Search of the Register of Aboriginal Sites and Objects

An application for a water resource works approval requires consideration of whether the taking of water is likely to damage, disturb or interfere with any site of cultural significance. The process for identifying the presence of a site of cultural significance requires a search of the Register of Aboriginal Sites and Objects.

Access to the Register of Aboriginal Sites and Objects is by email request which should include:

- name and address of the person making the request
- a reason for the request and a description of how the information will be used
- a clearly defined and described area of interest (e.g. lot/plan details, certificate of title number, tenement number, map, shapefile and/or grid references)
- confirmation from the person requesting the information that they agree to act in accordance with the terms and conditions for use of information derived from the central archive.

Requests can be lodged via email to DPC-AAR.HeritageSites1@sa.gov.au

The
Development of
a new Water
Allocation Plan
for the Far North
Prescribed Wells
Area.

Engagement
and
Communication
Strategy.

David Leek – Principal Project
Officer
November 2018

DRAFT

This Engagement and Communication Strategy has been prepared to guide engagement and communication activities to develop a new water allocation plan for the Far North Prescribed Wells Area. This strategy has been prepared on behalf of the SA Arid Lands Natural Resources Management Board.

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OVERVIEW

This engagement and communication strategy (the strategy) has been prepared to guide the implementation of all engagement and communication activities in the lead up to and during statutory consultation of the new water allocation plan (WAP) for the Far North Prescribed Wells Area on behalf of the South Australian Arid Lands Natural Resources Management Board (the Board).

The strategy has been prepared to build on previous and existing efforts to facilitate community and stakeholder participation in the development and implementation of the 2009 WAP.

Importantly this strategy needs to be consistent with the government's principles of community engagement (better together), SA Arid Lands (SAAL) Engagement Strategy and the Board's policy for community engagement.

With the draft WAP scheduled for completion in July 2019, the redevelopment will occur over two years and has been separated into two phases:

Phase 1 -Preliminary stakeholder engagement. 28th August to 24th November 2017

- Refine engagement strategy in consultation with key stakeholders
- Develop information products to support engagement activities
- Seek feedback on existing and forthcoming WAP from licensees and relevant stakeholders
- Develop relationships and protocols with Aboriginal stakeholders and groups

Purpose: To inform stakeholders about the project, and seek their input about the existing and forthcoming WAP.

Key engagement activities for seeking feedback on the existing and forthcoming WAP include:

- Media release
- Email / letter and online survey for water licensees and interested stakeholders
- Meetings with peak bodies and Government agencies
- Meetings with relevant SAAL NRM district groups (Marla-Oodnadatta and Maree-Innaminka)
- Agenda item during consultation of Great Artesian Basin Strategic Management Plan

Specific engagement activities will be directed to engaging Aboriginal communities and groups with the purpose of building relationships and establishing engagement protocols. This is to involve a series of face-to-face meetings with appropriate representatives from each Aboriginal Nation. Once relationships are established efforts will be directed to explaining the details about the Far North WAP, and commence a dialogue about defining the need for cultural water and the values associated with it.

Phase 2 – Working with stakeholders to develop and test policies – January 2018 – April 2019.

Purpose: To engage with stakeholders about specific aspects of the WAP and test reactions to proposals and seek feedback on options where appropriate.

Key engagement activities will include:

- **Communications**– preparation of targeted communication (e.g. fact sheets and draft chapters) for release once the Board has agreed to the release of draft chapters.
- **Interviews & discussions with key stakeholders** –one-on-one discussions and small group meetings with identified key stakeholders prior to release of draft WAP for statutory public consultation to ensure mutual understanding of the science and policy that underpins the plan.
- **Use established reference groups for consultation**–To enable targeted engagement with a range of key stakeholders at the same time, while minimising the drain on limited community capacity and reducing costs. These groups include the Board's District groups.

Phase 3 – Statutory consultation – April 2019 – June 2019.

Purpose: To engage with stakeholders about specific aspects of the WAP and test reactions to proposals and seek feedback on options where appropriate.

- **Public forums**– To meet statutory requirements to hold at least one public meeting as well as provide meaningful opportunity for community to learn more about what is being proposed and provide feedback on discussion papers and the draft WAP.
- **Seeking written submissions** – To meet statutory requirement for Board to seek written submissions from community on draft WAP.
- **Web presence** – use of 'Your Say' website, Board website and general round of Board communications to raise awareness of the opportunity to feed into the Statutory consultation

To guide the implementation of the strategy, a comprehensive **stakeholder analysis** has been undertaken to assess stakeholders' interest and/or potential impact from the development of the new WAP. This stakeholder analysis was undertaken to target engagement activities. In addition to this a **risk assessment** has been undertaken to ensure relevant stakeholders are engaged at the right level and at the right time to minimise identified risks.

Feedback has been sought from WAC members on the overall approach and both the draft stakeholder and risk analyses.

1 INTRODUCTION

The engagement and communication strategy (the strategy) is an internal document that outlines the approach to be undertaken to guide stakeholder participation in the development of a new Water Allocations Plan (WAP) for the Far North Prescribed Wells Areas (PWA). The strategy has been prepared for the South Australian Arid Lands Natural Resources Management Board (the SAAL NRM Board).

1.1 Background

Under Section 76(1) of the *Natural Resources Management Act 2004*, the SAAL NRM Board is responsible for preparing a WAP for the Far North PWA. The Far North PWA was prescribed on 27th March 2003, and the current WAP was adopted on 16th February 2009. The WAP covers all wells drilled in aquifer of the Far North PWA, including, but not limited to, the aquifers of the South Australian part of the Great Artesian Basin.

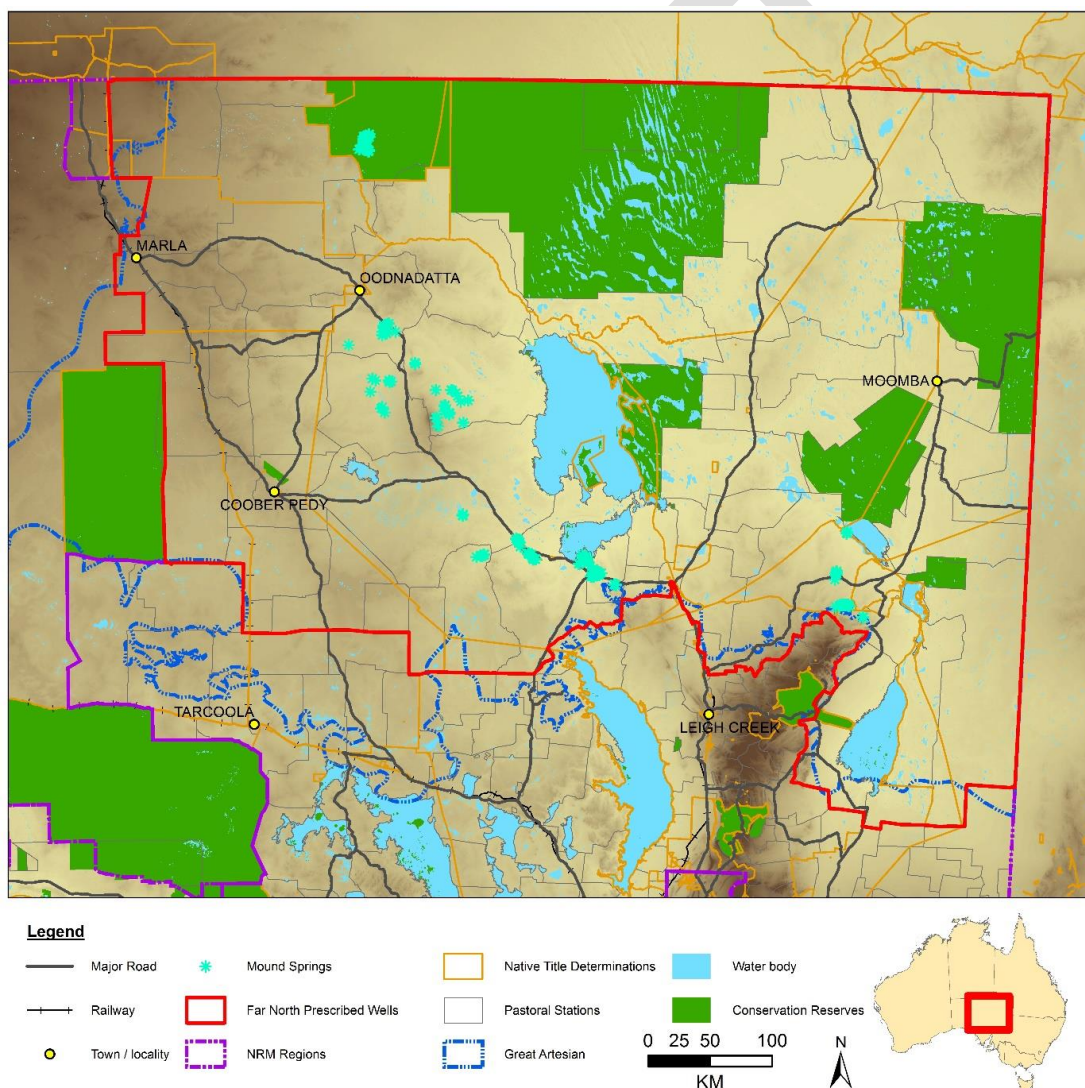


Figure 1. SAAL: FNPWA Area

The Board undertook a statutory review of the existing WAP in 2015 and based on the findings committed to preparing a new WAP for the FNPWA. Development of the new WAP commenced in July 2017.

Significant research, and investigation has been undertaken prior to and during the interceding period in preparation for the development draft WAP. This has included:

- Delivery of the National Water Initiative funded project “Allocating Water and Maintaining Springs in the Great Artesian Basin”. The AWMSGAB Project investigated groundwater hydrogeology along the western margin of the GAB (specifically within South Australia and the Northern Territory) and employed the latest technologies in spatial survey and remote sensing to precisely map the locations and elevations of GAB springs, the extent of their wetland vegetation, and their surface characteristics over space and time. Completed 2013
- Engagement of the Science branch of the Department of Environment, Water and Natural Resources (DEWNR) to undertake a review of groundwater resources and management principles in the Far North Prescribed Wells Area - 2016-17.
- Establishment of the Board's Water Advisory Committee in 2017.

In addition a number of drivers for consideration in determining changes to the policy settings in the current WAP have been identified:

1. The petroleum sector is currently seeking to increase the daily allocation limit of co-produced water to 100 ML/d, yet the current WAP caps this at 60 ML/d. Consideration should be given to determining an appropriate volume of extraction for co-produced water based on a supporting assessment process to identify and manage potential impacts.
2. There is limited guidance in the current WAP to manage mine dewatering and discharging of co-produced water. There is a need to consider options to manage potential impacts and opportunities associated with these activities.
3. It has been recommended by the Crown-Solicitor's Office that an amendment of the WAP is required to administer licenses for bore-fed wetland, as the current WAP restricts modifying allocations for these licenses. There is also a need to identify improved method(s) to manage take for the bore-fed wetlands as some are currently taking water in excess of the volume required to maintain their values. This includes revising principles associated with management plans for amenity wetland.
4. There is a need to refine the concept and method of cumulative pressure drawdown in the current WAP, so that it explicitly states it as a tool for managing drawdown system wide. The project needs to develop a process on how this will be implemented, including making considerations across State borders.
5. There is a need to review exemptions for water allocations for mining exploration and road construction. This exemption can result in significant volumes of water being used without any regulation or assessment, which may risk condition of springs particularly for water extractions in close proximity to springs. There a need to develop appropriate principles to manage these potential impacts. This may require amendments to existing Section 128 authorizations.
6. Conversion of petroleum wells to water wells principles need to be reviewed due to the large financial liability that comes with these wells. If they are allowed under the updated WAP, additional regulation will need to be developed including mandatory condition of undertaking geophysics logging as part of the transfer assessment process.

The aforementioned list is not exhaustive yet provides an indication of what is required to be addressed by the project. Additional findings are likely to occur during the project, including issues identified by stakeholders and the community.

In order to complete the draft new WAP, the following is required along with estimated timeframe for completion:

Phase 1:

- Development and approval of a communications and engagement plan consistent with the SAAL Communications and Engagement Strategy and to meet minimum requirements of statutory consultation of WAPs – *August to November 2017*.
- Pre-engagement and statutory consultation – *August to November 2017*

Phase 2:

- Consult and seek agreement from Licensing group of DEWNR, who are responsible for implementation of majority of WAP on behalf of the Minister, to ensure WAP can be administered – *Ongoing but with final implementation strategy signed off July 2019*.
- Consult with monitoring unit of SMK division of DEWNR to develop a MERI implementation plan – *Ongoing but with final implementation strategy signed off August 2019*.
- Seek advice from the Crown Solicitors Office to ensure WAP meets requirements of the Act – *Ongoing but final check July 2019*
- Completion of draft WAP document to the satisfaction of project team – *December 2018*
- Approval of draft WAP by Board prior to statutory consultation – *April 2019*

Phase 3:

- Statutory consultation *April 2019 / June 2019*
- Compilation of submissions, preparation of consultation report and amendments to draft WAP – *June 2019*
- Approval of consultation report and amendment draft WAP by Board – *June 2019*
- Sent package to Minister for approval – *June 2019*
- Approval by Minister – *undetermined*.

1.2 Objectives

The objectives of the engagement and communication strategy are:

- To ensure statutory consultation requirements outlined under the *Natural Resources Management Act 2004* are met and engagement is consistent with Government and Board policy.
- Build common understanding of the science and policy that underpins the new water allocation plan with the community
- Provide multiple opportunities for any interested stakeholders to participate in consultation and engagement activities or forums
- Ensure key stakeholders are identified and engaged prior to the commencement of statutory consultation and within identified parameters, are given opportunities to discuss and where possible, agree on policies

- Raise awareness of the proposed water allocation plan and the opportunities for input through comprehensive communications delivered through a range of formats and platforms.

On the completion of the project and part of the package of material sent to the Board and then to the Minister a consultation report will be developed that assesses the degree to which the above objectives have been met.

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2 TARGET AUDIENCES

The Board and supporting staff have been introduced to the IAP2 framework for engagement and in February 2014 the Board approved the regional community engagement policy, including the adoption of the IAP2 framework as the preferred engagement framework. At the foundation of the IAP2 framework is the Public Participation Spectrum (see table). The five levels – inform, consult, involve, collaborate and empower – are linked to the level to which the public can influence decision-making.


Increasing Level of Public Impact 					
	Inform	Consult	Involve	Collaborate	Empower
Public participation goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Promise to the public	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example techniques	<ul style="list-style-type: none"> ■ Fact sheets ■ Web sites ■ Open houses 	<ul style="list-style-type: none"> ■ Public comment ■ Focus groups ■ Surveys ■ Public meetings 	<ul style="list-style-type: none"> ■ Workshops ■ Deliberative polling 	<ul style="list-style-type: none"> ■ Citizen advisory Committees ■ Consensus-building ■ Participatory decision-making 	<ul style="list-style-type: none"> ■ Citizen juries ■ Ballots ■ Delegated decision

Figure 3: Levels of Participation. (Source: IAP2)

Inform To provide stakeholders with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

Informing the community will involve communication tactics such as meetings, advertising, websites, media releases, newsletters, social media and brochures.

Consult To obtain feedback on analysis, alternatives and/or decisions.

Consultation with the community will involve face-to-face workshops, meeting and briefings with targeted stakeholder groups. Workshops will consist of small-group facilitated discussion used to gauge public opinion. Opportunity to make formal submissions.

Involve To work directly with stakeholders throughout the process to ensure that public concerns and aspirations are consistently understood and considered.

Involving the community assumes a greater level of participation by stakeholders as they work through issues and alternatives to assist in the decision-making process.

Suggested levels of engagement / participation is provided below:

Stakeholder	Level of engagement/participation
Minister	INVOLVE Consult early to inform Minister of approach and expected delivery date. Ensure statutory requirements are fulfilled, especially for consultation. Board to be communication channel with Minister.
SAALNRM Board and sub-committees (including the Board's district groups)	EMPOWER Need series of engagement activities to empower Board members. Board members to be involved in engagement activities.
Natural Resources SA Arid Lands	COLLABORATE Critical to gain leadership support to gain staff involvement. Involve early and continue involvement.
DEWNR branches	COLLABORATE Critical to gain leadership support to gain staff involvement. Involve in steering committee to build support for their participation Have significant knowledge and experience in WRM. Willing to share knowledge and experiences.
Licensees and landholders	INVOLVE Need to engage prior to statutory consultation. Possibly 'the' key stakeholders – akin to shareholders.
Regional Media	INFORM Ensure information is available and opportunities are created to provide feedback and have input.
Aboriginal Groups	INVOLVE Need to engage prior to statutory consultation. Possibly 'the' key stakeholders – akin to shareholders.
Elected members	CONSULT One-on-one engagement.
Non- Government Organisations (Conservation Groups)	INVOLVE Need to engage prior to statutory consultation.
Local Government	INVOLVE Need to engage prior to statutory consultation.
Industry Associations and membership	CONSULT One-on-one engagement.
Regional Bodies	INFORM
GABCC	INFORM
Interstate organisations with an interest in the management of the GAB.	INFORM
State Government Departments – particularly DPC.	INVOLVE Need to engage prior to statutory consultation

3 PHASE 2: STAKEHOLDER ENGAGEMENT IN DRAFT WAP (PRE STATUTORY PHASE).

The remainder of this strategy concentrates Phases 2 and 3 of the consultation process. Phase 1 has been completed.

Public participation goal

To work directly with the public throughout the process to ensure that public concerns

3.1 Negotiables / Non-negotiables

Negotiable	Not negotiable
Contents of policy	Introductions of licence unbundling
	Introduction of consumptive pools

3.2 Action Plan

A detailed action plan can be found in Appendix 1 with key messages mapped to each component

3.3 RISK ASSESSMENT AND MANAGEMENT STRATEGY

The highest risks identified as part of this process, and suggested mitigation strategies are:

Identified risk	Mitigation strategies
Negative feedback in regional media or social media requiring significant Board member, WAC member and Natural Resources SA Arid Lands to address or respond.	1) Engage key stakeholders early and genuinely 2) Seek agreement on process for engagement
Public outrage from lack of genuine engagement efforts resulting in significant delay in WAP development with potential budget and reputation implications for the SAAL Board and Natural Resources SA Arid Lands	1) as above
Engagement and consultation process poorly managed resulting in significant delay in WAP development with potential budget and reputation implications for the Board and Natural Resources SA Arid Lands	1) Develop project plan and associated governance structures to monitor delivery. 2) Ensure the Board and Minister are briefed regularly on progress 3) Allow sufficient time for statutory consultation 4) Engage key stakeholders prior to statutory consultation

Identified risk	Mitigation strategies
Potential for community to raise concerns that 'big industry' were the major influence in the development of the draft WAP and respond adversely resulting in significant delays in WAP development process and impact on the reputation of the Board and Department.	<ol style="list-style-type: none"> 1) As above 2) Prepare discussion papers and provide opportunity for meaningful discussions and input with licensees and landholders prior to statutory consultation.
Community engages media regarding potential concerns with proposed WAP changes.	<ol style="list-style-type: none"> 1) Inform media early of changes and what they involve 2) Provide adequate information to community to assist with their understanding of the changes 3) Address community concerns early and provide a contact person for direct questions
Public outrage to the point of threatening and abusive behaviour towards staff and board member impacting on health and wellbeing.	<ol style="list-style-type: none"> 1) Develop and implement communications and engagement strategy 2) Provide for genuine engagement 3) Ensure staff involved are trained and experienced in conflict management and community engagement

APPENDIX 1. STAKEHOLDER ANALYSIS

Stakeholder Group	Comment on Impact/ Interest	Function	Input Sought	Engagement Level (IAP2)	Comments on their Participation
Minister	<ul style="list-style-type: none"> - Final approver of the WAP - Wants to see statutory requirements are fulfilled - Want to see engagement process that mitigates negative media and adverse publicity 	Approver	Endorsement of process and final product Commitment to assist implementation	Involve	<ul style="list-style-type: none"> - Consult early to inform Minister of approach and expected delivery date - Ensure statutory requirements are fulfilled, especially for statutory consultation - Board to be communication channel with Minister
SAAL NRM Board & committees	<ul style="list-style-type: none"> - Board is legally responsible to maintain Water Allocation Plans for prescribed resources within its region - Board's endorsement is required 	Approver	Strategic direction to WAP Ownership of process and final product Board's presence at engagement activities	Empower	<ul style="list-style-type: none"> - Need series of engagement activities to empower Board members
Natural Resources SA Arid Lands	<ul style="list-style-type: none"> - Have significant knowledge and experience in water resources management - Have direct contact with stakeholders 	Influencer	Input to new WAP e.g. past learning, aspirations, priorities and knowledge Access to staff's networks Relationship with key stakeholders	Collaborate	<ul style="list-style-type: none"> - Critical to gain leadership support to gain staff involvement. - Involve early and continue involvement
DEW	<ul style="list-style-type: none"> - Will implement WAP on behalf of Minister - Responsible for development and review of key components of WAP 	Influencer	Development and review of WAP Consultation with relevant units of DEW responsible for implementation Participation in working group/steering committee	Collaborate	<ul style="list-style-type: none"> - Critical to gain leadership support to gain staff involvement. - Involve early to build support for their participation - Have significant knowledge and experience in WRM. Willing to share knowledge and experiences

Stakeholder Group	Comment on Impact/ Interest	Function	Input Sought	Engagement Level (IAP2)	Comments on their Participation
Licensees	<ul style="list-style-type: none"> - Understanding of science and policy underpinning plan - SA Water major user/licensee 	Influencer	<ul style="list-style-type: none"> - Feedback on science and policy underpinning WAP prior to statutory consultation - Agreement on in-scope and out-of-scope items - Mutual understanding of 'what a successful WAP' looks like to each party. 	Involve/ Collaborate	<ul style="list-style-type: none"> - Need to engage prior to statutory consultation. - Possibly 'the' key stakeholders – akin to shareholders.
Landholders	<ul style="list-style-type: none"> - Understanding of science and policy underpinning plan - Primary producers reliant on access to groundwater for stock and domestic supplies. 	Influencer	<ul style="list-style-type: none"> - Feedback on science and policy underpinning WAP prior to statutory consultation - Agreement on in-scope and out-of-scope items - Mutual understanding of 'what a successful WAP' looks like to each party. 	Involve	<ul style="list-style-type: none"> - Need to engage prior to statutory consultation.
Regional Media	<ul style="list-style-type: none"> - Quick to publish controversial material - High interest area 	Observer	<ul style="list-style-type: none"> - Access to news distribution systems - Understanding of policy and science underpinning WAP - Understanding that Board are genuine in intent to engage 	Inform	<ul style="list-style-type: none"> - Ensure information is available and opportunities are created to provide feedback and have input
Aboriginal groups	<ul style="list-style-type: none"> - Traditional owners of the region with a cultural connection to the land - Some will be unaware of WAP 	Influencer	<ul style="list-style-type: none"> - Aboriginal knowledge of region - Cultural significance of some of the region's natural assets - Help define cultural water for prescribed wells areas 	Involve	<ul style="list-style-type: none"> - Some groups may be unfamiliar with WAP and therefore there is a need to build understanding - Opportunity to collaborate with aboriginal groups and strengthen or build relationships - CEOs will play key role in engaging with relevant groups.

Stakeholder Group	Comment on Impact/ Interest	Function	Input Sought	Engagement Level (IAP2)	Comments on their Participation
Elected members of parliament	- Local member (in opposition) has previously expressed opinions with respect to water management.	Influencer	Understanding of policy and science underpinning WAP Understanding that Board are genuine in intent to engage	Consult	- One-on-one engagement
Non-government organisations	- Have priorities and agendas for NRM outcomes	Observer	Feedback on draft WAP	Consult	- Would likely be happy with opportunity to comment on draft. - Offer one-on-one discussion.
Local Government	- Coober Pedy is a large user of GAB water and levy payer - Concerned about regional water security	Influencer	Impacts or opportunities associated with policies Mutual understanding of science and policy underpinning plans	Involve	- One on one engagement
Industry groups (Agriculture, and mining) and their membership	- Responsible for managing large areas of natural resources - Primary producers reliant on access to groundwater for stock and domestic supplies and on-farm uses. - Impact of policy on mineral and petroleum exploration and development	Observer	Input to WAP	Consult	- Would likely be happy with opportunity to comment on draft. - Offer one-on-one discussion.
Regional Bodies (OCA and RDA)	- See local government (above) - Impacts of policy on water availability for industry	Observer /Influencer	See local government (above)	Consult	See local government (above) Important that regional bodies and leaders support the WAP. Need a series of engagement activities to develop commitment

Stakeholder Group	Comment on Impact/ Interest	Function	Input Sought	Engagement Level (IAP2)	Comments on their Participation
GABCC		Observer/ Influencer	Mutual understanding of science and policy underpinning plan Advice regarding policy, science/research data gaps and monitoring.	Inform	
Interstate orgs with an interest in the GAB	Will Be interested in the outcome of the WAP (Particularly policy directions and relationship with the GABSMP)	Observer/ Influencer	Mutual understanding of science and policy underpinning plan Advice regarding policy, science/research data gaps and monitoring.	Inform	
State Departments & Agencies (PIRSA, EPA, DPC and DPTI)	Will be interested in outcome of WAP	Observer /Influencer	Interactions of WAP with other Govt policy	Consult	Opportunity to collaborate and increase efficiencies between departments
General public	Relatively high public interest in water resources management.	Observer	Feedback on draft WAP and discussion papers	Inform/ Consult	Varying interest amongst public, Ensure information is available and opportunities are created to provide feedback and have input

APPENDIX 2. ACTION PLAN

Following the detailed stakeholder analysis and risk assessment, the following five strategies are proposed to engage stakeholders, mitigate identified risks and ensure statutory requirements are met:

1. Communications & media;
2. Develop the capacity for the key district groups (Marla Oodnadatta and Marree Innamincka) to input into the Water Allocation Plan and use these groups as the conduit into the community;
3. Use of existing communications channels and other 'events' in the region to discuss the WAP where appropriate.
4. 'Kitchen Table' meetings

5. Public forums;
6. Written submissions;

Below and overleaf outlines the details of each approach.

Communications & media

Purpose	To keep the broader community and key stakeholders aware of the new WAP and opportunities to participate and meet statutory requirements.
Key messages	<ul style="list-style-type: none"> ○ A significant investment has been made to improve understanding of the science that underpins the policy, monitoring and reporting and incorporates requirements for water rights to be 'separated'. ○ The purpose of the draft WAP is to ensure the long term sustainability of the region's water resources, bring certainty for water users, and protect priority water resources and dependant ecosystems. ○ Key stakeholders are encouraged to provide input to the proposed new WAP.
Methodology	<ul style="list-style-type: none"> ○ Use regional newspapers and newsletters to promote opportunities to hear about and participate in the development of the new WAP. ○ Media releases at key times to inform broad community and seek input to the draft WAP. They will be used to progressively update the wider community on the foundation of policies, and principles proposed in the new WAP, inviting key stakeholders and members of the public to participate and update progress. ○ Discussion papers, associated documents and technical background materials to support understanding of the new WAP prepared and ○ Use of social media to engage broad community and improve understanding of the community's valued water resources
Expected outputs	<ul style="list-style-type: none"> ○ Successful consultation process with high turnout at district group meetings. ○ Positive feedback received of the consultation process ○ Higher volume of written submissions received commenting on the draft WAP
Expected outcomes	<ul style="list-style-type: none"> ○ Improved understanding and generate awareness of the complexity of the groundwater resources. ○ Improved understanding of the research and policy improvements underpinning the new WAP. ○ A successful consultation program with minimum amendments that is approved by the Board for endorsement by the Minister.

Interviews and discussions with key stakeholders

Purpose	Interviews and one-on-one discussions with targeted key stakeholders prior to release of draft WAP for statutory public consultation to ensure mutual understanding of science and policy that underpins plan, preferred methods for engagement and points of difference.
Key messages	<ul style="list-style-type: none"> ○ The Board is seeking input to a new WAP (in draft) ○ What does a successful WAP look like to you? ○ The Board would like to know your views of the research on the groundwater science, processes involved in the new WAP development, and whether the policies and principles proposed are adequately going to manage the groundwater resources as anticipated.
Methodology	Principal Policy Officer, and a WAC member will undertake 'interviews' with key stakeholders using structured questions.
Expected outputs	<ul style="list-style-type: none"> ○ Meeting notes from each discussion and interview ○ Collate results of discussion and interview
Expected outcomes	<ul style="list-style-type: none"> ○ Improve understanding of complex groundwater science in simple language ○ Allowing opportunity for key stakeholders to take part in the consultation process early (prior to release of draft WAP for statutory consultation) ○ Strengthen relationships with stakeholders ○ Demonstrate the Board's ongoing commitment to involving stakeholders in water planning ○ Mitigate potential adverse reaction from some stakeholders that may result from release of a draft WAP after a long period of minimal engagement.

Develop the capacity for the key district groups (Marla Oodnadatta and Marree Innamincka) to input into the Water Allocation Plan and use these groups as the conduit into the community

Purpose	To enable targeted engagement with a range of key stakeholders at the same time.
Key messages	<ul style="list-style-type: none"> ○ The Board on behalf of the Minister for Sustainability, Environment and Conservation has developed a draft WAP by considering the socio, economic and environmental factors, and would like to engage and hear from the district groups (and their communities) on the proposed new WAP. ○ Our understanding of water resource is growing, and the Board will continue research, share information, and consult with stakeholders

	and the community to sustainably manage water resources into the future.
	<ul style="list-style-type: none"> ○ Your input will be considered and we will feed back what we have or have not done with it and why.
Methodology	<ul style="list-style-type: none"> ○ Develop relationship with the (SA Arid Lands) Community Engagement Officers and District Group Chairs. ○ Meet in each district. ○ In consultation with the groups invite the wider community to attend meetings to participate in these sessions.
Expected outputs	<ul style="list-style-type: none"> ○ Minutes of meetings ○ Genuine discussion in a collegiate environment
Expected outcomes	<ul style="list-style-type: none"> ○ Improve understanding of the science that underpins proposed policy to improve management of the groundwater resources in the new WAP. ○ Strengthen relationship between interested community members and the Departmental staff in water planning ○ Demonstrate the Board's commitment to stakeholder engagement in water allocation planning ○ Mitigate potential adverse reaction from some stakeholders that may result from release of a draft WAP after a long period of minimal engagement.

Engagement strategy for stakeholder groups.

Stakeholder Group	Communications & media	Interviews/discussions	WAP Community reference	Public forums	Written Submissions	Online
Minister	y					y
SAAL NRM Board & committees	y	y	y	y	y	y
Natural Resources SA Arid Lands staff	y	y	y	y		
DEW (other divisions)	y	y	y	y		
Licensees	y	y	y	y	y	y
Landholders	y	y	y	y	y	y
Regional Media	y					y

Stakeholder Group	Communications & media	Interviews/discussions	WAP Community reference	Public forums	Written Submissions	Online
Aboriginal groups	y	y		y	y	y
Elected members	y	y		y	y	y
Non-government organisations (Conservation Interests)	y	y		y	y	y
Local Government	y	y	y	y	y	
Industry Associations and membership	y	y		y	y	y
Regional Bodies (e.g. OAC)	y	y		y	y	y
GABCC	y				y	y
Interstate Orgs with an interest in the GAB	y				y	y
State Departments & Agencies	y	y		y	y	y
General public	y			y	y	y

Phase 2 Communications Strategy Indicative timeline

Activity	Responsibility	Timing
Policy decisions at December Board meeting. Sign off on draft chapters for consultation	SAAL NRM Board	December 2019
Meeting with RNTBC Executive Committee	RNTBC	December 2019
Opportunistic media activity	Media	January 2019-March 2019
Kitchen table meetings	Licensees/landholders	January 2019
Initial meeting to test 'pastoral' provisions in the draft WAP	Primary Producers SA	January 2019
Info session during regional staff training week	SA Arid Lands staff	February 2019
Letters to stakeholders offering to meet to discuss the draft WAP followed by a series of meetings with various bodies who take up the opportunity	Peak bodies, Local Government, Regional Bodies, Industry Associations, GABCC, State Departments, NGOs	February 2019

Create database for email and mail out for WAP affected landholders, levy payees and key stakeholders	David Leek, Michelle Murphy	July/August 2019
Prepare letter, update FAQs for stakeholders	David	August 2019
Prepare draft media release and seek approvals	Michelle/Cherie/David	August 2019
Prepare series of questions to formulate a survey to be sent out with the WAP consultation information.	David/Cherie	August 2019
Prepare revised documents and load onto website, update website to reflect opening of consultation. Create spotlight	David/Michelle	August 2019/When Ministerial approval is granted
Book venues for community consultation meetings	Michelle Murphy (regional centres) /David Leek (Adelaide)	Three weeks from when Ministerial approval is granted
Book advertisements for Stock Journal and Coober Pedy Times. Send a copy to June Andrew for the Hergott Herald	Michelle	When Ministerial approval is granted
Send email and mail out	Michelle/Cherie/Admin team	Immediately following Ministerial approval
Promote consultation events on Facebook with links to FAQs and survey	Michelle	Immediately following Ministerial approval
Arrange a media briefing with ABC radio North & West journalist	Cherie to arrange/David provide information	Prior to media release being sent out.
Issue media release to ABC Radio, CP Times, Hergott Herald, Stock Journal, Advertiser. Determine the spokesperson.	Cherie/Michelle	When Ministerial approval is granted
Facebook reminder of consultation closing dates	Michelle	Two weeks prior to consultation closure.

Consultation opens for revised Far North Water Allocation Plan

Residents of the Far North Prescribed Wells Area are invited to comment on the draft of a revised Water Allocation Plan that has been released for consultation today.

The Water Allocation Plan (WAP) is designed to protect and sustainably manage the area's water resources to provide security for all users now and into the future. It sets the rules by which the available groundwater is shared between environmental requirements and human uses and sets up licensing arrangements that provide an entitlement to the water.

The current WAP has been in place since 2009 and the new draft WAP will guide the use of the region's groundwater for the next 10 years.

To open the consultation period, community information sessions will be held at Coober Pedy Golf Club on 22 November and at the Marree Hotel on 23 November.

Additional consultation meetings will be held in Adelaide, Marree, Coober Pedy and Innamincka in February and March 2020. Full details of those meetings will be advertised on social media, local newspapers and the Board's website early in 2020.

The consultation period for the draft WAP is open until 31 March 2020 and submissions need to be received by this date.

The main alterations in the draft WAP include:

- Further acknowledgement of Aboriginal water interests;
- A variation of domestic allocations to 1.5ML, to better reflect the use for this purpose and remaining entitlements to be for amenity purposes such as gardens and wetlands;
- The removal of purpose based allocation rules in favour of broad consumptive pools;
- Protection of significant groundwater dependent ecosystems beyond the springs;
- The removal of a volumetric cap on the water which can be used for any purpose in the FNPWA; and
- Improved water use efficiency through reuse or re-injection of co-produced water, unless it is deemed not reasonably practical.

Regional NRM Manager for SA Arid Lands, Jodie Gregg-Smith, said that while the Board understands that licensees and those with an interest in the management of this precious resource are currently experiencing changes and challenges on a range of issues, this draft Water Allocation Plan is essential to secure groundwater resources for the future.

Media contact

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SA Arid Lands

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www.naturalresources.sa.gov.au/aridlands/



Government of
South Australia



Natural Resources
SA Arid Lands

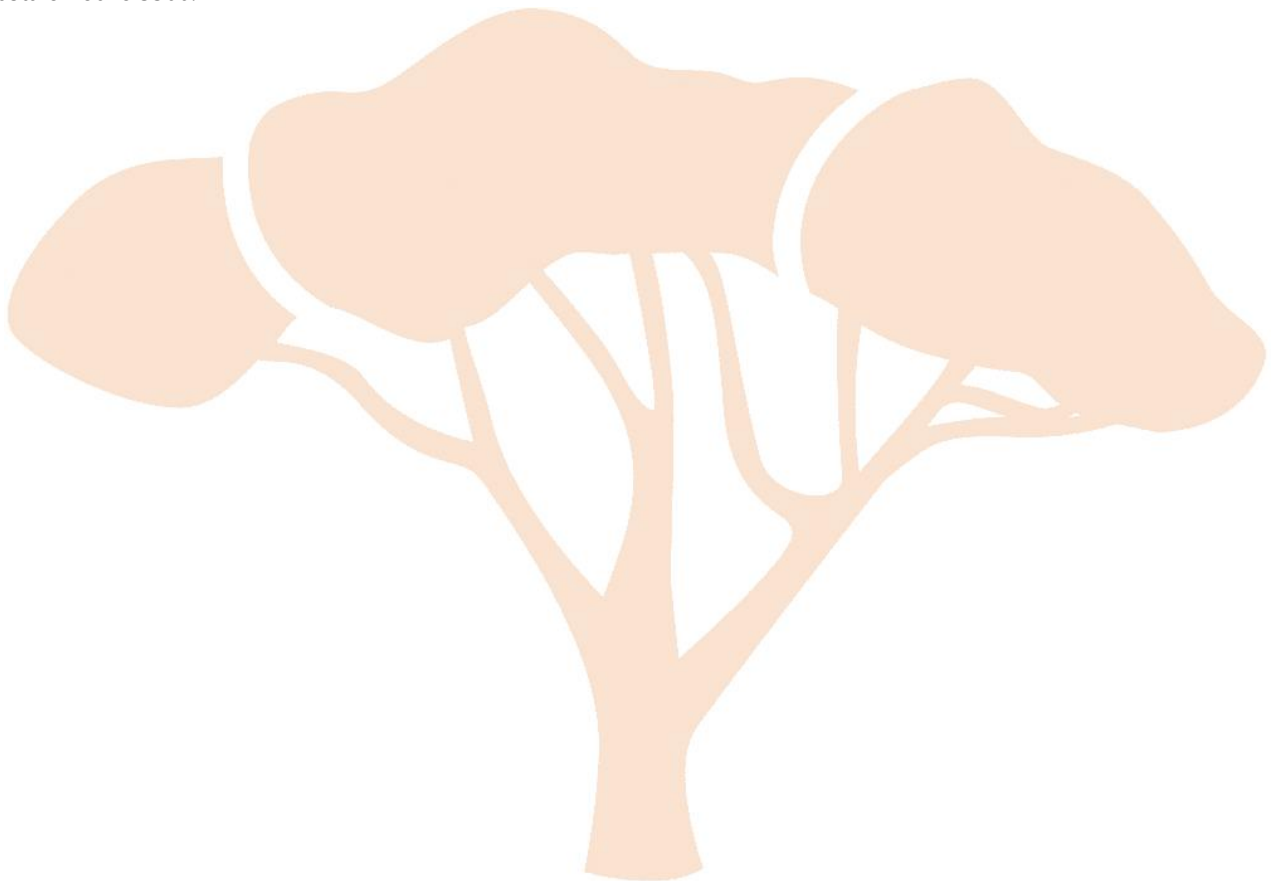
Ms Gregg-Smith said the Board has committed three years of work into the development of the draft plan, which has included the input of key stakeholders and licensees from across the Far North Prescribed Wells Area.

Input will be sought from stakeholders throughout the consultation period, with ongoing collaboration between the Board and industry groups, community, and particularly Traditional Owner groups also guiding the implementation of the plan once it is adopted.

"The Board is pleased the draft WAP is now available for community consultation and is encouraging all stakeholders to comment on the draft plan both formally through submissions and also at consultation sessions or by contacting the Board."

Visit the SAAL NRM Board website to download a copy of the draft WAP, fact sheets and frequently asked questions (FAQs) at

https://www.naturalresources.sa.gov.au/aridlands/water/water-allocation-plan/Draft_Far_North_Prescribed_Wells_Area_Water_Allocation_Plan_2019-2029 To request a printed copy of the draft plan, contact the Natural Resources Centre in Port Augusta on 8648 5300.



Far North Prescribed Wells Area Water Allocation Plan Consultation

The SA Arid Lands Natural Resources Management Board will host formal consultation meetings for the revised Far North Prescribed Wells Area Water Allocation Plan (WAP) in February and March.

Community and stakeholders in the Far North Prescribed Wells Area are invited to attend any of the following meetings and/or provide written submissions to the Board on the revised WAP.

Meetings will be held at:

- Coober Pedy Golf Club, Monday 17 February, 1-4pm.
- The Science Exchange, 55 Exchange Place Adelaide, Thursday 27 February, 4-7pm.
- Marree Hotel, Tuesday 3 March, 1-4pm.
- Innamincka Hotel, Wednesday 4 March, 1-4pm.

A copy of the WAP and associated documents are available from the Board's website at www.naturalresources.sa.gov.au/aridlands.

For further information contact David Leek on 0419 862 973 or via email at david.leek@sa.gov.au.

Written submissions should be addressed to the Regional NRM Manager, SA Arid Lands NRM Board, PO Box 78, Port Augusta SA 5700 or via email to the Board at DEW.SAALNRMAridlands@sa.gov.au by the close of business Tuesday 31 March.

Consultation closes 31 March, 2020.



Government of South Australia
South Australian Arid Lands Natural
Resources Management Board

Natural Resources
SA Arid Lands



PN4124
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Stock Journal, Adelaide Advertiser
Public Notices
30 January 2020

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A copy of the WAP and associated documents are available from the board's website at www.naturalresources.sa.gov.au/aridlands.

