

Submission to the NT Strategic Water Plan Directions Paper



Central Australian Communities Engagement on Water Directions Paper

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Authors note



Northern Possibilities was established in 2021 by Principal Consultant Jimmy Cocking. Northern Possibilities is a people-centred, purpose driven consultancy business operating in and for regional and remote Australia. With more than a decade of working in the environmental sustainability, community development and local governance spheres in Mparntwe- Alice Springs, Jimmy brings a wealth of experience, networks, local knowledge and passion to projects he is working on.

I acknowledge and pay my respects to the Arrernte people as the traditional owners and custodians of this land called Mparntwe that I am deeply grateful to live and work on. I pay respects to the Elders, past, present and emerging and acknowledge that their sovereignty over these lands was never ceded.

Thanks to the Northern Territory Office of Water Security for the opportunity to complete this important consultation process with Central Australian community leaders.

Special thanks to:

- John Gaynor Regional Director of the Department of Environment, Parks and Water Security for his support throughout this process.
- June Crabb Governance Officer MacDonnell Regional Council and Samadhi Nisanala, Senior Coordinator, Governance at Central Desert Regional Council for making it possible to participate remotely through the height of the Covid outbreak in Central Australia.
- Cail Rayment - Water Demand Coordinator - Remote, Customer, Strategy and Regulation at Power Water Corporation for participating in a few key workshops and providing background information on recent and current activities in communities,

I also want to acknowledge and thank all of the Elected Members, Local Authority and Joint Park Management Committee members who participated in this engagement process and acknowledge their leadership and commitment to achieve better outcomes for their communities.

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Project Scope

Objective

The objective of this procurement is to collect and collate the perspectives of Territorians in remote parts of the Central Australian region through Regional Council consultation to inform the development of the Northern Territory Strategic Water Plan.

Scope

The scope of this procurement includes:

- An agreed project plan and communications plan that sets out engagement parameters
- Desktop research on water security issues in remote parts of Central Australia to inform engagement
- Development of a culturally appropriate information package in collaboration with DEPWS to deliver key messages and ask key questions in relation to the NT Strategic Water Plan Directions Paper
- Engagement with Territorians in remote parts of the Central Australian region via:
 - Consultation with Regional Councils and representatives in collaboration with DEPWS;
 - Direct community engagement where appropriate (inc. local authorities, with permission of the relevant local government council);
 - Consultation with Traditional owners through the Joint Park Management Committee process
 - Engagement with local subject matter experts in Central Australia.
 - Provide advice and support to Regional Councils to assist accurate and timely consult with Local authorities and development of individual Regional perspectives on water issues

Development of a formal submission-style report that responds to the NT Strategic Water Plan Directions Paper by:

- Providing commentary on remote Central Australian perspectives on the directions and pathways outlined in the Directions Paper;
- Identifying key water security issues and needs in Central Australia;
- Identifying potential solutions to water security issues in Central Australia

Executive Summary

Northern Possibilities were contracted by the NT Office of Water Security to engage with Central Australian Communities as part of the development of the NT Strategic Water Plan. 25 consultation meetings were held with members of the Barkly, Central Desert and MacDonnell Regional Councils and associated Local Authorities. The Yeperenye Joint Park Management Committee also participated in a workshop.

The workshops were conducted as part of the Local Authority meeting agendas in the January – March 2022 cycle. Most workshops were conducted remotely due to the Covid-19 restrictions. Despite the challenges, the Local Authority members were keen to share their thoughts on water in their communities.

There were a number of consistent issues raised across all of the Local Authority areas including:

- Impacts and costs of poor water quality in the community including damage to household taps, toilets and air conditioners
- Ageing infrastructure and the impacts of associated leaks on the total community water use
- Access to water and water quality in outstations and homelands
- Lack of information and engagement by service providers on the quality and source security of their local water

Many Local Authorities expressed concern about:

- The health impacts of water quality on members of their communities
- A lack of education compounding the waste of water including specific references to an increased use of backyard inflatable pools.
- Desire for water to be used for community recreation including water play areas, irrigated ovals and swimming pools, balanced with water source sustainability
- The amount of time between reporting water related housing maintenance issues and their subsequent repair
- Lack of or poor engagement with neighbouring pastoralists and other water users in regards to shared water sources and water use
- Inequity in water use charges where pastoralists, miners and irrigated agriculture don't pay for water use yet community gardens and orchards in community have been made unviable due to water costs.

Despite the challenges and concerns raised, most of the Local Authorities suggested pathways towards improving the situation including:

- Community and school-based education about their local water situation
- Regular (6 month - annual) engagement by Power Water Corporation with Local Authorities and community on their local water situation
- Broadscale communications campaign about how to save water, reduce waste and report leaks e.g. radio, TV and posters
- Use of solar to reduce costs of water treatment
- Training of rangers and local people to monitor water quality
- Better coordination needed between NTG agencies, Power and Water Corporation, Central Land Council, Ingkerreke, Local Government and other interested parties when it comes to water.

Potential solutions

Based on the recent consultation with Local Authorities across Central Australia a number of solutions have been recommended:

- 1) Ensure all Territory communities have access to safe and clean water in accordance with the Australian Drinking Water Guidelines within 10 years.
- 2) Prioritise quality and source security of drinking water in communities over all other potential beneficial water uses in the area.
- 3) Prioritise provision of clean and safe drinking water in outstations and a clear governance and service delivery framework is established in consultation with residents and Traditional Owners.
- 4) Establish a collaborative framework for regional water governance through co-design with Central Land Council, Local Governments, Power and Water Corporation, NT Departments including Department of Environment, Parks and Water Security and Territory Families, Housing and Communities and other service providers.
- 5) Develop a regional 'Water Story' through a co-design process to communicate the values and issues associated with water in Central Australia.
- 6) Establish a 'Talking water' community education and engagement campaign with a focus on reducing water waste and to support better understanding of water services in Central Australia.
- 7) Ensure all water planning processes include climate modelling and consider water use that may be needed to support community adaptation to climate change.
- 8) Power and Water Corporation develop a communications strategy and plan to engage with all Central Australian communities on water quality and source security.
- 9) Develop opportunities for residents in communities to be engaged and employed in water quality and source security monitoring and reporting processes as part of a region-wide Demand Management Strategy.
- 10) Establish a Remote Water Innovation Hub in Alice Springs to demonstrate and test solar powered water filtration systems in preparation for a regional scale roll-out.
- 11) Water infrastructure in communities is prioritised in forward estimates and budgets until all Territory communities have access to safe and clean drinking water in accordance with the Australian Drinking Water Guidelines.
- 12) Establish support mechanisms for Traditional Owners to access and make use of Strategic Water Reserves as part of the Water Allocation Planning processes.
- 13) Address the inequity of regional water use through making provisions for water use for food growing in communities.

Introduction

Northern Possibilities was engaged by the Northern Territory Government's Office of Water Security to collect and collate the perspectives of Territorians in remote parts of the Central Australian region through Regional Council consultation to inform the development of the Northern Territory Strategic Water Plan.

A total of 25 consultations were conducted between 25 November 2021 and 31 March 2022. The meetings were conducted in-person (5), video conference (10) and by phone (10). Four (4) meetings were conducted as part of Regional Council Ordinary Meetings, one (1) as part of the Joint Parks Management Committee meeting and twenty (20) Local Authority meetings were attended. Four (4) Local Authority (LA) meetings were deferred and fell outside of the consultation period and six (6) potential meetings with Local Authorities and Joint Parks Management Committees were not held within the consultation period.

The consultation period fell within the first local and regional outbreaks of the Covid-19 pandemic in Central Australia which resulted in almost all of the meetings held in January and March occurring remotely via Zoom or by telephone. Meetings were coordinated with the Regional Councils with the presentation materials provided in advance to ensure they were considered by the Local Authority members.

The consultations were conducted after significant rainfall events in Central Australia which saw rivers run and waterholes filled across the region and represents a snapshot in time for a region that is characterised by low and highly variable rainfall. This consultation process was also the first time that most of the Local Authority members had been specifically engaged on issues regarding water. To the credit of all participants, important insights and information was shared within the time constraints afforded by the Local Authority meeting agendas.