For further information about the meetings contact David Leek on 0419 862 973 or via email at david.leek@sa.gov.au.

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Government of South Australia

South Australian Arid Lands Natural Resources Management Board

Natural Resources
SA Arid Lands



PN4124

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Stock Journal, Adelaide Advertiser

Public Notices

30 January 2020



File Reference: DEW-D0006725

12/12/2019

Name/Company
Address 1
SUBURT STATE POSTCODE

Level 1, 9 Mackay St
(PO Box 78)
PORT AUGUSTA SA 5700
T: (08) 8648 5300
F: (08) 8648 5301
www.naturalresources.sa.gov.au/aridlands

Dear Sir or Madam,

As you would be aware from previous correspondence, the consultation period for the Draft Far North Prescribed Wells Water Allocation Plan (the Draft Plan) is underway until 31 March 2020.

Community '**Groundwater Management in the Far North Prescribed Wells Area**' information sessions were held in Coober Pedy and Marree in November and on behalf of the SA Arid Lands Board I would like to thank those people that were able to attend. The Board is appreciative of the time and effort required for community members to attend these events and we look forward to engaging with you further as the consultation on the Draft Plan progresses.

At the information sessions a number of key themes emerged. Some of these are directly relevant to the development of the Draft Plan and others, while interrelated, relate more to water licencing, water levies and maintenance of infrastructure. This feedback is valuable and will be fed back either into refining the Draft Plan or into the relevant section of the Department for Environment and Water.

Broadly the questions and points of contention can be grouped under the following headings:

- Accounting for water use (metering);
- Consumptive pools and trading;
- Domestic allocations;
- Water allocation policy;
- Water infrastructure; and
- Levies.

Of the comments received, those considered of most significance to the development of the Draft Plan (i.e. water allocation policy) included:

- Domestic allocations including defining what domestic allocations are for and what constitutes a 'dwelling';
- Consumptive pools and trade (including temporary trade);
- Rollover of allocations;
- Increased stocking rates (and increasing the allocations for stock);
- Maintaining cultural values;
- Conserving the Great Artesian Basin springs; and
- Water quality.

As discussed at the information sessions the Board is holding further meetings in Adelaide, Coober Pedy, Marree and Innamincka in February and March 2020. These meetings will be entirely focussed on the Draft Plan with an opportunity for those attending to provide further comment.

The locations and dates for these meetings are:

Adelaide: 27 February 2020, Adelaide Exchange

Coober Pedy: 17 February 2020, Coober Pedy Golf Club

Marree: 3 March 2020, Marree Hotel

Innamincka: 4 March 2020, Innamincka Hotel

Times for all the meetings are yet to be confirmed. Please check the Board's website at www.naturalresources.sa.gov.au/aridlands/home for updates on times as well as links to the Draft Plan, Frequently Asked Questions, fact sheets and related materials.

For more information or clarification on the Draft Plan please contact David Leek, Principal Policy Officer, Department for Environment and Water on 8463 7593 or email david.leek@sa.gov.au. The Board's office can also be contacted on 8648 5300.

We encourage you to make a submission so your feedback can be taken into account in formulating the final plan. It cannot be considered if we do not hear your voice either at the meetings or through your written submissions.

As mentioned in the recent community information sessions, somewhat separately from the consultation of the Draft Plan, the Department will be seeking assistance from water licensees to update the location and status of wells on their properties and to identify wells that are currently being used, or are intended to be used, for water supply. This is to ensure the changes to the licensing system reflect accurate locations and wells in use, to make this process as seamless as possible.

If you are a water licensee or well owner you will receive a package of information from the Department in January, including a letter outlining the process and maps of your property. Site visits are on offer and should you have any questions or require assistance on this issue please contact Aaron Smith, Senior Water Resource Officer, by email on aaron.smith3@sa.gov.au or call 0417 643 956.

We look forward to receiving your submissions and encourage you to contact us either by phone, email or at the meetings in early 2020.

Jodie Gregg-Smith

Regional NRM Manager – SA Arid Lands

Appendix B1 – Consultation Comments and Responses

Ref	Date	Submission Type	Meeting Location and Date	Comment Type	Subject Category	Comment	Response	Changes to the draft Plan (draft principle #s)
1.01	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Domestic Water Allocation	Will we be compensated for changing domestic from 11ML back to 1.5ML? Rights are being taken away.	There will be no loss of water from the licence and as such no compensation. Rather the remaining allocation (above 1.5 ML) would be converted to an amenity water allocation in the All Purpose Consumptive Pool and be able to be traded to be used for an alternative purpose. There would be no loss of allocation, just a transfer of purpose of use. Based on feedback received during consultation, the domestic water will not be split into two components.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
1.02	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Assessment/Approval Processes	Does the works approval override the requirement to obtain a drilling permit	No. A well construction permit is still required to drill the works in the first instance. The Water Resource Works Approval is the authorisation to take water through the well and relates to the works and infrastructure associated with the work/s but does not relate to the drilling of the well.	No change to Plan
1.03	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Aquifer Recharge (MAR)	Is there any reduction to the percentage of water which can be recovered in a Managed Aquifer Recharge scheme or will we be able to take all of what we inject? If less than 100% can you provide a reason as to why?	No, the draft WAP currently provides for 80% of that which is injected to be recovered. However, it does also specify that 100% is possible subject to studies being undertaken which identify that there is a low risk to the resource.	No change to Plan
1.04	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Licence	Are all water users licenced?	Yes, because in this prescribed area water for stock and domestic use is also prescribed and therefore requires a licence. While BHP do not receive a licence for their extraction at Roxby Downs under the WAP, they do have a licence issued under the Roxby Downs (Indenture Ratification) Act 1982 which existed prior to prescription and the WAP.	No change to Plan
1.05	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Will electronic meters be accepted vs mechanical	DEW has published standards for meters. If the meter meets the standard, then it can be used. Discussion then moved to meter reads. The State wide metering policy mandates self-meter reads which are then audited occasionally for compliance.	No change to Plan
1.06	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Metering will be a huge cost to water users. On my property I have over 50 bores and it could cost \$200,000 to install meters. It would be better to encourage judicious use and estimate flows through alternative accounting approaches	Good suggestions. Alternative water accounting measures can be investigated in preparation of the Meter Implementation Plan (MIP). Another option might be to meter only higher risk wells, where high risk could refer to high risk of non-compliance, or high risk of failure, or only the key wells utilised on a property.	No change to Plan
1.07	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Metering not appropriate in the Far Nth. The cost to get someone out in Far North is very high. If everyone had a closed system a formula could be done on stocking rate. There is a lot of waste from solar pumps not having shut off valves, if we get solar bore pumps with shut offs and GAB wells through closed delivery systems then there shouldn't be a need to meter.	Good feedback. This will be considered through the development of the Meter Implementation Plan.	No change to Plan
1.08	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	People do not have money to install meters. Petroleum industry only estimate, why is stock and domestic different?	The petroleum companies currently meter their petroleum extraction and know the water cut used to retrieve the petroleum so can determine their water use. The petroleum companies cannot take your water without your consent. You would need to sell or transfer them the water in order for them to acquire it. With the separate consumptive pools, trade would not be enabled from pastoralism to mining or vice versa.	No change to Plan
1.09	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Trading	Can trade occur in the absence of a meter?	Not for a temporary trade. Without an account of how much water has been used, it is difficult to undertake a trade assessment because it is unclear how much water is available to trade.	No change to Plan

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1.10	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	The petroleum industry only estimate their use. Metering is just an approach to enable the petroleum industries to take water from the pastoralists	The petroleum companies currently meter their petroleum extraction and know the water cut used to retrieve the petroleum so can determine their water use. The petroleum companies cannot take your water without your consent. You would need to sell or transfer them the water in order for them to acquire it. With the separate consumptive pools, trade would not be enabled from pastoralism to mining or vice versa.	No change to Plan
1.11	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	What about meter cost? Cost to service? Who pays for maintenance and validation/repair? Can't compare South East to Far Nth. A staged approach and a localised response is something we are committed to.	Meter costs estimated to be \$1,800 for cool low pressure to \$3,000 for high pressure. Generally, meters are not repaired as it is cheaper to replace. In South Australia there is no requirement to annually service or validate, rather only a 5-year inspection by the landholder. There is no need to bring an expert up from Adelaide annually to read the meter, just take a photo and send to DEW. Any repair and maintenance costs are the licensee's responsibility.	No change to Plan
1.12	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Can there be an exemption for stock and domestic to water accounting?	Exemptions can exist under meter implementation plan. E.g. River Murray exempt under 5ML day. However stock and domestic is a licenced purpose and therefore the water use needs to be accounted for. The MIP will consider the circumstances where meters are not required.	No change to Plan
1.13	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Need to talk about accounting for water first. Metering is one way. In closed systems water can be accounted for and therefore no need for a meter. Can this be negotiated?	The outcomes of the discussions will be considered during the development of the MIP	No change to Plan
1.14	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Resource Condition	Is the basin under stress at the moment?	Monitoring indicates that the resource is In balance at moment. However, there is a slow natural decline in pressure. Demands are increasing. The aim is to maintain artesian pressures for the longevity of the resource.	No change to Plan
1.15	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Meters are a pipedream. High costs in Far North. Services getting reduced. Trying to cripple the industry.	Understand timing not good. We are here to discuss and get your feedback. Other means of water accounting may be deemed more appropriate.	No change to Plan
1.16	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Often seems like policy is already made up when arrive for meeting.	Some policy is set at a high level. Metering is a state-wide policy, not a policy of this WAP. The MIP can consider when metering is appropriate and when alternative water accounting measures can be utilised.	No change to Plan
1.17	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Need good will. Shutting off solar pump overflow could reduce waste by 20%. Isn't that enough?	Feedback can provide great solutions. Your comments are being recorded.	No change to Plan
1.18	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	When meters fail there will be a delay to fix. Will there be an exemption to keep using water with failed meter?	We would never advocate stopping using water. If a failure occurs, notify DEW of this issue and keep using water until it is able to be repaired or replaced (within a timely manner).	No change to Plan
1.19	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Hydro assessment to show high risk areas in basin. This could be used to identify where to meter and where not.	Yes, using a risk management approach has been done in the past.	No change to Plan
1.20	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Water Accounting	Water use has never been better documented. Farm Bot system provides information.	Good information. We would like to hear more.	No change to Plan

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1.21	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Domestic Water Allocation	The current number for domestic water allocation was determined from working group. The number was suggested by me and included more use than just house e.g. wash down water.	Reasons provided for 1.5 ML figure being it is in line with the GAB water allocation in Queensland for this purpose and is triple the limit that is used by DEW to assess stock and domestic water use acknowledging the drier conditions in the Far North to the rest of the State. Remainder to become amenity water within All Purpose consumptive pool. Allows trade. Not taking away water but moving it to a different purpose. Based on feedback received throughout consultation, domestic water will not be separated into two components, it will remain as is.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
1.22	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Environmental Protection	I would like to have a GAB wells near springs as do not want cattle to drink from springs as water is not suitable.	The draft Plan allows install of well <5km from spring provided water pressure is not impacted and therefore maintains suitable flow of groundwater to the spring.	No change to Plan
1.23	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Stock Water Requirements	Has allocation for stock changed?	No change for stock.	No change to Plan
1.24	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Assessment/Approval Processes	Tri-Star proposing fracking on Anna Creek. Concern that may impact resource and springs. Are you (DEW water science) concerned?	WAP rules apply to all. Mining must prove that there will be no impact to springs. Proposal must be assessed. Water science will review and set rules. Groundwater model is being constructed to assess impacts of proposed projects. The Tri-Star assessment is yet to be referred to the Department but when it is, we will assess against the rules in the WAP in relation to any proposed water take.	No change to Plan
1.25	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Assessment/Approval Processes	It's a political process. Government wants them to spend money and then deny them. (Tri-Star)	The local member has been clear on process. They have rights to go through an assessment process.	No change to Plan
1.26	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Domestic Water Allocation	Why move water from domestic to amenity?	Better definition of purpose of use for water. Provide consistency with NRM Act and other parts of the state when reporting on water allocations by purpose and allows flexibility of use and tradability. Doesn't take water away from user, it still remains on the licence just within a different consumptive pool. Based on feedback received throughout consultation, domestic water will not be separated into two components, it will remain as is.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
1.27	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	IGABDR	Is IGABDR funding retrospective	Yes, they will consider retrospective funding of projects that fall within the current financial year (2019-20) and meet the assessment criteria	No change to Plan
1.28	22/11/2019	Pre-Statutory Meeting	Coober Pedy 22/11/2019	Verbal	Compliance	The WAP should include best practice guidelines. Including, shut-off valves for solar pumps (sub artesian)	The WAP requires water not to be disposed of to the lands surface, closed delivery systems etc to ensure the longevity of the resource. Implementation of the WAP can consider how judicious use of the resource might be met. Compliance can be undertaken to ensure water is taken in an appropriate manner.	No change to Plan
2.01	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Legislative	If things like GABSMP are a national incentive, then who does our state minister answer to nationally?	While the Minister for Environment and Water is responsible for water management within the State, any water plans developed need to align with national context and national policy drivers e.g. NWI or GABSMP to enable holistic sustainable water management. It can also facilitate access to Commonwealth funding.	No change to Plan
2.02	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Allocations	Will water allocations be reduced when the licences are reissued?	No.	No change to Plan

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2.03	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Allocations	Will allocation be tied to pastoral lease? Because a pastoral lease is no good without water.	To be addressed in WAP section of presentation. Was addressed at the meeting by explaining how a water right is separate from a land right and that the water allocation must be transferred to the new owner to enable them to have a water licence. This is the role of the person selling the property to do and is a requirement of the purchaser to undertake due diligence to make sure the property comes with a water licence. The water is tied to the consumptive pool. This is why a pool specifically for stock and domestic water is maintained for S&D purposes. This doesn't stop water being sold from a property, but it can only be sold to another pastoralist.	More information provided in section 6 of the Plan with regard to the separation of land and water rights in South Australia and the need for buyers to ensure a sale of land includes a sale of water management authorisations.
2.04	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Metering could lead to being charged for water. There is not enough information on metering to understand implications e.g. installation, meter type. Need to do trials on with different water quality and temperature. How will multiple use purposes from a single well be managed?	DEW is currently investigating meter options, and is interested in running trials and investigating other technology such as Farm Bot. In relation to fees, a levy can be applied based on allocation or usage. At the moment all boards apply allocation levies, as such if this was the approach - meter to levy, the meter is not required because the levy is raised on the allocation. If you go over your allocation a penalty charge is applied, this is usually a staged approach based on input by the Board and the Minister determines if that is even required. The Landscape Act exempts levying for stock and domestic water, so charging is not even able to be considered without significant amendment to the Landscape Act. The driver for water accounting is not financial, it is to understand use.	No change to Plan
2.05	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Can amenity water be charged?	Yes it is possible. However, the Board does not currently charge a levy for this water.	No change to Plan
2.06	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	People assume we are getting our water here for free, however they don't consider the significant costs we put into water infrastructure in order to access water in the first place, maintenance, pipes, electricity - these are all costs for water. Wording such as "metering" suggests water likely to be charged. Perhaps use monitoring of resource instead of metering of resource.	Agree, better to use water accounting, but need to consider from a legal perspective how this could be written in the WAP. The current principle seems to allow for this flexibility by deferring the decision to the MIP "water taken from the well authorised by this approval must be taken through a water meter approved by the Minister or the Minister is satisfied that the taking of water is consistent with the Meter Implementation Plan for the Far North PWA"	Principle 51b edited to state water must be taken in line with the Meter Implementation Plan rather than referring to meters
2.07	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Who is responsible for maintenance of meters?	Meters are privately owned and managed.	No change to Plan
2.08	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Do other areas get charged? Where you charge penalties, are they already charged for water? If there is no levy can you charge penalties?	In other areas of the state water users pay a levy based on the volume of water they hold on allocation and the penalty is charged if they take more than their allocation. Penalties can't be charged if the taking of water is not measured or accounted for. Most areas of the state water for stock and domestic use isn't licenced (except in the Far North, Northern Adelaide Plains and certain circumstances in the River Murray).	No change to Plan
2.09	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	There is a lot of groundwater use in the South East and there are no meters.	Other areas that are metered for stock and domestic use include Nth Adelaide Plains and River Murray for use over 5ML. In the South East stock and domestic water isn't licenced and therefore does not require a meter however all other uses of groundwater in the South East are metered or in the case of forestry, accounted for.	No change to Plan

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2.10	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	What are other examples of non-metering options?	The MIP can include other options. Examples include - in WMLR and EMLR – small surface water dams not metered. Risk based approach, the capacity of the dam itself is the measuring device e.g. 3ML dam with an allocation of 2.5 ML, the deemed use is then 2.5 ML, this process is outlined in the metering implementation plan. Multiple well pipes going into a single meter. In the River Murray only stock and domestic allocations above 5ML are metered. That's the point of our discussions today, to hear what may work in this area and we seek your feedback.	No change to Plan
2.11	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	If you can estimate the stock water use, and account for feral animal, is this a reasonable way to account for water usage? Can we do some real trials on this, over good seasons and bad, look at trough type and tanks to minimise evaporation. Used in conjunction with farm bots.	This is something that will be considered during the development of the MIP.	No change to Plan
2.12	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Must not make the mistake of assuming that our water delivery systems here are immaculate, things will fail and it will take time to find the faults. This makes shutting of the pipeline very difficult to undertake. The delivery systems are not like everywhere else. There are huge distances and always have leaks.	Noted	No change to Plan
2.13	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Stock Water Requirements	Original stock use volume based on old data. Needs to be updated.	Estimated 20 years ago. Best information at the time. Keen to collect information through the life of this WAP to consider if the number needs to be revised.	No change to Plan
2.14	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Stock Water Requirements	New figures suggest 120 L/day per head for dry stocking rate. Can volume be changed?	Useful feedback. Can be considered under this process if the evidence can be provided to support an amendment.	No change to Plan
2.15	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Allocations	Why allocate for stock and domestic? Why can't there be no licence requirement for stock and domestic? Must protect rights to water. Fear of being charged at some time.	Water for stock and domestic purposes being licenced is in order to protect the pastoral industry dependent on this water. The main driver for prescription was to provide security of access to water for pastoral purposes through a water licence which provides a right to take water. If the fear is about being charged for the water if meters are required, charges for water in SAAL region is based on allocation, not use so the installation of a meter would not make a difference. The Landscapes South Australia Act 2019 clearly precludes charging a water levy for stock and domestic use and the and there is no ability to charge for this water without amendment to the legislation, which is not intended.	No change to Plan
2.16	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Metering trials need proper engineers and engineered solutions. In the past learnt from trial and error at large cost.	We have access to the right technical people.	No change to Plan
2.17	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	My bore has a meter which was used as a trial, you can use the data from that to determine your results.	This will be investigated.	No change to Plan
2.18	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Assessment/Approval Processes	With the properties that are underdeveloped is there an ability to drill new wells? Does the new water licence arrangement restrict new bores being drilled?	New wells can be drilled where the taking of water from the well is shown not to impact on an existing users' ability to take water, will not detrimentally impact on a spring or non-spring GDE and will not damage disturb or interfere with a site of cultural significance.	No change to Plan
2.19	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Allocations	Will you lose allocation in purchasing property?	No. However the person purchasing the property is responsible for ensuring the water right is part of the property sale and needs to ensure that the official transfer of the water right occurs.	More information provided in section 6 of the Plan with regard to the separation of land and water rights in South Australia and the need for buyers to ensure a sale of land includes a sale of water management authorisations.

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2.20	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Why isn't BHP in the plan? What's happening on a national context? You're making us do water accounting, but meanwhile BHP have broken pipes and are losing large amounts of water – is that being docked from their allocation?	BHP has to meet a greater level of requirements under the indenture than other water users. BHP has quite strict provisions in relation to monitoring and accounting under the indenture. They are more heavily regulated than some of the licensees under the WAP. They are currently within their limits. Even with losses, they are currently not taking more than they are allowed to take under the indenture.	No change to Plan
2.21	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Compliance	Pastoralists have 1st right to water use. BHP can have a busted pipe and waste more water. What controls are on BHP?	Under indenture BHP has a maximum permitted use. Currently using ~36 ML/day average use. Expansion will require EIS which will include implications for extra take. Mining has a high level of accountability through various legislative requirements.	No change to Plan
2.22	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Comment	Our rangers are here to work with people, the pastoralist, mining companies etc because our priority is the water, we need to build the relationships	Noted	No change to Plan
2.23	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	What would be done with metering data?	Metering is to ensure judicious use of water, for licensees to better manage their allocations, to know the amount of water actually taken to help manage the water resource and to more accurately report on water use. Understanding actual use is imperative as you can't manage what you don't measure. A better understanding of the causes of any adverse impacts that might be observed by monitoring the resource. Information will be fed back to pastoralists. There will be a Monitoring, Evaluation, Reporting and Improvement plan to help evaluate the success of the plan. All of this will maintain South Australia's place as national leaders in water management. Water use information is used in the numerical model to enable further development of the resource where applicable. Monitoring will also assist us to understand existing users' impacts so new users aren't authorised to take water which might overlap with the existing user's zone of impact.	No change to Plan
2.24	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Allocations	Is there an option to move allocation as an average over a longer period e.g. 5 years?	There is potential to change from annual allocation of volumes over a specified period. However, it requires an understanding of water use. The draft Plan has no provision for this mechanism to occur at this stage.	No change to Plan
2.25	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Carryover	Is there an ability to take water in the following year if you don't use it in the first year?	There is an ability to undertake carryover in the legislation, however it requires an understanding of water use. The draft Plan has no provision for carryover to occur at this time.	No change to Plan
2.26	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Allocations	Property improvements may lead to increase water take due to more stock.	Potential to apply for increase in allocation to meet the new water demand, but water cannot be taken in excess of the current allocation. The current allocation is based on the stock maximum for the pastoral property. WAP needs to be compliant with other legislation, can't issue more water for stock than you are legally allowed to carry on your land under the Pastoral Land Management and Conservation Act 1989. If the Pastoral Land Management and Conservation Act 1989 were to remove a max stocking rate, then more water could be applied for but would need to meet the criteria of the WAP.	No change to Plan

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2.27	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Has road maintenance been considered? The Department for Planning, Transport and Infrastructure (DPTI) take from pastoral wells.	Road maintenance is authorised under section 128. If DPTI utilise your well to take water, you need to let DEW know and we can talk to DPTI to estimate their water use and remove it from your water use (if meters are used) so you are not penalised for overuse. Licencing will account for the volume taken e.g. the number of trucks and the volume of water each truck can hold.	No change to Plan
2.28	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Accounting	Impossible to know DPTI use. They fill dam and likely to have losses. No accounting for their use.	Noted. They are authorised under a section 128 by the Minister to take water for road making purposes without requiring a licence. Where possible they utilise water from the co-produced industry.	No change to Plan
2.29	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Trading	Can a pastoral licence holder transfer allocation for a year?	Yes - to other pastoralists. Can't trade across consumptive pools. An allocation transfer only lasts one year, if you want to lease water for a longer period then the Water Access Entitlement needs to be transferred for a specified period. Trade cannot occur without water accounting otherwise there is potential for double extraction.	No change to Plan
2.30	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Trading	Can water issued in the All Purpose consumptive pool be transferred to mining?	Yes, but not across consumptive pools.	No change to Plan
2.31	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Trading	During drought it would be a benefit to trade the stock allocation short-term to mining if the property is destocked.	<i>NOTE: this feedback was provided before the new Landscape SA (Water Management) Regulations 2020 was enacted.</i> The current Act only enables trade within consumptive pools and not across consumptive pools, even if the trade is only temporary. In order to trade temporarily, the stock and domestic would need to be in the same consumptive pool as the mining, however this would then enable permeant trade of water, potentially leaving pastoral properties without water licences. Trade across consumptive pools, particularly temporarily has been thoroughly investigated but legally cannot be done currently. Future amendments to the Landscape South Australia Act 2019 may enable a WAP to determine the circumstances for trade across consumptive pools. In this case we would want to enable temporary trade across consumptive pools but not permeant.	No change to Plan
2.32	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Trading	It would be useful to be able to lease water as they do in the South East	South East water plans were written under earlier legislation where consumptive pools were not required. Future amendments to legislation or regulations may enable trade across consumptive pools as per the rules in the WAP. This may enable temporary trade while still stopping permeant trade, however trade does require knowing water accounting and as such won't be able to occur until water accounting measures are in place.	No change to Plan
2.33	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Trading	You can trade water under the Pastoral Land Management and Conservation Act 1989.	Section 59(2) <i>"The holder of a mining tenement over pastoral land may, with the approval of the Board, take reasonable quantities of water from any natural source or storage point on the land for mining, personal or domestic purposes, but not so as to deprive the lessee of the water necessary for all of the lessee's purposes. (3) A person who takes water pursuant to subsection (2) is liable to pay compensation to the lessee in accordance with the regulations."</i> This is not about trade of water but charging for the ability for someone else to take water from your well. The mining company would need to have a licence to do so and would need to identify the	No change to Plan

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							sources they have taken water from so it can be accounted for and not charged penalty fees.	
2.34	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Rights	You have 2 assets - Land rights and water rights. Water has capital gains tax.	You can sell land without water. Purchaser must ensure they buy with water rights or ensure they can get water rights. There are no capital gains taxes charged on the sale of water.	No change to Plan
2.35	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Domestic Water Allocation	Define "domestic" as it is not clear.	The definition as read in the draft Plan is the definition from the Landscapes South Australia Act 2009. Can consider a definition for domestic which is specific to this WAP and different to that specified in the Legislation	Replaced current Landscapes South Australia Act 2009 definition for domestic water in the glossary with something more appropriate for the region's needs.
2.36	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Domestic Water Allocation	Is swimming pool domestic?	Yes	No change to Plan
2.37	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Levies	Can amenity water be Levied?	Yes it can be but is not currently levied. If there is a proposed rise or change in levy rates, the Board must consult the community.	No change to Plan
2.38	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Domestic Water Allocation	Can the amount being moved from domestic to amenity be transferred to stock and domestic instead? I.e. can it remain in the S&D pool listed as a domestic purpose	This is why we are here, to consider what you would prefer. We need to consider this. Please provide your feedback on your preferred approach.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
2.39	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Domestic Water Allocation	How do you split domestic and amenity when it can be from the same hose?	Based on total use. Domestic is accounted for first and anything over goes to amenity use. Based on feedback received through the consultation, domestic water will not be split into two components.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
2.40	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Domestic Water Allocation	What is the definition of "dwelling"	Not defined in the Landscapes South Australia Act 2009, we can provide some definition in the Plan	Definition for dwelling included in the glossary of the Plan and in section 5.3.6
2.41	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Domestic Water Allocation	It's not right to compare SA domestic use with QLD	Domestic can be left as-is if that is what people want.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
2.42	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Levies	No faith that amenity water is not going to be levied.	Can be put back into domestic. Board trying to provide flexibility. If not wanted, then that's ok.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.

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2.43	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Aboriginal Water Rights	How is cultural water going to be maintained?	The provisions for the cultural water consumptive pool enable the continued taking of water for cultural purposes. Additionally, referral of new well construction permits will be forwarded onto the RNTBC (as is current practice) to ensure they don't impact upon cultural sites.	No change to Plan
2.44	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Resource Condition	Springs have been impacted by mining. Every year springs reduce.	WAP has rules to ensure water can't be taken if it is shown to impact on the springs. A new GAB model is being constructed to improve understanding of the impacts of take. GAB pressures are in natural decline. Need to manage resource efficiently to allow development.	No change to Plan
2.45	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Bore Maintenance	Need advice on problem wells. DEW can't fix and now expect us to fix.	Section 144 of the NRM Act (and section 119 of the Landscape South Australia 2019 Act) - Obligation to Maintain Well states that "the occupier of land on which a well is situated must ensure that the well (including the casing, lining, and screen of the well and the mechanism (if any) used to cap the well) are properly maintained" they are subject to penalty fees if they do not. This is reinforced in section 7.2 of the draft Plan. Historically the Board and Department and worked together to try and secure funding when it is available to assist landowners with the costs associated with bore maintenance (which does not generally occur in other areas of the state). The IGABDR project currently has funding available to assist. Seek information from the Board if interested.	No change to Plan
2.46	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Well Locations	It's not good enough to expect well owners to identify all wells without assistance. I have wells grouped together that I cannot identify. GPS data is not good enough.	There will be cases where it is hard to identify wells and we will need to consider this. Start with the easy wells and identify the harder ones and we will need to address case by case.	No change to Plan
2.47	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Bore Maintenance	Is assistance available to control bore flows in the shallow aquifers in the FNPWA?	No, they are not included in the IGABDR funding. There is another drought fund that could be utilised in the PWA.	No change to Plan
2.48	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	IGABDR	How much of the IGABDR will actually hit the ground?	As much as feasibly possible.	No change to Plan
2.49	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Compliance	What will be done about old wells problem wells that are not being repaired?	Bore review will be conducted next year to identify problem wells. A plan to address issue with water licencing and compliance.	No change to Plan
2.50	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Bore Maintenance	But some of the problem wells might cost 2 million.	We are willing to work with people with problem wells to consider how best to address issues.	No change to Plan
2.51	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	IGABDR	If you do the bore repair programs in succession you can save money on mobilisation costs etc.	Noted	No change to Plan
2.52	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Stock Water Requirements	I have spoken to a number of pastoralists and I have 100% agreement that the WAP needs to consider additional water due to climate change. We require water for cattle to cool themselves. This could be up to 10 times current allocation at certain times. Actual amount needs to be determined.	Noted. If evidence can support this claim then stock allocation volumes can be increased, even by minor amendment of this WAP after it is adopted. In order for licensees to get more water for their stock, they would need to apply for the additional volume and in doing so comply with the provisions in the WAP.	No change to Plan
2.53	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Stock Water Requirements	Need a supply for water for native animals listed in the plan somewhere. They are impacting upon our water take, and we can't not acknowledge the water that they do take. So that if we get some reference in the WAP to maintaining the biodiversity, we might be able to access any	Currently a stock water licence has a 20% buffer for native and feral water needs. The board will undertake some projects as part of the implementation of the Plan to look at stock water use which may include looking into native and feral water use, this will provide a better estimate of this water use in the future.	No change to Plan

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						funding in relation to this. We might destock but leave the water on to enable the native animal water supply.		
2.54	23/11/2019	Pre-Statutory Meeting	Marree 23/11/2019	Verbal	Water Quality	Can we add more salinity monitoring wells on the eastern side of the basin to monitor salinity change in that area of the PWA?	More salinity will be measured by the co-produced industry in that area, and we can consider if there are other suitable locations to monitor salinity, however difficult in artesian areas and is expensive to undertake by the Department or Board.	No change to Plan
3.01	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Water Trading	Raised matter regarding transfer from low value industry to higher value industry (i.e. mining can afford to purchase water from pastoral users)	Currently the draft Plan limits trade of water from the pastoral industry to another industry through the use of consumptive pools. The Pastoral industry is allocated from a separate consumptive pool to all other users (besides domestic) and the legislation does not allow for trade across consumptive pools. As such the draft Plan does not currently enable trade from the pastoral industry to the mining industry, this delineation of consumptive pools was due to the pastoral industries desire to keep pastoral water for pastoral purposes.	No change to Plan
3.02	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Water Tight Delivery Systems	Clarify why there is different approach for springs and bore-fed wetlands for amenity and for closed delivery system	The draft Plan has the ability to apply different conditions for the different uses of water e.g. to keep stock out of the springs to help protect the integrity of springs, or for bore-fed wetlands only apply water that is required to maintain the values of these springs. For both it is about judicious use of water but how this is achieved is different for the different situations. Closed delivery system is the default position for pastoral industry. However not always feasible to do closed delivery system so site use approvals can help to manage open delivery systems. The aim of the plan to manage the pressure of the GAB and judicious use of all water sources; this plan aims to treat all water users the same.	No change to Plan
3.03	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Water Licence	Mining companies who lease pastoral land - how does this work?	Mining companies will have a volume of water allocated from the All Purpose consumptive pool for their mining activities on their licence and they will also then have a separate volume allocated from the Stock and Domestic consumptive pool for the pastoral purposes on their licence. The pastoral water will not be able to be used for mining purposes.	No change to Plan
3.04	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Water Allocations	How was stock and domestic water allocated?	Before the existing WAP was developed, an existing user process took place which looked at the different purposes that existing water users were taking water for and determined the reasonable volumes of water for those specific purposes. For the case of stock and domestic they were allocated 3.65ML per household for domestic use (per household not per property - i.e. 3 houses would be 10.96 ML in total) and for stock they were issued 100 L/day/head cattle and 20 L/day/head sheep and a 20% buffer for natives and feral animal. The volume issued was equivalent to the max number of stock able to be carried on the land as per the pastoral lease agreement.	No change to Plan
3.05	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Pastoral Act	What happens when Pastoral Land Management and Conservation Act 1989 changes if maximum stocking rates are removed?	Existing users can apply for additional water due to the increased stock numbers (at 100 l/day/head cattle and 20 L/day/head sheep), this will be subject to the principles in the plan - i.e. the applicant needs to prove that they will have minimal impact on existing users, GDE and sites of cultural significance.	No change to Plan

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3.06	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Water Allocations	What happens for situations where there is an ancillary business - not historically done through the Pastoral Land Management and Conservation Act 1989 but people now need to think about this as part of the WAP process?	If they want to take water for another purpose, they can apply to do so, they would need to meet the criteria in the draft Plan in order to be issued any additional water.	No change to Plan
3.07	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Domestic Water Allocation	Concern that shift to amenity water will mean that more water would be actually used rather than being left in the resource and helping to protect the pressure.	The decision to separate the volumes of water currently issued for domestic supply into two components "domestic" and "amenity" provides the opportunity to trade water within the All Purpose consumptive pool, as amenity water would exist within this pool. This was driven by a desire from some pastoralists in early discussions to be able to facilitate some trade of water but to ensure that pastoral properties always have a water supply. To facilitate trade water needs to be in the same consumptive pool, hence the option to create the amenity water. However, early feedback on this approach was not supported. It is likely the community will request all domestic water to remain within the stock and domestic consumptive pool. This would not result in the ability to trade water and therefore any unused water will likely be kept in the ground to conserve the pressure.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
3.08	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Water Allocations	How does the allocation work from year to year?	For the Far North, the annual allocations will align with the Water Access Entitlement, which is the volume they are currently entitled to take. The allocation will not vary annually in relation to climate variation as the resource is not directly responsive to current recharge. Pastoralists have asked about carry-over as an opportunity for them to use more water in the following year if they under use in the previous year however this would require sufficient water accounting for the water take in the previous year to be known and to confirm what can be carried over the following year. The draft Plan does not contemplate carry over presently as the water accounting is not sufficient at this stage.	No change to Plan
3.09	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Bore Maintenance	New allocations or water entitlements - who is responsible for maintaining condition of wells and pipes etc?	Under the NRM Act (and Landscape South Australia Act 2019) the occupier of the land on which a well is situated is subject to a general obligation to ensure the well, including the casing, lining, and screen of the well, the head-works of the well and the mechanism if any use to cap the well are properly maintained. A lessee (as the occupier of the land) has this responsibility to maintain. It is not always well understood, and some education is required to help people to understand their responsibilities.	No change to Plan
3.10	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Water Allocations	What are the rules for others who wish to take water such as community purposes?	The rules in the draft Plan apply to all water users regardless of the purpose of the use (with the exception of water for cultural purposes), any new user would need to prove that they would not detrimentally impact upon an existing users ability to access water, impact on a spring, or a non-spring GDE and would not damage disturb or interfere with a site of cultural significance.	No change to Plan
3.11	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Consumptive Pools	How does the consumptive pool work where there is multiples purposes - pastoral; domestic; mining from the same well?	This information will be stated on the water licence - water for X purpose from consumptive pool A; water for Y purpose from consumptive pool B. Then they would have a water resource works approval which states they can take water from a particular well/s. Multiple purposes of water can be taken from one well, and multiple licensees can take water from the same well as	No change to Plan

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							long as it is listed on both parties WRWA. Ideally, they would have a private well sharing agreement in place such that if overuse was to occur, they would know how to resolve the situation.	
3.12	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Comment	Updating data sets to be more robust is needed. Need to ensure there is data sharing between DEW and PIRSA to support both their businesses	PIRSA and DEW to consider a number of operational matters that need to be coordinated. DEW and the SAAL Board are in the process of verifying the wells use for the pastoral industry which will be used to issue the water resource works approvals, which can be shared with PIRSA.	No change to Plan
3.13	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Compliance	PIRSA and DEW need to work closely on compliance matters.	Agreed.	No change to Plan
3.14	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	Water Trading	Consider message regarding trade and price of water and for brokers to be aware of the changes to the WAP and potential for trade.	The price of water is dependent on the seller and the buyer and is not set by the department. The Understanding the WAP Guide will provide detail on the potential for trade, what is required, and can be distributed to brokers.	No change to Plan
3.15	4/12/2019	Statutory Meeting	PIRSA - Adelaide 04/12/2019	Verbal	GAB Numerical Model	Will the GAB model be at a sub-regional model?	While the model is of the whole of GAB, it will be suitable to run scenarios at a sub-regional level.	No change to Plan
4.01	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Water Licence	Will the co-produced water licence still be held by the Minister for Mines and Energy under the draft Plan?	Yes.	No change to Plan
4.02	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Consumptive Pools	Questions for clarification on Consumptive pools including the advantages and disadvantages of having a Stock and Domestic consumptive pool, enabling transfers between consumptive pools.	Feedback from Industry on this issue would be appreciated. Trade between consumptive pools is not currently enabled under the legislation.	No change to Plan
4.03	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Aboriginal Water Rights	How are issues pertaining to cultural water and disturbance of cultural sites to be resolved? Does the Landscape South Australia Act 2019 stipulate this or does it site within the Cultural Heritage Act?	After discussion with traditional owners, they have advised that many of their sites are not listed on the register the draft Plan referred to, rather the current process of referral of new well construction permits to the Registered Native Title Body Corporate (as is practice now) has been better acknowledged in the Plan with regards to process and also any interaction with ILUAs	Recommendation to refer to the register has been removed from section 3.3 of the Plan and rather the current practice of referral for a new well is emphasises. Removal of reference to impact upon cultural sites from WRWAs (principles 26(e), 29(a)(vi) and 45(f)) and instead the referral to the RNTBC is reinforced for the drilling of new wells (principle 41). Appendix C removed. Principle 41 amended to state that in cases where an Indigenous Land Use Agreement (ILUA) exists which refers to matters relating to water, this will be consulted prior to referring the application to the Registered Native Title Body Corporate.
4.04	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	GAB Numerical Model	The timing of the adoption of the WAP should align with the completion of the GAB model so any new applications can be assessed using the most up to date methodology	The GAB model currently under development is likely to be completed and ready to run scenarios by the end of 2020. It is likely that the GAB Model will be available for use for any additional water that may be applied for under the adopted water allocation plan.	No change to Plan
4.05	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Levies	Levies raised against water allocations should be spent on water management. This issue was raised a number of times in different contexts (monitoring of the resource, compliance, replacement of infrastructure, leverage of available Commonwealth funding opportunities.	This suggestion will be fed back to the Board for consideration.	No change to Plan
4.06	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Monitoring	Companies are required to do some monitoring as a condition of the s128 authorisation. We don't have right of access to some of the leases (PEL don't align with pastoral boundaries). This puts industry in a tenuous position and is causing conflict. One of the industry's most valuable assets is community goodwill (social licence to	We will provide this information back to the Department and see if we can assist in access to the sites required.	No change to Plan

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						operate) and this requirement is putting that at risk.		
4.07	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Assessment/Approval Processes	Unsure of the operations of the make good provisions when other users are impacted and how they operate.	Ideally there would be no impact on others when an additional water allocation (either to an existing user or a new user) is made. However, there is provision in the draft Plan for the Minister to grant a licence with conditions that require the new user to 'make good' by providing water to any the party affected by the granting of the new allocation. How this is undertaken would be an agreement between the parties involved and would be subject to the affected parties' approval of the approach.	No change to Plan
4.08	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	GAB Numerical Model	Concern about the timing of the availability of the new GAB Model. Other models are available and there was concern that in the absence of the new model, other models might be used which may advantage applicants other than the petroleum industry	The GAB model is currently under development, likely to be completed and ready to run scenarios by the end of 2020. Beach Energy has an authorisation under section 128 of the NRM Act which enables them to take additional water above that already issued to the Minister for E&M until June 2021. It is therefore unlikely that a scenario for the petroleum industry would need to be run through the model until at least July 2021. By this time the GAB Model will be ready to run scenarios.	No change to Plan
4.09	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	GAB Numerical Model	Comment was made about work done by Hugh Middlemiss a few years ago that may provide valuable input into allocation decisions while the New Gab models was being finalised.	Noted.	No change to Plan
4.10	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Aquifer Recharge (MAR)	Questions for clarification on licence conditions requiring re-injection of water rather than disposal to the surface.	For the petroleum industry, the draft Plan requires that unless it is not deemed reasonably practicable by the Minister for E&W for any new water issued for this purpose is not to be disposed of by means of evaporation to the lands surface. This means prior to any new water being allocated consideration must be given to how the water can be reused or reinjected such that it is not disposed of to the land's surface. As currently drafted this step would be required even if modelling showed that the taking of water is unlikely to have an impact on springs, other GDEs, existing users or sites of cultural significance. It is a measure of using water judiciously, similar to Bore-Fed Wetlands requiring water only to be taken in line with a management plan and pastoralists taking water through closed delivery systems, it is a measure to ensure the longevity of the resource. Additionally, the water which is currently taken for this purpose and is disposed of by means of evaporation to the lands surface is required to be minimised. This may be through the same mechanism as what is used for any additional water, or this may be simply changing the ratio of petroleum/water which is recovered, i.e. if the ratio was increased to 10% petroleum/90% water maximum, then the volume of water which is evaporated to the lands surface would subsequently be reduced.	Principles 27(a)(ii) and 27(a)(iii) removed to provide discretion to the licensee about how they ensure water is not disposed of to the lands surface for evaporation.
4.11	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Reporting Requirements	Companies think that they already supply all of the information mentioned in the draft Plan reporting requirements (salinity, volume)	DEW and DEM can verify whether this is the case and, if so, ensure that the transfer of this info between government departments occurs rather than requiring it from industry twice.	Principle 51(e) (Annual water use report) amended to state the report is not due until December after the relevant water use year
4.12	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Aquifer Recharge (MAR)	Unable to provide comment on the percentage of recharge water that might be appropriately recovered (80% vs 100%) without the new model in place.	Noted. Will consider leaving it at 80% and the model can provide support to increase to 100% if required.	No change to Plan