Local and regional specific concerns were raised in every meeting as each community has its own unique water source and associated quality issues. Water is valued and considered precious by all participants but most did not have adequate information or agency to take much action towards conserving it. There were a number of consistent issues raised across all of the Local Authority areas including:

- Impacts and costs of poor water quality in the community including damage to household taps, toilets and air conditioners
- Ageing infrastructure and the impacts of leaks on the total community water use
- Access to water and water quality in outstations and homelands
- Lack of information and engagement by service providers on the quality and source security of their local water

Many Local Authorities expressed concern about:

- The health impacts of water quality on members of their communities
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- Desire for water to be used for community recreation including water play areas, irrigated ovals and swimming pools, but need to balance with water source sustainability
- The amount of time between reporting water related housing maintenance issues and their subsequent repair
- Lack of or poor engagement with neighbouring pastoralists and other water users in regards to shared water sources and water use
- Inequity in water use charges where pastoralists, miners and irrigated agriculture don't pay for water use yet community gardens and orchards in community have been made unviable due to water costs.

Despite the challenges and concerns raised, most of the Local Authorities suggested pathways towards improving the situation including:

- Community and school-based education about their local water situation
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- Broadscale communications campaign about how to save water, reduce waste and report leaks e.g. radio, TV and posters
- Use of solar to reduce costs of water treatment
- Training of rangers and local people to monitor water quality
- Better coordination needed between NTG agencies, Power and Water Corporation, Central Land Council, Ingkerreke, Local Government and other interested parties when it comes to water.

This consultation process was an important first step towards engaging Territorians living in remote parts of Central Australia on the future of water in the region. This submission provides a better understanding of the needs, concerns and aspirations of local leaders in these communities and ensures the voices of Central Australian communities contribute to development of the NT Strategic Water Plan.

Methodology

The process was supported locally by Regional Director of the NT Department of Environment, Parks and Water Security, Mr John Gaynor and approved by Rowan Reilly from the Office of Water Security.

The engagement of Northern Possibilities was initiated in response to a motion passed at the Local Government Association Northern Territory General Meeting held in Alice Springs in early November 2021.

“LGANT supports municipal and Regional Councils engaging in the NT Water Strategy Directions Paper consultation process (2021-Feb 2022) and contributing to local community engagement efforts in the development of both local and NT Government Water Policy”

An engagement plan to consult the Local Authorities through the regional councils was developed. A presentation pack was adapted from the NT Office of Water Security in regards to the Directions Paper.

The Central Desert, MacDonnell and Barkly regional councils were engaged through a deputation at their respective Ordinary Council meetings and this motion was presented for resolution.

‘Council to work with the NTG and water consultants to ensure adequate information and support is provided to Local Authorities to enable their engagement in the water consultations and their perspectives are collated for inclusion in a submission to the NT Strategic Water Plan consultation process.’

The Yeperenye Joint Management Committee was engaged opportunistically as a meeting was held in early December and the presentation and consultation was allowed to be included as part of the proceedings.

In late December/early January, Covid-19 arrived in Central Australia and remote areas went into lockdown and lockout for non-essential workers. This was also compounded by heavy rainfall in January which made road access in some areas impossible. The consultation process had been developed to allow for remote delivery of the presentation and facilitation of the discussion in the event of this situation and flexibility available to enable participation in postponed meetings within the consultation period.

The amount of time allowed for discussion at the Local Authority meetings was up to one (1) hour. The presentation of the Directions Paper to provide context was approximately 15 mins with the remaining time for discussion. Working closely with the respective LA meeting coordinators, presentations were compiled and sent through prior to meetings to allow for their inclusion in the agenda. This enabled the presentation and discussion to be held via teleconference if no video conferencing facility was available.

Presentations were developed and consultation sessions facilitated with reference to the *Power Water Annual Drinking Water Quality Report 2020* and *IES 2020 Water Source Status Report* and *IES 2021 Water Source Status Report* (provided in February). The information provided focused largely on the quality (where mineral content exceeded

guidelines) and recent or expected upgrades. Specific aquifer characteristics were included in the discussion and in answering questions when raised in regards to this.

Meetings and regular correspondence were had between the author and Cail Rayment from Power and Water Corporation's Remote team. This was both to provide information to be included in a number of presentations and for his involvement in the presentation to represent and speak to issues directly related to PWC service provision.

Despite the anticipated challenges considered with the pandemic and remote engagement, all Local Authorities were highly engaged on their local water issues and were able to convey their concerns, aspirations and recommended solutions clearly and concisely. The quotes recorded are not attributed to individual people as the limited time and consultation process did not allow for it.

This consultation process was not designed to gauge the degrees to which people were concerned or what the ranked priorities are - but to better understand what issues people face in bush communities and what people would like to see when it comes to water.

Consultation meetings

Ordinary Council Meetings attended

- MacDonnell Regional Council (MRC) *IP 16/12/21*
- Central Desert Regional Council (CDRC)
 - 1) Alice Springs *IP 24/11/21*
 - 2) Anmatjere *V 21/01/22*
- Barkly Regional Council (BRC) *V 27/01/22*

Local Authority Meetings

Central Desert	MacDonnell	Barkly
Atitjere <i>Ph 16/02/22</i>	Amoonguna <i>IP 09/03/22</i>	Ali Curung <i>Ph 14/03/22</i>
Engawala <i>Ph 17/02/22</i>	Finke <i>V 19/01/22</i>	Alpurrurulam <i>Ph 15/03/22</i>
Lajamanu <i>Ph 16/03/22</i>	Hermannsburg <i>IP 16/03/22</i>	Postponed Elliott
Laramba <i>Ph 02/03/22</i>	Imanpa <i>V 20/01/22</i>	
Ti Tree <i>Ph 09/02/22</i>	Kintore <i>V 17/03/22</i>	
Willowra <i>Ph 10/02/22</i>	Mt Leibig <i>V 02/03/22</i>	
Yuelamu <i>Ph 03/03/22</i>	Papunya <i>V 03/03/22</i>	
Yuendumu <i>Ph 09/03/22</i>	Santa Teresa <i>V 30/03/22</i>	
	Titjikala <i>V 31/03/22</i>	
	Wallace Rockhole <i>V 09/02/22</i>	
Postponed Nyirripi	Postponed Areyonga Docker River	

	Technology failed Haasts Bluff	
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Joint Park Management Committee

Yeperenye *IP* 01/12/21

Legend: *IP* (in person) *Ph* (Phone) *V* (Video) DD/MM/YY - date of meeting

Findings

This section of the report includes both the key themes across the consultations and the notes from each of the 25 meetings. It is considered important to have the voice of the Local Authority members come through into the body of the report rather than sit in the addendum. These Meeting Notes were read back to the LA members at the end of each meeting to ensure they were happy with what had been recorded.

Key themes

1. Water is precious and valued by communities
2. Poor water quality and source sustainability is costing money and livelihoods
3. Communities respond to water source security issues when supported to do so
4. From paternalism to giving agency: Information and engagement is key
5. 'Talking about water' campaign
6. Water at outstations is a universal concern
7. Communities know what they need and want
8. Collaboration and coordination needed to address wicked problems
9. Reduce inequity in water access, foster better relationships

1) Water is precious and valued by communities

'So precious to our people and other people in the community. Keep us alive, keep animals alive.' Tjukurpa'. Kintore LA meeting

'Different way of using water - town vs bush - water creation stories. Cleaning water holes to keep them safe. Waterholes and rockholes, young fellas being educated. Need to educate young people about water. Bush people - how you want to look after water and how you use it'. Ti Tree LA Meeting

Water is precious in Central Australian communities. Across all of the consultations the importance of water for healthy communities and country was strongly communicated. Water is valued in the community for drinking water and the enabling impacts on both community and economic development. However, the quality of drinking water in communities is a primary concern for those with poor quality water. While people value the importance of water in community, the quality of that water is directly related to their quality of life.