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4.13	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Aquifer Recharge (MAR)	Queried whether water could be recharged into different formations.	Water can be recharged into a different formation from which it was taken, subject to it meeting the drain and discharge criteria in the Plan, however recharge credits for the water recharged would then only apply for the aquifer into which they were recharged and can't be used from the formation the water was originally extracted. In certain circumstances an approval from the EPA may also be required (as discussed in the draft Plan).	No change to Plan
4.14	30/01/2020	Statutory Meeting	Petroleum - Adelaide 30/01/2020	Verbal	Levies	Levy should be charged on use rather than allocation	This suggestion will be fed back to the Board for consideration.	No change to Plan
5.01	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Aquifer Recharge (MAR)	Does the draft Plan contemplate MAR?	Yes.	No change to Plan
5.02	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Assessment/Approval Processes	How is cumulative impact managed?	Proponents have to prove that there is no impact on aquifer integrity, ecological function of the springs, existing users and cultural values. Cumulative impact is assessed based on the impacts that are observed in relation to the 2017 potentiometric surface - i.e. if another applicant is granted water prior to the applicant's request, they may already be having a drawdown impact at the 5km of 50km buffer. After talking to scientists again they suggest this should instead be the 2009 water pressure levels. The additional take from the second applicant cannot cause the triggers outlined in the draft Plan (0.5m at 5km or 1m at 50km) to be breached taking into account the impact the first applicant is already having.	Removed figure 2.2 from the Plan and reference to the potentiometric surface. Updated principles 29(a)(iii), 29(a)(iv), 29(a)(v) and 44(b), 44(d), 45(b) and to relate to February 2009 (date of adoption of the first WAP) when considering cumulative declines in water pressures.
5.03	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	GAB Numerical Model	If the development of the new numerical model will make the assessment of new applications more robust, why not delay the adoption of the plan until the new model is complete?	Comment for the Board's consideration (and, of course, the Minister)	No change to Plan
5.04	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Assessment/Approval Processes	How does the approval process in granting licences link to the Environment Protection and Biodiversity Conservation Act 2000 (EPBC Act)?	If approval is granted, then there should be no EPBC Act referral as there should be no impact on the springs under the requirements of the plan.	No change to Plan
5.05	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Assessment/Approval Processes	Do all people have to go through the same application / approval process?	Yes. The plan applies to all applicants	No change to Plan
5.06	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Disposal to Surface	Where do turkey nest dams fit with regard to the issue of disposal of water to the lands surface - there are hundreds of them in the region and they are used for temporary storage for a range of reasons. What will be required for management of these storages?	Turkey nest dams would be excluded if they are used for storing liquid waste or are mineral evaporation ponds.	Principle included after principle 27 to state that 27(a)(vi) does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste.
5.07	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Conversion of Mineral Wells to Water Wells	Will wells drilled for other purposes (under different legislation) still be allowed to be converted to water wells?	Yes. However, it needs to meet the minimum construction requirements for water bores in Australia. Additionally, if the well falls below the Eromanga basin in the Cooper region, the new owner needs to demonstrate the capability to manage the take of water with high pressures and temperatures prior to being approved to take water from the well.	No change to Plan
5.08	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Disposal to Surface	How will we be able to demonstrate that we have 'minimised' surface water disposal after 10 years. Will this be prescriptive, or will it be aligned to 'best practice'?	This will be something that can be discussed with individuals, as it may be a different approach for different mines, for example perhaps an area based assessment for some while others may have better water accounting measures in place and can provide volumes of water disposed of to the surface over time.	No change to Plan

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5.09	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Aquifer Recharge (MAR)	Why didn't the Legislative reform address the recharge issues if they are problematic in the current legislation?	Water reform isn't part of the legislative reform agenda at this point. The current reform was primarily aimed at the formation of the new Landscape Boards and landscape boundaries.	No change to Plan
5.10	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Compliance	There are a number of users who are taking in excess of their allocation. Who is responsible for compliance and will there be greater emphasis on this after the new plan is adopted?	Once the new Plan is adopted compliance is a dual responsibility. The Board to help educate and raise awareness of water users and DEW for 'hard compliance' if conditions of water licences or permits are not met.	No change to Plan
5.11	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Disposal to Surface	Are tailings dams (TSF) captured by the provisions relating to disposal to surface? Noting that the water is unusable for any other purpose and can't be reclaimed or re-purposed?	No tailings dams or other contaminated water sources are not subject to this principle. Will make this clear in the WAP	Principle included after principle 27 to state that 27(a)(vi) does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste.
5.12	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Reporting Requirements	The dates in the draft Plan for reporting do not align with reporting requirements under our primary controlling legislation.	Will require further consideration. Should be able to be changed to save additional red tape.	Principle 51(e) (Annual water use report) amended to state the report is not due until December after the relevant water use year
5.13	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Potentiometric Surface	You have referred to the 2017 potentiometric surface as being the point in time against which applications will be assessed for (cumulative) impact. Is this explicitly referred to in the draft Plan?	The draft WAP refers to the potentiometric surface in figure 2.2 throughout the principles section. This is the potentiometric surface for 2017. However, is also specifies, or as measured by any other means determined by the Minister, to enable use of the numerical model for the GAB once it is prepared. Upon discussion with the scientists they suggest referring instead to February 2009 and not include the potentiometric surface.	Removed figure 2.2 from the Plan and reference to the potentiometric surface. Updated principles 29(a)(iii), 29(a)(iv), 29(a)(v) and 44(b), 44(d), 45(b) and to relate to February 2009 (date of adoption of the first WAP) when considering cumulative declines in water pressures.
5.14	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Aquifer Recharge (MAR)	If recharge occurs at some distance from where the water is subsequently taken, are there provisions in the draft Plan that would prevent this from occurring?	Current drafting only requires the water to be taken from the aquifer it was reinjected into. This will require some further consideration.	Addition of principle 33b to specify that the water needs to be recovered within 15km of recharge, unless the applicant can demonstrate that the taking of water at a distance further than this will not result in undesired impacts to the groundwater resource, GAB springs, refuge non-spring GDEs, existing users of the resource, or the originating location of recharge.
5.15	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Aquifer Recharge (MAR)	Can recharge credits be carried over from one water year to the next?	Yes. The current draft Plan enables the water to be taken in the year it is reinjected, then carry over for one year the water that is unused, however taking in the following year, needs to not impact upon the springs etc.	No change to Plan
5.16	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Legislative	Pastoral Board should align with the draft Plan regarding enforcing the water tight water delivery system.	We are briefing the Pastoral Board about the draft Plan so they will be aware of the requirements of the pastoral industry in relation to water. Additionally, we are working closer with the pastoral unit of PIRSA to ensure they are aware of the requirements for water users and can report to us if there is water being taken inappropriately.	No change to Plan
5.17	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Assessment/Approval Processes	Need to streamline the application approval processes as much as possible to ensure that the time taken to get government approval is minimised	Noted. We will be working with Water Licensing to work out how best to set up application forms to streamline the process.	No change to Plan
5.18	30/01/2020	Statutory Meeting	Mining - Adelaide 30/01/2020	Verbal	Reporting Requirements	Is reporting on the salinity required for each bore or is it per bore field?	At this stage it is each bore. Will consider whether this is necessary or if our approach can be more practical bearing in mind what we are trying to achieve.	Principle 51(e) amended to state that salinity is required from the aquifer, not from every well on the licence
6.01	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Advisory Committee (WAC)	The WAC is under represented, it has industry representatives but only one pastoral representative from the eastern side, and the western pastoralists are not represented on the WAC. Why are Livestock SA not members of the WAC?	The WAC is a sub-committee of the Board and has a terms of reference but members of the Board can be on the WAC, if someone from the West was to become a Board member, they would be able to attend the WAC meetings. The Board is not made up of members from representative groups such as Livestock SA but rather of	No change to Plan

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							members of the public with specific areas of knowledge. Livestock SA have been engaged through the consultation on this draft Plan.	
6.02	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Consultation	At what point have Livestock SA been involved in the drafting of the WAP?	Andrew Curtis has been actively involved for Livestock SA. He attended the two meetings with us in November 2019. We have also met multiple times with the Pastoral Board, who will be briefed again at the end of February. You are encouraged to connect with pastoral unit and Andrew Curtis at Livestock SA.	No change to Plan
6.03	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Aboriginal Water Rights	How did the requirement come in that we need to wait 60 days for a traditional owner approval to put a bore down?	The current process is that when a new well is applied for, it is referred to the Registered Native Title Body Corporate who have 60 days to assess if the location is likely to impact on a site of cultural significance. This is a process DEW undertakes to be complaint with the Native Title Act. As stated, the process already exists, however it has not been as transparent as this draft Plan has made it. We have made the process clear so people are aware of what takes place, how long it takes and also it highlights the importance of considering the cultural impacts to taking water. If the ILUA has a position around drilling new water wells that can be used instead of the referral.	Principle 41 amended to state that in cases where an Indigenous Land Use Agreement (ILUA) exists which refers to matters relating to water, this will be consulted prior to referring the application to the Registered Native Title Body Corporate.
6.04	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Consultation	I have gone back through all the SAAL Board minutes and Livestock SA haven't been actively consulted. Why do we have the red tape and the overlay? Where are our rights as a business owner?	The minutes only briefly captures what occurs at Board meetings, many of the WAP conversations have been in camera sessions so will not appear in the minutes while policies were being tested with the Board. Other consultation sessions occurred with Livestock SA and other bodies occurred separate to the SAAL board meetings so would not have appeared in the minutes. There is no additional 'red tape' in this draft Plan than that which existed under the existing WAP with the exception of giving consideration to if the location of a new well is to be drilled within 100m of a non-spring GDE. The rights of business owners remain the same under this draft Plan as under the existing WAP.	No change to Plan
6.05	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Pastoral Industry	We want Minister Speirs here. We have no scope to strengthen our business. The draft Plan has removed our identity as pastoralists, refers instead to residents.	There are residents within the PWA which are not pastoralists, but pastoralists can be referred to in these instances also if it is felt that the term resident does not encapsulate all the people living within the PWA.	In section 1.7 where the term resident is used (only place term used in the draft Plan) the text has been amended to refer to 'Pastoralists and other residents'
6.06	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Comment	The draft Plan was the most distressing thing beyond the drought.	Taken as a comment.	No change to Plan
6.07	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Consultation	The community consultation with the pastoral industry has been extremely poor.	Individual consultation occurred on the WAP early 2019 with the kitchen table sessions, The outcomes of these meetings were used to assist in drafting the draft Plan. In Nov 2019 pre statutory consultation meetings occurred to provide an overview of the draft Plan and seek feedback. While the draft Plan cannot be changed until the consultation period has ended, some options for consideration are being brought back to the community in this round of consultation which can be used to help the Board decide the direction they wish to go with the draft Plan once the consultation period has ended. The policies developed for the draft Plan were workshopped through the Water Advisory Committee and the Board before being drafted into principles for the WAP. The feedback received through these consultation meetings and the formal submissions will assist the Board in amending the WAP before it being sent to the Minister.	No change to Plan

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6.08	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Allocations	Governments have ignored our need for water in the region and the plan adds costs to our business.	The draft Plan enables the allocation of water to meet the any additional water needs the pastoral industry (or any other industry) may have. The cost to apply for additional water under this draft Plan and the existing WAP are the same, the evidence to prove the likely impact due to the taking of additional water is the same as the existing WAP. The Department, the Board and Industry are building a GAB model which will enable quicker and simpler assessments of the rules in the draft Plan. A scenario will be able to be run through the model which will be much cheaper than undertaking assessments on the well and having a consultant writing a report on the impact of taking water from the well.	No change to Plan
6.09	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Accounting	We don't want water metering. We can monitor.	The need for all licenced water use to be accounted for is a state policy, not a policy specific to this WAP. As discussed at earlier meetings, the meter implementation plan will outline the circumstances under which a meter is required, and in which circumstances an alternative water accounting mechanism can be utilised. The Water Licensing team is working with some pastoralists on different water accounting measures and the Board plans to run some trials on different water accounting measures to reduce the number of meters that will need to be rolled out.	No change to Plan
6.10	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Compliance	We need compliance for those that are doing the wrong thing (open bores and artificial wetlands).	Compliance can now begin given the 10-year term of the previous WAP has expired and water users had that time to install closed water delivery systems. There are also measures in the draft Plan to manage the take of water from artificial wetlands in a more appropriate way, by limiting the volume of water which can be applied to the wetland to the rate required to meet the values of the wetland only. The remainder will remain on licence but will not be able to be used to water the wetland. For those artificial wetlands which do not currently have licenses they will need to be licenced and will only be issued the volume of water required to maintain the values of the wetland and nothing more, they will not be issued excess water on their licence.	No change to Plan
6.11	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Aboriginal Water Rights	Dam permits require Traditional Owner approval. Does an ILUA (Indigenous Land Use Agreement) give us permission to drill wells?	The current process is that when a new well is applied for, it is referred to the Registered Native Title Body Corporate who have 60 days to assess if the location is likely to impact on a site of cultural significance. This is a process DEW undertakes to be complaint with the Native Title Act 1993. The process as stated already exists, however it has not been as transparent as this draft Plan has made it, we have made the process clear so people are aware of what takes place, how long it takes and also it highlights the importance of considering the cultural impacts to taking water. If the ILUA specifically relates to matters regarding water, including the drilling of new water wells that can be used instead of the referral.	Principle 41 amended to state that in cases where an Indigenous Land Use Agreement (ILUA) exists which refers to matters relating to water, this will be consulted prior to referring the application to the Registered Native Title Body Corporate.

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6.12	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Domestic Water Allocation	How was the 500kL per domestic household worked out? This is not enough given length of time evaporative air conditioners are required to run for prolonged summers. Can't put everyone in the same situation	This was based on what is considered to be reasonable domestic water use, which enables 500kL per household. It was tripled for the Far North given the larger area to irrigate associated with a house, and the drier climate. This also aligned well with the 1.5 ML total domestic water supply used in the Queensland portion of the GAB. Previous discussions identified that this may not be enough to meet the demands in the SA region of the GAB given the lower rainfall when compared with QLD. Consideration can be given to maintaining the existing domestic allocations of 3.65 ML per household.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
6.13	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Domestic Water Allocation	Why complicate it with another tier? Why not stick with one tier for stock and domestic?	At the kitchen table sessions many pastoralists were keen to maintain the permanent right to take water but wanted to be able to temporarily transfer it when not needing it. Given the current rules in the legislation around transferring water and consumptive pools it was an all or nothing scenario, either we could put stock and domestic in the same consumptive pool as everyone else and enable both permeant and temporary trade or we could put it in a separate pool and not enable any trade. In order to maintain water on pastoral land for pastoral purposes the Board opted for option two of 2 separate consumptive pools. However, given the request by people to be able to trade water, we considered the volume of water used for domestic purposes in comparison to other GAB states and the rest of SA and thought that perhaps we could split this component into strictly domestic and amenity. The amenity portion could then be placed in the all purpose consumptive pool and available for transfer, while their stock and domestic water remains secure. Feedback received so far is strongly to move the amenity water back into the stock and domestic consumptive pool, so this is a recommendation that will be made to the Board to consider.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
6.14	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Domestic Water Allocation	A strong no to the permanent sale of water from the domestic pool.	Comment noted	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
6.15	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Domestic Water Allocation	Should link the water to pastoral lease. Leave it like it is. No trading of water or we'll end up like the Murray. Need to stop wetlands trading water too.	In South Australia land and water rights are separated which means water is not tied to the land. Generally, this is not too much of a problem because a pastoral lease would be useless without water and therefore sale of the lease would likely be dependent on the conjunctive sale of water. However, because they are separate water rights it is up to the person buying the lease to confirm that it comes with water. In normal circumstances people sell water when they sell the property because they otherwise would have to pay a levy on water they are not using. But as levies are not charged on stock and domestic water this may not be front of mind. As neither consumptive pool in the far north PWA will have a volumetric cap, this means that more water can be allocated when needed and when it	More information provided in section 6 of the Plan with regard to the separation of land and water rights in South Australia and the need for buyers to ensure a sale of land includes a sale of water management authorisations.

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							meets the rules in the draft Plan. As such if the lease is sold without water the new owner can purchase water from the Minister. The limiting factor would be getting a WRWA to take the water. Therefore, we have built a provision into the draft Plan to cancel a WRWA if the land owner sells the land without transferring the WRWA into the new owner's name as the existing user can no longer utilise this water if they no longer own the land. This frees up the WRWA for the new user to apply. Even if the existing user still maintains the water allocation, they can only use it when they apply for a new WRWA and they will be unable to trade it to any other use.	
6.16	17/02/2020	Statutory Meeting	Coober Pedy 17/02/2020	Verbal	Bore-Fed Wetlands	Wetland Water – does anyone need it? Who owns the wastewater for artificial bore fed wetlands? Is this an arrangement where people can waste water and make money? Will artificial bore fed wetlands be updated to be issued with a tourism license? Could wait till a good year to turn wetlands off. Wetland water not being used shouldn't be able to be sold or traded.	For the 7 licensed bore fed wetlands, the rights stay with the licensee. The draft Plan brings in rules where using water for a bore fed wetland needs site approval whereby the licensee can only take water at a rate that is of value to the wetlands as identified in a wetland management plan. The volume of water and where it is used is more important than what it is used for, the Plan enables use of the resource as long as it is undertaken judiciously. The existing WAP didn't allow for compliance around non-complying Bore Fed Wetlands, however this draft Plan does and therefore misuse of water associated with Bore Fed Wetlands should improve through the life of the draft Plan. Bore Fed Wetlands used for tourism purposes can be reclassified to be utilised for that purpose if the Board deems in necessary. Bore Fed Wetlands will be able to sell the water they are not using on the wetland because it will fall into the all purpose consumptive pool.	No change to Plan
6.17	17/02/2020	Statutory Meeting	Coober Pedy 17/02/2020	Verbal	Water Trading	Once we sell water, we are going down a dangerous line. We are treading on eggshells. Mining companies are buying pastoral leases and using the water. Water trade should not be enabled.	Water for pastoral purposes and water for mining purposes will be in separate consumptive pools. While it is completely up to the landholder if they wish to sell water, they will not be able to sell the water to be used for a purpose other than stock and domestic. What may occur is that a mining company could purchase the land, relinquish the stock and domestic allocation back to the Minister and then purchase water from the All Purpose consumptive pool instead if they intend to use water.	No change to Plan
6.18	17/02/2020	Statutory Meeting	Coober Pedy 17/02/2020	Verbal	Water Trading	There is a mess with trading water in other states. We don't want that to happen here (in FNPW area). More compliance is required as well as record keeping that isn't being done now.	Trade is limited currently to be within a consumptive pool. Stock and domestic water cannot be traded to be used in the all purpose consumptive pool. Water licensing records are maintained in terms of water allocations and transfers of licence or amending wells listed on the licence, however the system can only be as maintained as the information which is provided. The wells survey will help update the information. Compliance was unable to be taken under the existing WAP in relation to closed delivery systems due to the 10 year roll out period. This has now passed, and compliance measures are commencing.	No change to Plan
6.19	17/02/2020	Statutory Meeting	Coober Pedy 17/02/2020	Verbal	Compliance	Compliance needs to be done. If you can't make them do it, you can't make us do it. We want compliance and it just needs to be all in.	The draft Plan addresses many current poor practices, people who are not taking water in accordance with their licence are subject to compliance.	No change to Plan

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6.20	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Accounting	Metering is being pushed by SAAL	The need to account for water is not a decision for the Board (or through this WAP) to determine as it is a state policy that all licenced water take is accounted for. As discussed at earlier meetings, the meter implementation plan will outline the circumstances under which a meter is required, and in which circumstances an alternative water accounting mechanism can be utilised. The Water Licensing team is working with some pastoralists on different water accounting measures and the Board plans to run some trials on different water accounting measures to reduce the number of meters that will need to be rolled out.	Principle 51b edited to state water must be taken in line with the Meter Implementation Plan rather than referring to meters
6.21	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Trading	Where people have sold a pastoral lease and retain water license, how can this happen? Need to educate conveyancers.	Up to buyer to ensure water rights are transferred but also looking to tighten up from a government perspective. Discussion with the pastoral branch. The draft Plan contains a new principle (not in the existing WAP) which states that the Water Resource Works Approval (the ability to take water from a well) will expire June 30 th after sale of the land or change of the lease, if the owner hadn't previously varied the WRWA to be property of the new owner. We are unable to cancel the Water access entitlement associated with it, but by expiring the WRWA will mean that the new user will be able to get a new allocation, and the existing user will have nowhere to use their allocation without applying for a new WRWA in a new location.	More information provided in section 6 of the Plan with regard to the separation of land and water rights in South Australia and the need for buyers to ensure a sale of land includes a sale of water management authorisations.
6.22	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Aquifer Recharge (MAR)	How do they reinject water back into high pressure bores?	Mining companies will need to investigate the best options and technology.	No change to Plan
6.23	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Aquifer Recharge (MAR)	Support the principle in general but has concerns about contamination of water injected back into the aquifer.	There are a number of rules regarding the injection of water into an aquifer (see section 7.5 of the draft Plan), which requires an approval and must comply with the Environment Protection Act 1993.	No change to Plan
6.24	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Aquifer Recharge (MAR)	Do the recharge credits need to be taken from the aquifer into which the water was recharged?	Yes. It needs to act like a closed system, we don't want to have some aquifers becoming over pressurised while others will become depleted so the credits for recharged water need to be taken back out of the aquifer where the water was injected. Effectively this may result in people undertaking this activity to reduce their 'native groundwater' allocation and just taking out the volume of water they put in the previous year.	No change to Plan
6.25	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Trading	General discussion on are irrigators in QLD buying water and can water be bought from QLD?	At present interstate trading is not enabled, there are currently no provisions to enable you to buy water from the QLD market and use it in SA.	No change to Plan
6.26	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Trading	How long can water be traded or leased for?	For an allocation it would be up to 12 months depending on when during the water use year, the trade occurred, as the allocation is only valid for a 12 month period. Alternatively, a water access entitlement can be traded for a temporary period such as 3 or 5 years (up to the lessor). During the time that it is leased the lessee would be issued with the allocations for this period and not the ongoing owner (lessor) of the water.	No change to Plan
6.27	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Legislative	Conflict between the WAP timing and the review of the Pastoral Land Management and Conservation Act 1989 review. Want streamlined systems.	If the Pastoral Land Management and Conservation Act 1989 is changed, the WAP is flexible enough to accommodate the changes.	No change to Plan
6.28	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Carryover	In the question of carryover water, the current admin processes aren't working so it's a strong	Currently the WAP does not contemplate carryover. As a principle, it is not feasible to not use water for five years (stockpile allowance) and then take it out in one	No change to Plan

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						no from me. Reject strenuously the trade of water and no carryover.	hit. If there was any carryover permitted, it would have rules governing it, for example, a maximum percentage of allocation which could be used in the second year. In order for carryover to be an option water accounting needs to be undertaken, carry over is dependent on underusing allocation in one year to enable some of that allocation to be taken in the second year, without knowing the total volume of water used in year 1, carry over cannot be implemented.	
6.29	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Carryover	If you have carryover, you're adding another layer of complexity.	Noted. Carry over is not currently provided the Plan as this is something that requires appropriate water accounting measures prior to enabling carry over to determine how much water has been used and therefore what volume is available for carry over. Something which can be considered when water accounting measures are in place.	No change to Plan
6.30	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Legislative	I don't agree with anything in the WAP. If we could have seen the slideshow before the meeting, it would have been helpful. Concerns that the draft Plan falls in between the changing legislative space of NRM converting to Landscape South Australia Act 2019. It will change the document again (to align with change act names etc) There's also the change with the pastoral act review.	The water components of the legislation are not changing significantly from NRM to Landscape South Australia Act 2019, however, the references throughout the document will need to change i.e. referencing the relevant section in the Landscape South Australia Act 2019 rather than NRM Act, but the provisions required under both Acts are the same in relation to water. This process has already occurred in anticipation of the enactment of the Landscape South Australia Act 2019 prior to the adoption of the draft Plan. In terms of the Pastoral Land Management and Conservation Act 1989, the key likely change there would relate to maximum stocking rate;, reference to this has been removed from the draft Plan so that if this change does occur, the draft Plan will be able to respond appropriately - i.e. people increasing their stocking rates will be able to apply to increase their allocation in line with the rules in the draft Plan	No change to Plan
6.31	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Advisory Committee (WAC)	There is no local representation for our region on the Water Advisory committee – never been happy with the WAC membership composition. I felt that the WAC was exclusive and not representative of the wants and needs of the broader community.	A new Water Advisory Committee is likely to be established to advise on the WAP once the SA Arid Lands Landscape Board is announced.	No change to Plan
6.32	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Trading	Want to see a water balance in the plan. Water use in the region should not be a (tradeable) commodity.	Maintaining stock and domestic water in a separate consumptive pool means it can't be traded to be used for another purpose. As the Plan is currently drafted trade from stock or domestic to another purpose is not enabled. It can be traded within the pool, so can be traded for other stock and domestic purposes, however the ability to trade water requires water accounting measures to be in place.	No change to Plan
6.33	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Water Rights	I would like to walk out of the room today and know that my rights as an existing water user are the same and that stock and domestic are the same.	The current drafted version of the WAP would only result in one change to a stock and domestic licence, which is maintaining the volume of water on licence but separating it into different consumptive pools - i.e. amenity water component. Other than that, your current licence will not change. There are some considerations for site use approvals in relation to people allowing stock to drink from springs, which may be applied for key springs. But the volume of water on licence won't be changed. Overwhelming feedback	No change to Plan

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							received to date strongly indicates that this approach is not supported by the wider community and as such it is likely the Board will opt to maintain the existing stock and domestic water licences exactly as is and not separate an amenity component into the All Purpose consumptive pool. It's not intended that existing user rights will be changed. The draft Plan also has rules which ensure your access to water by requiring that new users of the resource cannot be issued water if it shown that it would impact on existing users.	
6.34	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Pastoral Industry	Can Pastoral Industry be added into the wording of the WAP?	Yes, it can where applicable.	Pastoralist is used throughout the Plan, however, in section 1.7 where the term resident is used the text has been amended to refer to 'Pastoralists and other residents'
6.35	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Pastoral Industry	Would like an acknowledgement that water pressures have stayed the same for 40 years. Concerned that tinkering with the WAP would make it too prescriptive and the more prescriptive it is, the more limiting for the pastoral industry. We are seeking protection for the pastoral industry to continue as has BHP (regarding indenture). Meters would pose an additional cost.	In terms of the assessments required to access more water the draft Plan is no different to the existing WAP with the exception of the new 100m buffer from surface aquifer GDEs which provide a refuge in the landscape. In terms of the licence unbundling, we are required to do this as per the legislation but are working on how we might be able to make the process for applications as easy as possible and how we might be able to display the 4 different 'instruments' on a single piece of paper so it is much more similar to the licenses people are familiar with. Protection for the pastoral industry is provided in the draft Plan with any new users having to prove that they will not impact on any existing users. Meters would be an additional cost but water accounting is required as per the state metering policy, the Licensing team will be working on a Meter Implementation Plan and in doing so will be investigating other means of water accounting besides meters such as the use of farm bots or other technology which is already being used on farm.	No change to Plan
6.36	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Pastoral Industry	The draft Plan was put to us at a very difficult time. Until we see the final draft we will be scared. There are some things we won't like; we want to see our comments/concerns reflected (in the new version) and we want our rights to be maintained not diminished.	We require some direct responses as to where it appears that pastoralists aren't represented well or where you feel your rights are being diminished, this will help us improve the readability of the Plan. There is no intent to diminish pastoralist's rights, if you can identify the locations in the plan where this is occurring please notify us so it can be amended.	No change to Plan
6.37	17/02/2020	Statutory Meeting	Cooper Pedy 17/02/2020	Verbal	Disposal to Surface	Can there be use of excess mining water for irrigation as a 'make good' option instead of reinjection or wastage?	Yes. In terms of the mining and petroleum industry, the rules do not require injection but do require a reduction in the volume of water which is disposed of to the lands surface, so if there is a way that the water can be repurposed, i.e. used for irrigation, then this would meet the rules of the WAP and would possibly be much more cost effective for the mining industry. Because the water is already licensed, the mining company could come to an arrangement with a local irrigator to pipe the water to the irrigation area, this process would not require an approval from the WAP as the water has already been removed from the aquifer. The mining company and irrigator would need to work together to ensure the water is of suitable quality for the irrigation proposed.	No change to Plan

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6.38	17/02/2020	Statutory Meeting	Coober Pedy 17/02/2020	Verbal	Stock Water Requirements	Retain the current volumes of water specified per head of cattle and sheep and the native and feral buffer for now, this seems similar to what we would be using. When more data is available then the figures could be revised. If we have some investigations on use, we can amend the allocation according to actual data.	Noted. This is what is proposed in the draft Plan currently.	No change to Plan
6.39	17/02/2020	Statutory Meeting	Coober Pedy 17/02/2020	Verbal	WAP Review	Why does the WAP even have to be reviewed, it seems to be working fine now? Will we just have to do this all again in 10 years? We should be able to review the draft Plan again once our feedback has been responded to.	The legislation requires that a WAP be reviewed at least once every 10 years, this is to make sure that the WAP is achieving the objectives it intends to and that the resource is still responding appropriately. The review can happen at any time during those 10 years so if there are new impacts on the resource it can be reviewed early. A review doesn't mean the WAP needs to change unless there is a legislative trigger requiring some amendment. The Board reviewed the existing WAP and was required to amend it to unbundle water licences. This is because the legislation changed just before the WAP was adopted which specified that after a certain time a WAP that was reviewed needed to be unbundled. The timing of the review of this WAP meant that it needed to be unbundled. When the Board reviewed the WAP they also identified other components they wished to provide some updates on, such as removing limitations on water extraction (as long as taking the water won't negatively impact upon the resource, groundwater dependent ecosystems or other users and would not impact on sites of cultural significance), and acknowledging aboriginal water rights more appropriately. This draft Plan once adopted will need to be reviewed at least once in the 10 year period following. However, the review may find that the WAP is working appropriately and therefore no amendment is required, if this is the case the WAP will not need reviewing for another 10 years. But if required can be reviewed at any other time as needed. It is not standard practice, nor a requirement of the legislation to consult on a draft Plan twice. The feedback from these consultation meetings will be provided to the Board who will make decisions about what to change in this draft in response to your comments. The draft Plan will then be submitted to the Minister for consideration.	No change to Plan
6.40		Statutory Meeting	Coober Pedy 17/02/2020	Verbal	Water Trading	The reference to water trade throughout the document is a little alarmist, it seems to be promoting trade.	The draft Plan needs to refer to trade because it is enabled within the same consumptive pool in line with the legislation. However, the likelihood of a trade market eventuating is quite low. This is because trade is dependent on demand, when there is no volumetric cap on the volume of water that can be allocated then applicants seeking water are more likely to buy an ongoing water right from the Minister than temporarily trade water from another user. If someone does want to temporarily purchase water from another user the draft Plan does enable this, trade is a fundamental feature of the unbundling of water rights. In order to take the water, the new user of the water needs to get the appropriate approvals to take it from a particular location. Trade is also dependent on appropriate water accounting, without water accounting measures in place	No change to Plan

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							temporary trade cannot occur. Trade is mentioned only in the principles section where it is required.	
7.01	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Environmental Protection	What is the reasoning behind the 5km (0.5m) and 50km (1.0m) buffer zones? Can you clarify what would be the process for a new allocation within these areas – could this process be improved? Can this reasoning be written into the WAP for clarity?	5km is a carryover from the existing WAP and is based on the Deglee equation. Therefore, a drawdown of 0.5m at 5km should therefore cause no decline in water levels/pressures at the spring itself. The 50km buffer is there to replace the south west spring zone. The problem with the existing south west spring zone was the presence of springs either near the margin or outside of it. Consequently, the idea was to replace the southwest spring zone with a buffer that could be applied to all springs equally without the need to redefine a static boundary constantly. 50km was chosen because it roughly approximated the area covered by the SW spring zone. Given the limitations of the Deglee equation the draft Plan enables taking from within 5km of a spring if the applicant can prove that the taking of a specified volume of water from a particular location will not cause a decline in water pressures maintaining the spring, will not impact on the ecological significance or cultural significance of the site and will not impact on existing users ability to access water. When the GAB Numerical Model is functional, this will become the assessment tool for the WAP.	Section 2.1.3 updated to include information on how Zone A and Zone B were delineated.
7.02	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Verbal	Reporting Requirements	The annual water use report section does not limit requirements to a specific volume, should this be limited to only water take over 1 ML/d as per the existing WAP?	Originally it was intended to be applied to all users to gain further information on the resource to enable more robust water management, however after discussion with pastoralists and now DEM, this section be amended to apply only to the take of water over 1 ML/d or to exclude specific purposes of water.	Principle 51e amended to apply only if authorised to take more than 1 ML/day for purposes other than pastoralism.
7.03	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Potentiometric Surface	Figure 2.2 to be revised to accurately reflect potentiometric surfaces – to consider GAB temperature. Alternatively, it needs to identify that it is not temperature corrected and the reason why.	This shouldn't matter for the approach to assessments. Volumetric take will be determined a) at the point water is struck/ encountered and b) measured at the well head, regardless as to how long it has been sitting in the bore. Some other thoughts regarding the complicating factors using density correction i) Are volumes going to be temperature corrected while being taken? ii) How will this vary over time? iii) How do we factor in uncertainties such as flowing vs static temperature in the case of metering? iv) If we density correct, how do we apply a consistent correction fairly – will a single specific reference correction disadvantage some users depending on where in the basin they are abstracting water? Consequently, for simplicity sake the idea is to use uncorrected as this is what everyone can measure in the field. Reference to the potentiometric surface always allows for "or any other means determined by the Minister" which enables the use of any other potentiometric surface as required or the model.	Removed figure 2.2 from the Plan and reference to the potentiometric surface. Updated principles 29(a)(iii), 29(a)(iv), 29(a)(v) and 44(b), 44(d), 45(b) and to relate to February 2009 (date of adoption of the first WAP) when considering cumulative declines in water pressures.

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7.04	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Aquifer Recharge (MAR)	DEW policy around credits and recharge – will a policy be developed if so how and when?	The draft Plan is effectively the policy on how credits are to be used and accrued. The limitations in how the legislation is written requires that someone undertaking aquifer recharge have two separate authorisations, firstly one which enables the take of 'native' groundwater - the initial volume to be extracted. Then a separate authorisation to inject that water back into the aquifer (meeting the drain and discharge principles in the WAP - section 7.5). In order to receive credits for the water that has been injected they will be issued a separate water access entitlement and subsequent allocation (see section 6.6 of the WAP) which enables them to take the credits back out of the aquifer. Principle 33 determined that the credits can only be taken from the aquifer into which they were injected and are considered to be taken prior to the native groundwater allocation (because recharge credits are free from a levy - as an encouragement to undertake the practice). It may be considered that the native groundwater allocation is no longer required at some point in time, or a smaller volume, because the recharge credits are allowing for enough water to be taken in the year. This can then be surrendered back to the Minister for Environment and Water.	No change to Plan
7.05	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Verbal	Aquifer Recharge (MAR)	When can the credits be taken? Would be useful to take them in the year they are accrued.	As the Plan is currently drafted, the credits can be taken in the year they are accrued and can be carried over into the following year if unused.	No change to Plan
7.06	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	GAB Numerical Model	Will the state model have sufficient resolution to align with the WAP drawdown triggers?	The model is proposed to be developed to a resolution which would allow assessments for the WAP to be undertaken.	No change to Plan
7.07	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Verbal	GAB Numerical Model	What happens if the model projections are incorrect and impacts are observed?	The model will be the best tool we have to assess impacts. However, for larger projects a monitoring regime could be required, this would form part of the AWUR. Given the feedback received about AWUR to date, this will be made more specific to apply only over certain volumes, this could then include further detail about the monitoring regime that would be required for these larger projects. If monitoring triggers are breached, the water resource works approval limit could be varied until recovery is observed. This would be done on a case by case basis.	In principle 51e additional sub principle applied to specify that where appropriate additional monitoring may be required at the request of the Minister.
7.08	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Minor Amendments	Feedback supplied on minor amendments to the WAP such as grammar, flow of text, technical knowledge, improvements to figures and readability etc	Noted. Will consider when making amendments to draft Plan	Minor amendments throughout the Plan (grammar, sentence structure, small changes etc)

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7.09	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Disposal to Surface	Clarification on how section 27 will be administered, specifically 27(a)(v) and (vi) considering that evaporation may be the only option for disposal and is current industry accepted practice (maybe clarify the reasoning why numerous conditions have been listed)?	Numerous conditions have been included because it needs to provide direction to different industries about using water judiciously (i.e. pastoralists need to take through closed delivery, Bore-Fed Wetlands need to reduce water wastage and Petroleum and mining needs to Minimise the volumes of water evaporated). In relation to 27av and 27avi, the first relates to if the current allocation for petroleum is exceeded. Regardless of if the assessment process indicates that there would be no impact on springs, other GDEs, existing users or culturally significant sites it still requires that, unless the Minister for Water and Environment deems it not reasonably practicable, the additional allocation is not to be disposed of by means of evaporation to the lands surface. The second extends this approach to the current allocation, but rather than requiring it all to be managed in a different manner, it seeks to reduce the volume of water which is disposed of to the lands surface over the life of the WAP. This could be undertaken by reinjecting this water, or this could be about changing the petroleum/water cut ratios whereby less water is extracted through the process and therefore less water is disposed of for evaporation.	Principles 27(a)(ii) and 27(a)(iii) removed to provide discretion to the licensee about how they ensure water is not disposed of to the lands surface for evaporation.
7.10	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Disposal to Surface	Further clarity is required on what 'limiting the ability to dispose of water to the surface for evaporation' from a mining context means. DEW clarified during the 30/01/2020 session that 'waters' associated with mining or processing are not intended to be captured. This would therefore mean mining/processing 'waters' in a Tailings Storage Facility (TSF) or a lined Evaporation Pond (EP) (i.e. used to evaporate mining/processing solutions that can no longer be used for processing due to its chemistry) would be excluded. To avoid any confusion, DEM requests that revised Water Allocation Plan for the Far North Prescribed Wells Area, clearly indicates that disposal of mining/processing 'waters' in a TSF or EP are excluded from the 'limiting the ability to dispose of water to the surface for evaporation' clause.	Noted. There would be no requirement to inject contaminated water into the aquifer or repurpose this water as this is not possible given its chemical make-up. As such will amend the appropriate principles in the draft Plan to make it clear that this doesn't apply to tailings dams and process water. These principles would however still apply to water used for dewatering processes which is not currently utilised on site for other means.	Principle included after principle 27 to state that 27(a)(vi) does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste.
7.11	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Licence Expiry	In relation to principle 31, DEM supports the intent of this section (water licence issued in relation to a mining licence to expire upon expiration of the associated mining licence). However, in 2019 an unintended consequence arose where the Beverley Mine tenements 'expired', but a valid renewal application was lodged that ensured the tenements remained 'active', until a formal decision on the renewals was made by DEM. DEM would like to discuss options to minimise a repeat occurring in the future.	Noted. This section of the draft Plan could be amended to reflect this type of situation, or close collaboration between DEM and DEW could ensure the water licence is not cancelled if DEW are notified by DEM that a renewal application process is underway. Can discuss internally as to the best approach to respond to this situation.	Principle 31a amended to include "or a valid renewal application is being processed"

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7.12	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Aquifer Recharge (MAR)	In relation to principle 54, consider limitations of repurposing/reinjecting water in tailings facilities as discussed previously and amend accordingly. Note statement of environmental objectives should be replaced with 'Program for Environment Protection and Rehabilitation (PEPR)'	Noted. Clarification and amendment can be made.	Principle included after principle 27 to state that 27(a)(vi) does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste. Principle 54 which related to SOE instead of PEPR have been removed as no longer relevant due to the addition of the principle included after principle 27
7.13	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Aquifer Recharge (MAR)	In relation to principle 57, consider limitations of repurposing/reinjecting water in tailings facilities as discussed previously and amend accordingly. Note statement of environmental objectives should be replaced with 'Program for Environment Protection and Rehabilitation (PEPR)'	Noted. Clarification and amendment can be made.	Principle included after principle 27 to state that 27(a)(vi) does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste. Principle 57 which related to SOE instead of PEPR have been removed as no longer relevant due to the addition of the principle included after principle 27
7.14	24/02/2020	Statutory Meeting	DEM - Adelaide Follow up Meeting 24/02/2020	Written/ Verbal	Minor Amendments	Future Roxby Downs population – pg. 26. Not sure who provided the proposed population figure increase to 15,565. Note sure how this figure aligns with BHPs proposed OD-RDS submission.	Data was collected from the Demand and Supply Statements, can update with newer data if it exists.	In the absence of a published expansion plan, section amended to state the expansion will likely result in a population increase which will require additional water to meet demand.
8.01	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Complexity	There should be some easy to read document which provides background on Roxby Downs indenture, how people got their existing rights, what exactly those rights are, how long does the licence last. No assumed knowledge.	Noted. This is something which will be prepared to support the WAP.	No change to Plan
8.02	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	PWA boundary	There are connections with the areas outside of those defined on the map. Extent of GAB resources.	Agree, connections exist beyond the lines on the map the impacts of take from outside the areas on the resource managed by this plan is discussed in the draft Plan section 4.3. Referred attendees to appendices of the WAP that indicates the depth of the aquifers.	No change to Plan
8.03	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Licence	Are there any exemptions for Aboriginal groups in relation to commercial licences?	No exemptions, same rules in the draft Plan around the location of take apply to any user wishing to take water for commercial purposes.	No change to Plan
8.04	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Accounting	Is there an exemption period for water accounting?	Water accounting will need to be undertaken in line with a meter implementation plan which will discuss the staged approach to accounting for water. This will be negotiated over time what water accounting is required and consideration of what is fair and reasonable (costs, time etc). I.e. people may only have to account for water from their key sources and not all sources, or they may have an approach where accounting is staged such that they apply accounting measures to 3 bores a year etc. This is all yet to be determined as we want to work with the community to develop this meter implementation plan and need to run some trials on appropriate accounting mechanisms.	No change to Plan
8.05	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Accounting	Are other areas accounting for water?	Discussed the National Water Initiative and requirement to account for water. SA leading the other GAB Basin states in water accounting. Every other prescribed resource in SA requires water accounting, usually through metering.	No change to Plan
8.06	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Accounting	People are worried about meters because they think it will lead to being charged.	In South Australia where levies apply, they are being charged on allocation and not use. Additionally, the legislation states that water for stock and domestic purposes cannot be levied.	No change to Plan

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8.07	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Levies	Is stock and domestic going to be charged?	No, under current legislation it cannot be charged.	No change to Plan
8.08	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Allocations	What is the mechanism used to determine allocation?	Existing users were identified and granted a water allocation under the existing user process which occurred alongside development of the previous WAP during the 2000's based on historic water use or estimated water requirements. The draft Plan enables you to apply for any volume of water with the exception of for stock which is limited currently to 100L per day per head of cattle and 20L per day per head of sheep plus a 20% buffer for natives and ferals, and domestic which is limited to a certain volume per dwelling. The volume which can be requested is up to the applicant, however the rules in the draft Plan determine how much of that water can be taken from certain locations, i.e. it can't impact on existing users, GDEs or sites of cultural significance.	No change to Plan
8.09	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Allocations	Will a licenced water allocation volume drop if station de-stocks	No, it's the licence holders right and can't be taken away. They can however relinquish their licence (or part of it) at any time they wish, back to the Minister.	No change to Plan
8.1	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Compliance	If people take water above what they are allowed to, are there consequences?	If people have a licence for a particular volume and they take more than that volume, then they will be in contravention of their licence, and there are fines or penalties which can be applied. If they do not have a licence, then they are taking water illegally and therefore penalties apply and potentially court processes.	No change to Plan
8.11	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Licence	How long is a water licence for?	Licence is in perpetuity (with some exceptions) and allocation is issued annually.	No change to Plan
8.12	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Licence	Once you have a water licence does that mean a company/government/individual needs to negotiate with you to access the water?	This depends on where they want to take the water, if taking water from a particular well impacts your right as an existing user to take water then there are two options, either they can't take water from that location and need to look for another well to take their allocation from or they need to develop a 'make good' arrangement whereby they enable you to continue taking water as is your right (i.e. pump water and truck to you, or deepen your well to enable consistent access to water, etc). The make good arrangement would be an arrangement between the applicant and the existing user. The applicant would not be authorised to take water from that particular location unless the existing user agrees to the made good agreement.	No change to Plan

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8.13	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Trading	Trade of water should not be allowed for financial profit.	The draft Plan enables trade within the same consumptive pool. However, the likelihood of a trade market eventuating is low. This is because trade is dependent on demand, and for the Far North there is no volumetric cap on the volume of water that can be allocated. Therefore applicants seeking water are more likely to buy an ongoing water right from the Minister than temporarily trade water from another user. If someone does want to temporarily purchase water from another user the draft Plan does enable this, trade is a fundamental feature of the unbundling of water rights. In order to take the water, the new user of the water needs to get the appropriate approvals to take it from a particular location. Temporary trade (ie of allocation) is also dependent on appropriate water accounting, without water accounting measures in place from both the transferee and transferor the temporary trade of allocation cannot occur.	No change to Plan
8.14	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	WAP Review	What is the timeframe for reviewing the WAP?	WAP is reviewed at least every 10 years, as a statutory requirement, but can be reviewed and changed at any time based on different triggers. Sections of the WAP can be reviewed and amended in consultation with the community as required.	No change to Plan
8.15	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	WAP Review	Is 10 year review period appropriate given the importance and contentious nature of water, especially if significant changes occur?	WAP can be reviewed as required, legislatively this is at least once every 10 years, however, the WAP can be reviewed at any time should the conditions change, or the Board deems that changes need to be made because of changes in legislation or resource condition or for any other reason.	No change to Plan
8.16	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	WAP Review	If we think something is significant enough to impact our rights and interests in relation to water could we require/trigger a review and how would a review occur.	The (Landscapes) Board would need to undertake a review, which could be initiated by community concern.	No change to Plan
8.17	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Environmental Protection	It's clear the activity to date has had impact (e.g. springs drying up), we don't want to see creep in protection measures, i.e. concerns about taking water within 5km of springs being enabled.	Understand the concern. The taking of water within 5km of a spring will be required to firstly prove that the taking of water in that particular location will not negatively impact on the ecological values of the spring, or the cultural value of the spring. This approach may assist in keeping stock off the spring and causing ecological damage to the surface structures of the spring, if a watering point can be placed near the spring, not over 5km away. Interested to see other views on this issue. The intent of this draft Plan is to maintain water pressures to maintain flow towards these springs.	No change to Plan
8.18	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Aboriginal Water Rights	Sacred sites are not often registered on the register of aboriginal sites and objects. Strongly encourage consultation with aboriginal groups (RNTBC).	Given the development already in place in the prescribed wells area, the key activity which has the ability to impact upon a site of cultural significance is the drilling of a new well. In this case (as is current practice) the drilling of a new well is subject to referral to the registered native title body corporation for clearance. The RNTBC has 60 days to respond to the request, if no response is received by 60 days the approval is given. At this point when referred to the RNTBC the location of the proposed well can be assessed for the likelihood of its location impacting upon a site of cultural significance.	Recommendation to refer to the register has been removed from section 3.3 of the Plan and rather the current practice of referral for a new well is emphasised. Removal of reference to impact upon cultural sites from WRWAs (principles 26(e), 29(a)(vi) and 45(f)) and instead the referral to the RNTBC is reinforced for the drilling of new wells (principle 41). Appendix C removed.
8.19	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Aboriginal Water Rights	There needs to be an onus on landholders and department to ensure cultural sites are maintained and protected.	That is the intent of the provisions of this draft Plan.	No change to Plan

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8.2	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Aboriginal Water Rights	There should be a mechanism to issue licences for commercial purposes in order for Traditional Owners to be in line with everyone else, we shouldn't be starting at a disadvantage.	The draft Plan enables licences to be issued to new users of the resource. The taking of this water will be subject to having a water resource works approval which authorises the wells from which the water can be taken, it is this component that requires some assessment about what impact the taking of water will have on the resource, existing users, GDEs and sites of cultural significance. Licences can therefore be applied for and issued. But a WRWA will need to be applied for before the water can be taken. In other states or other parts of SA, there has been a pool of water set aside for Traditional Owners for economic development. Unfortunately, this cannot be undertaken in this area because there is not a volumetric cap on the water to be issued in this area, it is all about the site specific location of where the water is intended to be taken. Some consideration is being given to how best to allocate water for economic development to TO's in the PWA similarly to the River Murray. The WAP is drafted to enable this to occur, and this process would take place alongside the WAP and the WAP does not need any amendments to enable this to occur. The Board and Department will need to know who best to speak to about this issue. This can happen after the adoption of the WAP or when the TO's consider it would be appropriate.	No change to Plan
8.21	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Aboriginal Water Rights	Is there a volume or percentage of water retained for cultural use?	No, the cultural water consumptive pool is not defined volumetrically, traditional owners can use water as part of this pool without a requirement for a licence to meet their cultural water needs. In other states or other parts of SA, there has been a pool of water set aside for Traditional Owners for economic development. Unfortunately, this cannot be undertaken in this area because there is not a volumetric cap on the water to be issued in this area, it is all about the site specific location of where the water is intended to be taken. Some consideration is being given to how best to allocate water for economic development to TO's in the PWA similarly to the River Murray. The WAP is drafted to enable this to occur, and this process would take place alongside the WAP and the WAP does not need any amendments to enable this to occur. The Board and Department will need to know who best to speak to about this issue. This can happen after the adoption of the WAP or when the TO's consider it would be appropriate.	No change to Plan
8.22	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Aboriginal Water Rights	Can licences for commercial purposes be issued from the cultural water consumptive pool?	No. The cultural water consumptive pool is solely for water for cultural purposes and no licences will be issued from this pool. This pool is to highlight the importance of access to water for cultural purposes which does not require a licence. If a licence for commercial purposes is required, then this will be issued from the All Purpose consumptive pool similarly to any other commercial licence. If it is for stock or domestic purposes, then the licence would be issued from that consumptive pool.	No change to Plan

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8.23	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Aboriginal Water Rights	How will water for homelands be managed, is that domestic water (and free from a levy) or will it be issued in the all purpose consumptive pool.	If the water is used to maintain the homeland, i.e. providing water for the houses, keeping lawns green etc, it is deemed domestic use and would be free from a levy. However, if the water is to be used to make a commercial profit, i.e. irrigating and selling the produce for profit then a commercial licence would be required.	No change to Plan
8.24	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Aboriginal Water Rights	Would it be possible to have a blanket water licence for the cultural areas?	A licence for commercial purposes would fall into the All Purpose consumptive pool. This would need to be discussed and worked through as how best to determine the licence and how to issue it, i.e. could be a single licence for each body corporate area. Also need to consider other authorisations e.g. works approvals to ensure that water will be able to be taken in the location wanted before going through the process of applying for water and then finding out it can't be taken where it is wanted. The Department is happy to work with people on this issue.	No change to Plan
8.25	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Comment	There appears to be different rules for different folks. Question around the appropriateness of industry taking gigs while limited access to traditional owners as an example of power to influence. Discussion around BHP indenture trumping this draft WAP. We need to be bold in this space if we want to see change.	The way the draft plan is prepared requires equity for all parties, each applicant is required to meet the same criteria in order to be provided a water access entitlement/allocation or a water resource works approval. The Board and Department is available to assist TO in determining the steps they need to take in order to apply for water rights and any funding that may be available to assist with providing water for homelands etc. The Roxby Downs indenture Ratification Act does have primacy over the draft Plan, however there are rules and regulations in the Landscapes south Australia Act 2019 to require monitoring and assessment of impact due to the taking of water.	No change to Plan
8.26	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Monitoring	Are we doing any work on monitoring springs and ensuring bores are capped?	Compliance for closed delivery systems can now commence given the 10 year period stipulated in the existing WAP for these systems has passed. Compliance measures are underway and the draft Plan reinforces the requirement for water to be used judiciously and taken through closed delivery systems. There is a bore network as part of the state-wide monitoring network which measures groundwater pressures annually, currently the data is stable.	No change to Plan
8.27	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Accounting	Historical bad practice should not give people a free break. Accounting for water is important and needs to be done.	Agreed. Water accounting needs to be undertaken as you can't manage what you don't measure. Industry already meter their water use from the resource, and we will be working with pastoralists on appropriate water accounting methods for the region as an implementation task for this Plan.	No change to Plan
8.28	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Water Licence	What makes traditional owners eligible to apply for a water licence?	Anyone is eligible to apply for a water licence/water access entitlement. However, in order to take the water a water resource works approval is required to take the water from a particular well or location. It is recommended that if it is known where the water is proposed to be extracted that the WRWA is applied for first, this is where the assessment step takes place (i.e. ensures that taking water from this location will not impact upon existing users, springs, other GDEs or sites of cultural significance). Then once the assessment is approved you can apply for the WAE. It can be done the other way around, however there is a risk that you are approved the water but not in the location it is proposed to be taken. This is a suitable approach if you want the	No change to Plan

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							water right but do not yet know where you want to take it, however the risk remains that it may not be able to be taken where you want.	
8.29	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Complexity	What are consumptive pools and how does the licensing work? Yandruwandha have more pastoral leases than any other part of SA. Therefore, we need to understand the processes.	Consumptive pools in this draft Plan are determined based on purpose of use: Cultural Water consumptive pool - to meet the cultural needs of traditional owners (not to be used for commercial use, not issued licences, reflects the inherent right of Traditional Owners to use water for cultural purposes); Stock and Domestic consumptive pool - for water issued to be used for stock and domestic purposes, separated into its own consumptive pool due to a desire of pastoralists to ensure that water issued for stock is not able to be transferred to another purpose (key feature of consumptive pools is that water cannot be traded to be an allocation from another consumptive pool) and finally the All Purpose consumptive pool, for any other purpose of use. An understanding the WAP guide will be developed to assist in simply understanding the rule and intent of the WAP, what it means for existing users and how new users can access water in the PWA.	No change to Plan
8.3	25/02/2020	Statutory Meeting	Traditional Owners - Port Augusta 25/02/2020	Verbal	Aboriginal Water Rights	It's important to understand culturally the impact of increased consumption, Aboriginal understanding and knowledge could be used.	To protect the springs, the draft Plan requires that any new use does not impact upon the water pressures required to maintain appropriate groundwater flow to the springs. There are some instances in the WAP where, if the applicant can provide supporting data, they are able to reduce water pressures beyond the limitations set in the draft Plan but only in instances when they can prove that not meeting this criteria will not cause any impact on the ecological functionality of the spring. This step also acknowledges that the ecological significance and the cultural significance do not always align, i.e. lower water pressures may still meet the ecological requirements, but this may compromise the cultural value of the site. Therefore it is required in these instances that they prove the ecological impact will be negligible and that they have liaised with the relevant registered native title body corporate to ensure that there is no cultural impact to the site in proposing to exceed these triggers. If there is other knowledge able to be shared with us in relation to cultural values and understanding of the impact of taking water on sites of cultural sites, we would be happy to receive it and incorporate where applicable in the draft Plan.	No change to Plan
8.31	25/02/2020	Statutory Meeting	Traditional Owners - Port	Verbal	Consultation	Need to try and get more people around table. Useful to have a 2-3 page summary for traditional owner groups.	Discussed opportunities to further discuss the draft Plan with traditional owners	No change to Plan

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			Augusta 25/02/2020					
9.01	27/02/2020	Statutory Meeting	Pastoral Board - Adelaide 27/02/2020	Verbal	Pastoral Industry	Concern that pastoral users need to be protected. The pastoral industry will be a long lasting industry in the area, likely to outlast other industries and therefore needs to be protected from the impacts of others.	The draft Plan has provisions in place to firstly maintain existing pastoralist's water rights but secondly protect them from the impacts of any new taking of water.	No change to Plan
9.02	27/02/2020	Statutory Meeting	Pastoral Board - Adelaide 27/02/2020	Verbal	PWA boundary	Question raised as to why a single pastoral property remains outside of the PWA	The boundary was established in 2003 and was based on the extent of the Great Artesian Basin and aligned with the nearest cadastre (property) boundary. That is why that pastoral property would not be included. Amending the boundary of the PWA is very difficult requiring de-prescribing the area and then re-prescribing, it is not a simple process which is why it has not been undertaken.	No change to Plan
9.03	27/02/2020	Statutory Meeting	Pastoral Board - Adelaide 27/02/2020	Verbal	Water Accounting	Offer from David Larkin to provide information on 6 different models they have used on farm to assist in accounting for water (beyond farmbot) which we could use for our learning.	Noted	No change to Plan
9.04	27/02/2020	Statutory Meeting	Pastoral Board - Adelaide 27/02/2020	Verbal	Water Allocations	How do we deal with stocking maximums changing and the corresponding water allocation increase?	If stocking maximums are removed and pastoralists decide to run more stock, they can apply for more water. The water will be limited to the volumes specified in the WAP, however as part of the application for new water they will need to meet the rules of the WAP as would any other user, and must prove they will not impact negatively on another licensee's ability to take water from the resource, not impact on springs or other GDEs.	No change to Plan
9.05	27/02/2020	Statutory Meeting	Pastoral Board - Adelaide 27/02/2020	Verbal	Carryover	Is there provision for carry over or allocations that last more than one year	Currently no. This is because carry over and water access entitlements over a longer period than a year require water accounting, until water accounting for all users is available then carry over etc cannot be rolled out.	No change to Plan
9.06	27/02/2020	Statutory Meeting	Pastoral Board - Adelaide 27/02/2020	Verbal	Aboriginal Water Rights	Cultural water is recognised as important, however water for economic purposes by aboriginal people should be subject to the same rules as everyone else for equity. How if at all will cultural water impact on existing users?	Cultural water is water which is already authorised under section 128 of the NRM Act by the Minister to be taken. The cultural water consumptive pool does not provide any new rights in relation to this water but heightens the importance of this water. Taking of this water will not impact on existing users' ability to continue to take water. Water for economic development by any new user of the resource is required to prove that the taking of such water in a particular location will not impact negatively on another licensee's ability to take water from the resource, not impact on springs or other GDEs and that the drilling of a new well will not damage, disturb or interfere with a site of cultural significance.	Recommendation to refer to the register has been removed from section 3.3 of the Plan and rather the current practice of referral for a new well is emphasised. Removal of reference to impact upon cultural sites from WRWAs (principles 26(e), 29(a)(vi) and 45(f)) and instead the referral to the RNTBC is reinforced for the drilling of new wells (principle 41). Appendix C removed.
9.07	27/02/2020	Statutory Meeting	Pastoral Board - Adelaide 27/02/2020	Verbal	Water Quality	What is the value of the water to the pastoralists in terms of water quality?	Water quality will limit the use of water for particular industries, however there are technologies available to reduce the salinity (or heavy metals etc) of water if required.	Included text in section 6 of the Plan to state that the volume of water allocated does not ensure the water is of suitable quality for the intended purpose, the licensee will need to determine if the water is suitable for its intended purpose and if not manage the water such that it is (i.e. desalination etc)

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10.01	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Legislative	It appears that the Landscape South Australia 2019 Act does not make reference to the National Water Initiative Agreement like it does to the Boarder Groundwater Agreement, the Lake Eyre Basin Intergovernmental Agreement, the Murray-Darling Basin Agreement or the Roxby Downs indenture Ratification Act. Does this mean that the Landscape South Australia 2019 Act is not meeting the intent of the NWI agreement? Concern that without reference to the NWI there will be a lack of transparency in water pricing policy, there may be adverse outcomes. The visibility of NWI in the legislation is missing.	Comment appears to be in relation to section 4 of the Landscape South Australia 2019 Act "Interaction with other Acts", DEW responded that the difference between the NWI and the other referenced agreements is that the other agreements are supported through legislation such as the <i>Groundwater (Border Agreement) Act 1985</i> , the <i>Lake Eyre Basin (Intergovernmental Agreement) Act 2001</i> , the <i>Roxby Downs (Indenture Ratification) Act 1982</i> and the Murray-Darling Basin Agreement is a schedule to the federal <i>Water Act 2007</i> . Further the NRM Act was amended in 2007 to reflect the key agreements of the NWI, particularly in response to unbundling of water rights and consumptive pools. These legislative changes in relation to water have been carried over into Landscape South Australia 2019 Act.	No change to Plan
10.02	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Climate Change	The WAP doesn't mention climate change. The WAP discusses water availability but doesn't mention reductions in rainfall and what impact that may have on vegetation or industry, e.g. the resilience of landscapes to sustain pastoralism - what reduction in rainfall does to edible perennial vegetation and what impact does that have on industry?	Acknowledged that because the groundwater is not directly impacted upon by a changing climate (i.e. recharge occurred thousands of years ago) reference to the impacts of climate change have been generally omitted. Text can be included to identify how climate change may indirectly impact upon the groundwater availability - e.g. less surface water around so more groundwater utilised, and what impact the lower rainfall may have on available vegetation, especially for stock.	Inclusion of subsection after Hydrogeology on Impacts of Climate Change
10.03	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Bore-Fed Wetlands	The use of the term 'Amenity' for bore fed wetlands is not supported, preference to keep the term as bore fed wetlands. On Groundwater Data (SA Geodata) a number of the bore fed wetlands are listed as stock wells rather than as bore fed wetlands, will this be updated? Don't believe that water which can't be used on the bore-fed wetland should be able to be sold or traded for another purpose.	Currently referred to as amenity water as it covers more water uses than just bore fed wetlands. If it is decided to maintain the domestic water in the Stock and Domestic Consumptive Pool and not transition a portion of it to the All Purpose Consumptive Pool as amenity water, then the bore-fed wetlands term could be reintroduced into the WAP as this is all it would refer to then. The well purpose listing in Groundwater Data is sometimes different to that on the licence, this is because the Groundwater Data information is provided at the time of well drilling and is only updated when new information is obtained. The well location project currently underway can be used to update the data in Groundwater Data to list wells for the purpose for which they are currently used. Discussed that while some bore-fed wetlands may have been issued more water that they actually need, there are provisions in the legislation for when the Minister can take away people's water rights, and the provisions do not apply to this situation. Therefore, to manage this and ensure that water for bore-fed wetlands is used judiciously, all bore-fed wetlands will require a site use approval, even the existing licenced sites. The SUA will require that water only be applied to the site at a rate consistent with the wetland management plan and no more. This may mean that in instances when an allocation has been provided which is more than the wetland requires to maintain its values (cultural, ecological or amenity) that the remainder of the water on the licence will not be able to be used at the site. It can be used for another purpose or could be relinquished back to the Minister or traded if a market becomes available. If a bore-fed wetland already has a management plan	Where the term amenity is referred to (section 1.2, table 5.1, section 5.3, principle 53a and 54) it has been removed and replaced with bore fed wetland were appropriate.

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							which outlines the rate at which water can be applied to the site to maintain the values of the site then this can be used to issue the site use approval, if no such plan exists then a plan will be required to be prepared.	
10.04	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Consultation	Question regarding WAP consultation feedback. Why are we not seeing any revisions to the draft Plan based on the consultation feedback?	Changes cannot be made to the draft Plan during the consultation period. After the consultation period ends all feedback will be considered by the Board, who will recommend any changes to the Minister.	No change to Plan
10.05	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Reporting Requirements	What is the cost of a salinity test associated with the Annual Water Use Report?	Unknown. The AWUR is only required in certain circumstances. Acknowledge that this is not clear in the principles and will need redrafting. Also may require some monitoring on of the water level/pressure which is not in this version of the draft Plan. Need to amend this principle to identify the circumstances where this is required (to target large water users or developments) or that this principle is at the Ministers discretion.	Principle 51e amended to apply only if authorised to take more than 1 ML/day for purposes other than pastoralism.
10.06	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Environmental Protection	Regarding water take from within springs buffer zone. It is hard to determine how much water can be taken when near a spring. How is this going to be assessed?	DEW, the Board and industry are making a groundwater model to enable water take scenarios to be assessed.	No change to Plan
10.07	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Legislative	Regarding water licence unbundling. If the feedback (from consultation) is for no water trade at all then why unbundle?	We are required under the NRM Act/Landscape South Australia Act 2019 to unbundle all new and amended water plans from now on.	No change to Plan
10.08	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Assessment/Approval Processes	What is the cost to vary a water licence?	Around \$440 (it is actually \$462)	No change to Plan
10.09	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Assessment/Approval Processes	There appears to be more assessments required by the applicant to get more water than the process under the previous WAP. Who has to pay for all of this, what is the process because it is not very clear, will there be multiple application fees?	Acknowledged that the process is not very clear if not familiar with the new licence arrangements. Will endeavour to include a flow diagram of the process in the understanding the WAP guide. The first step for a new user is to apply for a water resource works approval (\$462), to take water from an existing well, this is the instrument which enables you to physically take water from the resource, this is where the assessment occurs because this identifies where the water is to be taken (the wells). This assessment is where it is compared to the rules in the WAP - i.e. will it impact upon springs, GDEs, cultural values or other users? If there is no existing well the user will need to apply for a well construction permit (\$93.50) which will be assessed against these criteria also, however a WRWA will also need to be applied for once the well is drilled to enable the taking of water from the well. Once there is approval to take water from this location the applicant then needs to either vary an existing Water Access Entitlement or seek a new Water Access Entitlement (\$249) which will then provide the allocation to applicant. In some instances, the WAE fee is waived, if this is the case the fee for a WRWA is the same as varying a water licence under the previous WAP. In terms of the assessment, the rules in the draft Plan and the rules in the existing WAP are similar in relation to the impact upon springs and existing users so the assessment process does not change. The new addition is the other GDEs and as long as the applicants well is more than 100m from these sites then no assessment is	Principle 8 and 10 with regard to issuing of water access entitlements, amended to include that "A water access entitlement will not be granted without a water resource works approval to enable the take of the water issued. The water resource works approval is subject to the principles outlined in section 7 of this Plan ". Figure 6.1 updated to provide further clarity

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							required in that instance. The numerical model currently being developed will be used to assess any new take from the GAB resource, this is likely to be much more cost effective than seeking a hydrogeologist to undertake an aquifer assessment to consider the likely impact of take in a particular location. Will consider options to issue WAE only with associated WRWA, effectively linking the processes.	
10.10	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Legislative	Concern that the WAP has been prepared under old legislation by an old Board, while the Pastoral Land Management and Conservation Act 1989 is currently being amended, that a new Board would not approve this draft Plan. Concern that the WAP will significantly impact upon pastoralists.	The water components of both the NRM Act and Landscapes South Australia Act 2019 are the same. Had this draft Plan been prepared under Landscape South Australia Act 2019 instead of the NRM Act it would still be the same and no amendments are required to make it consistent with Landscape South Australia Act 2019 with the exception of updating references in the draft Plan from the NRM sections to the Landscape South Australia Act 2019 sections, but they are the same principles. In relation to the Pastoral Land Management and Conservation Act 1989, the key feature which may change in this legislation through consultation would be the maximum stock rates for pastoral leases. Currently water is issued to pastoral leases based on the maximum stocking rates. If the stocking rates were removed and more cattle were allowed on each lease, then licensees can apply to increase their allocation in line with the volume approved per head per day in relation to the increase of stock on their property. Therefore, any changes in the Pastoral Land Management and Conservation Act 1989 would not require amendment to the draft Plan. It would be useful to understand where there is concern that the draft Plan will impact on pastoralists. The draft plan is not dissimilar to the existing WAP so it is not clear what this concern is based on.	No change to Plan
10.11	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Water Licence	At the moment there are 3 components on (Coward Springs) water licence. If they are all from the 1 pool what is to stop someone using it all for the bore fed wetland? The licence should list the purpose for the water. The NWI pricing aims to improve efficiency, therefore the purpose of use on licence assists to negotiate trading and price signals.	Because the Board currently charge a levy based on the purpose of water, the licence will need to list the purpose of water. Other purposes like stock and domestic will need to be separately identified because they will be issued to a different consumptive pool. The licence will be issued similar to as it is now where the allocation is separated into different components for different purposes of use. In relation to Bore fed wetlands, water will only be able to be applied to them at the rate specified in the management plan required for the site use approval. If water is applied at a rate greater than this then the licensee may be subject to a breach of licence penalty.	No change to Plan
10.12	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Water Pricing	There is no clear message on pricing or incentives to use water efficiently through the draft Plan.	Water pricing is managed outside of the WAP either by setting a price for the purchase of new water, a market being established which determines itself the price and which water is sold or traded, or through the use of levies which are determined as part of the Board's business planning process. There are principles throughout the draft Plan which require the judicious use of water.	No change to Plan
10.13	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Compliance	It is important not to reward people for doing the wrong thing through allowing ongoing poor water management practices.	The draft Plan addresses many current poor practices. People who are not taking water in accordance with their licence are subject to compliance.	No change to Plan

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10.14	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Compliance	Can a water licence be revoked?	Yes, but only under certain circumstances as nominated in the NRM/Landscape South Australia Act 2019.	No change to Plan
10.15	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Water Pricing	Can the levies be charged based on use to encourage better water efficiency? Water levy increases of 300% resulted in being approximately 10% of gross income, and there was an 800% increase on land levies. The price of levies is not driving better use of the water and is stopping businesses from being able to expand due to the price. Economic development is hindered. The Board need to look forward and use pricing to support water efficiency.	The NRM Act (and the Landscapes South Australia 2019 Act) provides a number of ways that a Board can determine levies, one of them being based on use. However, in order to charge a levy based on use, appropriate water accounting measures need to be in place for all licensees using water for that purpose. If there is a proposed rise or change in levy rates, the Board must consult the community.	No change to Plan
10.16	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Comment	Economic development is not discussed well in the plan.	Noted. The demands section discusses the likely future uses for water in the PWA. The overarching premise of the document is that economic development requiring use of the water resource is enabled if it can be proven that taking water from that particular location in the resource will not impact negatively upon existing users, springs, other GDEs.	Discussion on increased opportunities for economic development and possible diversification of industry included in section 1.6 Impacts of Climate Change and further discussed in future demands section - new subsection on irrigation demand.
10.17	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Water Pricing	The WAP should give direction to the pricing of water.	The WAP manages the take and use of water, but the Boards business plan manages the levies.	No change to Plan
10.18	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Aboriginal Water Rights	The cultural water reflection in the plan seems appropriate	Noted	No change to Plan
10.19	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Water Advisory Committee (WAC)	The WAC is under represented, it has industry representatives but only one pastoral representative from the eastern side, the western pastoralists are not represented on the WAC. Why are Livestock SA not members of the WAC?	The WAC is a subcommittee of the Board and has a terms of reference but members of the Board can be on the WAC. If someone from the West was to become a Board member, they would be able to attend the WAC meetings. The Board is not made up of members from representative groups such as Livestock SA but rather of members of the public with specific areas of knowledge. Livestock SA have been engaged through the consultation on this draft Plan.	No change to Plan
10.20	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Consultation	There hasn't been appropriate engagement or consultation on this draft Plan as yet.	Individual consultation occurred on the WAP in early 2019 with the kitchen table sessions with David and Lynn, the outcomes of these meetings were used to assist in drafting the draft Plan. In Nov 2019 pre statutory consultation meetings occurred to provide an overview of the draft Plan and to seek feedback. While the draft Plan cannot be changed until the consultation period has ended, some options for consideration are being brought back to the community in this round of consultation. This will be used to help the Board decide the direction they wish to go with the draft Plan once the consultation period has ended. The policies developed for the draft Plan were workshopped through the Water Advisory Committee and the Board before being drafted into principles for the WAP. The feedback received through these consultation meetings and the formal submissions will assist the Board in amending the WAP before it being sent to the Minister. It is not standard practice for a second draft Plan to be consulted upon.	No change to Plan

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10.21	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Clarification	There is no clear message on the key matters of the WAP. I.e. how this is different to the previous WAP, what licensees need to be aware of, how this will impact them.	Noted. Will include some of this in the understanding the WAP guide.	No change to Plan
10.22	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Consultation	If consultation had been wider earlier the issue of where the current domestic allocations have come from would have been known and understood and the proposal to break the allocation into two components would not have been required.	Noted.	No change to Plan
10.23	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Aboriginal Water Rights	Is there a fee required for cultural clearance?	No. The clearance is required as part of the new well construction permit application. When a new well is applied for, the application location is referred to the registered native title body corporate (RNTBC), they have 60 days to respond, and if no response is received then the application is approved. If all existing wells on the property are listed on the water resource works approval, the only time this will need to occur is when a new well is drilled. The process is for referral in any land covered by native title as required under the Native Title Act 1993, this happens across the state and is the process that has been occurring under the previous WAP, this draft Plan just heightens awareness of the process and the aboriginal consultation that occurs through this step. If an ILUA is in place which makes reference to water this is used instead of referring the application, or if the Registered Native Title body Corporate (RNTBC) has made a determination that they do not wish to see any new applications for well construction permits in certain areas then the application is not referred.	No change to Plan
10.24	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Complexity	There are too many fact sheets, it is not clear who is in charge of each step and many interdependencies in legislation. Can there be a flow chart what shows the relationships between the governance structures? There is no confidence for investors that they can navigate the process. Board does levies, but Minister manages WAP which is developed by the Board, but DEW does licensing and which step comes first. How is the price of water set and who is responsible for bore maintenance?	Noted. Will see if we can include a flow chart of the process and the interdependencies on other legislation and department/Board/Minister roles in the understanding the WAP guide.	No change to Plan
10.25	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Bore Maintenance	Bore maintenance needs to be clear. Who is responsible for what? If a bore faults the cost to repair it is prohibitive and it is a real issue for business, especially if a domestic bore fails.	Section 144 of the NRM Act (and section 119 of the Landscape SA 2019 Act SA Act) - Obligation to Maintain Well states that " <i>the occupier of land on which a well is situated must ensure that the well (including the casing, lining, and screen of the well and the mechanism (if any) used to cap the well) are properly maintained</i> " they are subject to penalty fees if they do not. This is reinforced in section 7.2 of the draft Plan. Historically the Board and Department have worked together to secure funding when it is available to assist landowners with the costs associated with bore maintenance (which does not generally occur in other areas of the state). The IGABDR project currently has funding available to assist wells targeting the Great Artesian Basin. Seek information from the Board if interested.	No change to Plan

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10.26	27/02/2020	Statutory Meeting	Science Exchange - Adelaide 27/02/2020	Verbal	Consultation	We would like to see a summary of the feedback received throughout this process when it has all been received.	The Water Advisory Committee will consider all the feedback and suggest any changes to the WAP to the Board. The Board will consider the feedback and changes, and make a final recommendation to the Minister. A consultation report that outlines all of the comments received and the responses to them will accompany the WAP that is provided to the Minister. This document will be publicly available with names de-identified.	No change to Plan
11.01	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Objectives	The introduction which states that the plan provides for the protection of water dependent ecosystems and sites of cultural significance dependent on the water resource is supported.	Noted.	No change to Plan
11.02	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Objectives	"Minimise the impact of the authorised taking of water on: Springs and other groundwater dependent ecosystems" - Concern that the use of minimise can be interpreted as softening the protection of water dependent ecosystems. A stronger objective, albeit somewhat aspirational, would be " Ensure that the authorised taking of water does not impact upon springs and other groundwater-dependent ecosystems "	Noted this concern. 'Minimise' was used to potentially enable some impacts as long as they are negligible and do not compromise existing users' ability to access water, compromise the ecological functionality of springs and other GDEs or compromise the ability of other aquifers to continue to supply water where needed. "Ensure" would require some variation of principles in the draft Plan which currently enable some impacts if they are deemed not to negatively impact upon things such as springs. Ensure would result that no impact could be observed, even one that wouldn't compromise the integrity of the site. Alternatively, " Ensure that the authorised taking of water does not negatively/detrimentally impact upon springs and other groundwater-dependent ecosystems " could potentially be utilised.	Objective of WAP amended from: <i>Minimise the impact of the authorised taking of water on:</i> - <i>the ability of current licence holders to access groundwater;</i> - <i>other water resources (adjacent, underlying or overlying water resources), and</i> - <i>springs and other groundwater dependent ecosystems</i> To: <i>Ensure that the authorised taking of water does not negatively impact upon:</i> - <i>the ability of current licence holders to access groundwater;</i> - <i>other water resources (adjacent, underlying or overlying water resources), and</i> - <i>springs and other groundwater dependent ecosystems</i>

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11.03	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Clarification	<p>Section 2.1.3 of the draft Plan states "<i>The principles in section 7 of this Plan reflect the importance of managing the take of water from the resource in a manner which does not result in a decline in groundwater pressures or levels that would adversely impact on groundwater discharge to the springs.</i></p> <p><i>This Plan employs the use of buffer zones around springs (Zone A – 5 km from a spring, and Zone B – 5 to 50 km from a spring, Fig. 2.1) within which specific principles outlining the acceptable change in water pressure applies to the taking of water (sections 6 and 7). These principles do not apply to existing users, unless the user is applying to increase the volume of water, they wish to take from within these buffer zones, or change the location of take to a well which is located within the buffer zone.</i>" This sentence needs to be crystal clear. For example, principle 56 indicates that: "<i>the use of water from a spring must not disturb the processes or structures required to maintain the ecological functionality of the spring</i>". Does this principle (and other principles in sections 6 & 7) only apply when a land manager proposes to increase the volume of water taken - meaning that, for example, a pastoralist can maintain current water management practices, including stock on springs, without any additional controls or requirements?</p>	<p>Many of the principles in the draft Plan apply only to new users or existing users increasing their allocation. However, the transitional provisions in the draft Plan (principles 18 - 21 and 59, 60 and 61) discuss how an existing users' licence will be issued in line with the draft Plan. Principles 18 - 19 indicate that as a licensee under the current plan they will be issued with a licence under this plan in relation to a particular consumptive pool at the same volume as which is currently issued on the licence. Principle 20 does indicate that water for domestic purposes would be issued at only 1.5 ML per household, however after discussions with the community this will likely be removed in the redrafting (subject to board approval). Principle 21 states that the water access entitlement may be subject to conditions set in section 6.7 of the plan - specifically this would mostly be related to principle 27 for all existing users (judicious use of water) and some of the other principles for the mining and petroleum companies, such as expiration dates etc.</p> <p>Principles 59 - states that the Minister may consider endorsing the conditions in section 7.6 onto the existing users licence, i.e. water must be accounted for, take of water through works must not exceed the maximum annual water use limit for the works (initially the same as the allocation), an annual water user report (based on feedback this will likely be changed to target only larger users of the resource) and a clause that allows the department to cancel the WRWA upon sale of land if the WRWA isn't transferred as part of the sale, or can endorse the conditions in section 7.8 onto the licence - specifically targeted to those with bore fed wetlands, disposing of water to the lands surface for mining and where licensees are using springs as a watering hole. These conditions can apply to existing users of the resource.</p> <p>As such people currently allowing stock to drink from springs will be subject to a condition on the licence to ensure that doing so does not disturb the processes or structures required to maintain the ecological functionality of the spring. These conditions can be applied at the Minister's discretion and as such, particularly this one, will not apply to every spring but likely a subset of key springs.</p> <p>After this discussion it is considered that it may be beneficial to vary the wording of the principle to reflect that it would only apply to specific springs and not to each of the 5000 springs. If FOMS have a list of springs they believe would benefit most from this principle, we could include this as a list in the draft Plan and refer the principle only to that list.</p>	Principles 54b and 56b amended to refer only to priority springs.
11.04	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Clarification	Principles 1, 6, 7, and 8 all seem to confirm the comment raised above that the granting of water access entitlements applies to proposals for new water access or increased access to a currently used water resource (e.g. spring); and that existing access arrangements (e.g. stock on springs) can be maintained without any	Noted. Can provide some content earlier in the WAP or in the associated understanding the WAP guide about which parts apply to existing users and which parts to new users. As discussed above, a SUA will be required by some existing users to continue to enable stock to drink from the spring.	Clarity provided in section 2.1.3 around how existing user's licences will be issued and that site use approvals are required to enable the taking of water from priority springs.