The spiritual and cultural connections to water were expressed by numerous participant groups. There does seem to be a difference between how people see water in the community and in the landscape. The recent rains that had filled waterholes across Central Australia made everyone happy. Rangers in Santa Teresa, Ti Tree and Kintore are recognised by their communities as helping protect the waterholes and looking after country. It was also reported that heat waves in recent years was reported to have impacted on water holes and a reduction in kangaroo numbers in the landscape. The Yeperenye JMC also reported the changing river flows and sand banking being attributed to the buffel and couch grass in the creeks, rivers and their surrounding catchments.

'Rivers flowing and waterholes filled up, people are connecting with it. Topping up aquifers. Soakages all coming up 1-2m - water moving around the country. Young trees are all smiling.' Engawala LA Meeting

'Waterhole needs protection. Drinking water soakage – spring water.' Mt Liebig LA Meeting

Excessive water use is a concern in many communities. Leaks in houses, leaks in connecting pipes in public areas and water wasting behaviours are recognised as impacting on the water security in the community. The impacts of water use by neighbouring pastoralists, mines and gas projects were also reported as being a concerning for the sustainability of local aquifers.

2) Poor water quality and source sustainability is costing money and livelihoods

'No water, you die.' Laramba LA meeting

'People just want to get the calcium out of the water. Want a pool but not enough water. Can't build new homes because not enough water.' Imanpa LA meeting

Many Local Authorities expressed frustration with the quality of service and others resigned acceptance of the water issues in their area. The quality of water in Central Australian

communities varies greatly from good clean water to water that is possibly causing harm to the people drinking it, and at the very least believing it to be.

The hardness of groundwater is impacting on households and communities. The calcification of household taps, toilets, air conditioning units, kettles and washing machines is costing residents and the NT Government Department of Territory Families, Housing and Communities a lot of money. Imanpa and Yuendumu were the two communities most affected by water hardness and high total dissolved solids (TDS). The impacts of the intense calcification on the liveability of these communities was expressed strongly. The reported delays in housing and plumbing repairs as a direct result of the calcification compounded frustrations and the health risks associated with not having functional air conditioners during the hotter months.

“Old houses and bad plumbing. Other houses - hot during summer, cold during winter. Cooling in houses needed, too hot in house. No air conditioners. Housing A/C to no A/C - sick family - and told no AC. Need to come and look at housing, own conditioners. Sweating in the house. Old house - toilet problem and sink blockage. Smell from sink.” – Yuendumu LA meeting

‘Hard water is costing money for housing and with pipes damaged and bursting’. Titjikala LA Meeting

Leaks in the system were reported in numerous communities. These leaks were considered persistent in Imanpa, Laramba, Yuendumu, Mt Liebig and Alpuururulam who all mentioned the time taken to get repairs done and the age and quality of the pipes as problems. The impacts of leaks had the impact of dulling people’s senses to water conservation as people get ‘disenchanted’ with reporting. Leaks were also reported to increase mosquito numbers which was considered a health risk by the MacDonnell Regional Councillors.

The quality of the water in Laramba and Yuendumu is of great concern to the people living there. The levels of uranium in Laramba’s water is believed to be impacting on people’s health.

‘Dialysis not normal characteristics. Kidney problems’. Laramba LA Meeting

Power and Water are working on a solution but the community is reported to be ‘voting with their feet’ with 6 families at the time of consultation having left the community and moved to Alice Springs. This was estimated to be 10% of the community of 250.

‘Water no good – people moving. Uranium been a hot topic – people scared and voting with their feet.’ Laramba LA Meeting

The health concerns for water extend across many of the communities consulted with. The quality and taste of water in communities and outstations and the presence of nitrates in the Ti Tree water control district. The concerns in Lajamanu where visitors and workers to town bring in boxed water and don’t drink the same water as the community generated concern for the health impacts of their local drinking water. Simply not knowing and not having information to confirm or dismiss health concerns is perpetuating stress for people living in communities with poor water quality.