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						additional requirements. Again, the meaning needs to be made crystal clear.		
11.05	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Water Tight Delivery Systems	Principle 27 "...the Minister may give consideration to endorsing a condition to the effect that: the water subject to the authorisation...is taken and distributed through a water tight delivery system" The use of the word " May give consideration to " looks like a soft approach. Can it be strengthened to provide a greater requirement for water tight delivery systems? Also, it is unclear how this might apply in the case of GAB springs - assuming there may be a scenario where increased take of water from a spring requires a water licence or water allocation.	This terminology is required legally because the Minister under the NRM Act and subsequent Landscape SA Act 2019 has discretion over which conditions they choose to endorse on licences. As such, the draft Plan cannot direct the Minister which conditions to endorse.	No change to Plan
11.06	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Clarification	There are sections such as Principle 27 and 28, section 7.1 and 7.2 that talk about the use of water from springs and that they are deemed a well and therefore require a licence to take water for stock purposes. Does this only apply to new proposals to put stock on springs or to increase the amount taken from a spring for stock? And can it apply to the situation where stock are simply grazing/watering on a spring, or does it only refer to the taking of water by some mechanical means for stock water?	Anyone using a spring to water stock will require to list the spring on their water resource works approval to continue to enable stock to drink from the spring without being in breach of their water licence. In certain circumstances as discussed in previous questions a site use approval will be issued to key springs which states that stock cannot drink from the spring if it will disturb the processes or structures required to maintain the ecological functionality of the spring. This would apply both to stock grazing on spring or a mechanical means to diverting water from the spring to stock.	Principles 54b and 56b amended to refer only to priority springs.
11.07	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Assessment/Approval Processes	Principle 46 - which enables water to be taken from wells when the criteria in principles 44 and 45 are not met but that it can be demonstrated that there would not be any undesired impacts to the groundwater resource, springs, non-spring GDEs or existing users of the resource and would not damage, disturb or interfere with a site of cultural significance. This appears reasonable at face value but the discretionary provision for the Minister will need to be backed by rigorous science and firmly based around the "precautionary principle". GAB springs are highly dynamic systems affected by long and short-term natural fluctuations as well as by recent exploitation of the GAB. Strict safeguards are needed here.	Agreed. These provisions allow for greater flexibility. This is a leniency above the way water has previously been managed provided for in the region. As such, any decision to allow water to be taken within 5km of a spring will require evidence to support the claim that it will not impact upon the spring. This evidence will be reviewed and confirmed by the Department prior to an authorisation being enabled.	No change to Plan

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11.08	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Site Use Approvals	Principles 54b and 56b - site use approvals for springs being used by stock stating that the taking of water from the spring must not disturb the processes or structures required to maintain the ecological functionality of the spring. Is a SUA only needed where a land manager proposes using a spring for stock water where that spring has not previously been used for stock water or where increased use is proposed? In other words, if the land manager is maintaining existing stock watering arrangements on springs, does that mean he/she does not need a site use approval? The disturbance, by stock, of "processes or structures required to maintain the ecological functionality of a spring" is a critical issue for GAB spring conservation. Protection of springs from stock impacts is a central objective. On the other hand, it needs to be acknowledged that if principle 56 is in face applicable to existing stock watering arrangements, the implications for some pastoralists is enormous. A few pastoralists have literally hundreds of springs that have their "ecological functionality" disturbed by stock watering.	SUA will be required by some existing licensees enabling stock to drink from springs. As mentioned in previous comments ideally these SUA for springs would be issued with guidance from FOMS as to which springs should be afforded this protection measure.	Principles 54b and 56b amended to refer only to priority springs.
11.09	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Monitoring	Section 8.2 discusses that monitoring of springs and other non-spring GDEs is required to evaluate the success of the provisions in the draft Plan in relation to maintaining these sites. What is the process to ensure that this happens?	Alongside the draft Plan an implementation plan will be prepared. This will outline many of the projects required to implement this plan including a Monitoring, Evaluation, Reporting and Improvement Plan. This plan will be developed by the Board and may be developed in stages, for example it could be: Stage 1 identify monitoring sites, Stage 2 - commence monitoring, Stage 3 - refine monitoring frequency (based on data collected to date), Stage 4 - evaluate data collected, Stage 5 - refine monitoring network. The data collected would help to determine the effectiveness of the draft Plan in achieving its objectives and thereby enable a review of the plan at the 10 year mark informed by data.	No change to Plan
11.10	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Monitoring	Section 8.5 discusses evaluation of the monitoring data to consider the effectiveness of the plan in meeting its objectives. It states that "further detail regarding the content, timing and responsibility for evaluation activities will be determined by the Board." More information on the process for evaluation is needed. Just listing a few relevant parameters and then referring onto the Board seems inadequate.	Alongside the draft Plan an implementation plan will be prepared. This will outline many of the projects required to implement this plan including a Monitoring, Evaluation, Reporting and Improvement Plan. This plan will be developed by the Board after adoption of the draft Plan. This MERI Plan will comprehensively determine the monitoring that is required and the evaluation process for considering the data obtained through the monitoring. This information will help guide the review of the draft Plan within 10 years from the date of adoption.	Section 8.5 revised to provide clarity that the MERI plan will be developed as an implementation task of the Plan and the responsibility of developing the MERI, as well as any engagement with stakeholders in its development, is that of the Board
11.11	28/02/2020	Statutory Meeting	Friends of Mound Springs - Adelaide 28/02/2020	Written/ Verbal	Environmental Protection	The draft Plan includes a 5km Zone A zones around springs which is more of less equivalent to the 2009 WAP. In this respect, the 2009 WAP is more restrictive than the draft Plan because the 2009 WAP specifies no new wells within 5km of springs while the draft Plan includes some leeway for new wells within this Zone. This will need to be rigorously managed. The 45km zone B surrounding zone A is a new concept and does appear to provide an additional safeguard for springs.	Agreed. These provisions allow for greater flexibility than has previously been provided for in the region. As such, any decision to allow water to be taken within 5km of a spring will require evidence to support the claim that it will not impact upon the spring. This evidence will be reviewed and confirmed by the Department prior to an authorisation being enabled.	No change to Plan

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12.01	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Assessment/Approval Processes	Regarding springs and Groundwater Dependent Ecosystems (GDE), how do we prove no impact for Works Approval? How is this done in practice (when there is no Information on some of these aquifers)	In terms of impacts on Springs, given their National protection and importance, the key tool for assessment will be the Numerical Groundwater model. However if the model isn't appropriate, i.e. the relevant aquifer is not included in the model, there will need to be consideration of the aquifers in the area and its properties and assess the likely cone of influence to see if it will overlap with existing wells or springs. Currently working with the developers of the model to see if it would be appropriate for the Department to run the scenarios to streamline the process, or if the model will be made publicly available and the applicant would need to work with a consultant to run scenarios through the model and provide the outcomes to DEW with their application. In regards to non-spring GDEs, the impact assessment will be the use of a flow chart (based on this feedback it should be included in the Plan) which guides the applicant through a number of steps if the proposal is to take water from within 100m of one of these sites.	Flow chart of assessment steps for non-spring GDEs included in section 2.2.3. Principle 54c removed and all reference to impact on refuge non-spring GDEs applied to well construction permits in new principle after principle 42.
12.02	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Assessment/Approval Processes	Does the groundwater model take into consideration sub artesian aquifers? In practice it is difficult to identify location of well. Often need to drill multiple wells to locate water. Will we need to hire a consultant? As an example, if we want to drill a bore along a creek line and it could be classed as being near a GDE we may test drill in 3-4 spots before the drilling occurs. Sounds complicated for a fairly simple issue. Don't know how much water is required but know how much water stock need. New wells should be allowed if within the allocation	Noted. A flow chart had been prepared for the understanding the WAP guide, however it will now be added into the WAP for clarity of the process for the reader. Additionally, the rules around impacts on refuge GDEs by wells drilled into the sub artesian will be amended so that they refer to the initial drilling rather than the water resource works approval. This will avoid the need to have the assessment process occur twice, first for the permit to drill a well and second to add the well to the WRWA. If the permit is approved, then the variation of a WRWA to add the new well can happen without assessment. For the sub artesian aquifers, new wells will be allowed to take the existing allocation if the well is located further than 100m from one of the refuge GDE sites, or if located closer, the flow chart advises that the permit can be sought - i.e. the well is not targeting the surface aquifer, or that existing info shows the water table is deeper than 50m at the site, or the site shows no signs of a GDE being present.	Principles 29b and 45c removed, content with regard to impact on refuge GDE sites moved to new principle after principle 40 stating that a new well can be drilled if it is outside of zone A and the 100m buffer for refuge GDE sites, and is not intercepting the GAB aquifer, nor likely to impact on an existing users ability to take water and will be taking the same volume of water already authorised. Or if the applicant is targeting the unconfined aquifer within the Refuge GDE buffer, the GDE flow chart demonstrates that the taking of water from the new well is unlikely to impact upon the refuge GDE. Flow chart for permit application process for within 100m of refuge non-spring GDEs included in section 2.2.3 of Plan
12.03	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Assessment/Approval Processes	In practice we often don't know volume of water available. Process sounds complicated. Most sensible thing might be just to ensure closed systems to ensure use is not more than you need.	The process for drilling and adding a well that is not in the GAB aquifer, which is further than 5km from a Spring, 100m from a refuge GDE site and is not near another person's well is a simple process, no criteria for assessment need to be met. However, if targeting the GAB aquifer then we need to ensure it is not going to impact upon the springs by taking water in that location, regardless of if it is through a closed delivery system the impact of the location of take may still impact upon the springs. For the sub artesian and unconfined aquifers, it is a little simpler as the risks are reduced. In these cases if the applicant is drilling further than 100m from an identified refuge GDE site then no assessment required, however if they are proposing to drill within the 100m buffer then prior to the well construction permit being approved they will need to consider the flow chart, if the flow chart supports applying for a permit they just need to provide the supporting documentation, i.e. it is not targeting the surface aquifer, the water table at the site	Principles 29b and 45c removed, content with regard to impact on refuge GDE sites moved to new principle after principle 40 stating that a new well can be drilled if it is outside of zone A and the 100m buffer for refuge GDE sites, and is not intercepting the GAB aquifer, nor likely to impact on an existing users ability to take water and will be taking the same volume of water already authorised. Or if the applicant is targeting the unconfined aquifer within the Refuge GDE buffer, the GDE flow chart demonstrates that the taking of water from the new well is unlikely to impact upon the refuge GDE. Flow chart for permit application process for within 100m of refuge non-spring GDEs included in section 2.2.3 of Plan

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							is deeper than 50m, there is no GDE present at the site on ground.	
12.04	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Assessment/Approval Processes	Agree with Anthony Brook. The application process of putting a new bore in is confusing. Lots of thought goes into where to drill well (includes cost). May require multiple attempts to find water. Needs to be very clear what landholders need to do.	Noted, will try to simplify this and provide direction on the process. Will included the flow chart for non-spring GDEs in the Plan to make the process clearer.	Principles 29b and 45c removed, content with regard to impact on refuge GDE sites moved to new principle after principle 40 stating that a new well can be drilled if it is outside of zone A and the 100m buffer for refuge GDE sites, and is not intercepting the GAB aquifer, nor likely to impact on an existing users ability to take water and will be taking the same volume of water already authorised. Or if the applicant is targeting the unconfined aquifer within the Refuge GDE buffer, the GDE flow chart demonstrates that the taking of water from the new well is unlikely to impact upon the refuge GDE. Flow chart for permit application process for within 100m of refuge non-spring GDEs included in section 2.2.3 of Plan
12.05	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Non-Spring GDEs	With regard to GDE's, do they need to have groundwater expression at the surface? Would GDE that is remote and therefore be a refuge have surface water expression of the groundwater for it to be of use to fauna?	Not necessarily surface expression although this may occur at the site. The draft Plan also considers vegetation accessing shallow groundwater. Ecologists have identified two parts, surface water presence and the presence of vegetation dependent on ground water in that location.	No change to Plan
12.06	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Water Trading	How can water be traded if it's not metered?	Yes. Acknowledge the need to have adequate water accounting to enable trading.	No change to Plan
12.07	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Waste Water Disposal	What in the plan is needed for water released from desalinisation units on to the land surface?	Outside scope of WAP. Clarified that question related to waste brine and identified regulation under EPA to look at how and when the water is disposed. The disposal of the waste water from desalinisation could be considered a 'water affecting activity' and thought would need to be given to how and where the water is disposed of. [response in message thread] There are various ways to dispose of brine/wastewater. Discharge to watercourses should be prevented but pumping into a dam or evaporation pond is an option. A licence from the EPA is required for any system that has the capacity to produce over 200kL of produce water per day and produces more than 2 ML per year.	No change to Plan
12.08	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Stock Water Requirements	100L per head (stock) per day is plenty	Jodie Gregg-Smith discussed a proposed pilot study to determine stock water needs and use in the region (land systems and climate). The relevant part of the WAP could be amended in the future if required once this work has been completed.	No change to Plan
12.09	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Stock Water Requirements	Can I suggest you need to do pilot (stock water needs) in the hot months or your numbers will be incorrect but also agree (with Anthony Brook) the numbers are ample	Noted	No change to Plan
12.10	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Water Quality	How is groundwater quality, in different wells, considered in the WAP? Every well has such different salt and mineral content and goes from drinkable, in between to totally unusable.	Water quality is not considered in plan. The draft Plan only considers water take and use. The Department regularly monitors salinity of the GAB aquifer to assess if taking water is impacting salinity.	Included text in section 6 of the Plan to state that the volume of water allocated does not ensure the water is of suitable quality for the intended purpose, the licensee will need to determine if the water is suitable for its intended purpose and if not manage the water such that it is (i.e. desalination etc)

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12.11	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Carryover	Disagree with the idea of carrying water over from year to year. The point is conserving water and manage properly. To carry water over and bank water is not sensible (benefit some industries over others). Potential for massive take in one year which may impact the resource.	If carry over was to occur, we would need to consider risks and advice of scientists. It would need to have a negligible effect on the resource but provides the user with extra water in a dry year when it's needed. Need right information for decisions to be made. If principles were to be in the WAP they would limit the percentage of water that could be carried over. Other WAPs specify that only 10% of allocation can be carried over, even if someone under uses by 50% of their allocation. This is due to the risks to the resource of potentially taking 150% of the allocation in the following year. Currently don't have the information required to enable this, also requires water accounting to determine what is available to be carried over. Can be considered at a later date if the community require it and water accounting is being undertaken to facilitate it.	No change to Plan
12.12	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Non-Spring GDEs	What is our ability to prove impact? Regarding determining impact of water take on non-spring GDE's. What proof is required? What are the costs and practicalities? Consultants are expensive. Doubt whether GDE actually exist based on the map as it shows lots on Cordillo which are not actually there. We need a permit in place before the drillers come out as they are expensive. Need a mechanism that is not cumbersome.	Slide at the end that goes through the process and approach (later in presentation displayed the flow chart and talked through the steps, noted this should be included in the WAP or the understanding the WAP guide for clarity to users)	Flow chart for permit application process for within 100m of refuge non-spring GDEs included in section 2.2.3 of Plan
12.13	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Non-Spring GDEs	Where is the GDE map?	Small areas in the landscape. It's hard to show on a map. Once the WAP is adopted (once any changes in place) then DEW has a website with GIS layers that can be overlaid with property boundaries to see where the GDE are and consider for any new take of water. It will be possible to zoom into an area on the map and find the required information as map layers. Its very user friendly. Uses web browsers, doesn't need GIS or any other tool. Melissa provided a link to Nature Maps in the Zoom chat https://data.environment.sa.gov.au/NatureMaps or www.naturemaps.sa.gov.au	New subsection added to draft Plan in introduction chapter titled Data Locations, when WAP is finalised and layers are put on NatureMaps, direct links to these layers in this section will need to be added to the version of the WAP loaded to the web
12.14	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Aquifer Recharge (MAR)	Wouldn't mining water be contaminated (and not suitable for re-injection)	Components of water that would not be suitable for reinjection could be discharged to land. Definitely don't want contaminated water reinjected. Other water will be suitable for repurposing or reinjecting e.g. water from de-watering processes. This needs some further clarity in the WAP	Principle included after principle 27 to state that 27(a)(vi) does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste.
12.15	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Environmental Protection	Please explain the colour of the zones on the springs buffer map	The dark blue was the South West Spring zone in the previous WAP, the light blue zone is Zone B, the 45km buffer zone from the edge of Zone A (5 km buffer around the spring).	Section 2.1.3 updated to include information on how Zone A and Zone B were delineated.
12.16	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Non-Spring GDEs	Regarding drilling close to non-spring GDE's. How did they come up with 50m depth?	Studies have shown that trees can source water from up to 50m below ground level. Studies in the area looking at tree root depth and how they access groundwater, used leaf analysis to determine the type of water they were accessing (groundwater vs surface water or water in the unsaturated zone of the aquifer - pore water); results showed they were accessing groundwater.	No change to Plan
12.17	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Non-Spring GDEs	Regarding non spring GDE's. How does the Dept. think they know where the groundwater is?	The process uses identification of vegetation which is present when surface water is not. I.e. looking at coverages of satellite NDVI layers which identify	No change to Plan

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			presentation 4/04/2020				vegetation which is actively taking water. It is based on weekly coverages taken for the past 40 years. Then we can look at the driest periods and see which areas are still actively accessing water, this would require to generally be met by groundwater in these conditions. Additionally, there was a layer called Water Observations from Space which identifies water sources in the landscape, however this was not used in the end because of the featured that maintained water in drought conditions, the sources were significant and therefore unlikely to be impacted by shallow wells taking small volumes of water. As such the layer only identifies these sites that we know are using groundwater during drought periods. Then of that information, they considered which of these sites would be considered refuges in the landscape, looking at if there is a site which has no other sites around it (<50 ha of area within a 5km radius), this is likely to be a refuge in the landscape for fauna and these are the areas which have a 100m buffer applied around them which requires some consideration if you are drilling in this area to a depth of up to 50m.	
12.18	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Non-Spring GDEs	Regarding non spring GDE's. So, you would mainly look for trees?	Another layer used was water observations from space that picks up water in the landscape and undertook assessment of the surface water features to minimum level of water observations during drought, however the majority of these sites were deemed to be fed by large groundwater systems or unlikely to be impacted by the taking of small volumes of water from the shallow aquifer so did not require protection under the draft Plan.	No change to Plan
12.19	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Non-Spring GDEs	Is this information available to landholders?	The report is currently being completed. The report and the spatial GIS layer will be available online once finalised.	New subsection added to draft Plan in introduction chapter titled Data Locations, when WAP is finalised and layers are put on NatureMaps, direct links to these layers in this section will need to be added to the version of the WAP loaded to the web
12.20	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Assessment/Approval Processes	Regarding dispute resolution process. If an application is rejected, what is the dispute process?	There is a dispute process. For Water Affecting Activities there is a 6 week timeframe from the notification of the Boards decision. We will follow up.	No change to Plan
12.21	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Assessment/Approval Processes	There needs to be timeframes in application process to quickly get answers.	Agreed	No change to Plan
12.22	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Assessment/Approval Processes	Well application process can often take a long time. If we need a well now due to drought then need short application timeframes.	Noted. Working to reduce "red tape". Intent is to make process fair and reasonable.	No change to Plan

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12.23	4/04/2020	Statutory Meeting	Zoom meeting Session 1 - Full presentation 4/04/2020	Zoom Verbal/ Message	Environmental Protection	Why is the buffer zone for springs is so large? They are 100km across	Spring zones are based on impact studies. 5km buffer same as previous plan and about impact to spring, with a 0.5m drawdown at the edge of the 5km buffer there should be no drawdown in pressure at the spring this is based on the Deglee equation. Water pressure could decrease by about 0.5m at 5km from the spring without the spring being impacted. The 45km is from the edge of the 5km buffer. This is about managing the pressure and replicates the South West spring zone in the existing WAP but is more specific to the spring locations rather than a fixed boundary. The previous WAP had a volumetric limit to the volume of water which could be allocated within this area, this Plan removes that limitation, but still requires that new water cannot be allocated unless it can be proven that the drawdown limitations (same as in existing WAP) will not be exceeded.	Section 2.1.3 updated to include information on how Zone A and Zone B were delineated.
13.01	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Consultation	Why wasn't the summary of feedback from previous consultation provided before the meeting?	The proposed changes for wording in the WAP based on the consultation which has already occurred was included as a presentation in the meeting request for meeting.	No change to Plan
13.02	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	IGABDR	What is IGABDR?	It is the Improving Great Artesian Basin Drought Resilience program. Commonwealth funding to assist in bore and infrastructure repairs.	No change to Plan
13.03	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Domestic Water Allocation	Regarding domestic water allocation. Wasn't it 10.95 ML/yr. per dwelling in current WAP?	The water allocation volume varies from property to property. Based on all the licencing data the baseline rate for domestic is 3.65 ML/yr but it depends on number of dwellings so 10.95 ML would be for 3 dwellings. Due to the feedback received in early consultation, it is intended to keep domestic water in the stock and domestic consumptive pool and remove the concept of amenity water means that nothing changes for existing users. New users would be able to apply for 3.65 ML per dwellings.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
13.04	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Domestic Water Allocation	Regarding domestic water allocation. If an existing licence holder builds a new dwelling can they apply for additional water?	Yes, constructing an additional building allows you to apply for extra 3.65 ML/Yr.	No change to Plan
13.05	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Trading	Regarding possible future regulation change that would allow temporary trade of water across consumptive pools. We agree to wait for these changes and amend the WAP in the future rather than try to change WAP now to allow greater trade.	Noted	No change to Plan
13.06	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Trading	Agree that any change in trade should wait until the proposed regulations are in place.	Noted	No change to Plan
13.07	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Stock Water Requirements	Additional water needed to allow overflow for stock welfare during periods of extreme heat. Water is more than just for drinking. Mentioned that there is research in the South East on this.	This need to be investigated. There appears to be extremes in opinions on this matter with other areas indicating the volumes are generous. Research is required. Further enquiry regarding water flow beyond what going through a closed delivery system. We will contact Andrew Curtis on the research being done in the South East. SAAL Board is looking at research into this as some people feel the allocation is ample and others who believe it is not sufficient allocation for stock.	No change to Plan

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13.08	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Stock Water Requirements	Regarding stock water requirement. Contact Andrew Curtis regarding research on this matter undertaken in South East of South Australia. Minimum of 150L/day per cow and this is in cold country.	Noted, will follow-up for applicability to the Far North. Project for stock use will also include feral and native animal use of water.	No change to Plan
13.09	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Stock Water Requirements	Regarding stock water requirement. Also need to research the 20% buffer as it might not be enough for native animals.	Noted	No change to Plan
13.10	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Stock Water Requirements	Regarding stock water requirement. A rise in 10 deg c can almost double the daily water requirement of stock. Most data is based on 25 degrees Celsius	Noted	No change to Plan
13.11	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Allocations	Consideration should be given that pipelines are not perfect. There is always going to be some water waste. Beyond control of better management. This happens also with a large mining company. There is a general wastage by all users beyond their control.	The point made is understood. We need to consider what is fair and reasonable and make sure we are always working toward judicious use of water. It is more about not being complacent. It is recognised that sometimes systems don't work well due to various reasons.	No change to Plan
13.12	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Stock Water Requirements	Regarding stock water allocation. What is in the plan regarding temporary increase in allocation during a good season? We can get temporary increases in stock maximums from the pastoral Board. In good seasons we can carry cattle for a short amount of time particularly in good rain seasons.	Short term increases are not contemplated in WAP as the allocation you currently have is based on your maximum stocking rates. However, the WAP does not limit the allocation to the maximum stocking rates, if you did get a stock rate increase you could apply to increase your allocation subsequently. There is currently consultation on the Pastoral Act to possibly remove the stocking rate maximum. So, this WAP has not been written prescriptively so that it can enable changes to the Pastoral Act to be enacted, however the same rules apply for any other user requesting additional water. If you want to increase an allocation, you need apply to increase the water taken through a water resource works approval (WRWA) which has a volumetric cap based on the existing allocations. This requires an assessment to ensure that it doesn't impact on existing users, springs, GDE and cultural sites. Use the new GAB model to do the assessment which is being developed. Seeking clarification if the DEW will release the model for consultants to use for assessment or if the DEW needs to the assessment. Then need to increase the water access entitlement, which is automatic, as the assessment is done for the WRWA.	No change to Plan
13.13	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Allocations	Regarding stock water allocation. Concerned about going through the process of varying licence where additional water is required for a short period.	Temporary trade might be a good in this instance, however this cannot occur without appropriate water accounting measures in place for both the transferee and transferor. Otherwise, if you vary your licence it would be ongoing. However, it would still need to meet the rules in the WAP about not impacting existing users, Springs, GDEs or sites of cultural significance.	No change to Plan
13.14	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Consultation	How many people who were involved in writing the WAP have worked/lived on a station, especially in drought to see how stations are in saving finite water resource versus for example mining who don't seem to care. We have 5 companies prospecting/ core sample draining water without care. The bureaucracy is killing pastoralists. Way more than any pastoralists down south. And we are less profitable potentially.	The WAP process has engaged with many pastoralists, including now as this is a draft Plan and we are still in the consultation phase. All the feedback is being considered.	No change to Plan

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13.15	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Trading	How much paperwork in trading water?	Understand that amount of paperwork is a concern. Trading would require adequate water accounting. This is not onerous in terms of undertaking the actual transfer of water but needs an accounting system first. Trade occurs very freely elsewhere in the state and is the foundation of some businesses. Enabling the take of the water traded by the new owner would require meeting the criteria in the WAP, i.e. proof that the new location of take wont impact upon other users, springs, Non-spring GDEs or sites of cultural significance. A project of the implementation plan will be to develop online forms which make this process easy and streamlined as possible	No change to Plan
13.16	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Rights	Pastoral have first right water use in Roxby Downs Indenture Agreement. Which is related to GAB or other water on our properties. This should be recognised in future should any future large water extractions be sourced.	Existing users are protected. New water users or applications for increased allocation need to show that it's not going to impact existing users and GDE's (spring and non-spring), as well as sites of cultural significance.	No change to Plan
13.17	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Aquifer Recharge (MAR)	Regarding reinjection of co-produced water. Would there be water quality guidelines for re-injection? For example, not letting them re-inject water or less quality than was extracted.	Only suitable quality water would be reinjected. The plan includes approvals required for reinjection which consider water quality. Section 7.5 of the draft Plan draining or discharging water into a well includes all requirements for reinjection and approvals required, including EPA authorisations and meeting water quality guidelines prior to being approved. Reinjecting co-produced water that of similar quality that is extracted. If contaminated, then they go to tailings dam. New principle to be added to make it clear that reinjection of water from tailing dams does not apply for the mining industry etc.	Principle included after principle 27 to state that 27(a)(vi) does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste.
13.18	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Allocations	Regarding stock water allocation and carryover. What is in the plan about allowing for a temporary increase in stock carrying capacity in good seasons you will obviously need more groundwater as not everyone will have surface water. Are there provisions?	Short term increases are not contemplated in WAP as the allocation you currently have it based on your maximum stocking rates. However, the WAP does not limit the allocation to the maximum stocking rates, if you did get a stock rate increase you could apply to increase your allocation subsequently. There is currently consultation on the Pastoral Act to possibly remove the stocking rate maximum. So, this WAP has not been written prescriptively to enable changes to the Pastoral Act to be enacted, however the same rules apply for any other user requesting additional water. If you want to increase an allocation, you need apply to increase the water taken through a water resource works approval (WRWA) which has a volumetric cap based on the existing allocations. Need to apply to vary the cap through an increase in take, and this requires an assessment to ensure that it doesn't impact on existing users, springs, GDE and cultural sites. The new GAB model which is being developed will be used for assessments. Seeking clarification if the DEW will release the model for consultants to use for assessment or if the DEW needs to do the assessment. Then need to increase the water access entitlement, which is automatic, as the assessment is done for the WRWA. An alternative solution would be trade of water from another pastoral user who isn't utilising their full allocation that year (enabled in the WAP to trade within a consumptive pool). However, this would require an accounting mechanism to be in place for both parties	No change to Plan

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							and would still require an assessment to increase the limit on the WRWA.	
13.19	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Allocations	Regarding stock water allocation and carryover. How would we apply for more water if we increase our stocking numbers?	If you want to increase an allocation, you need to apply to increase the water taken through a water resource works approval (WRWA) which has a volumetric cap based on the existing allocations. Need to apply to vary the cap through an increase in take, and this requires an assessment to ensure that it doesn't impact on existing users, springs, GDE and cultural sites. Use the new GAB model to do the assessment which is being developed (if taking from the GAB aquifer) or consider the impact through the flow chart now included in the Plan for the sub artesian aquifers. Seeking clarification if DEW will release the model for consultants to use for assessment or if the DEW needs to the assessment (a task for the implementation plan for the WAP). Then the applicant needs to increase the water access entitlement, this will be a straight forward process of increasing the WAE up to the limit now issued on the WRWA, this does not require another assessment step, as the assessment was undertaken for the WRWA.	No change to Plan
13.20	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Accounting	Where are we at with Water Accounting?	Looking at how people are using FarmBot. If people have ideas on the best way to do water accounting even though it sits outside of the WAP, this is a good process to get people's ideas on this. We are encouraging people to come forward with ideas on water accounting with their formal WAP submission. Board and DEW is very keen to partner with pastoralists to find a win-win outcome for water accounting in the area. Possibly telemetry and other mechanisms could be a good alternative. This is an ongoing process - no timeline for this to be implemented. Need to consider the research and the costs and is comparable to other water users in the state. Need to develop a Meter Implementation Plan which for the Far North is a Water Accounting Implementation Plan. There is an open mind to set up a local water steering group to provide a timely, appropriate and relevant advice back to the Landscape Board. Water accounting will be required but will be a staged implementation with input from the community.	No change to Plan
13.21	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Water Accounting	Agree lots of research needed to determine best approach to water accounting	Noted	No change to Plan
13.22	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Pastoral Act	When is the Pastoral Land Management and Conservation Act 1989 due to be revised?	The new review of the pastoral legislation process is just starting and will be some time away before it is finalised. 1st tranche is logged, and draft legislation is being developed. The draft Plan is adaptable enough to handle any potential legislative changes	No change to Plan
13.23	4/04/2020	Statutory Meeting	Zoom meeting Session 2 - Follow up 4/04/2020	Zoom Verbal/ Message	Pastoral Act	The revision of the pastoral legislation will change how water is allocated.	As an existing user you are entitled to the water currently on your licence. If you are allowed to carry more stock, you can apply to vary water licence. An increase in stocking numbers will not result in an automatic increase in allocation, it will need to meet the requirements of the draft Plan.	No change to Plan

Ref	Date	Submission Type	Meeting Location and Date	Comment Type	Subject Category	Comment	Response	Changes to the draft Plan (draft principle #s)
14.01	12/03/2020	Written Submission	Written Submission -	Written	Objectives	"Minimise the impact of the authorised taking of water on: Springs and other groundwater dependent ecosystems" - can be interpreted as softening the protection of water dependent ecosystems flagged in the introduction. A stronger objective, albeit somewhat aspirational, would be " Ensure that the authorised taking of water does not impact upon springs and other groundwater-dependent ecosystems "	Concern noted. The term minimise was used to enable some impacts as long as they are negligible and do not compromise existing users' ability to access water, compromise the ecological functionality of springs and other GDEs or compromise the ability of other aquifers to continue to supply water where needed. "Ensure" would require some variation of principles in the draft Plan which currently enable some impacts if they are deemed not to negatively impact upon things such as springs. Ensure would result that no impact could be observed, even one that wouldn't compromise the integrity of the site. Alternatively, " Ensure that the authorised taking of water does not negatively/detrimentally impact upon springs and other groundwater-dependent ecosystems " could potentially be utilised.	Objective of WAP amended from: <i>Minimise the impact of the authorised taking of water on:</i> - <i>the ability of current licence holders to access groundwater;</i> - <i>other water resources (adjacent, underlying or overlying water resources), and</i> - <i>springs and other groundwater dependent ecosystems</i> To: <i>Ensure that the authorised taking of water does not negatively impact upon:</i> - <i>the ability of current licence holders to access groundwater;</i> - <i>other water resources (adjacent, underlying or overlying water resources), and</i> - <i>springs and other groundwater dependent ecosystems</i>
14.02	12/03/2020	Written Submission	Written Submission -	Written	Environmental Protection	FOMS is concerned that the draft Plan does provide some scope for new artesian bores within 5km of GAB springs. This appears to represent a softening of the provisions of the previous WAP which essentially precluded new bores within this zone. FOMS remain concerned that this provision could be applied to the detriment of nearby springs in terms of pressure reduction. Even a temporary failure of a bore in close proximity to a spring could result in a catastrophic loss of springs' biodiversity.	Agreed. These provisions allow for greater flexibility. This is a leniency above the way water has previously been managed provided for in the region. As such, any decision to allow water to be taken within 5km of a spring will require evidence to support the claim that it will not impact upon the spring. This evidence will be reviewed and confirmed by the Department prior to an authorisation being enabled. The ability to replace wells or drill wells in this zone may result in the removal of stock from springs because a more suitable watering point is available. Concern noted, will raise with the Board.	No change to Plan
14.03	12/03/2020	Written Submission	Written Submission -	Written	Clarification	Section 2, in relation to discussing the buffers states that "These principles do not apply to existing users, unless the user is applying to increase the volume of water they wish to take from within these buffer zones, or change the location of take to a well which is located within the buffer zone" FOMS initial interpretation was that this wouldn't apply if people were cattle are going to continue to water at springs at the same rates. But principle 56 specifies that the use of water from a spring must not disturb the processes or structures required to maintain the ecological functionality of the spring. After verbal discussions it is clear 56 applies to existing users, but this is a bit unclear in section 2 and could be amended to clarify its intent.	Many of the principles in the draft Plan apply only to new users or existing users increasing their allocation. However, the transitional provisions in the draft Plan (principles 18 - 21 and 59, 60 and 61) discuss how an existing users' licence will be issued in line with the draft Plan. Principles 59 - states that existing users will be given WRWA and SUA (where needed) and the minister may consider endorsing the conditions in section 7.6 onto the existing users licence or can endorse the conditions in section 7.8 for site use approvals onto the licence - for example where licensees are using springs as a watering hole. These conditions can apply to existing users of the resource. As such people currently allowing stock to drink from springs will be subject to a condition on the SUA to ensure that doing so does not disturb the processes or structures required to maintain the ecological functionality of the spring. These conditions can be applied at the Minister's discretion and as such, particularly this one, will not apply to every spring but likely a subset of key springs. It may be beneficial to vary the wording of the principle to reflect that it would only apply to priority springs and not to each of the 5000 springs. If FOMS have a list of springs they believe would benefit most from this principle, this will assist in implementation. Wording in section 2 can be amended for clarity re transitional provisions.	Principles 54b and 56b amended to refer only to priority springs. Clarity provided in section 2.1.3 around how existing users licences will be issued and that site use approvals are required to enable the taking of water from priority springs.

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14.04	12/03/2020	Written Submission	Written Submission -	Written	Clarification	Section 6.3 discusses Water Access Entitlements only being issued where they do not cause undesired impacts to springs etc, however the term undesired is vague and FOMS would like to see more objective terminology used such as "to ensure the taking of water will not cause impacts to the springs such as physical disturbance of spring structures or ecosystems or reduction in water pressure.."	Yes, 'undesired' can be a vague term, it is used throughout the draft Plan in reference to springs, other GDEs and existing users, as such undesired impacts to each of these users of the resource would be different. Instead of amending the principle, amendments have been made in the preamble of section 6 to respond to this concern, such that it reads "The taking and use of such water will be subject to the rules outlined in section 7 of this Plan, to ensure the taking of water will not cause undesired impacts to the springs (for example, will not cause physical disturbance of spring structures or ecosystems, nor result in groundwater pressure level declines which would result in reduced flows to springs), non-spring GDEs or existing users of the resource, and will not damage, disturb or interfere with any site of cultural significance."	Text in preamble of section 6 amended to read: "The taking and use of such water will be subject to the rules outlined in section 7 of this Plan, to ensure the taking of water will not cause undesired impacts to the springs (for example, will not cause physical disturbance of spring structures or ecosystems, nor result in groundwater pressure level declines which would result in reduced flows to springs), non-spring GDEs or existing users of the resource, and will not damage, disturb or interfere with any site of cultural significance."
14.05	12/03/2020	Written Submission	Written Submission -	Written	Water Tight Delivery Systems	Principle 27 "...the Minister may give consideration to endorsing a condition to the effect that: the water subject to the authorisation...is taken and distributed through a water tight delivery system" The use of the word " May give consideration to " looks like a soft approach. Can it be strengthened to provide a greater requirement for water tight delivery systems?	This terminology is required legally because the Minister under the NRM Act and subsequent Landscape SA Act 2019 has discretion over the conditions to endorse on licences. As such, the draft Plan cannot direct the Minister on which conditions to endorse. However, having this principle specified in the WAP, even as currently worded, enables the Minister's delegate to add this condition to a licence, without 'fettering' the Minister's decision in anyway.	No change to Plan
14.06	12/03/2020	Written Submission	Written Submission -	Written	Water Licence	Under section 7 (<i>Management of the Take and Use of Water</i>), FOMS notes with interest that springs are defined as wells for the purpose of the NRM Act and that a licence is required for stock watering on springs. How will this be administered? For example, the Peake Pastoral Lease includes well over a hundred springs. Will licensing occur on a spring-by-spring basis, on a total lease basis, or somewhere in between? This is unclear. In saying this, FOMS generally supports the concept – but the practicalities of implementation, management and compliance are unclear and could be complex	The Department is currently undertaking an assessment for each licensee of which sources of water they intend to utilise for their allocation, including any springs. The onus is on the existing users to identify the springs through which stock are currently enabled to drink water directly. These springs will then be listed on the water resource works approval to enable the licensee to use the source to water stock. The springs are maintained in the SA Geodatabase and identified by a unique code which can be applied to the WRWA. In some instances (for priority springs) a Site Use Approval will also be issued to ensure that the site at which the water is being used (the spring) is not disturbing the processes or structures required to maintain the ecological functionality of the spring.	No change to Plan
14.07	12/03/2020	Written Submission	Written Submission -	Written	Assessment/Approval Processes	Principle 46 - which enables water to be taken from wells when the criteria in principles 44 and 45 are not met but that it can be demonstrated that there would not be any undesired impacts to the groundwater resource, springs, non-spring GDEs or existing users of the resource and would not damage, disturb or interfere with a site of cultural significance. The approach gives considerable discretionary powers to the Minister will need to be backed by rigorous science and firmly based around the "precautionary principle". GAB springs are highly dynamic systems affected by long and short-term natural fluctuations as well as by recent exploitation of the GAB. Strict safeguards are needed here.	Agreed. These provisions allow for greater flexibility. This is a leniency above the way water has previously been managed provided for in the region. As such, any decision to allow water to be taken within 5km of a spring will require evidence to support the claim that it will not impact upon the spring. This evidence will be reviewed and confirmed by the Department prior to an authorisation being enabled.	No change to Plan

Ref	Date	Submission Type	Meeting Location and Date	Comment Type	Subject Category	Comment	Response	Changes to the draft Plan (draft principle #s)
14.08	12/03/2020	Written Submission	Written Submission -	Written	Site Use Approvals	Principles 54b and 56b - site use approvals for springs being used by stock stating that the taking of water from the spring must not disturb the processes or structures required to maintain the ecological functionality of the spring. The disturbance, by stock, of "processes or structures required to maintain the ecological functionality of a spring" is a critical issue for GAB spring conservation. Protection of springs from stock impacts is a central objective. FOMS strongly support the concept of springs being protected from surface disturbances. At the same time, however the application of principle 56 to existing stock watering arrangements has enormous implications for some pastoralists. Few pastoralists have literally hundreds of springs that have their "ecological functionality" disturbed by stock watering. In discussion it was noted that this type of principle would be applied through a staged approach.	Site Use Approvals will be required by some existing licensees to enable stock to drink from springs. As mentioned in previous comments ideally these Site Use Approvals for springs would be issued with guidance from FOMS as to which springs should be afforded this protection measure.	Principles 54b and 56b amended to refer only to priority springs.
14.09	12/03/2020	Written Submission	Written Submission -	Written	Monitoring	<p>Section 8 discusses evaluation of the monitoring data to consider the effectiveness of the plan in meeting its objectives. In terms of evaluation, the draft Plan describes a range of parameters to be considered but does not address the broader issue of the process for evaluation. Instead it notes that “further detail regarding the content, timing and responsibility for evaluation activities will be determined by the Board”.</p> <p>FOMS suggests that this is insufficient detail for the WAP. While it may not be appropriate to nominate specific stakeholders or stakeholder groups to be involved in the evaluation process, it should be both possible and appropriate to foreshadow the types of stakeholders who should be involved (e.g. agency and board personnel, university researchers, industry representatives, Indigenous groups, relevant conservation-based NGOs).</p>	Alongside the draft Plan an implementation plan will be prepared. This will outline many of the projects required to implement this plan, including a Monitoring, Evaluation, Reporting and Improvement Plan. This plan will be developed by the Board after adoption of the draft Plan. This MERI Plan will comprehensively determine the monitoring required to take place and the evaluation process for considering the data obtained through the monitoring and identify those stakeholder groups to be engaged in this process. This information will help guide the review of the draft Plan within 10 years from the date of adoption.	Section 8.5 revised to provide clarity that the MERI plan will be developed as an implementation task of the Plan and the responsibility of developing the MERI, as well as any engagement with stakeholders in its development, is that of the Board

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15.01	20/03/2020	Written Submission	Written Submission -	Written	Levies	<p>The draft Plan refers to the NWI as a guiding document yet mentions nothing about water pricing which is one of the Key Elements of the NWI (24iii) "best practice water pricing". Consequently, the WAP should be providing clear direction to the boards regarding the setting of levies/pricing of water and this direction should align with the pricing principles in the NWI. These guiding principles are not in the draft Plan or in the existing FN NRM Business Plan, and this is a major oversight. Suggest that the draft Plan be amended to firstly refer to refer to pricing in section 1.1. para 2 when the NWI is mentioned. Further add "best practice water pricing and institutional arrangements" to the dot point in section 1.1 at the end of para 2.</p>	<p>While the draft Plan can be amended to include pricing when discussing the key elements of the NWI, it is unable to guide the Board in decision making for levies or provide direction on best practice water pricing. The Intergovernmental Agreement on a National Water Initiative is a guiding document to signatory states on how best to work towards consistent water management approaches. The NWI covers many areas of water management with the Key Elements including i) Water Access Entitlements and Planning Framework; ii) Water Markets and Trading; iii) Best Practice Water Pricing; iv) Integrated Management of Water for Environmental and Other Public Benefit Outcomes; v) Water Resource Accounting; vi) Urban Water Reform; vii) Knowledge and Capacity Building; and viii) Community Partnerships and Adjustment. In South Australia the Water Allocation Plans manage some of these Key Elements whilst other governmental policies or documents manage other Elements. For example Urban Water Reform is not delivered through Water Allocation Plans as WAPs are limited to managing natural groundwater resources and not water sources such as stormwater (unless the surface water is prescribed) or wastewater. The same applies for Best Practice Water Pricing, the NRM Act (section 101) and the Landscape SA 2019 Act (section 76) outline the provisions for the declaration of Levies in respect of water. This section advises that "The Minister may, by notice in the Gazette, declare a levy or levies gazette levies for water" and that in doing so "A levy declared by the Minister under this section must be set at a level that will return an amount that is near as reasonably practicable to the amount stated in the annual business plan (or plans) of the relevant regional landscape board...." As such it is the relevant Landscape board determines the Levies for the water licensees in the prescribed area through its business plan, not the WAP. The SAAL 3 year Business Plan (volume 2) on the Boards website (https://www.naturalresources.sa.gov.au/files/sharedassets/sa_arid_lands/corporate/nrm_plan/saal-business-plan-2019-20-2021-22.pdf) outlines the rate of the levies raised for water on page 22 with the guiding principles for decision making on NRM levies described on page 23.</p>	<p>Section 1.1 the section referring to NWI has been amended to provide an overview of all the Key Elements, not just the ones which are managed through the WAP.</p>

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15.02	20/03/2020	Written Submission	Written Submission -	Written	Legislative	The WAP refers to the NWI as a guiding document but the Landscape SA 2019 Act does not refer to this statutory agreement at all. It is also somewhat disconcerting that the draft Plan refers to the old legislation (NRM Act) and never to the Landscape SA 2019 Act. Section 1.2 of the draft Plan should refer to the Landscape SA 2019 Act Act.	<p>The Landscape SA Act 2019 refers to the Acts and Agreements to which it is subject to in section 4(2), namely</p> <ul style="list-style-type: none"> • The Murray-Darling Basin Agreement; • The Border Groundwater Agreement (as amended from time to time) approved by the Groundwater (Border Agreement) Act 1985; • The Lake Eyre Basin Intergovernmental Agreement (as amended from time to time) ratified and approved under the Lake Eyre Basin (Intergovernmental Agreement) Act 2001; • The indenture (as amended from time to time) ratified and approved by the Roxby Downs (Indenture Ratification) Act 1982. <p>The referenced agreements are listed in the Landscape SA 2019 Act as they are supported through legislation such as the Groundwater (Border Agreement) Act 1985, the Lake Eyre Basin (Intergovernmental Agreement) Act 2001, the Roxby Downs (Indenture Ratification) Act 1982 and the Murray-Darling Basin Agreement is a schedule to the federal Water Act 2007. The National Water Initiative is not support by legislation – it is a state agreement with the Commonwealth Government and other signatory states and territories.</p> <p>The NRM Act was amended in 2007 to reflect the key agreements of the NWI, particularly in response to unbundling of water rights and consumptive pools. These amendments were carried over into the Landscape SA 2019 Act.</p> <p>The draft Plan was written when the NRM Act was in place. As it will be adopted under the new Landscape SA 2019 Act, all references to the NRM Act as the current piece of relevant legislation have been changed to reference the Landscape SA 2019 Act instead, identifying the new section numbers which apply. It should be noted that minimal changes occurred to the water provisions of the NRM Act to the Landscape SA 2019 Act and all the principles and content in the draft Plan is still relevant under Landscape SA 2019 Acts as is was under the NRM Act.</p>	Section 1.2 amended to state that the review was undertaken in line with the NRM Act and subsequently the Landscape SA 2019 Act.
15.03	20/03/2020	Written Submission	Written Submission -	Written	Clarification	In section 1.3 & 1.7, though small at this stage, there is potential for irrigation of crops such as dates and this should be alluded to in these sections	Will acknowledge this in the plan. Identifying that it can be undertaken in suitable areas. Irrigation on pastoral lease can only occur upon approval of the Pastoral Board so will need to ensure that it refers to suitable locations.	Sections 1.3 and 1.7 amended to include content about irrigation in suitable areas.

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15.04	20/03/2020	Written Submission	Written Submission -	Written	Climate Change	The WAP doesn't mention climate change despite section 7(e) of the Landscape SA 2019 Act stating "The objects of this Act include to support and enhance ecologically sustainable development by establishing an integrated scheme to promote the use and management of the natural resources that make up or contribute to our State's landscape in an integrated manner that—recognises that climate change is a significant factor in our environment (including a recognition of the need for mitigation and adaptation)". Climate change is noticeably absent by name or proposed action in the draft Plan. The WAP doesn't mention reductions in rainfall and what impact that may have on vegetation or industry, e.g. the resilience of landscapes to sustain pastoralism - what reduction in rainfall does to edible perennial vegetation and what impact does that have on industry? The Plan should highlight alternative uses of water, which may offer economic development opportunities in the Far North. Thus, use of water for irrigating arid horticulture crops such as dates or pistachios is a good example of such an opportunity.	Acknowledged that because the groundwater is not directly impacted upon by a changing climate (i.e. recharge occurred thousands of years ago) reference to the impacts of climate change have been generally omitted. Text can be included to identify how climate change may indirectly impact upon the groundwater availability - e.g. less surface water around so more groundwater utilised, and what impact the lower rainfall may have on available vegetation, especially for stock.	Inclusion of subsection 'Impacts of Climate Change' after the Hydrogeology section
15.05	20/03/2020	Written Submission	Written Submission -	Written	Aboriginal Water Rights	Chapter 3 successfully articulates the importance of water to the cultural and spiritual life of the aboriginal people in the region, however it does not go far enough to examine potential economic development opportunities involving the use of water, such as tourism and arid zone horticulture. This detail should be included in section 3.1	There are economic development opportunities available to Aboriginal people in the region. These opportunities will be further discussed with First Nations group looking to secure water licences in the area rather than being expressly discussed in the Plan.	No change to Plan
15.06	20/03/2020	Written Submission	Written Submission -	Written	Climate Change	In section 5.3.3 Pastoral Demand, climate change may mean that pastoral land will become increasingly unviable in the Far North, as such water demand from this land use is likely to decrease. Additionally, section 5.3 should include a section on the potential for irrigated arid zone horticulture.	Noted. Will include some text to respond to this potential.	Under Pastoral Demand section 5.3.3 included some text about diversification opportunities. Included future possible demand from the irrigation sector in the Irrigation Demand section.

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15.07	20/03/2020	Written Submission	Written Submission -	Written	Consumptive Pools	<p>This section is difficult to understand, particularly the shift from "purpose" to "impact" as it is not clear how the impact is assessed, surely there is a need to know the purpose to estimate the impact of a proposal. What is the safe yield of bores and how is this being used to evaluate proposals for new or increased water usage? Further the consumptive pools are based on purpose of use, this is confusing and contradictory to the statements above. It implies that a proposal to irrigate say 1000 ha of dates is nor relevant to assessing impact on the water resource vs the water of a tourist campground at the same location.</p>	<p>The change from purpose based allocation to impact based allocation means that rather than certain purposes of use being arbitrarily limited to particular volumes or no longer able to be undertaken in the PWA, this plan states that water can be taken for any purpose. The impact based assessment means that when assessing the applicability of a new application (for any purpose) it is the impact the taking of water on the resource that is the important factor, rather than the purpose of use. For example, it is important to manage the impacts of any additional water use so that existing users can continue to access water and that the taking of that water will not reduce the water pressures required to maintain the springs.</p> <p>When someone applies for a particular volume of water, they will usually estimate the volume of water based on what they plan to use it for. The department will then assess the impact of taking that volume of water from a specified location. If taking that volume of water from particular wells is not likely to impact on existing users, or drawdown water pressures at the buffer zones beyond the limits set in the draft Plan, then the application for the water is authorised. If there is a likely impact, then the water will not be authorised, or further work will be required to be undertaken to prove the impact will be negligible. This effectively determines the safe yield from the bore.</p> <p>With regards to the consumptive pools, yes they are loosely defined by purpose, stock and domestic being one purpose and all other purposes comprising the other consumptive pool from which licences are issued. This has been undertaken at the request of the majority of pastoralists who wish to ensure that water issued for pastoral purposes can only be used for that purpose, i.e. it can't be traded to be used for mining or tourism purposes.</p>	No change to Plan
15.08	20/03/2020	Written Submission	Written Submission -	Written	Transitional Arrangements	<p>The transitional arrangements section is not clear, what is the new state that is the result of this transition. It appears to maintain the status quo.</p>	<p>The transitional provisions are the principles in the draft Plan which enable existing users' licences from the existing WAP to be reissued as licences under the new WAP (once adopted). This section basically says that if you have a licence under the previous plan you will get an equivalent licence under the new plan (i.e. no reductions in allocation or cancellations of licences). The new licence will be subject to some of the conditions in relation to water resource works approvals under the new plan (such as accounting for water and taking in a judicious manner) and in some circumstances may be issued alongside a site use approval, such as bore fed wetlands which requires that the water be taken in accordance with the wetland management plan.</p>	No change to Plan

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15.09	20/03/2020	Written Submission	Written Submission -	Written	Bore Maintenance	The licence holder is responsible for maintaining a bore. Bore failure could mean a small business such as a pastoral property or a tourism venture could be up for anything up to \$300k. This issue has been raised by us in 2003 and we are yet to receive a response. It is of great concern and was raised at the 27 Feb 2020 meeting. It is important that this plan outlines a way forward to deal with this potentially crippling issue	Section 144 of the NRM Act (and section 119 of the Landscape SA Act 2019) - Obligation to Maintain Well states that "the occupier of land on which a well is situated must ensure that the well (including the casing, lining, and screen of the well and the mechanism (if any) used to cap the well) are properly maintained" they are subject to penalty fees if they do not. This is reinforced in section 7.2 of the draft Plan. Historically the Board and Department have worked together to secure funding when it is available to assist landowners with the costs associated with bore maintenance (which does not generally occur in other areas of the state). The IGABDR project currently has funding available to assist wells targeting the Great Artesian Basin. Seek information from the Board if interested.	No change to Plan
15.10	20/03/2020	Written Submission	Written Submission -	Written	Bore-Fed Wetlands	The term amenity implies private benefit. The bore fed wetland has a public benefit, and not just for the public visiting Coward Springs but for the wider community. The owners have managed and maintained the wetland area since 1991 for environmental reasons and for public benefit.	The term amenity was used in the draft Plan when it was proposed that amenity water include more than just bore fed wetlands. However, after consulting with the community, it is preferred that the alternative amenity purposes remain in the domestic classification of purpose of use. As such reference to amenity throughout the draft Plan will be reverted to bore fed wetlands.	Where the term amenity is referred to (section 1.2, table 5.1, section 5.3, principle 53a and 54) it has been removed and replaced with bore fed wetland were appropriate.
16.01	31/03/2020	Written Submission	Written Submission –	Written	Planning Act	Since July 2019 the Planning and Design Code (Phase 1), established under the <i>Planning, Development and Infrastructure Act 2016</i> , has applied to the Far North PWA. The Planning and Design Code will become the single source of all planning rules and zoning for assessing development applications across the state. Within the code, Overlays provide a mechanism for state interests and are often a trigger for referral of development applications. Currently the Code applies a PWA overlay to the entire Far North PWA which results in referral for the following types of development to DEW: horticulture, activities requiring irrigation, aquaculture, industry, intensive animal husbandry, and commercial forestry. The purpose of the referral is to provide expert technical assessment and direction to the relevant authority on the taking of water to ensure development is undertaken sustainably. Should there be a need to review the Overlay and/or referral mechanism in the future as a result of the draft WAP please contact DPTI.	The PWA boundary has not been varied through the process to develop the draft Plan. The current referral process is still applicable. No additional referral or amendment to the overlay is required.	No change to Plan
17.01	31/03/2020	Written Submission	Written Submission –	Written	WAP Adoption	DEM and DEW in close collaboration with the petroleum and mining industries are currently in the process of developing a basin wide computer simulation model for the GAB to inform future water allocation decision making. The model in conjunction with the draft Plan is vital for managing/licensing allocations via the understanding of pressure effects on important environmental receptors such as the GAB Mound Springs. DEM therefore recommends that the Board consider the timing of the release of the	The GAB model is currently under development. It is likely to be completed and ready to run scenarios by the end of 2020. It is likely that the GAB Model will be available for use for any additional water that may be applied for under the adopted water allocation plan.	No change to Plan

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						WAP such that is closely aligned with the completion of this model.		
17.02	31/03/2020	Written Submission	Written Submission –	Written	Water Trading	Trading of water between consumptive pools is not permissible. DEM believes this does not drive the best use of the water resource and limits options especially between pastoral, mining and petroleum. This may in fact drive mining and petroleum companies to buy pastoral leases, which may not be the best outcome for the state. DEM recommends that the Board consider the option of allowing trading of water between the larger industries such as Petroleum/Pastoral and Mining/Pastoral to drive both the best use of the water resource and to allow for current water licence holders the opportunity to diversify incomes.	Feedback from the pastoral community has been strongly against the ability to trade water issued for pastoral purposes to any other purpose. Some pastoralists have advised they might like the ability to temporarily trade the WAE or just trade the water allocation (annually) in periods when they have destocked. However, the draft Plan was prepared under NRM Act which only enables trade within consumptive pools and not across consumptive pools, even if the trade is only temporary. In order to trade temporarily, the stock and domestic would need to be in the same consumptive pool as the mining, however this would then enable permanent trade of water potentially also leaving pastoral properties without water licences. While the new Landscape South Australia (Water Management) Regulations 2020, enacted on 1 July 2020, enables a WAP to specify the circumstances for trade across consumptive pools, this was not contemplated at the time the draft plan was prepared nor when it was consulted on with the community. In this case the Board can consider any changes to trading between consumptive pools in the future through a targeted review or amendment of the WAP.	No change to Plan
17.03	31/03/2020	Written Submission	Written Submission –	Written	Transitional Arrangements	DEM has reservations that a WAE provided under the transitional arrangements may be subject to conditions outlined in section 6.7 of the draft Plan. Further conditions may be placed on operations that are already accepted industry practice and demonstrated to have minimal or no impacts to other users and the environment. Consider removing Principle 21 from the Plan.	The overarching objectives of the WAP are to ensure judicious use of the water resource, from all industries dependent upon it. This means that unless the Minister deems is not reasonably practicable, the taking of water should be through closed delivery systems for pastoralists, the volume of water which can be applied to bore-fed wetlands should be limited to only that which is needed to maintain the values of the wetland, and for the mining and petroleum industry the principles revolve around minimising the volume of water which is disposed of by means of evaporation to the lands surface. With regards to the mining/petroleum industries the only conditions that would apply above what is already required in terms of the existing licence would be principle 27(a)(vi) which states that the volume of water which is currently disposed of by means of evaporation to the lands surface is to be minimised within 10 years from the date of adoption of this Plan. Principle 27(a)(v) applies to new allocations only. This is similar to the requirement for pastoralists to take water through closed delivery systems by February 2019 under the existing plan. This is the next step in judicious use of the resource. After discussion with DEM, an additional principle has been added to state that the above does not apply to tailings dams and liquid waste disposals. The intent is to reduce the volume of non-contaminated water which is being disposed of to the lands surface over the coming 10 years. How industry achieves this goal can be through many mechanisms, they can re-purpose and distribute the water, can reinject the water back into the aquifer and gain credits for the water they inject, they can reuse the more water on site or can change the recovery ratios	No change to Plan

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							such that less water is produced as petroleum is produced (i.e. change from a 1:99% cut to a 10:90% cut) such that for the same volume of petroleum produced, less water is required and therefore disposed of. These principles encourage judicious use of the resource.	
17.04	31/03/2020	Written Submission	Written Submission –	Written	Disposal to Surface	DEM has reservations about conditions in relation to future extraction of co-produced water from the petroleum industry. These conditions are inconsistent with other industries and users. Such conditions should only be enforced in situations where both the requirements of users and protection of the environment cannot be achieved. DEM note that a number of these conditions are not reasonably practicable as they are contrary to the current industry accepted practice. If these conditions are applied to not solely minimise impact to other users and the environment then DEM recommends that the Board consider removing condition 27(a)(iii) and 27(a)(v) from the Plan.	In support of achieving the WAPs objectives of judicious use of water, all licensees are subject to principles in the WAP which result in judicious use of the water regardless of the impact at the site of taking is having. For example, pastoralists are required to take water through closed delivery systems, this requirement is in place for all pastoralists even if they can show that taking the water from the well without a closed delivery system will not impact on other users or on the environment dependent on the resource - regardless of the impact of taking water, the judicious use practice of closed delivery is required. Similarly for bore fed wetlands, the provisions in the Plan require that only the volume of water required to meet the values of the wetland be applied at the site and that a flowing bore at the site (at a rate higher than that required to maintain the values) is not allowed, again this is the rule regardless of if a flowing bore at this site is not causing any detrimental impacts upon existing users or the environment dependent on the resource. The same can be said for principle 27(a)(v) in relation to increasing the volume of water currently allocated to the petroleum industry for the production of petroleum. For equity, if the provisions in relation to petroleum were removed, the equivalent provisions in relation to bore fed wetlands and pastoralists would also need to be removed. This would result in the WAP not managing water use judiciously and therefore it would not align with the GAB Strategic Management Plan and the National Water Initiative agreement. As it is the disposal of water to the lands surface that this principle is trying to achieve, sub points II and III can be removed to leave discretion to the industry as to how they achieve the principle without direction to reuse or reinject.	Principles 27(a)(ii) and 27(a)(iii) removed to provide discretion to the licensee about how they ensure water is not disposed of to the lands surface for evaporation.
17.05	31/03/2020	Written Submission	Written Submission –	Written	Non-licenced demand	The plan does not acknowledge the extensive re-use of co-produced water for operations such as civil works and exploration drilling. The WAP implies that large volumes of water are unaccounted for as part of exploration and drilling activities where in fact this water is generally re-claimed co-produced water. DEM recommends that the Board acknowledge the re-use of co-produced water and remove/reword implied statements that large amounts of water is unaccounted for as part of exploration drilling.	Noted, will update text to reflect this point.	Text included in section 5.1 (non-licenced demands) to state that some of the exploration water is met through re-claimed co-produced water.
17.06	31/03/2020	Written Submission	Written Submission –	Written	Disposal to Surface	The WAP unintentionally captures mining tailings storage facilities and lined mineral evaporation ponds for liquid waste as 'lands surface evaporation facilities', DEM recommend the Board consider revising this section to avoid these unintended consequences of the plan.	Noted, additional principle will be included to reflect that principle 27(a)(vi) does not apply to these circumstances.	Principle included after principle 27 to state that 27(a)(vi) does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste.

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17.07	31/03/2020	Written Submission	Written Submission –	Written	Site Use Approvals	The draft Plan is unclear in several statements where it has referred to the Mining Act when referring to a statement of environmental objectives whereby the petroleum and geothermal energy act legislation should have been stated in its place. DEM recommends the board make the necessary updates in the plan in relation to these instances.	Noted. The site use approval exclusions were included to enable that the disposal to the lands surface would be allowed in certain circumstances already enabled under the PEPR. Given the addition of a new principle to exclude this principle in relation to these instances, the site use approvals for this purpose are no longer required. To minimise red tape, the section on site use approvals for mining have been removed from the Plan and are instead managed through the new principle listed above.	Principle 54 which related to SOE instead of PEPR have been removed as no longer relevant due to the addition of the principle included after principle 27
17.08	31/03/2020	Written Submission	Written Submission –	Written	Potentiometric Surface	DEM identify that this figure appears to be a contour plot of the sum of wellhead elevation and wellhead pressure map, which is not a potentiometric surface. Given the importance of Figure 2.2 is setting drawdown criteria at zones A, B and the state boundary, DEM recommends that the Board consider (temperature-density corrections) potentiometric heads. As wells as providing a clear explanation and currently of the figure.	After discussion on this issue with departmental Hydrogeologists specialising in the GAB, advice has been to remove Figure 2.2 altogether. Instead refer the principles in relation to cumulative declines in groundwater pressure to the pressures at February 2009 when the first WAP was adopted, as it was at this point in time the drawdowns were determined and it should be from this point that the cumulative declines are still managed. It is not proposed to restart at the date of adoption of this WAP as restarting the cumulative decline may result in impacts upon the springs. As such Figure 2.2 will be removed and instead February 2009 will be referred to. This will be assessed through the GAB model when applications are sought.	Removed figure 2.2 from the Plan and reference to the potentiometric surface. Updated principles 29(a)(iii), 29(a)(iv), 29(a)(v) and 44(b), 44(d), 45(b) and to relate to February 2009 (date of adoption of the first WAP) when considering cumulative declines in water pressures.
17.09	31/03/2020	Written Submission	Written Submission –	Written	Environmental Protection	DEM recommends the Board consider providing further explanation and clarification within the draft Plan around how the buffer zones and cumulative pressure declines were developed.	Noted. Will provide further explanation in section 2.1.3.	Section 2.1.3 updated to include information on how Zone A and Zone B were delineated.
18.01	1/04/2020	Written Submission	Written Submission -	Written	Water Trading	A stated intention is to maintain a key principle under the existing WAP which was that “water allocated for pastoral use was not allowed to be permanently transferred to be used for another purpose” [emphasis added] and that this principle has been included in Principle 35 of the draft Plan to ensure pastoral leases have ongoing access to water. On our reading of the draft Plan, the restriction on permanent transfers between consumptive pools is limited to the transfer of a water licence or water access entitlement, however, temporary transfers within consumptive pools and across consumptive pools is permitted by the drafting of Principle 37 (in that it does not expressly exclude the transfer of water allocations in this way). Beach Energy supports this flexibility in the management of water allocations under Principle 37 as it will allow all users to realise the full benefits of their allocations in the short term. Noting that water allocations are granted for no more than 12 months, allowing a pastoral user to transfer a water allocation in a time of need maximises the benefit of the allocation while retaining the long-term security of that water for the pastoral lease.	<p>The draft Plan does not allow temporary trade of water from one consumptive pool to another. While the new Landscape South Australia (Water Management) Regulations 2020, enacted on 1 July 2020, enables a WAP to determine the circumstances for trade across consumptive pools, this was not contemplated at the time the draft plan was prepared nor when it was consulted on with the community. In this case the Board can consider any changes to trading between consumptive pools in the future through a targeted review or amendment of the WAP.</p> <p>For further clarification, it is a matter of law that if the water access entitlement cannot be transferred either temporarily or permanently to be a water access entitlement of another consumptive pool, then subsequently the water allocation which is raised on account of the WAE can also not then become related to another consumptive pool.</p> <p>Given the confusion in relation to this issue, a new principle will be included in the WAP to provide clarity that an allocation transfer from one pool to another cannot occur.</p>	Included principle after principle 37 to state that a water allocation may only be transferred to another person where it remains a water allocation for the Consumptive Pool from which it was initially granted

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18.02	1/04/2020	Written Submission	Written Submission -	Written	WAP Adoption	<p>Beach Energy is involved in two key projects in relation to the authorisation to take water for petroleum production; 1) the GAB model development 2) investigation of options to re-inject, re-use or create other efficiencies regarding co-produced water. These projects have not yet concluded. Commencement of the draft Plan without the benefit of these additional scientific assessments erodes the function of the GAB model steering committee and also weakens the potential for the draft Plan to achieve its objectives.</p> <p>For example, to implement principle 27 (which requires that the Minister considers endorsing conditions to a water licence requiring that water over volumes which are currently being taken for petroleum production be not disposed of by means of evaporation to the lands surface and that the water which is already authorised for this purpose and is currently disposed of to the lands surface is minimised through the life of the plan) in the absence of the model finalisation and investigations of feasibility to reinject having been completed, these conditions will do no more than act as a volumetric cap on the water produced for petroleum production. To maximise the chances of success of the draft Plan, Beach requests that the Board consider deferring the commencement of the draft Plan until at least 1) the initiatives that have already been commenced by the steering committee and by beach in accordance with the conditions of its additional allocation are finalised (30 June 2021) and 2) the result of those initiatives are assessed and considered in the terms of the draft Plan. Deferring commencement in this way will allow the Board to realise the benefit of its investment in the scientific work it has commissioned since 2009 and to assist it to achieve its management approach which “must take into account the unique characteristics of the groundwater resources within the Far North PWA” and to ensure that new allocations do not “impact on the capacity of the groundwater resource to continue to meet the requirements of the environment and existing users.”</p>	<p>The overarching objectives of the WAP are to ensure judicious use of the water resource, from all industries dependent upon it. This means the taking of water through closed delivery systems for pastoralists, limiting the volume of water which can be applied to bore-fed wetlands to only that which is needed to maintain the values of the wetland, and for the mining and petroleum industry the principles revolve around minimising the volume of water which is disposed of by means of evaporation to the lands surface.</p> <p>In acknowledging that while these principles should be complied with where possible, there may be limitations in being able to implement these principles in some locations or in certain circumstances, as such the principle has been openly worded such that "unless the Minister deems it is not reasonably practicable" the principle will be implemented. This enables the licensee to prove to the Minister that it is not reasonably practicable to implement this principle. As such the investigations which are currently underway with regards to re-injection will be the evidence to support the implementation of the principle or not. The GAB model will be available to run scenarios and Beach will have completed the assessment of the feasibility of re-injection.</p> <p>It is anticipated that the GAB model will be completed and scenario tested undertaken by end 2020. It is likely that the GAB Model will be available for use for any additional water that may be applied for under the adopted water allocation plan.</p>	No change to Plan

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19.01	9/04/2020	Written Submission	Written Submission -	Written	Legislative	The pastoral Board proposes that any regulation regarding stock and domestic water should be (where possible) regulated by the new Pastoral Act. To determine the feasibility of this proposal the Board encourages that consultation takes place between the SAAL Board and PIRSA.	Noted that the SAAL Board and PIRSA, and possibly DEW, need to continue discussions regarding any regulations being proposed for stock and domestic water to be regulation under the new Pastoral Act. To note - the draft Plan has been written in a manner which allows for any future amendments to the Pastoral legislation. The existing WAP limits the volume of water which can be allocated for stock purposes to the stock maximums regulated by the Pastoral Board. However understanding that this may change in the future, the draft Plan has removed this regulation and therefore allows licensees to apply to increase their allocation if they increase their stock numbers (subject to the rules in the Pastoral Act). This ensures that if changes do occur to the pastoral legislation, with regards to stock numbers, the WAP can accommodate this change.	No change to Plan
19.02	9/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	The amounts of 20 L/day/head for sheep and 100L/day/head for cattle may be inadequate in times of abundant feed availability. The 20% buffer for stock water allocation may not also adequately consider the water use by feral grazing species and kangaroos which generally peak with livestock numbers peak.	In the absence of new data available to estimate water use by stock and natives / feral animals in the Far North, these numbers have been taken directly from the previous Plan. The Board plans to initiate some trial sites to gain a better understanding of the water requirements of both stock and natives / ferals animals and if these findings indicate that the volumes should be increased then the WAP can undergo a targeted amendment to update the numbers listed in the Plan. This will not result in an automatic increase in licensees' allocations, they will need to apply for the additional water and will be subject to the rules in the plan to ensure that the taking of this additional water will not impact on existing users or the springs/GDEs dependent on the resource.	No change to Plan
19.03	9/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	As lease water allocations are based on the lease's stocking maximum, the NRM Board should note and make allowances in the Plan as required, that stocking maximums may be either temporarily or permanently raised by the Pastoral Board on application by the lessee, as permitted in the <i>Pastoral Land Management and Conservation Act 1989</i> (PLMC Act). The Plan may also require flexibility in the event that stocking maximums are removed or altered as a result of the review of the PLMC Act.	The draft Plan does not specify any limitations with regard to stocking numbers, as such, if the stocking max is removed from the PLMC Act, this is allowed for in the WAP. However it should be noted that this will not result in an automatic increase in licensees allocations when they gain additional stock, they will still need to apply for the additional water and will be subject to the rules in the plan to ensure that the taking of this additional water will not impact on existing users or the springs/GDEs dependent on the resource.	No change to Plan
19.04	9/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	Clarity may be required as to whether the stock water allocation/consumptive pool has accounted for variable water quality in relation to how much of the allocation is able to be actually used by stock.	The consumptive pool and the water allocations issued from the pool are volumetrically based and do not take into account whether the water quality is suitable the purposes of consumptive users. It is the responsibility of the pastoralist to ensure that the water is of suitable quality prior to providing it to stock (similar to how SA Water have to ensure their water is of drinking water quality prior to distributing it).	Included text in section 6 of the Plan to state that the volume of water allocated does not ensure the water is of suitable quality for the intended purpose, the licensee will need to determine if the water is suitable for its intended purpose and if not manage the water such that it is (i.e. desalination etc)

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19.05	9/04/2020	Written Submission	Written Submission -	Written	Water Trading	The Pastoral Board is concerned that there is no mechanism or policy to ensure that a lease cannot be sold or transferred without a guaranteed source of water. Leases should not be left without a water allocation as this impacts the viability and sustainability of a lease and hence there are implications for regulatory management under the PLMC Act. As a minimum, there should be clear agreed guidelines/policies between the SAAL NRM and the Pastoral Board as to how this will be managed.	A water right is separate from a land right and has been so for many decades in South Australia. This means that the land can be sold without the water licence or the water licence can be sold without the land, which was also the case under the previous Plan. Upon sale of land the water licence must be transferred to the new owner to enable them to have a water licence. This is the role of the person selling the property to do and is a requirement of the purchaser to undertake due diligence to make sure the property comes with a water licence. The water is tied to the consumptive pool. This is why a pool specifically for stock and domestic water is maintained for S&D purposes. This doesn't stop water being sold from a property, but it can only be sold to another pastoralist. As the consumptive pool has no volumetric limit more water can be allocated to the new land holder if the previous holder did not sell the water with the property. The new land holder would have to be compliant with the rules in the WAP with regard to impacting existing users or impacting upon springs. As 'existing users' are determined by a well being listed on a water resource works approval, it is actually the WRWA of the previous land holder that needs to be extinguished (if not transferred to the new land holder) to enable the new land holder to seek a licence and WRWA. Principle 51(f) of the draft Plan explains that the WRWA will expire if it is not traded upon sale of land, this will enable the new landholder to acquire a WRWA for the same wells. Under the implementation plan for this WAP, one task will be to make this process smoother than it has been in the past by having DEW, SAAL Board and the Pastoral Board working together on how this may be done.	Text included in section 6 with regard to the separation of land and water rights and notifying purchasers of land that they should seek to purchase the water licence also.
19.06	9/04/2020	Written Submission	Written Submission -	Written	Water Trading	As the cap will be removed for mining and petroleum use (as this use is proposed to be included in the 'All Purpose Consumptive Pool'), the protection of adequate water allocations for stock and domestic use should be strengthened in the WAP, or the cap on stock and domestic use be treated in the same way as water for mining and petroleum.	Removing the cap for the petroleum industry, will not impact upon existing users' abilities to continue to access water. Even though the cap has been removed the petroleum industry will also need to be complaint with the rules in the WAP, i.e. showing that taking any additional water will not impact upon existing users (including pastoralists) or impact upon the springs/GDEs dependent on the resource. Similarly the cap on stock and domestic water has been removed, i.e. there is no longer a reference to a stock maximum, which means pastoralists can increase their allocation as they increase their stock numbers (subject to them still complying with the rules in the Pastoral Act). Similarly to the petroleum companies, if pastoralists want to increase their allocation they need to prove that this additional take will not impact on existing users or springs/GDEs dependent on the resource.	No change to Plan

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19.07	9/04/2020	Written Submission	Written Submission -	Written	Water Accounting	<p>Accounting for water use needs increased clarity in the draft Plan, particularly on who will be accountable for managing, reading, testing etc and whether lessees will need to resource this. The Board does not support water accounting mechanisms, such as metering, where the costs are borne by pastoralists, and would like to see some assurance in the Plan to this effect. Similar levels of requirements and compliance should be applied equally to all water consumer types.</p> <p>Clarity is also required on whether water use fees will be charged if meters or other accounting systems are introduced. If so, this is potentially unfair as lessees incurs all costs involved with drilling, supply and maintaining wells.</p>	<p>The holder of the water management authorisation (licence) is required to manage, read, test and maintain the meter on their property. Text to this effect can be included in the draft Plan to provide clarity to the reader. Across the state, water metering is the mechanism used to account for water use, as required by the state policy. The cost of water meters or a newly devised water accounting mechanism for the Far North will be at the cost of the licensee. In some cases, the licensee may be able to access funding from any relevant commonwealth or state funding to assist with this - i.e. IGABDR might be able to assist with the cost of water accounting mechanisms for the GAB aquifer. No assurances can be included in the plan that pastoralists will not be borne with these costs, as these costs will be the responsibility of the water management authorisation holder. It should be noted that water accounting will need to be undertaken in line with a water accounting implementation plan which will discuss the staged approach to accounting for water. This will be negotiated over time what water accounting is required and consideration of what is fair and reasonable (costs, time etc). I.e. people may only have to account for water from their key sources and not all sources, or they may have an approach where accounting is staged such that they apply accounting measures to 3 bores a year etc. This is yet to be determined and need to run some trials on appropriate accounting mechanisms. All licensed water users are required to account for their water use. The mining and petroleum industries already meter their water take from the resource.</p> <p>Clarity that water use fees (water levies) will not be charged for stock and domestic purposes is within the Landscape SA 2019 Act legislation – see section 101 (13) <i>"A levy cannot be imposed under this section with respect to the taking of water for domestic purposes or for watering stock that are not subject to intensive farming."</i> Further the WAP is not the mechanism through which levies are raised. Levies are determined through the SAAL Board's business plan, which is also subject to the Landscape SA 2019 Act.</p>	Text in section 7.2 included to state that it is the responsibility of the holder of the water management authorisation to purchase and maintain a water accounting mechanism.
19.08	9/04/2020	Written Submission	Written Submission -	Written	Environmental Protection	<p>The Board supports the continued protection of water resources for Mound Springs in the WAP. Wherever possible, lessees should be recognised for existing management and incentivised to protect and manage mound springs. The 5km radius from a mound spring in relation to well development may require polices to enable a more flexible interpretation on a case by case basis, as mound springs are extremely variable in activity and biodiversity value.</p>	<p>The draft Plan enables more flexibility with regard to the no new wells within 5km of a spring which is restricted in the existing WAP. In instances when people wish to access water from a well within 5km of a spring, they will need to demonstrate that taking water from that location will not detrimentally impact upon the spring, these assessments will be considered on a case by case basis given the nature of the springs in the PWA.</p>	No change to Plan
19.09	9/04/2020	Written Submission	Written Submission -	Written	Compliance	<p>The situation whereby lessees who have been previously funded for water infrastructure projects and have not completed works in the required manner, should be captured in the WAP so that they are required to complete the works.</p>	<p>This is a compliance issue. Compliance occurs through the requirements of a water licence, and any relevant conditions of the water licence, and the Landscape Act.</p>	No change to Plan

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19.10	9/04/2020	Written Submission	Written Submission -	Written	Assessment/Approval Processes	The proposed administrative process to be granted access to water has the potential to become an expensive and time consuming exercise for pastoral lessees. The Board would encourage a stream-lined approach with adequate support services available to assist pastoralists in the process.	The Department will be working on streamlining the application process such that the water access entitlement and water resource works approval could be applied for conjunctively.	No change to Plan
19.11	9/04/2020	Written Submission	Written Submission -	Written	Water Allocations	Pastoralists should be provided the first allocations of available water over other users.	Existing licencees will receive an allocation under the new plan equivalent to that they received under the existing plan, as will all other existing licenced users of the resource. Anyone can apply for new water, and the authorisation will only be granted if the taking water at the location will not impact on existing users or springs/GDEs dependent on the resource. This is the same process for all applicants. It should be noted there is not a volumetric cap to either consumptive pool, so it is not like there is only a specified volume of water left available for allocation, rather the impact of taking the proposed volume of water at a particular site is the key assessment criteria.	No change to Plan
19.12	9/04/2020	Written Submission	Written Submission -	Written	Aquifer Recharge (MAR)	Where other users not using water for the primary purpose of operating a pastoral business, they should be required to reinject all or a majority of their water allocation after use, treated, so that it can be reused.	Judicious use is a fundamental principle of the draft Plan, as such the re-use and reinjection of water which would usually be disposed of by means of evaporation to the lands surface is supported, where feasible, through principle 27 in the draft Plan.	No change to Plan
20.01	9/04/2020	Written Submission	Written Submission –	Written	Clarification	Regarding section 1.7 Water for People, Industries and Environment, the SATC is in support of the reference that the high value industries dependent on GAB water in South Australia include tourism at the GAB springs and areas using artesian water in mineral spas. As the GAB falls within the tourism region of the Flinders Ranges and Outback, the tourism value of the GAB in South Australia is based on the total tourism expenditure of this region.	Noted. Will update section to indicate that the \$150 million is not just for GAB spring tourism but for the entire Flinders Ranges and Outback region.	Amend section 1.7 to indicate the value of tourism in the entire Flinders Ranges and Outback region which includes the GAB springs, not just for the GAB springs.
20.02	9/04/2020	Written Submission	Written Submission –	Written	Future Demands	Regarding Section 5.3.4 Population and Tourism Growth, the SATC tourism expenditure data for the Flinders Ranges and Outback region, over a ten-year period from 2009 to 2019, shows 49% growth in total expenditure. Total overnight visitation in this period shows 40% growth and domestic day visits to the regions shows 34% growth, in this 10-year period. The aim in the South Australian Arid Lands Demand and Supply Statement of 10% increase per annum in tourism expenditure over the period 2009/10 to 2013/14, does not align to the SATC tourism total expenditure growth of 4% per annum. The SATC recommends that growth projections for tourism are aligned to those in the South Australian Visitor Economy Sector Plan 2030 and that the water allocation requirements are reconsidered in line with the SATC projections.	Noted. Will update the section with the relevant information.	Update demands section in relation to tourism with numbers from the SA Visitor Economy Sector Plan 2030 and information supplied in submission.
21.01	16/04/2020	Written Submission	Written Submission -	Written	Structure/Clarity	1.6 Management approach, this section is too wordy and can be read to be contradictory, only when paragraph 3 is reached does it ‘allude’ to the actual management approach, paragraph 4	Noted, will restructure the text and provide further clarity.	Section 1.6 revised to bring the management approach to the top and provide further context and clarity in paragraphs 4 and 5 to provide clarity.