3) Communities respond to water source security issues when supported to do so

'A lot of people used to waste water. Now, really looking after it. People just started caring about water. All know that water is precious to us' Santa Teresa LA Meeting

'It's been hard to deal with – no lawns. Engawala is saving more water. Well known issues, talked about by the whole community' Engawala LA Meeting

This consultation process was the first time many Local Authorities had been engaged on local water issues. But for some, they have had numerous engagements on water. This has largely been as part of the demand management program to increase the source sustainability of aquifers, improve water quality or being engaged as part of a Water Allocation Plan.

These communities, Engawala, Yuendumu, Yuelamu, Aititjere, Ti Tree, Santa Teresa, Laramba, Ali Curung and Imanpa had all had relatively recent engagement with Power and Water Corporation as new infrastructure, water source assessment, water allocation planning processes or demand management programs had occurred there in recent years.

These communities all had a better understanding of their water situation compared to their counterparts who had not had any engagement with PWC or NTG in regards to water. Engawala, Yuendumu, Yuelamu, Santa Teresa and Aititjere were much more aware of their water use and the importance of reducing waste. The installation of smart meters was reported in Engawala, Yuelamu, Yuendumu and Santa Teresa as having a positive impact on water leak detection. Noting that since this consultation process the community of Yuelamu is reported to having water trucked in¹.

Water demand indicator signage has been installed in Yuendumu, Imanpa, Engawala and Aititjere. The signs had been damaged in Yuendumu and Imanpa while Engawala and Aititjere LA members reported that the signs say 'they're using too much'.

The LA members in Ti Tree and Ali Curung demonstrated good understanding of their water situation due to engagement and consultation in the development of the respective Water Allocation Plans for Ti Tree and the Western Davernport Water Allocation Plan.

Santa Teresa/ Lyentye Apurte is the only community in Central Australia with an irrigated football oval and the envy of many communities. The large increase in water use to provide a grassed oval was a trigger for engagement with the community to reduce water wastage and increase water security.

¹ <https://www.abc.net.au/news/2022-04-01/water-runs-out-in-yuelamu/100957612>

4) From paternalism to giving agency: Information and engagement is key

'PWC needs to come out and give information on how much water we have and the quality of the water'. Imanpa LA Meeting

'People don't know how much water we use - no feedback to show people as a community. Annual feedback on water very important'. Finke LA Meeting

'We want to hear from PWC every 6-12 months – how much usage, taste, quality.' Lajamanu LA Meeting

'Could the information all be on one website and go through it with the community'. Atitijere LA Meeting

All Local Authorities reported that they wanted more information and more engagement with Power and Water to better understand their water situation. For many LA members, this was the first time someone on behalf of the NT Government had asked them about water. Almost all Local Authorities were very forthcoming with answers, questions and concerns in regards to water in their community, even through remote engagement via teleconference and video link.

This consultation has demonstrated that community members are not satisfied as passive consumers of water. Almost all Local Authorities expressed a desire to be provided with more information and regular engagement in regards to their water quality and source sustainability.

Currently, Power and Water publish the results of annual water quality tests as an electronic document on their website. It includes a long list of all of NT communities and the results of water tests to ascertain the water quality in line with Australian Drinking Water Guidelines. LA members were not aware of the document and were keen to know more.

LA members want Power and Water Corporation to better communicate the results of the water quality reports and water source information. Suggestions were made by most of the Local Authorities consulted these included:

- Meeting with LA members once (or twice) per year to discuss and explain the specific water source and water quality reports for their community – either in person or remotely
- Working with the LA to organise community meetings to discuss water use and demand management approaches
- Easy to access information on website – with specific page for each community with water quality information and water source information
- Using graphs to help explain water use over time
- Posters that explain their specific water quality and source sustainability that could be displayed in the store and other public places to help people understand the water situation locally
- Engagement with schools to help students understand the water situation (quality and supply).

The use of smart meters in communities is having a positive impact on the timely identification and repair of household and community leaks. However, an interesting

example was provided in Yuendumu where it was reported that the first-time residents know about a water leak is when a plumber arrives on their doorstep to repair it. While this does get the leak repaired, it happens around the resident without any information or engagement and has the effect of compounding the passivity of consumption by residents.