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						and 5 should be reworded to provide a clearer explanation		
21.02	16/04/2020	Written Submission	Written Submission -	Written	Environmental Protection	We believe that true groundwater dependent ecosystems should be afforded a level of protection within this plan by setting management criteria. However, the remote sensing methods used to identify the GDE's within the FNWPA by the department are well known to have drawbacks and limitations. How can this database be the point of truth when there is admission that very little is known about the individual GDE's and that the only method used to determine the location of the GDE's has known limitations?	Yes, the location of non-spring GDEs has not been ground truthed as it is extremely difficult given the number of sites that the remote sensing data indicate could be refuge habitats within the landscape. This is why the implementation of this policy is quite different to that in relation to the springs which are well ground truthed. In these instances not all the GDEs identified through remote sensed data are protected, only those which appear to be remote from other similar systems (i.e. less than 0.5ha area within a 5km radius: <6% of the area is comprised of the GDE), further the assessment steps do not automatically assume the GDE actually exists at the location, it firstly requires some ground truthing by the applicant. If they can show that no GDE exists at the site (with a GPS'd photograph) then the GDE layer will be updated accordingly and the well will be able to be drilled. For transparency, the flow chart of assessment considered for these sites will be included in the WAP. Additionally the assessment will now only apply to new wells, rather than to adding existing wells to water resource works approvals (if the well has already historically been functional with little impact, it should be able to be authorised to take water again in the future without additional assessment given the low level of risk with regard to these non-spring GDEs).	Flow chart of assessment steps for non-spring GDEs included in section 2.2.3. Principle 45c removed and all reference to impact on refuge non-spring GDEs applied to well construction permits in new principle after principle 40.
21.03	16/04/2020	Written Submission	Written Submission -	Written	Environmental Protection	Where has the 50m root zone depth come from, most vegetation in this area would not have root zones that deep. There is a serious question that needs to be answered before this part of the plan is accepted – what is being protected? All vegetation that occurs along drainage lines. Or important refugia (in this case a true Ground Water Dependant Ecosystem)? Some of the sites identified in the remote sensed data may be accessing perched aquifers rather than the unconfined aquifer.	This is the use of the precautionary principle. If the water table at the site is less than 50m below ground then at the photo point step in the flow chart, the types of vegetation will be assessed and this will guide if there is a risk to taking water at this site (either because of the depth of the root zone into the deeper aquifer, or the actual type of vegetation).	No change to Plan
21.04	16/04/2020	Written Submission	Written Submission -	Written	Aboriginal Water Rights	The three objectives sound logical. We are concerned with the content of the last paragraph. What “barriers” are being alluded to here (‘barriers to Nations to aid progression of Aboriginal economic/commercial use of the water resources in the area’)? We would suggest that this does not progress without comprehensive consultation of all stakeholders as it could be a major point of contention. Potential conflict with pastoral lessees and other landholders needs to be avoided to arrive at a consensus that is practical.	Nations are required to meet the principles in the Plan like any other applicant. However there may be barriers that Nations may be facing in the process to seek a water licences, such as limited knowledge and understanding of the water planning and water licensing processes, as well as what can and can't be done with water in the PWA (i.e. irrigation on pastoral leases limited without approval etc), or financial limitations in drilling wells or setting up businesses in the first instance. The Board and DEW can work with Nations if needed to help them address these barriers.	No change to Plan

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21.05	16/04/2020	Written Submission	Written Submission -	Written	Clarification	Section 4.2 The draft plan does not differentiate between sub artesian and artesian aquifers. It would seem from reading the draft plan that this is not because of ‘connectivity’, or ‘highly variable connections’ but rather is it simply easier to treat all aquifers in the same manner. The draft plan notes the knowledge of the sub artesian aquifers is ‘limited’. From our experience in attempting to gain information from the department on the sub artesian aquifers in our region that the knowledge base is extremely low. The department’s knowledge of the ‘thousands of non-spring GDE’s’ is very low but they are still treated very separately.	Noted. To clarify, the assessments required for wells in the GAB vs wells in the sub artesian aquifers will need to meet different criteria, i.e. in the GAB aquifers principles 44b, 44d, 45a, 45b, 45d, different assessment is required than that required for sub artesian aquifers - 45a, 45c. This part of section 4.2 which states that the aquifers are not considered individually will be removed. This is likely an oversight from earlier iterations where the proposal was to undertake the same assessments regardless of aquifer, however this was refined through working with the WAC and Board over time and this was likely not updated even through the principles were.	Removed text in sentence 1 of section 4.2 of draft Plan.
21.06	16/04/2020	Written Submission	Written Submission -	Written	PWA boundary	Section 4.3 The department had no appetite for a review of the boundary of the FNWPA at the time of re writing this draft plan. There are significant volumes of ground water being extracted from these ‘adjacent’ areas. It seems contradictory to ignore this take and apply management parameters to sub artesian aquifers which on average have significantly lower extraction volumes.	Yes, there are impacts outside the PWA that may impact water conditions within the PWA, however as these resources are not prescribed, they cannot be managed under this Plan. However, it is still important to manage the resources within the PWA and any impact they may have on the water resources outside of the PWA.	No change to Plan
21.07	16/04/2020	Written Submission	Written Submission -	Written	Comment	5.1 Current non licensed demand, Section 128. b,c,d and f are logical and acceptable. A and e need to be reviewed urgently. The volumes of water from a and e are not accounted for in the overall take from the resource and represent large volumes of water – current take and industry predicted increases. The volumes in a and e represent substantial volumes of water that are not accounted for. The use of water for camps and construction of private roads should be separated out from the other uses of water in e (i.e. water for drilling, construction of wells, extraction of water for pump testing). Limits are set for water for domestic purposes elsewhere in the draft plan which are minute in magnitude by comparison– why not the mining and petroleum sector during exploration?	Noted. As these authorisations are endorsed by the Minister, the WAP cannot amend these authorisations. The Minister will need to revoke them and replace with an amended authorisation. The Minister can take advice from the Board/Department with regard to amending/revoking these authorisations. This process is separate to the development of the WAP.	No change to Plan
21.08	16/04/2020	Written Submission	Written Submission -	Written	Future Demands	5.3.3/5.3.1 There is no commentary on the likely size of the growth in demand. What is the quantum? The demand from the petroleum and mining sectors will massively outstrip any growth in the pastoral sector and this needs to be given recognition in the plan. The current share of the total take of the mining and petroleum sectors (licensed) represents 77% and is forecast to increase substantially. In contrast, the pastoral industry represents only 15% and even a modest increase in take for this sector would only represent a small increase overall.	The demand isn’t quantified as this is quite difficult to pre-empt without knowing how the demand for the mining and petroleum sectors will change into the future. It is also difficult to pre-empt the demands pastoralists may have if the maximum stocking rates are removed from the Pastoral Act and people choose to carry more stock and therefore access more water in response.	No change to Plan
21.09	16/04/2020	Written Submission	Written Submission -	Written	Minor Amendments	5.2 Second sentence has two full stops. 5.3.4 Delete ‘to other modes of transport’ in the last paragraph – I am not sure what other modes of transport would be? We think an overall increase in visitation to the region could be predicted if the road were sealed. On any account, this projected increase in demand for	Noted.	Minor amendments: removal of full stop in section 5.2. Deletion of "to other modes of transport" in section 5.3.4

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						water from the tourism sector would represent a very small volume in comparison to the demand from the mining and petroleum sectors (licensed and unlicensed)		
21.10	16/04/2020	Written Submission	Written Submission -	Written	Consumptive Pools	The number of consumptive pools are appropriate, no new consumptive pools required.	Noted	No change to Plan
21.11	16/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	The limits for stock are acceptable	Noted	No change to Plan
21.12	16/04/2020	Written Submission	Written Submission -	Written	Domestic Water Allocation	The limits for domestic seems to have been based on a national average of around 340L per person. This national average is made up of an average of urban, regional and remote domestic water consumption. Considering domestic water consumption represents a miniscule amount of the overall take why is it being based on the average. Domestic usage in more arid areas is known and documented to be more than double this average. It should be increased substantially. If domestic water use is comprised of both water used for washing, cooking etc as well as for gardens, the limits for domestic limits in the draft plan are not enough. Most communities (pastoral, tourism, townships) have to provide their own water supply and use this for pure domestic use as well as providing for their own green spaces. The environment in FNWPA is arid and a larger amount of water is required to provide these green spaces. Green spaces are well documented as being necessary for the wellbeing and health of people.	Given this was raised significantly through the consultation period, the section with regard to domestic water requirements has been revised to remain as is currently allocated - 3.65 ML per dwelling.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
21.13	16/04/2020	Written Submission	Written Submission -	Written	Transitional Arrangements	Transitional arrangements should not result in existing users receive a reduction in their water access entitlement. These should only be applied to new water access entitlements.	The transitional provisions are the principles in the draft Plan which enable existing users' licences from the existing WAP to be reissued as licences under the new WAP (once adopted). As drafted the principle would have enabled for the domestic portion to be allocated at a lower rate (1.5ML per dwelling) with the remainder going in an all purpose consumptive pools, so not removed or lost from licence, but issued for another purpose. Based on feedback received this has been amended to maintain current domestic allocations as is.	Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
21.14	16/04/2020	Written Submission	Written Submission -	Written	Aquifer Recharge (MAR)	25. This is double accounting. Carrying over the water that has been taken then recharged but not reused shouldn't be carried over to the next year. The GAB is a finite resource and reinjection, or recharging was seen as a water efficiency measure to benefit the resource for all users, not as a credit system so that the petroleum industry can access more and more.	Principle 25 does allow for carryover and extraction of water previously recharged into the aquifer in the following year but only in circumstances where the recovery of that water will not impact on existing users, GAB springs and other GDEs. So, any recovery in a subsequent year will not negatively impact upon the resource, springs or existing users.	No change to Plan

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21.15	16/04/2020	Written Submission	Written Submission -	Written	Aquifer Recharge (MAR)	27 v. 21900ML is equivalent to eight thousand, seven hundred and sixty swimming pools – huge by anyone’s standards. Pastoralists are chastised for evaporating a miniscule portion of the take from the GAB. We support the use of closed delivery systems, but this demonstrates there is no equity – all users are not treated equally in this plan. 27 vi. A target should be set for evaporation ponds rather than ‘minimising’ evaporation over 10 years. 10 years is a substantial amount of time for a sector to implement changes.	Principle 27v is in relation to any water above which is already licenced for this purpose. This means that any additional water should not be evaporated to the lands surface where possible. It is acknowledged that 21900ML is a large volume of water and that is why principle 27vi is aiming to minimise the volume that is currently disposed of to the lands surface for evaporation, not only from the petroleum industry but also the mining industry (or anyone else currently disposing of water to the lands surface for evaporation). Currently for the volumes of water which are already allocated, the disposal of this water is authorised through either the Statement of Environmental Objectives or the Program for Environment Protection and Rehabilitation which are developed for the activity and authorised under either the Petroleum and Geothermal Energy Act 2000 or the Mining Act 1971. A such, the principles in this draft Plan can’t be contrary to that, however as the SOE and PEPR are reviewed every 5 years (different dates for different authorised activities) while this Plan is required to be reviewed every 10 years. Principle 27vi requires this objective to minimise evaporation to be considered when the SOE or PEPR is reviewed. Given the number of mining and petroleum activities in the area, all with their own review dates, it is difficult to put targets for these activities. The 10 year time frame is in line with the expected life of the WAP and is similar to the 10 years that was provided to pastoralists, through the existing plan, to distribute water to stock through closed delivery systems.	No change to Plan
21.16	16/04/2020	Written Submission	Written Submission -	Written	Environmental Protection	29 iv. Why is a cumulative decline in pressure of 1m in zone B allowed when a small well extracting water from a sub artesian aquifer with extremely localised impacts comes under huge scrutiny? 1m decline in pressure is substantial. Again, where is the equity?	The 1m decline is based on the degree equation where by having a cumulative impact of 1m at the boundary of zone B should mean that there will be less than an 0.5m cumulative decline at the boundary of Zone A and this 0.5m decline at zone A is assumed to result in no decline at the spring itself. A decline lower than this is unlikely to cause any adverse impacts to the springs, similarly if in the sub artesian aquifers, a well is drilled more than 100m from a refuge Non-spring GDE this is unlikely to have an adverse impact upon the GDE.	Section 2.1.3 updated to include information on how Zone A and Zone B were delineated.
21.17	16/04/2020	Written Submission	Written Submission -	Written	Comment	Principles 27-33 Petroleum sector well catered for.	Taken as a comment.	No change to Plan
21.18	16/04/2020	Written Submission	Written Submission -	Written	GAB Numerical Model	7.4 This required demonstration of cumulative drawdown limits will only be properly possible once the new GAB model is available. This model will have to be made publicly available which it should be considering public money has been used to develop it. Much of the ‘demonstrated’ requirements have been written with consideration of the capabilities of the large multinationals conducting mining and petroleum activities in the FNWPA. These companies have the resources and the personnel to carry out their own investigations and will have the capability to utilise the new GAB model. Small	Yes, the GAB model will be available through the Department's Model Warehouse for applicants to use for assessment, which will require a supporting document to summarise the findings. If the smaller family owned and operated companies are not using the GAB aquifer, then the GAB model will not need to be used if they are seeking to increase the volume of water being taken from the resource. If they are, then options for how the GAB model can and will be used into the future will be developed. This is a task that is included in the implementation plan for the WAP.	No change to Plan

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						companies (many family owned and operated) will be required to comply despite their water needs being vastly smaller – yet another inequity.		
21.19	16/04/2020	Written Submission	Written Submission -	Written	Water Licence	The new licensing regime is complicated and increases the burden of red tape.	Noted. Unbundling of water entitlements is required under the legislation. The Department is working on ways to at least make the process easier for the applicant. Principle 8 has been amended to state that a WRWA is required to be able to have a WAE, meaning that the application process can take place in one step, and prevents water speculators purchasing water without anywhere to take it.	Principle 8 and 10 with regard to issuing of water access entitlements, amended to include that "A water access entitlement will not be granted without a water resource works approval to enable the take of the water issued. The water resource works approval is subject to the principles outlined in section 7 of this Plan ". Figure 6.1 updated to better clarify the difference between the existing bundled licences and the unbundled licences.
21.20	16/04/2020	Written Submission	Written Submission -	Written	Water Accounting	The State has a metering policy and there is scope to elect not to meter for various reasons – the minister can make this decision.	The South Australian Licenced Water Use Metering Policy specifies that " <i>all water licence holders shall be metered unless the requirements of 1.7 below are met</i> " where 1.7 states " <i>Implementation of this policy will be sufficiently flexible to recognise on-ground regional implementation issues. Flexibility provisions and the process for seeking metering flexibility (where not automatic) will be documented in a meter implementation plan (MIP) for a particular prescribed water resource and made publicly available. Where inconsistency arises between a MIP and the Specification, the MIP is to apply.</i> " A MIP will be developed as part of the implementation of the WAP and through this process alternative water accounting measures will be considered or instances where water accounting is not required. The Department has already advised they will work with the community through this process and the Board has stated they will support undertaking trials to identify the best approach to water accounting in the Far North.	Principle 51b edited to state water must be taken in line with the Meter Implementation Plan rather than referring to meters
21.21	16/04/2020	Written Submission	Written Submission -	Written	Water Accounting	We support the metering of the take of water from the GAB but sub artesian take should not be metered. Metering is essentially for the accounting of the take of water from the resource and currently that resource is the GAB. Metering is extremely expensive, and the reporting onerous. What will the data from metering of sub artesian wells be contributing to? There is justification for enforcing metering on artesian take – there is a return on investment in that the collected information will inform future management – this does not apply to sub artesian take. Many of these sub artesian aquifers are extremely shallow, and very localised.	State metering policy requires all licenced water use to be metered unless the MIP says otherwise. The comment can be raised during the development of the MIP for consideration.	No change to Plan
21.22	16/04/2020	Written Submission	Written Submission -	Written	Monitoring	How will the board fund the monitoring, reporting and effectiveness of the plan in achieving its objectives? Water levy should be assigned for this purpose – it currently is used to fund a myriad of activities. A greater proportion of the water levy should be used to manage the water resources in the FNWPA	This is a matter for the Board to consider as it develops its business plan.	No change to Plan

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21.23	16/04/2020	Written Submission	Written Submission -	Written	Comment	This plan is essentially a department driven plan – there were many instances during the development of the draft plan when the previous board were given no choice (i.e. licensing, metering, GDE's etc) or the choice of only limited options presented to them by the department. Certain sectors had more influence over the content of the plan than the board (and therefore the community). There is a distinct bias towards the mining and petroleum sectors in this draft plan. Principles and exemptions in the plan have been biased to suit these sectors who are by far the largest users of the resource and therefore take the largest volumes. In contrast other sectors such as pastoral, tourism and townships are not afforded the same level of enablement.	While the Board engaged the Department to prepare the draft Plan on its behalf, the Board has been closely involved throughout the process, had oversight and made decisions regarding the draft Plan. There are some issues that the board does not have discretionary decision making such as metering (water accounting) which is a state policy, and the licencing regime which is a legislative requirement for all prescribed water resources. The Board will consider all the feedback from the community and propose any changes based on the feedback before presenting the draft plan to the Minister.	No change to Plan
22.01	17/04/2020	Written Submission	Written Submission -	Written	Water Licence	SACOME notes the new system will create multiple authorisations (WL, WAE, WA, WRWA, SUA) the respective authorisations are new administrative devices, creating the potential for a more administratively complex licensing system that is presently in place. As such a premium should be placed on administrative efficiency to minimise time/cost impacts for operators associated with implementation of the new system.	Noted. Unbundling of water entitlements is required under the legislation. The Department is working on ways to make the process easier for the applicant. Principle 8 has been amended to state that a WRWA is required to be able to have a WAE, meaning that the application process can take place in one step, and prevents water speculators purchasing water without anywhere to take it.	Principle 8 and 10 with regard to issuing of water access entitlements, amended to include that "A water access entitlement will not be granted without a water resource works approval to enable the take of the water issued. The water resource works approval is subject to the principles outlined in section 7 of this Plan ". Figure 6.1 updated to better clarify the difference between the existing bundled licences and the unbundled licences.
22.02	17/04/2020	Written Submission	Written Submission -	Written	WAP Adoption	SACOME notes that the Department of Environment & Water is currently undertaking development of a regional groundwater model for the Great Artesian Basin. On advice from member companies, SACOME submits that the draft Plan should not be approved by the Minister for Environment & Water until this work is completed.	The GAB model is currently under development, and is likely to be completed and ready to run scenarios by the end of 2020.	No change to Plan
22.03	17/04/2020	Written Submission	Written Submission -	Written	Environmental Protection	SACOME supports the removal of a volumetric cap on water provided extraction is sustainable.	Noted.	No change to Plan
22.04	17/04/2020	Written Submission	Written Submission -	Written	Water Trading	On advice from member companies, SACOME submits that all licensed groundwater users should be able to trade water in the region irrespective of their industry and the pool within which their water allocation sits. It is suggested that this would eliminate the need for the consumptive pool mechanism.	The Board received strong feedback from the pastoral community that there be no trade between water issued for pastoral purposes and water for any other purpose. This is to prevent water potentially not be available for pastoral purposes in the future. While the new Landscape South Australia (Water Management) Regulations 2020, enacted on 1 July 2020, enables a WAP to specify the circumstances for trade across consumptive pools, this was not contemplated at the time the draft plan was prepared nor when it was consulted on with the community. In this case the Board can consider any changes to trading between consumptive pools in the future through a targeted review or amendment of the WAP.	No change to Plan

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22.05	17/04/2020	Written Submission	Written Submission -	Written	Disposal to Surface	SACOME is advised that the requirement to re-inject produced water above 60 ML/d is problematic as, due to the remote location of operations, it is challenging to find other suitable uses for produced water.	In support of achieving the WAPs objectives of judicious use of water, all licensees are subject to principles in the WAP which result in judicious use of the water regardless of the impact at the site of taking is having. For example, pastoralists are required to take water through closed delivery systems, this requirement is in place for all pastoralists even if they can show that taking the water from the well without a closed delivery system will not impact on other users or on the environment dependent on the resource - regardless of the impact of taking water, the judicious use practice of closed delivery is required. Similarly for bore fed wetlands, the provisions in the Plan require that only the volume of water required to meet the values of the wetland be applied at the site and that a flowing bore at the site (at a rate higher than that required to maintain the values) is not allowed, again this is the rule regardless of if a flowing bore at this site is not causing any detrimental impacts upon existing users or the environment dependent on the resource. The same can be said for principle 27(a)(v) in relation to increasing the volume of water currently allocated to the petroleum industry for the production of petroleum. For equity, if the provisions in relation to petroleum were removed, the equivalent provisions in relation to bore fed wetlands and pastoralists would also need to be removed. This would result in the WAP not managing water use judiciously and therefore it would not align with the GAB Strategic Management Plan and the National Water Initiative agreement.	No change to Plan
22.06	17/04/2020	Written Submission	Written Submission -	Written	Levies	While water levies are not considered as part of the WAP review, member companies suggest that money raised through water levies should go back into managing the resource. Only a small portion of money is reinvested at present and advice from member companies is that this percentage should be significantly increased.	Noted. Levies are considered by the Board in the development of their business plan.	No change to Plan
23.01	17/04/2020	Written Submission	Written Submission -	Written	Water Licence	Santos wishes to raise a concern over the proposed cap being placed on produced water extraction, or any other extraction type or activity, by Allocation or Entitlement. Santos suggests that no cap should be placed nor be necessary where the water extraction is sustainable and that the take meets the Plan's Objectives. The maintenance of a capped Entitlement (ex. Licence) for co-produced water, as held by the Minister for Energy and Mining appears to be at odds with the removal of the volumetric cap for co-produced water. If a capped entitlement is maintained, Santos suggests that a coproduced water Entitlement should only be considered once the FNPWA groundwater model has been completed and a sustainable co-produced water extraction volume determined.	The volumetric cap for the co-produced water has been removed, and this enables additional water for petroleum production purposes to be issued under the new Plan subject to the provisions of the Plan, including demonstrating that the taking of additional water will not impact upon an existing user or a GAB spring. This also means that that any additional water issued for petroleum production cannot be disposed of by means of evaporation to the lands surface unless the Minister for Environment and Water deems it not reasonably practicable to manage through another mechanism (i.e. reuse, reinjection, redistribution). Licences in South Australia are issued based on the volume of water that is authorised to be taken. The current volume on licences that were issued previously to existing users can continue to be taken under the new Plan.	No change to Plan

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23.02	17/04/2020	Written Submission	Written Submission -	Written	Water Trading	Santos wishes to raise concerns about the proposed restrictions on the limitation of trade of water entitlements and/or allocations only within the respective 'Consumptive Pools'. Where the take of water associated with such trading is demonstrated to be sustainable and meet the intent of the Plan, all licensed groundwater users within the FNPWA should have the ability to trade water within the region irrespective of industry or consumptive pool. Any such cap is therefore unnecessary to achieve the desired environmental outcomes.	<p>The Board received strong feedback from the pastoral community that there be no trade between water issued for pastoral purposes and water for any other purpose. This is to prevent water potentially not be available for pastoral purposes in the future.</p> <p>While the new Landscape South Australia (Water Management) Regulations 2020, enacted on 1 July 2020, enables a WAP to specify the circumstances for trade across consumptive pools, this was not contemplated at the time the draft plan was prepared nor when it was consulted on with the community. In this case the Board can consider any changes to trading between consumptive pools in the future through a targeted review or amendment of the WAP.</p>	No change to Plan
23.03	17/04/2020	Written Submission	Written Submission -	Written	Aquifer Recharge (MAR)	<p>Santos supports the general intent of Principle 27; however, several concerns are raised regarding the requirement to:</p> <ul style="list-style-type: none"> o undertake a feasibility study in relation to the reinjection of water for future applications to increase entitlement of co-produced water. The requirement to re-inject produced water above 60 ML/d is contradictory to removal of the volumetric cap(s), particularly if the increase in extraction is deemed to sustainable and without undesired impact. <p>To not dispose co-produced water exceeding the 21,900ML/year by means of evaporation. Santos operations are extremely remote and are authorised to dispose of water in such manner. Alternate management options will result in significant re-engineering of plant and operations in an area where there is limited existing demand for such water.</p> <p>To minimise within 10 years water disposal by means of evaporation. As above, alternate management options will result in significant re-engineering of plant and operations.</p> <p>Furthermore, water from production activities (sourced from Santos ponds) already provide a key part of, and in some cases the only source of stock water in the area. Temporarily increasing the demand based on the use of produced water will result in unsustainable, longer term operations of any alternative user once produced water extraction reduces and then ceases.</p> <p>Santos notes that no other industry or taker of water within the FNPWA is subject to similar groundwater pressure or impact mitigation requirements. It is important that any such obligation should be fair and equitable across all users and industries if it is required to meet the outcomes of the Plan.</p>	<p>In support of achieving the WAPs objectives of judicious use of water, all licensees are subject to principles in the WAP which result in judicious use of the water regardless of the impact at the site of taking is having. For example, pastoralists are required to take water through closed delivery systems, this requirement is in place for all pastoralists even if they can show that taking the water from the well without a closed delivery system will not impact on other users or on the environment dependent on the resource - regardless of the impact of taking water, the judicious use practice of closed delivery is required. Similarly for bore fed wetlands, the provisions in the Plan require that only the volume of water required to meet the values of the wetland be applied at the site and that a flowing bore at the site (at a rate higher than that required to maintain the values) is not allowed, again this is the rule regardless of if a flowing bore at this site is not causing any detrimental impacts upon existing users or the environment dependent on the resource. The same can be said for principle 27(a)(v) in relation to increasing the volume of water currently allocated to the petroleum industry for the production of petroleum. For equity, if the provisions in relation to petroleum were removed, the equivalent provisions in relation to bore fed wetlands and pastoralists would also need to be removed. This would result in the WAP not managing water use judiciously and therefore it would not align with the GAB Strategic Management Plan and the National Water Initiative agreement.</p>	Principles 27(a)(ii) and 27(a)(iii) removed to provide discretion to the licensee about how they ensure water is not disposed of to the lands surface for evaporation.

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23.04	17/04/2020	Written Submission	Written Submission -	Written	WAP Adoption	Santos also suggests that the draft Plan should not be approved by the Minister until the Department of Environment and Water (DEW) led regional FNPWA groundwater models for both the GAB and Cooper Basin have been completed	The GAB model is currently under development, and is likely to be completed and ready to run scenarios by the end of 2020.	No change to Plan
23.05	17/04/2020	Written Submission	Written Submission -	Written	Water Licence	Santos supports the existing arrangement of the Minister for Energy and Mining holding the co-produced water Entitlement (ex. Licence). As discussed above, the Entitlement (currently 21,900ML/year), should be determined once the FNPWA groundwater model for the GAB and Cooper Basin has been completed. Any requests and subsequent approvals to increase co-produced water Entitlement should reside with Minister for Energy and Mining to minimise reporting requirements for industry (i.e. maintain a single reporting line).	Noted. Water issued for the production of petroleum currently resides with the Minister for Energy and Mining and it is anticipated that this arrangement will remain. Any future allocations will not be issued until the impacts of taking the additional water have been assessed.	No change to Plan
23.06	17/04/2020	Written Submission	Written Submission -	Written	Levies	Co-produced water is subject to a levy nominated by the local NRM Board. To encourage sustainable extraction and act as an incentive to reduce water consumption, the levy should be charged on actual take rather than allocation. Furthermore, it is suggested any monies raised through water levies should be re-invested into sustainable water management initiatives for water resources within the FNPWA region	Noted. Levies are considered by the Board in the development of their business plan.	No change to Plan
24.01	17/04/2020	Written Submission	Written Submission -	Written	Water Trading	The Pastoral Land Management and Conservation Act 1989 is under review. Livestock SA is recommending doing away with a time limited lease in its entirety, and there may also be changes in how stocking rates can be set. If these changes happen, there will then be changes needed in the Water Allocation Plan. Currently a pastoral lease in effect determines stocking numbers and hence the water allocation.	As currently drafted the WAP only enables trade within a consumptive pool, i.e. stock and domestic water cannot be traded to be used for any other purpose but could be traded to another pastoralist in times when one property is destocked, and another is carrying more than usual (as approved by the Pastoral Board).	No change to Plan

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25.01	17/04/2020	Written Submission	Written Submission -	Written	WAP Adoption	<p>The update of this WAP coincides with the change from the Natural Resources Management Act 2004 to the Landscape South Australia Act 2019 which will supposedly fully commence on July 1, 2020. As the legislation and NRM Board that started this process no longer exist, there is now no local body (with local representation) overseeing the development of the new plan. It is felt that in this vacuum that the development of the new plan is now being done completely by the Department for Environment and Water without input or oversight from an appropriate regional body.</p> <p>It is also noted that consultation has been curtailed firstly due to heavy rain across the North East pastoral region, and then because of COVID-19.</p> <p>Livestock SA recommends that the process of developing the Far North Prescribed Wells Area Water Allocation Plan 2019-2029 be paused until the South Australian Arid Lands Landscape Board is fully operational and the new Pastoral Land Management and Conservation Act is established. Following this a further period of consultation should be undertaken.</p>	<p>The water components in the NRM Act were carried over into the Landscape SA 2019 Act, as such the WAP is still compliant with the Landscape SA 2019 Act and does not need redrafting because of this change in legislation. Similarly, the likely amendments in the pastoral legislation would not require any amendments to the draft Plan, because the draft Plan does not manage water with regard to stock maximums. The proposed amendments to the draft Plan based on the community consultation will be presented to the new Landscape Board for their consideration. The new Landscape Board will decide on the final changes to the draft Plan before it is presented to the Minister for Environment and Water for his consideration and adoption.</p>	No change to Plan
25.02	17/04/2020	Written Submission	Written Submission -	Written	Water Trading	<p>The greatest concern is the proposal in the draft plan to unbundle water rights from pastoral leases so that allocations can be traded within 'consumptive pools.' A key management principle under the previous plan was that water allocated for pastoral use was not allowed to be permanently transferred to be used for another purpose. These rules were created to ensure that pastoral leases had ongoing access to water. This needs to remain in the next plan. Livestock SA recommends that water licenses must be permanently attached to pastoral leases.</p>	<p>The former Water Resources Act 1997 formally separated water rights from land rights. Prior to this legislation being enacted, water was regarded as a public asset or public property common to all who had a right to access it, where access to water resources was an incident of the ownership of land. Common law rights to take water (e.g. water rights based on land ownership or possession) were abolished in the Water Resources Act 1997. Under the Water Resources Act 1997, and subsequently the NRM Act 2004 and the Landscape South Australia Act 2019, water licences and water allocations are personal property that can be transferred independently of land.</p> <p>While water and land rights are considered separately and can be transferred or sold independently, the draft Plan proposes that water that has been issued for pastoral purposes is secured for that purpose through a separate consumptive pool for stock and domestic purposes. Water in the stock and domestic consumptive pool cannot be transferred to be taken as water in the all-purpose consumptive pool, such as for mining or industrial use, or vice versa. To provide flexibility to the pastoral community, however, a pastoralist may be able to transfer some of their water to another pastoralist. This means that the water currently issued for pastoral purposes as a whole will remain allocated for this purpose under the draft Plan. This feature was in the previous plan to ensure that water allocated for pastoral use was not allowed to be permanently transferred to be used for another purpose and this has been maintained in the draft Plan, by separating pastoral use into a separate consumptive pool.</p>	More information provided in section 6 of the Plan with regard to the separation of land and water rights in South Australia and the need for buyers to ensure a sale of land includes a sale of water management authorisations.

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25.03	17/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	The proposed water access entitlements in the draft Plan are questioned. There needs to be more explanation to justify them for this region with limited and sporadic rainfall. Where do these figures come from? It would seem to be that the water access entitlements for stock purposes has been calculated based on Queensland data. Is this correct, and more importantly, is this appropriate?	There has been not change to the stock watering requirements from the existing WAP to the draft Plan. Through the consultation, the pastoral community has advised that they want updated stock water requirements which are specific to their region. In the absence of any work being undertaken as yet on this issue, the Board is keen to work with the community to undertake some trials to determine appropriate stock water requirements, as well as updating the estimated water volumes utilised by native animals and feral animals. This task is being built into the implementation plan for the WAP. Findings from this study can be used in the future to update the WAP. It should be noted that this does not result in automatic increases in existing users' allocations. Existing users would need to apply to take more water and in doing so comply with the rules in the WAP like a new user would.	No change to Plan
25.04	17/04/2020	Written Submission	Written Submission -	Written	Domestic Water Allocation	The domestic water access entitlements appear to be based on the national average of around 340 litres per person. Domestic usage in more arid areas is known and documented to be more than double this average. If this is correct, why is it being based on the average?	This was raised during the consultation on the draft Plan by the community several times, as such this component of the draft Plan has been amended to remain as is at 3.65 ML per dwelling per year.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
25.05	17/04/2020	Written Submission	Written Submission -	Written	Disposal to Surface	In contrast to the needs of pastoralists, their businesses and their families and staff, the needs of the mining and petroleum and exploration appear to be well catered for in the draft Plan. As an example, in section 27, the petroleum sector is allowed up to 21,900 ML per year of water that can be lost through evaporation which is a huge amount. On the other hand, pastoralists are chastised for evaporating a miniscule portion of the take from the Great Artesian Basin.	Principle 27v is in relation to any water above which is already licenced for this purpose. This means that any additional water should not be evaporated to the lands surface where possible. It is acknowledged that 21900ML is a large volume of water and that is why principle 27vi is aiming to minimise the volume that is currently disposed of to the lands surface for evaporation, not only from the petroleum industry but also the mining industry (or anyone else currently disposing of water to the lands surface for evaporation). Currently for the volumes of water which are already allocated, the disposal of this water is authorised through either the Statement of Environmental Objectives or the Program for Environment Protection and Rehabilitation which are developed for the activity and authorised under either the Petroleum and Geothermal Energy Act 2000 or the Mining Act 1971. A such, the principles in this draft Plan can't be contrary to that, however as the SOE and PEPR are reviewed every 5 years (different dates for different authorised activities) while this Plan is required to be reviewed every 10 years. Principle 27vi requires this objective to minimise evaporation to be considered when the SOE or PEPR is reviewed. Given the number of mining and petroleum activities in the area, all with their own review dates, it is difficult to put targets for these activities. The 10 year time frame is in line with the expected life of the WAP and is similar to the 10 years that was provided to pastoralists, through the existing plan, to distribute water to stock through closed delivery systems.	No change to Plan

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25.06	17/04/2020	Written Submission	Written Submission -	Written	Water Accounting	While it is noted that currently water meters are not proposed in the draft Plan, in sections of the plan it is implied these are already in place. For example, in section 7.6 it states in part b: "water taken from the well authorised by this approval must be taken through a water meter approved by the Minister or the Minister is satisfied that the taking of water is consistent with the Meter Implementation Plan for the Far North PWA." There is considerable concern and unease about the possibility of water meters being required, and this issue certainly needs full and frank consultation before the industry would accept this imposition for any parts of this region.	While the WAP does not propose meters, the principles align with the South Australian Licenced Water Use Metering Policy specifies that " <i>all water licence holders shall be metered unless the requirements of 1.7 below are met</i> " where 1.7 states " <i>Implementation of this policy will be sufficiently flexible to recognise on-ground regional implementation issues. Flexibility provisions and the process for seeking metering flexibility (where not automatic) will be documented in a meter implementation plan (MIP) for a particular prescribed water resource and made publicly available. Where inconsistency arises between a MIP and the Specification, the MIP is to apply.</i> " A MIP will be developed as part of the implementation of the WAP and through this process alternative water accounting measures will be considered. The Department has already advised they will work with the community through this process and the Board has stated they will support undertaking trials to identify the best approach to water accounting in the Far North.	Principle 51b amended to state water must be taken in line with the Meter Implementation Plan rather than referring to meters
25.07	17/04/2020	Written Submission	Written Submission -	Written	Bore-Fed Wetlands	There is a need for a management plan to reduce flows on existing man-made wetlands to enforce the health of the Great Artesian Basin	Bore-fed wetlands will be subject to the issuance of a site use approval (principle 54 and 55). The site use approval requires that water for a Bore Fed Wetland be taken in line with a wetland management plan and that the volume of water applied to the Bore Fed Wetland does not exceed the volume required to maintain the values of the wetland.	No change to Plan
25.08	17/04/2020	Written Submission	Written Submission -	Written	Water Licence	The draft Plan needs to consider that water use be categorised appropriately such as tourism, wetlands, etc as not all use on pastoral leases is only for stock and domestic; the suggestion of separate water licences for wetlands/tourism; the need for the Department for Environment and Water to ensure that appropriate systems are in place for record keeping, notification, categorisation of water use, etc before the plan begins; differentiation between sub-artesian and artesian aquifers is required.	The Department for Environment and Water is currently undertaking an assessment alongside licensees to identify which wells and springs are being utilised and this information will be used to inform the new water resource works approvals, as licences are rolled out the purpose of use will also need to be assessed and updated because different uses form different consumptive pools and the consumptive pool needs to be listed on the water access entitlement. Licensees are required to notify the Department if they change practices (use of water) and need to apply to amend their WRWA or water licence.	No change to Plan
25.09	17/04/2020	Written Submission	Written Submission -	Written	Assessment/Approval Processes	The draft Plan needs to ensure existing water user rights are protected	Any application for new water needs to consider the impact of taking that water may have on an existing user of the resource. If a proposal for additional water is likely to negatively impact an existing well, the proposal will not be authorised. Existing user rights are maintained under this plan as they were under the previous plan.	No change to Plan
25.10	17/04/2020	Written Submission	Written Submission -	Written	PWA boundary	The draft Plan needs to review the boundaries of the Far North Prescribed Wells Area, particularly where water is being extracted from adjacent areas	The boundary was established in 2003. It was based on the extent of the Great Artesian Basin and aligned with the nearest cadastre (property) boundary. Amending the boundary of the Prescribed Wells Area is very difficult requiring de-prescribing the area, re-prescribing it again and going through the existing user process. It is not a simple process which is why it has not been undertaken. This is something the Board can consider if it is deemed relevant.	No change to Plan
25.11	17/04/2020	Written Submission	Written Submission -	Written	Consultation	While the original consultation process was well planned with considerable effort made to ensure that there would be local meetings in as many regions as possible, unfortunately this was	Concern Noted. The consultation period extended for 5 months (3 months longer than that required by the Act) and included follow up meetings (also not required by the Act), in total 13 consultation meetings occurred with	No change to Plan

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						compromised by process and by circumstances beyond the Department's control. Information presented at different meetings varied based on previous discussions in a district. This has resulted in some confusion regarding what is likely to change with further iterations of the draft plan. While efforts were made to replace the remaining planned meetings with video conferences, there were difficulties in promoting these which meant some were unaware until after these were held. There have also been comments made from some who were not aware that there was even a draft plan and a consultation period. The question has been asked about why the YourSAy portal has not been used? This is an online consultation hub, well recognised as the place to find out about consultations open across the SA Government. Many issues of importance to pastoralists have been addressed on YourSAy including the current consultation regarding the revised wild dog management policy, as well as the draft SA commercial kangaroo management plan 2020 – 2024, planning for the future of South Australia's pastoral rangelands, and the draft outback bushfire management area plan. As YourSAy allows for comments to be easily made and gives update alerts, consideration should be given in future to using this communication vehicle.	a total of 140 attendees. Participants were also advised to reach out if they required further information or meetings, with email addresses available on the website. The suggestion of using YourSay is noted for future community engagement processes.	
25.12	17/04/2020	Written Submission	Written Submission -	Written	Comment	There is considerable concern that if the draft Plan is accepted as published, this will make sustainable, environmentally sound pastoral management more difficult and expensive. The ability to continue to drought-proof properties will be severely restricted, which is considerable concern against a backdrop of climate change extremes. The Great Artesian Basin in South Australia underpins the pastoral industry, and it is essential that this is well managed and cared for, but at minimal cost so that the viability of pastoralists is not put at risk. Livestock SA wishes to express its disappointment that this plan appears to essentially be a departmental-driven plan. There are many instances where there is no choice (such as with licensing and metering) or the choice is of only limited options. And certainly, the pastoral industry has had very little influence over the content of the plan.	The comments indicate that the concern is generally in relation to the reference to meters and the Meter Implementation Plan (MIP). A MIP will be developed as part of the implementation of the WAP and through this process alternative water accounting measures will be considered. The Department has already advised they will work with the community through this process and the Board has stated they will support undertaking trials to identify the best approach to water accounting in the Far North. The assessments that take place for drilling new wells is the same for GAB aquifers as under the existing Plan, and for the sub artesian aquifers, it is only new wells that have an assessment criteria, which is to not drill within 100m of a refuge GDE. Or if they choose to they need to confirm that they are not accessing the unconfined aquifer, or the water table is greater than 50m deep or need to demonstrate that there is no GDE present at the site with a GPSd photo point.	Principle 51b edited to state water must be taken in line with the Meter Implementation Plan rather than referring to meters

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26.01	17/04/2020	Written Submission	Written Submission -	Written	Objectives	It is stated that the objectives have been discussed with the community on several occasions. To date no one has seen any of the minutes of those community discussions to see if those who drafted the draft Plan had in fact heard the community. The drafting of this document highlights it is being assumed that the draft Plan presented is being accepted and endorsed in its entirety, but the reality is that a large majority of the community have rejected the draft Plan as presented. It was portrayed that EXISTING users would not be impacted by any changes - clearly incorrect with many changes proposed. The initial 'chit chat' consultation process in people's kitchens only saw selective information being drip fed to existing users and the delivery was streamlined to ensure that it appealed to those in the room. A number of critical changes being proposed were not disclosed at any point. From a community engagement perspective this whole review process which has been a failure.	The feedback is noted. The draft Plan was presented to the community throughout all the consultation meetings. The feedback received throughout these meetings and through the written submissions have been considered by the Water Advisory Committee and the Board in making any proposed changes to the draft Plan. The feedback has been valuable to consider alternative measures such as for water accounting rather than meters, or amendments proposed to the Plan such as keeping all domestic water together rather than separating a component into amenity water.	No change to Plan
26.02	17/04/2020	Written Submission	Written Submission -	Written	Environmental Protection	In regard to springs: a more flexible arrangement needs to be developed. Currently the determination of a spring is too dogged with some springs classified as benign and not even locatable but still identified as one and therefore problematic in property planning. Then you have some locations that all of a sudden have been categorised as a 'spring', but all historical documents have the site listed as a bore.	The springs layer to be utilised for the purposes of this Plan is a dynamic layer which will be updated as new data is acquired. While the spring layer is the first step in identifying a risk of taking water in an application process, if an applicant disputes the location or functionality of a spring, this will be addressed through the application process.	No change to Plan
26.03	17/04/2020	Written Submission	Written Submission -	Written	Bore-Fed Wetlands	It is noted that in this draft Plan the issue of Bore Fed Wetlands is once again not being addressed and despite all jurisdictions agreeing that the use of bore drains as a method to deliver water to stock can no longer be justified (2009 WAP FNPWA) but somehow in the development of the last FNPWA licenses were issued for bore fed wetlands and 8 were listed for the purpose of stock watering.	Bore-fed wetlands will be subject to the issuance of a site use approval (principle 54 and 55). The site use approval requires that water for a Bore Fed Wetland be taken in line with a wetland management plan and that the volume of water applied to the Bore Fed Wetland does not exceed the volume required to maintain the values of the wetland. Further any Bore Fed Wetlands which do not currently have licences will be licenced and subject to site use approvals also.	No change to Plan