There was a real sense of people wanting to have more agency over their water. Consistently, LA members raised the need for them to be more informed and engaged in water to be able to better represent and lead their communities towards a better water future.

5) 'Talking about water' campaign

'Talking about water changes everything' Santa Teresa LA meeting

'Everybody is talking about it - something needs to be done.' Yuendumu LA meeting

'More education and water saving workshops needed. Schools and community engagement. Youth program and a summer program.' Titjikala LA meeting

In addition to the provision of specific information and engagement on water quality and source sustainability, a communications campaign was also suggested by a majority of Local Authorities. Education for the community and education through schools was repeatedly raised as an important direction to help change the water situation.

The issues of backyard pools being used like baths (filled and emptied daily in summer), evaporative air conditioners (swampies), leaks, water wasting behaviours and how to save water were all identified as issues that needed more education and community attention.

A community education campaign that included television advertising (commercial and community television e.g. ICTV), radio ads in language e.g. Paw Media in Yuendumu, posters in public places and school educational programs were all suggested as important pathways forward.

The key is to ensure the campaign is tailored to the audience with relevant information, opportunities for action, use of humour and broadly applied to maximise impact.

6) Water at outstations is a universal concern

'People need to know that water is safe in outstations' Willowra LA Meeting

'Are people getting sick from water at outstations?' Atitjere LA Meeting

'Emergency pump...Salty water and getting worse. People don't know where else to get water from – animals sometimes using it when it gets really hot.' Kintore LA Meeting

'Pressure in outstations not good.' Papunya LA Meeting

The most consistent and often the first of any concerns raised across the consultations was the quality and most often lack of water supply to outstations. The quality of water and potential health impacts of drinking was raised numerous times. The lack of clarity as to who is responsible for testing water and providing water to outstations was a consistent question raised.

In Ti Tree there were concerns raised about the presence of nitrates and not knowing which bores or communities were potentially hazardous for drinking.

Most outstations were reported to not have any water connected and water was transported in jerry cans. Lajamanu and Kintore LA's raised the issue of emergency bores becoming saline and not knowing who's responsible for testing to make sure these water sources that have traditionally been used for drinking, are safe.

There is a need for clarity as to who is responsible for water testing in homelands and for better communication between outstation service providers, the Central Land Council and the NT Government to ensure safe drinking water in homelands.

7) Communities know what they need and want

'Too worried about water to grow anything. Just want to drink it.' Mt Liebig LA Meeting

'How much going out to the ponds? Keen to see recycled water used – dust suppression and health implications [of its use]' Amoonguna LA meeting

'Save water, save money for other things in the community.' Titjikala LA Meeting

Water is recognised as a key enabler but also a limitation on community development. Water stressed communities have less opportunities for development but also are keen through sheer necessity to explore options for increasing water sustainability. It was previously stated that more education and communication is seen as a key first step but in the case of Santa Teresa, the establishment of the grassed oval was a catalyst for community education and engagement on demand management.

Filtration systems to remove minerals and calcification of the water was seen as a priority for those with poor water quality. Using solar power was suggested as means to offset the energy costs of water filtration systems. The use of these systems was also mentioned in relation to outstation water supplies.

Water for recreation was consistently mentioned. Papunya is keen on a grassed oval but understands that water supplies constrain that. Their priority is drinking water connected at the oval for sports days and participants to be able to fill up water bottles. Water play parks have been installed in Ali Curung and Elliott. Lajamanu was having one installed and Amoonguna was looking into it. Community water play areas were considered better than every household having 'blow up pools' and emptying them daily. Laramba, Yuendumu, Alpururulam and Imanpa all expressed community needs for water play or a pool for kids but also recognised that they were water stressed and not able to have these things. A number of communities from across Central Australia mentioned the increasing use of

backyard pools and the increasing water use as a result. The 'blow up' pools are being used in summer but being filled and emptied daily adding to increased water use.