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26.04	17/04/2020	Written Submission	Written Submission -	Written	Aboriginal Water Rights	I have spoken to members of my local community who live locally and not one had been made aware of this draft document or had the community been consulted. Residents represent a diverse group of Aboriginal people and the way that this draft document reads it may be restricting due the complexities of Native Title boundaries being disputed and not settled - for some it is a real issue and shouldn't be disregarded. From a pastoral perspective this adds another level of complexity and lengthy time delays to pastoral lease holders - especially for those who have no Indigenous Land Use Agreements which is a large portion of the pastoral lease area in SA – and it is only when all pastoral leases have an ILUA in place can an application for a water resource works approval be put forward for consideration and development. Consideration and discussion to be held over for the 2029 review. Currently Aboriginal People are included under the Pastoral Act. For now, lease holders need a simple approach to water permits applications - application for permits to remain simplified with one application process as the 2009 plan.	<p>Separate meetings with First Nations groups were held through the development of this draft Plan and will be outlined in the Consultation Report. The feedback received through these meetings was used to develop the Aboriginal Water Rights chapter of the Plan. In general, ILUAs do not provide suitable detail with regards to water, however, principles will be amended to reflect that if an ILUA exists and discusses water impacts to cultural sites, the terms of the ILUA will be consulted prior to referring the application.</p> <p>The principles which highlight the 60 day referral of a well construction permit to the registered native title body corporate for comment is standard State practice. This practice took place under the previous plan to ensure the permit is consistent with the Native Title Act, however it was not explicitly stated in the Plan. This is not an additional step in the application process. This step is now highlighted in this draft Plan.</p>	Principle 41 amended to state that in cases where an Indigenous Land Use Agreement (ILUA) exists which refers to matters relating to water, this will be consulted prior to referring the application to the Registered Native Title Body Corporate.
26.05	17/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	2003 Figures for Stock and Domestic demands compared to current use clearly shows a reduction in water use due to diligence (and at great expense) on behalf of a large majority of pastoralist.	Noted. Section 5.3 - future demands - discusses the water savings through the GABSI programs and the landholder contribution to these water savings.	No change to Plan
26.06	17/04/2020	Written Submission	Written Submission -	Written	Comment	Surface water is dependent on rainfall events. Rainfall events and dependant on climate cycles which are variable – they can either be extremely wet periods or dry periods – as in the past, the present and the future. Groundwater is more concerning with those in the NW highly impacted by users in the same aquifer in NSW, QLD and the NT. Mining is the greatest threat to the resource and any irrigation projects in those states. Maybe as the end user the NW pastoral community are diligent users and highly protective of the resource in regards to water waste.	Noted. An additional section in the introduction chapter has been included on climate change impacts and discusses the likely reduction in rainfall and therefore surface water availability.	Inclusion of Impacts of Climate Change subsection after the Hydrogeology section.
26.07	17/04/2020	Written Submission	Written Submission -	Written	Future Demands	Demand for water will only come from the Mining, Petroleum, Gas and Geothermal Demand and Expansion. This significant increase needs to be addressed and monitored. There is a large portion of Co-Produced water that could be reused within this sector.	There is potential for increased water take from all sectors reliant on the water resource, particularly as surface water availability diminishes due to a changing climate. Projections indicate that there will be increased demand particularly from the mining and petroleum sectors within the life of this Plan. Principle 27 in the draft Plan requires that any future water demand from the petroleum sector is not disposed of to the lands surface, either through reuse, repurposing or reinjected into the aquifer. Furthermore, water which is currently disposed of to the lands surface by the mining and petroleum industries, is also required to be minimised through the life of the plan. These likely demands cannot be quantified at this stage.	No change to Plan

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26.08	17/04/2020	Written Submission	Written Submission -	Written	Bore-Fed Wetlands	The issue of Bore fed Wetlands also needs to be addressed. It's been ongoing for decades and it's been deemed socially problematic. How they were ever issued licenses is beyond belief and flies in the face of all other water savings that has been made by other users.	Bore-fed wetlands will be subject to the issuance of a site use approval (principle 54 and 55). The site use approval requires that water for a Bore Fed Wetland be taken in line with a wetland management plan and that the volume of water applied to the Bore Fed Wetland does not exceed the volume required to maintain the values of the wetland. Further any Bore Fed Wetland which do not currently have licences will be licenced and subject to site use approvals also.	No change to Plan
26.09	17/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	5.3.3 – Pastoral Demand (to remain as per 2009 WAP, 5.5, Pg35) Pastoral demand to remain as allocated in previous WAP - 100L/head per day based on the pastoral leases maximum stocking rate levels. A large majority of pastoralists have worked incredibly hard at ensuring their water network is a closed delivery system and at great expense.	Noted. In the absence of new data available to estimate water use by stock, these numbers have come directly from the previous Plan. The Board plans to initiate some trial sites to gain a better understanding of the water requirements of both stock and natives / feral animals. If these findings indicate that the volumes should be increased then the WAP can undergo a targeted amendment.	No change to Plan
26.10	17/04/2020	Written Submission	Written Submission -	Written	Domestic Water Allocation	5.3.6 - Domestic Water Supply (Reject) We reject the methodology put forward to determine the reduction of the domestic rate. Endorsed by the no longer existing SAAL board and Water Advisory Committee. At no point did the former SAAL board (or its representatives) or members of the Water Advisory Committee seek any consultation on this proposed change. The lack of community engagement on this particular item has been extremely ordinary and showed a total disregard (and understanding) to those that reside on pastoral properties. For existing users - the Domestic allocation is to remain at 10.95ML per household as calculated by the 2009 WAP pastoral representative who based his figures on usage at his homestead complex (Todmorden) for the purpose of the 2009 WAP. (See 2009 WAP 5.5, Pg. 35). Future Stock and Domestic demands are to remain consistent as per previous plans with no variance in usage is expected.	The proposal was presented at the meetings held in November. At that time the community provided feedback which shaped alternative principles with regard to this issue (i.e. keeping all water currently issued for domestic water for that purpose) and any new water is issued at the rate it was through the existing user process (3.65 ML per dwelling). The amended principles and text in the demands section was provided to the community at the follow up meetings in February and April. The community supported to keep things as they were. Once the draft Plan is released for consultation, it is not updated until the consultation period has been finalised and the Board has considered all the feedback. The final Plan will reflect the community feedback regarding the domestic water supply.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
26.11	17/04/2020	Written Submission	Written Submission -	Written	Water Allocations	Additional water allocation savings can be made by revoking all Stock and Domestic licenses that are not attached to a pastoral lease. Currently there are many licenses still active but held by individuals who are no longer active pastoral lease holders.	A water licence is an ongoing right to the holder of the licence. The licence cannot be revoked by the Minister, it can only be surrendered by the holder. Acknowledging this issue, principle 51f in the draft Plan enables the cancellation of the water resource works approval associated with a licence. This is the key management authorisation which will be considered when issuing any new water as this is what will be used to identify existing users. As such the water held on licence by someone without a water resource works approval will not impact any new or existing user from applying to increase their allocation. Additionally, the principles to issue water access entitlements (principles 8 and 10) will require that the applicant has a Water Resource Works Approval prior to a Water Access Entitlement being issued. This will limit people purchasing water without anywhere to take it and prevent the development of a speculators market.	Principle 8 and 10 with regard to issuing of water access entitlements, amended to include that "A water access entitlement will not be granted without a water resource works approval to enable the take of the water issued. The water resource works approval is subject to the principles outlined in section 7 of this Plan ".

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26.12	17/04/2020	Written Submission	Written Submission -	Written	Water Trading	In regard to the push for Consumptive Pools for water trading and water markets in the FNPWA - do we really want to create the problems of those encountered in other states? Do those who have developed this plan genuinely believe that creating consumptive pools for water trading and water markets is in the best interest of the resource? As it has been clearly fed back to creators of this draft Plan - the pastoral community reject the push for Stock and Domestic to be a tradable commodity. We do not want to see licenses separated from pastoral leases. To do so would be detrimental to the industry and in some instances the demise of a leases viability and long term value.	<p>The Water Resources Act 1997 formally separated water rights from land rights. Prior to this legislation being enacted, water was regarded as a public asset or public property common to all who had a right to access it, where access to water resources was an incident of the ownership of land. Common law rights to take water (e.g. water rights based on land ownership or possession) were abolished in the Water Resources Act 1997.</p> <p>Under the Water Resources Act 1997, and subsequently the Natural Resources Management Act 2004 and the Landscape South Australia Act 2019, water licences and water allocations are personal property that can be transferred independently of land. While water and land rights are considered separately and can be transferred or sold independently, the draft Plan proposes that water that has been issued for pastoral purposes is secured for that purpose through a separate consumptive pool for stock and domestic purposes. Water in the stock and domestic consumptive pool cannot be transferred to be taken as water in the all-purpose consumptive pool, such as for mining or industrial use, or vice versa. To provide flexibility to the pastoral community, however, a pastoralist may be able to transfer some of their water to another pastoralist. This means that the water currently issued for pastoral purposes as a whole will remain allocated for this purpose under the draft Plan.</p> <p>Consumptive pools are required under the Act to determine the pool of water from which allocations can be issued. If the draft Plan were to propose only a single consumptive pool, this would enable trade of pastoral water to another purpose. A separate consumptive pool for stock and domestic water has been proposed to prevent this based on the strong feedback from the pastoral community.</p>	More information provided in section 6 of the Plan with regard to the separation of land and water rights in South Australia
26.13	17/04/2020	Written Submission	Written Submission -	Written	Aboriginal Water Rights	Cultural Water Consumptive Pool only to be considered when all pastoral leases have Indigenous Land Use Agreements in place. Currently only a small number of pastoral leases have an ILUA signed.	The cultural water consumptive pool reflects the existing Ministerial authorisation under section 128 of the NRM Act and 105 of the Landscape SA 2019 Act. Regardless of if the consumptive pool is referred to in the draft Plan or not, the ability to take water for cultural purposes by Native Title Holders is already authorised. The consumptive pool does not increase the rights but rather it highlights the existing rights of First Nations people to take water for cultural purposes.	No change to Plan
26.14	17/04/2020	Written Submission	Written Submission -	Written	Water Licence	Rights of EXISTING users to be honoured. Principle. 11 – Domestic Water Supply (5.3.6) – this item required local input and knowledge and it was not sought. Assumptions were made about domestic usage and as a result the credibility of individuals that endorsed this proposal is questionable in regard to their community representation.	Local input and knowledge was sought though the consultation on this draft Plan. In response to this feedback these sections of the draft Plan have been amended.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences.
26.15	17/04/2020	Written Submission	Written Submission -	Written	Consultation	The Act that underpins this whole draft is now obsolete. The SAAL board that created the draft is obsolete. The Pastoral Land Management and Conservation Act is also in the process of being redrafted and yet to be viewed by the	While the Landscape South Australia Act 2019 fully commenced on 1 July 2020, the water provisions are largely consistent with the water provisions in the preceding Natural Resources Management Act 2004 and	No change to Plan

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						community. No input was sought from local NRM community groups and therefore a large majority of those living the FNPWA have not been heard or been given the opportunity to be a part of the draft development. No pastoral representatives were included in the drafting process. No pastoral representatives were included in the Water Advisory Committee – Janet Brook does not count. A representative from the NW and NE should have been included from the initial stages of draft document Due to the lack of community engagement and disregard for local community knowledge - we see this document as: Phase 1 – Development of the FNPWA Draft. To be followed by; Phase 2 – FNPWA Draft – What We Heard Phase 3 – Community Feedback Phase 4 – Final Document to be presented to the Minister for consideration and distributed to community	as such, the change in legislation will not require a change in the provisions in the draft Plan. With regard to the Pastoral Land Management and Conservation Act 1989, it is understood that the maximum stock rates are being considered for review. While maximum stock rates were used to determine the volumes of water that were issued to existing users in the Far North, the draft Plan does not set such limitations. Rather it enables the allocation of future water for stock purposes if the applicant is able to demonstrate that the taking of water will not negatively impact on other users of the resource, including the Great Artesian Basin springs and other key groundwater dependent ecosystems identified in the draft Plan. If the Pastoral Land Management and Conservation Act 1989 were to remove the limitations with regard to stock numbers on pastoral leases, the provisions in the draft Plan would not require any amendment to be consistent with this approach. During the consultation period on the draft Plan, a total of 120 people attended 13 stakeholder and community meetings, with some people attending multiple sessions. The pastoral community was widely represented with 54 pastoralists representing 36 different pastoral stations attending the meetings. All of the comments received by these attendees through the meetings and through their submissions to the draft Plan be presented to the new Landscape Board. The new Board will consider the community feedback and any proposed changes to the draft Plan prior to it being forwarded to the Minister for adoption.	
26.16	17/04/2020	Written Submission	Written Submission -	Written	Aboriginal Water Rights	7.1.38 – Needs refining again in regard to Cultural Sites – It is assumed all pastoral leases have an ILUA in place when in fact only a small portion have an ILUA. 7.2.41 – Not workable from a pastoral industry perspective at present. Or pastoral leases to be exempt if a Water Point Plan is in place with Pastoral Board. 7.3-7.4 – This needs the input of active pastoral representatives in the FNPWA to ensure measures are workable.	There is no assumption of ILUAs being in place in all areas of the FNPWA with regard to cultural impacts. New well construction permits will be referred to the registered native title body corporate for comment (as is current practice). This practice has been workable from a pastoral perspective as this approach has been in place for the last 10 years under the current Plan. However, principle will be amended to reflect that if an ILUA is in place the content of the ILUA will be considered to see if it covers matters relating to water.	Principle 41 amended to state that in cases where an Indigenous Land Use Agreement (ILUA) exists which refers to matters relating to water, this will be consulted prior to referring the application to the Registered Native Title Body Corporate.
26.17	17/04/2020	Written Submission	Written Submission -	Written	Water Accounting	This whole section was not disclosed at any point until it was stumbled across by a member of the community. It has been widely rejected and reasons have been clearly put forward on numerous occasions. Pastoralists spend a great deal of money each year in extracting water and maintaining the infrastructure to ensure that water is enclosed in a closed delivery system. Costs are highly variable depending on well depth and quality. Existing Stock and Domestic purposes in previous WAPs have been exempt from Annual Water Use Reporting. (2009 WAP, 9.3 pg. 59) This draft Plan (7.6.51) places additional financial costs and operation burden with added infrastructure with total lack of regard to individual well complexities.	The Board and the Water Advisory Committee were aware of the need to account for water in line with State policy. Discussions with the community through the consultation process has enabled the consideration of alternative water accounting measures to metering. This detail will be developed in a meter implementation plan for the Far North which will be developed as part of the implementation of the Plan. Principle 51 has been amended to require an Annual Water Use Report only if authorised to take more than 1 ML/day for purposes other than pastoralism.	Principle 51e amended to apply only if authorised to take more than 1 ML/day for purposes other than pastoralism.

Ref	Date	Submission Type	Meeting Location and Date	Comment Type	Subject Category	Comment	Response	Changes to the draft Plan (draft principle #s)
26.18	17/04/2020	Written Submission	Written Submission -	Written	Bore-Fed Wetlands	Amenity Purpose needs to be abolished. Community feedback has explained that the definition is flawed and that it only originated because the WAC and SAAL decided to redefine the Domestic Allocation. Water Allocation Plans currently in place with the Pastoral Unit (Pastoral Land Management and Conservation Act) can be a substitute. Need to tidy up Bore fed Wetlands (well purpose) and the sites that have been listed for stock purpose need to be revoked and redefined and wound back.	Based on the feedback through the consultation meetings the amenity water concept has been removed. As previously mentioned, Bore Fed Wetlands will be managed through Site Use Approvals.	Section 5.3.6 updated to reflect a domestic water allocation required of 3.65 ML per dwelling. Amendment of principle 11 to specify 3.65 ML per dwelling. Removal of principle 20 stating that existing licences will be issued in line with principle 11 (as no longer required as they will be issued the licence in the same manner it was previously issued) - no change to existing user's licences. Where the term amenity is referred to (section 1.2, table 5.1, section 5.3, principle 53a and 54) it has been removed and replaced with bore fed wetland were appropriate.
26.19	17/04/2020	Written Submission	Written Submission -	Written	Reporting Requirements	A large majority of pastoralists monitor their stock and domestic wells with due diligence either via routine inspection and/or via a digital dashboard. These levels of monitoring ensures that well head works, and distribution systems are maintained in good operating order with annual costing in the thousands. Instead of acknowledging the compliance this draft plan would see an additional financial burden of meters and salinity samples for each individual well. Has anyone involved in this draft document actually calculated the costings involved? Annual Salinity Samples alone are \$550-750 per sample per annum. Water delivery systems are based on the current water pressures and flows through the wellheads. Solar pumps and supply systems are designed around those current flows. Costs involved in metering devices on well heads can set some producers back hundreds of thousands of dollars and that's not including the travel for them to be professionally maintained. And then there is the real issues of delivery systems having flow restrictions as a result of the monitors. The financial burden that this draft seems to be so intent on placing on pastoralists is unfathomable particularly when previous plans have seen Stock and Domestic exempt. Again, the total lack of community engagement and involvement in developing this draft plan has been flawed as a result of no pastoral representation.	Community engagement and involvement in developing the Plan through the consultation period has resulted in changes to the Plan with regard to the annual water use reports not being required from pastoralists. Reference to metering has been replaced with water accounting which will be developed with the community through a meter implementation plan.	Principle 51e amended to apply only if authorised to take more than 1 ML/day for purposes other than pastoralism. Principle 51b edited to state water must be taken in line with the Meter Implementation Plan rather than referring to meters.
27.01	17/04/2020	Written Submission	Written Submission -	Written	Comment	It is of my firm belief that in the best interest of the future of the GAB, agriculture/pastoralism and anyone who lives or makes a living while using underground water, a great deal more research must be done into not only the GAB itself but that of the actual usages of both agriculture and mining.	Noted.	No change to Plan.
27.02	17/04/2020	Written Submission	Written Submission -	Written	Water Trading	I strongly disagree with the ability to trade. This has led to many issues in other areas of Australia and I think it would be a recipe for disaster in the future. If this was to go ahead, I think trade must be restricted, allowing the seller to only trade within the same consumptive pool.	Noted. The draft Plan only enables trade within a consumptive pool. That is stock and domestic water cannot be traded to be used for any other purpose but it could be traded to another pastoralist in times when one property is destocked, and another is carrying more than usual (as approved by the Pastoral Board).	No change to Plan.

Ref	Date	Submission Type	Meeting Location and Date	Comment Type	Subject Category	Comment	Response	Changes to the draft Plan (draft principle #s)
27.03	17/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	If research isn't going to go ahead before the changes to the draft Plan, then livestock usage must be increased to 200L per head (cattle) per day. The very little research we have to work with suggests 150L per day and this research has been done in much cooler climates. 200L per day I deem to be a minimum to ensure the health and welfare of my cattle. The 20% buffer for feral and native animals also needs a great deal more research done.	In the absence of new data available to estimate water use by stock and natives / feral animals in the Far North, these numbers have been directly copied over from the previous Plan. The Board plans to initiate some trial sites to gain a better understanding of the water requirements of both stock and natives / feral animals. If these findings indicate that the volumes should be increased then the WAP can undergo a targeted amendment to update the numbers listed in the draft Plan. This will not result in an automatic increase in licensees' allocations. They will need to apply for the additional water and will be subject to the rules in the plan to ensure that the taking of this additional water will not impact on existing users or the springs/GDEs dependent on the resource.	No change to Plan.
27.04	17/04/2020	Written Submission	Written Submission -	Written	Carryover	I am in agreeance with the ability to 'carryover' annual allocation where an abundance of surface water has reduced the licensees need for unground water.	There is an ability to undertake carryover in the legislation, however it requires an understanding of water use (to determine what volume hasn't been used and can be carried over - generally capped at a certain percentage of allocation). The current draft Plan has no provision for carryover to occur at this time, however this can be amended in the future when water accounting measures are in place.	No change to Plan.
28.01	17/04/2020	Written Submission	Written Submission -	Written	Water Allocations	I would like to see a significant water allocation increase for the native animals and birds. In some years there can be up to 60,000 kangaroos on the property. Like the cattle and sheep, the native animals drink large quantities of water to sustain them. Current percentage is an under estimate given the number of roos.	In the absence of new data available to estimate water use by stock and natives / feral animals in the Far North, these numbers have been directly copied over from the previous Plan. The Board plans to initiate some trial sites to gain a better understanding of the water requirements of both stock and natives / feral animals and if these findings indicate that the volumes should be increased then the WAP can undergo a targeted amendment to update the numbers listed in the Plan. This will not result in an automatic increase in licensees' allocations, they will need to apply for the additional water and will be subject to the rules in the plan to ensure that the taking of this additional water will not impact on existing users or the springs/GDEs dependent on the resource.	No change to Plan.
28.02	17/04/2020	Written Submission	Written Submission -	Written	Stock Water Requirements	The next suggestion is in response to frequent queries from pastoralists to have water in ponds for livestock to cool off in. If there is no allocation for water to be used for welfare purposes (overflows for trees to grow), please consider funding for stock shade shelters near waters, similar to the funding that is available for water projects. This is a more efficient way of keeping stock cool in the hot summer months. With grants being made available, pastoralists would be relieved their animals are not suffering in the long hot summers of the Outback, without cooling ponds.	Noted. The Board will consider any relevant funding opportunities to support the erection of stock shelters.	No change to Plan.

Acronyms:

FNPWA	Far North Prescribed Wells Area
WAP	Water Allocation Plan
SAAL	South Australian Arid Lands
NRM	Natural Resources Management
SAAL NRMB	South Australian Arid Lands Natural Resources Management Board

MIP	Meter Implementation Plan
DEW	Department for Environment and Water
DPTI	Department for Planning, Transport and Infrastructure
EPBC Act	Environment Protection and Biodiversity Conservation Act 2000
RNTBC	Registered Native Title Body Corporate
GDE	Groundwater Dependent Ecosystems
WRWA	Water Resource Works Approval

Appendix B2 – Table of changes arising from submissions

Topic	WAP section	Principle #	Change made	Reason	Comment #
Aquifer Recharge/Disposal of water to lands surface	6.7	27(a)(ii) & 27(a)(iii)	<i>27(a)(ii) water is reused</i> and <i>27(a)(iii) water is reinjected into an aquifer</i> , removed to provide discretion to the licensee about how they ensure water is not disposed of to the lands surface for evaporation.	In response to comments suggesting that there may be limitations to reusing or reinjecting water, and it may be best avoided due to water quality, the requirements to reuse or reinject water into an aquifer have been removed, however requirement to minimise disposal of water to the lands surface for evaporation remains.	4.1, 7.09, 17.04, 23.03
Aquifer Recharge/Disposal of water to lands surface	6.7	New 29	New principle added: (new) 28(a)(vi) <i>water taken as part of mine dewatering activities is not disposed of by means of evaporation on the land's surface</i> does not apply when the water is a product of mine processing and is stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste.	In response to comments about reusing or reinjecting water produced from mine processing and stored in tailings storage facilities or lined mineral evaporation ponds for liquid waste, the principle has been updated to note that requirements do not apply in these cases as this water is contaminated.	5.06, 5.11, 7.1, 7.12, 7.13, 12.14, 13.17, 17.06, 17.07
Aquifer Recharge/Disposal of water to lands surface	7.7	54c and 57	Principles 54c and 57 removed as new principle (above) explicitly states reinjection is not required for contaminated water so a site use approval is no longer required to make these exempt.	In response to comments, these principles have been removed - they are no longer relevant due to the addition of the principle included after Principle 27 that states that reinjection is not required for contaminated water.	7.12, 7.13, 17.07
Aquifer Recharge/Disposal of water to lands surface	6.7	33b	New principle added to introduce a limitation of 15km on the distance between recharge location and extraction location in an aquifer recharge scheme	In response to comments, a new principle has been added to specify that the water needs to be recovered within 15km of recharge, unless the applicant can demonstrate that the taking of water at a distance further than this will not result in undesired impacts to the groundwater resource, GAB springs, refuge non-spring GDEs, existing users of the resource, or the originating location of recharge.	5.14

Appendix B2 – Table of changes arising from submissions

Topic	WAP section	Principle #	Change made	Reason	Comment #
Aboriginal water rights	7.2	41	<i>Well construction permit referral to first nations</i> , amended to state that in cases where an Indigenous Land Use Agreement (ILUA) exists which refers to matters relating to water, this will be consulted prior to referring the application to the Registered Native Title Body Corporate.	In response to comments this principle has been amended to provide clarity around the process for obtaining an approval when an ILUA is in place.	4.03, 6.03, 6.11, 26.04, 26.16
Aboriginal water rights	3.3		Recommendation in section 3.3 to refer to the Register of Aboriginal Sites and Objects to identify the likely impact upon a site of cultural significance, has been removed from the Plan. Engagement with Aboriginal peoples, communities and representative organisations relevant to a proposal is highlighted as a crucial element.	In response to comments, it is recognised that not all cultural sites are listed on the Register of Aboriginal Sites and Objects. The recommendation to refer to the Register has been removed. The current practice of referral to the RNTBC for a new well construction permit has been emphasised and the importance of engagement with relevant representatives has been highlighted.	4.03, 8.18, 9.06
Aboriginal water rights	6.7 & 7.4	26(e), 29(a)(vi) & 45(f)	Removal of reference to impact upon cultural sites from WRWAs (principles 26(e), 29(a)(vi) and 45(f)) and instead the referral to the RNTBC is reinforced for the drilling of new wells (principle 41).	In response to comments, it is recognised that not all cultural sites are listed on the Register of Aboriginal Sites and Objects. The recommendation to refer to the Register has been removed. The current practice of referral to the RNTBC for a new well construction permit has been emphasised.	4.03, 8.18, 9.06
Aboriginal water rights	Appendix C		Appendix C – <i>Requesting a search of the register of aboriginal sites and objects</i> has been removed.	In response to comments, it is recognised that not all cultural sites are listed on the Register of Aboriginal Sites and Objects. The recommendation to refer to the Register has been removed. The current practice of referral to the RNTBC for a new well construction permit has been emphasised.	4.03, 8.18, 9.06

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Topic	WAP section	Principle #	Change made	Reason	Comment #
Assessment/ Approval process	6.1		Figure 6.1 updated to provide further clarity on the different water management authorisations and how they interconnect.	To address concerns raised about the complexity and lack of clarity around the assessment and approval process	6.1, 10.24, 21.19, 22.01
Assessment/ Approval process	6.3	8 & 10	Principles amended to include that "A water access entitlement will not be granted without a water resource works approval to enable the take of the water issued. The water resource works approval is subject to the principles outlined in section 7 of this Plan"	To address concerns with the potential speculation buying of water without a place to take it, and of licences that are active and no longer attached to a pastoral lease.	6.1, 21.19, 22.01, 26.11
Assessment/ Approval process	2.2.3		Flow chart of assessment steps for non-spring GDE's included in this section	In response to comments, a flow chart has been included to demonstrate the assessment and approval process for variations of existing licences and for applications for new licences for within 100m of refuge non-spring GDEs.	12.01, 12.12, 21.02
Assessment/Appro val process	6.7 & 7.4	29b & 45c	Principles 29b and 45c have been removed. The content of these principles with regard to impact on refuge GDE sites moved to new Principle after principle 43 stating that a new well can be drilled if it is outside of zone A and the 100m buffer for refuge GDE sites, and is not intercepting the GAB aquifer, nor likely to impact on an existing users ability to take water and will be taking the same volume of water already authorised. Or if the applicant is targeting the unconfined aquifer within the Refuge GDE buffer, the GDE flow chart demonstrates that the taking of water from the new well is unlikely to impact upon the refuge GDE.	In response to comments querying how 'no impact' can be demonstrated, and that the process sounds complicated, further clarity has been provided.	12.01, 12.02, 12.03, 12.04, 21.02

Appendix B2 – Table of changes arising from submissions

Topic	WAP section	Principle #	Change made	Reason	Comment #
Assessment/Approval process	7.2	New 43	A new principle has been added to reference impacts on refuge non-spring GDE's as it relates to well construction permits (in place of the former Principle 45(c)).	In response to comments querying how 'no impact' can be demonstrated, and that the process sounds complicated, further clarity has been provided.	12.01, 12.02, 12.03, 12.04, 21.02
Assessment/Approval process (potentiometric surface)	Figure 2.2		Figure removed	In response to comments raising concerns around the cumulative impact on GAB water pressures required to maintain water flow to springs, Figure 2.2 has been removed as has reference to the potentiometric surface and these principles have been updated. DEW scientists have confirmed that the 2009 water pressure levels should be used when considering cumulative declines in water pressures. When applications are sought, this will be assessed through the GAB model (as allowed under WAP principles).	5.02, 5.13, 7.03, 17.08
Assessment/Approval process (potentiometric surface)		29(a)(iii), 29(a)(iv), 29(a)(v) and 44(b), 44(d) and 45(b)	Principles updated to relate to February 2009 (date of adoption of the first WAP) when considering cumulative declines in water pressures.	In response to comments raising concerns around the cumulative impact on GAB water pressures required to maintain water flow to springs, Figure 2.2 has been removed as has reference to the potentiometric surface and these principles have been updated. DEW scientists have confirmed that the 2009 water pressure levels should be used when considering cumulative declines in water pressures. When applications are sought, this will be assessed through the GAB model (as allowed under WAP principles).	5.02, 5.13, 7.03, 17.08

Appendix B2 – Table of changes arising from submissions

Topic	WAP section	Principle #	Change made	Reason	Comment #
Bore-fed wetlands	Section 1.2, Table 5.1, Section 5.3	53(a) & 54	The term 'amenity' replaced with 'bore fed wetland'	In response to comments suggesting that the term 'amenity' is flawed and should not be used, the reference to 'amenity' has been removed and replaced with 'bore fed wetlands' where appropriate.	10.03, 10.04, 15.1, 26.18
Clarification	1.4		Additional text added to clarify that rainfall cannot be relied upon as a secure source of water to meet the demand of the communities which reside within the PWA.	To provide further clarity.	
Clarification	1.6		Section revised to bring the management approach to the top and provide further context in paragraphs 4 and 5 to provide clarity to the reader.	In response to comments that this section should be reworded to be clearer.	21.01
Clarification	1.3 & 1.7		Sections amended to include content about irrigation in suitable areas	In response to comments that there is potential for irrigation of crops and this should be included in these sections	15.03
Clarification	1.7		Section amended to indicate the value of tourism in the entire Flinders Ranges and Outback region, which includes the GAB springs, not just for the GAB springs	In response to comments that there are high value industries dependent on GAB water in SA, including tourism.	20.01
Clarification	4.2		First sentence removed	In response to comments that the draft plan does not differentiate between sub-artesian and artesian aquifers.	21.05
Climate change	1.3 & 1.7		Added text around the potential for irrigation in suitable areas.	In response to comments that climate change may result in the potential for irrigated arid zone horticulture.	15.06

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Topic	WAP section	Principle #	Change made	Reason	Comment #
Climate change	New 1.6		Inclusion of subsection after Hydrogeology in the introductory chapter on Impacts of Climate Change. Includes discussion on increased opportunities for economic development and possible diversification of industry.	In response to comments that the WAP doesn't mention climate change, an additional section has been included to identify how climate change may indirectly impact upon the groundwater availability. The section also includes discussion on impacts and opportunities for industry, as suggested in comments.	10.02, 10.16, 15.04, 15.06, 26.06
Climate change	5.3.3		Text added about diversification opportunities in relation to Pastoral Demand	In response to comments, updates have been made to acknowledge that climate change may mean that pastoral land becomes increasingly unviable and that water demand from this land use is likely to decrease. Additions reflect that diversification into irrigation may become more likely.	15.06
Climate change	5.3.7		Text added about potential for diversification and increased irrigation in suitable areas, in response to reductions in rainfall and increasing temperatures.	In response to comments that climate change may result in the potential for irrigated arid zone horticulture.	15.06
Co-produced water licence	6.3	New 17	New principle added after (new) Principle 16 to state that the petroleum producers need separate licences (for activities associated with petroleum production eg camp water etc) except for the licence the Minister holds in relation to actually producing the petroleum.	To provide clarity on the implementation of the co-produced water licences	N/A
Domestic Allocations	5.3.6		Updated to reflect a domestic water allocation required of 3.65ML per dwelling.	In response to comments raising concerns around separating domestic allocations into two components - domestic and amenity. Changes have been made to reflect the existing arrangements. Licences will be issued in the same manner as it was previously issued so there will be no change to existing user's licences.	1.01, 1.21, 1.26, 2.38, 2.39, 2.41, 2.42, 3.07, 6.12, 6.13, 6.14, 13.03,

Appendix B2 – Table of changes arising from submissions

Topic	WAP section	Principle #	Change made	Reason	Comment #
					21.12, 21.13, 25.04, 26.1, 26.14, 26.18
Domestic Allocations	6.5	20	Principle removed	In response to comments raising concerns around separating domestic allocations into two components - domestic and amenity. Changes have been made to reflect the existing arrangements. Licences will be issued in the same manner as it was previously issued so there will be no change to existing user's licences.	1.01, 1.21, 1.26, 2.38, 2.39, 2.41, 2.42, 3.07, 6.12, 6.13, 6.14, 13.03, 21.12, 21.13, 25.04, 26.1, 26.14, 26.18
Domestic Allocations	6.3	11	Updated to reflect a domestic water allocation required of 3.65ML per dwelling.	In response to comments raising concerns around separating domestic allocations into two components - domestic and amenity. Changes have been made to reflect the existing arrangements. Licences will be issued in the same manner as it was previously issued so there will be no change to existing user's licences.	1.01, 1.21, 1.26, 2.38, 2.39, 2.41, 2.42, 3.07, 6.12, 6.13, 6.14, 13.03, 21.12, 21.13, 25.04, 26.1, 26.14, 26.18
Domestic Allocations	5.3.6 & Glossary		Replaced current definition of 'dwelling' and 'domestic' with definitions that are more suited to the region's needs	In response to comments querying the definition of 'dwelling' and 'domestic', an updated definition has been included	2.35, 2.4

Appendix B2 – Table of changes arising from submissions

Topic	WAP section	Principle #	Change made	Reason	Comment #
Future Demands	5.3		Demands section updated in relation to tourism with numbers and information supplied by SATC	In response to comments highlighting information incorrect in regards to tourism, this section has been updated with numbers from the SA Visitor Economy Sector Plan 2030 and information provided by the South Australian Tourism Commission.	20.02
GAB Numerical Model	7.6	51(e)	An additional sub principle applied to specify that where appropriate, additional monitoring may be required at the request of the Minister.	In response to comments around what happens if the model projections are incorrect and impacts are observed, a sub principle has been added stating that additional monitoring may be required. A monitoring regime could assist in identifying impacts should they arise, especially for larger projects.	7.07
Legislative	1.2		Section amended to state that the review was undertaken in line with the NRM Act and subsequently the Landscape SA 2019 Act	In response to comments raised that the recent change in legislation to the <i>Landscape South Australia Act 2019</i> had not been mentioned in the draft Plan.	15.02
Levies	1.1		Section has been amended when discussing the NWI to provide an overview of all the Key Elements, not just those which are managed through the WAP.	In response to comments around the lack of reference to water pricing which is a Key Element of the NWI, this section has been updated to expand on the NWI requirements and how the Plan addresses some of these key elements.	15.01
Licence Expiry	6.7	31(a)	Principle amended to include "or a valid renewal application is being processed"	In response to comments that a mining licence may expire but a valid renewal application may be lodged. The updated principle will avoid a licence expiring while a renewal application is being processed.	7.11

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Topic	WAP section	Principle #	Change made	Reason	Comment #
Monitoring	8.5		Section revised to provide clarity that the MERI plan will be developed as an implementation task of the Plan, and that the responsibility of developing the MERI, as well as any engagement with stakeholders in its development, is that of the Board.	In response to comments that information in the Plan around the process for evaluation was insufficient, further detail has been added to this section.	11.1, 14.09
Minor amendments	5.3.4		Section amended to state that the expansion of Roxby Downs will likely result in a population increase, which will require additional water to meet demand	In response to comments around the Future Roxby Downs population, in the absence of a published expansion plan, the section has been amended to note that future expansion will require additional water to meet demand.	7.14
Minor amendments	5.3.4		Deletion of "to other modes of transport"	In response to comments, it is noted that the reference to other modes of transport is not required here.	21.09
Minor amendments	throughout		Minor amendments throughout to correct grammar, sentence structure, and make inconsequential small changes to provide clarity or context.	Minor amendments have been made throughout the draft Plan as a result of an editing process. Grammar and sentence structure corrections have been made, as well as inconsequential small changes.	N/A
National Water Initiative	1.1		Section updated to provide an overview of all Key Elements of the NWI, not just the ones that are managed through the WAP.	In response to comments that water pricing is not mentioned, and the suggestion that further text be added about the elements of the NWI and which elements the Plan responds to.	15.01
Non-licensed demand	5.1		Text included in this section to state that some of the exploration water is met through reclaimed co-produced water.	In response to comments that the Plan does not acknowledge the extensive use re-use of co-produced water for operations such as civil works and exploration drilling, further detail has now been added to the Plan.	17.05

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Topic	WAP section	Principle #	Change made	Reason	Comment #
Non-spring GDEs	New 1.10		New subsection added to provide links to data layers, which will show the location of GDEs at a property scale	In response to comments around where the GDE map is, a new sub-section has been added in an introduction chapter. When the Plan is finalised and layers are put on NatureMaps, direct links to these layers in this section will be added to the published version of the Plan. This will be available on the Board's website.	12.13, 12.19
Non-spring GDEs	2.2.1		Additional information added around the features of non-spring GDE's and those identified as refuge non-spring GDE's.	To provide further clarity.	
Objectives	1.1		Inserted the words 'judicious use of water with' to clarify what the Plan is aiming to achieve i.e. 'This Plan aims to achieve judicious use of water with an equitable balance between.....'	To provide further clarity around what the WAP aims to achieve.	
Objectives	1.9		Final objective updated - 'Minimise the impact of the...' amended to 'Ensure that the authorised taking of water will not unacceptably impact upon:...'	In response to comments raising concerns that the use of the word 'minimise' can be interpreted as softening the protection of water dependent ecosystems, the objective has been updated.	11.02, 14.01
Pastoralists	1.7		Where the term resident is used, it has been amended to read 'pastoralists and other residents'	In response to comments asking that pastoralists be specifically referenced	6.05, 6.34

Appendix B2 – Table of changes arising from submissions

Topic	WAP section	Principle #	Change made	Reason	Comment #
Reporting requirements/Annual water use reports	7.6	51(e)	Principle amended to state that it only applies if authorised to take more than 1ML/day for purposes other than pastoralism; where appropriate additional monitoring may be required at the request of the Minister; the report is not due until December after the relevant water use year; salinity is required from the aquifer, not from every well on the licence.	In response to comments querying whether each well on a property needs to be tested for salinity, and raising concerns that the reporting dates don't align with reporting under controlling legislation, principle has been amended to provide further clarification and address these issues.	4.11, 5.12, 5.18, 7.02, 10.05, 26.17, 26.19
Springs	2.1.3		Section updated to include information on how Zone A and Zone B were determined.	In response to comments that this section was a bit unclear and could be amended to clarify its intent	7.01, 11.04, 11.06, 12.05, 12.23, 14.03, 17.09
Springs	2.1.3		Clarity provided around how existing user's licences will be issued and that site use approvals are required to enable the taking of water from priority springs.	In response to comments that this section was a bit unclear and could be amended to clarify its intent	11.04, 11.06, 14.03, 21.16
Springs	7.8	54(b) & 56(b)	Amended to refer only to priority springs	In response to comments querying whether these principles apply to existing users and whether current management practices can be maintained without any additional requirements, additional clarity has been provided to set out that conditions can be applied where they relate to the take of water from priority springs.	11.03, 11.06, 11.08, 14.03, 14.08

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Topic	WAP section	Principle #	Change made	Reason	Comment #
Springs	6		Text in preamble of section 6 amended to read: "The taking and use of such water will be subject to the rules outlined in section 7 of this Plan, to ensure the taking of water will not cause undesired impacts to the springs (for example, will not cause physical disturbance of spring structures or ecosystems, nor result in groundwater pressure level declines which would result in reduced flows to springs), non-spring GDEs or existing users of the resource, and will not damage, disturb or interfere with any site of cultural significance."	In response to the lack of clarity around the term 'undesired impacts' as it relates to springs	14.04
Water accounting	7.6	51(b)	Principle amended to state water must be taken in line with Water Accounting Implementation Plan, rather than referring to meters.	In response to comments raising concerns around metering, amendments recognise that a Water Accounting Implementation Plan is required to determine how water use will be measured and that there are options in addition to meters.	2.06, 6.2, 21.2, 25.06, 25.12, 26.19
Water accounting	7.2		Text added to state that it is the responsibility of the holder of the water management authorisation to purchase and maintain a water accounting mechanism	In response to comments requesting further clarity around who will be accountable for managing water meters, additional information has been provided.	19.07
Water accounting	8.3		Text added about the development of the Water Accounting Implementation Plan.	Additional information added to provide clarity around next steps to progress water accounting.	N/A

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Topic	WAP section	Principle #	Change made	Reason	Comment #
Water quality	6		Text included to state that the volume of water allocated does not ensure the water is of suitable quality for the intended purpose. The licensee will need to determine if the water is suitable for its intended purpose and if not - manage the water such that it is.	In response to comments querying whether the variable water quality has been accounted for in relation to the allocation.	9.07, 12.1, 19.04
Water trading	6.8	New 40	New principle included after Principle 37 to state that a water allocation may only be transferred to another person where it remains a water allocation from the Consumptive Pool from which it was initially granted	In response to comments that the principles did not expressly exclude the transfer of allocations across consumptive pools, clarity has been provided through the addition of a new principle.	18.01
Water trading	6		Additional information added with regard to the separation of land and water rights and notifying purchasers of land that they should seek to purchase the water licence also.	In response to comments querying the separation of water licences from pastoral leases, additional information has been included to describe the separation of land and water rights, and to highlight to purchasers of land that they should also seek to secure water management authorisations via a property purchase.	2.03, 2.19, 6.15, 6.21, 6.25, 19.05, 25.02, 26.12