Using recycled water for community improvements was mentioned by a few Local Authorities as a means to offset community drinking water and to support landscaping, tree planting and dust suppression. Atitjere expressed a desire for a water theme park using recycled water. Other communities mentioned water tanks for outstations and community housing like 'the APY communities'. Yuendumu is keen to have water connected to the business camp to support cultural men's business.

A wide range of communities expressed interest in food gardens and orchards. Many have previously had them but with water costs they had become unviable. Wallace Rockhole has an active greenhouse and orchard supported through the Community Development Program (CDP).

People in communities want more agency and engagement when it comes to their water. Ti Tree rangers are engaged in testing water with the Central Land Council, though the LA members were unsure of where the information was stored and how it was being shared with the community. Ti Tree LA members also suggested travelling to see how other people are doing water conservation to learn and adapt it to here. Others raised that more people on communities need to be trained to be involved in water testing and supporting water saving efforts.

There is an interest in both Finke and Ti Tree for more information and engagement on the possibilities for the Strategic Water Reserves as allowed for in the Water Allocation Plans in their areas.

8) Collaboration and coordination needed to address wicked problems

Local Authority members are leaders in their communities. As such, they find themselves representing their community on a range of levels. There was a desire for more collaboration across the various levels of government and associated departments, the Central Land Council, Power Water Corporation and service delivery agencies to ensure the best outcomes for communities through better information sharing, clear lines of responsibilities and points of contact in and for communities in regards to water.

The siloes of government are a source of frustration for communities as its not clear 'who is who' when it comes to water. A collaborative approach is needed to address the wicked problems at the intersection of remote housing, water service provision, maintenance, policy and regulation.

9) Reduce inequity in water access, foster better relationships

'Costs of water, how much are pastoralists and companies paying for water, orchard at Santa Teresa - we have to pay for it but big ag companies don't have to - paying for water finished it. People enjoyed growing food, people are interested in it. Yeperenye JPMC

'People need to talk about it. Water precious like a sacred site. We need to be consulted and asked - we don't go into someone else's backyard and just dig a hole. Our ancestors have been here forever and still are. Working together. Better communication. communication most important. Two-way learning. Altyerre not Tjukurpa'. Yeperenye JPMC

'Farm couldn't get workers, not engaging with local community enough. Should be looking to have better relationships with us' Ti Tree

Equity concerns were raised in a number of LA meetings in regards to access to water. The lack of consultation by pastoralists with communities and Traditional Owners when it comes to nearby water access, expanded use and new bores. Concerns about neighbouring or nearby water use and impact on communities including pastoral stations and both proposed and existing mining and petroleum projects.

There was a sense of injustice raised where water was free for miners, pastoralists and big irrigated agriculture projects while communities can't even have viable market gardens or orchards because they have to pay for the water.

Access to clean, safe and secure water supplies is a central pillar of community viability and needs to be considered as part of the NT Strategic Water Plan. The long-term water security of the Northern Territory will depend on strong relationships between all water users and based on fairness and intergenerational equity.

Meeting notes

Regional Council	Local Authority	Meeting notes
Central Desert	Anmatjere	<p>Aboriginal Reference Group. Identifying the right people who can participate supported by the Dept. Time is paid. Advice from CLC on how the ARG made up. Main language groups. Custodians and TOs. How do you want these interests represented 6-10ppl per reference group? Don't have preconceived ideas.</p>
	Atitjere	<p>Supply issues, not enough pressure going into houses. PWC coming out to upgrade water main next few weeks. Septic pumping. Aquifer - native title given back, matchbox area. Keen on pastoralism, water theme park or a swimming pool. Save water in the community to have a water theme park or pool. Outstations in Harts Range Hills. Minerals out there. Need a bigger tank - use for drinking water. Ingkerreke - testing water? PWC going out to outstations, can they test water? Solar power to pump water - is it good? Excision blocks - haven't got the land back or access to it. Issues with water being pumped to race track but not outstations - Spotted Tango? CLC ALT. Tried to get water to outstation but no luck. Quality of water to be tested at outstations. Are people getting sick from water at outstations? Ingkerreke need to look at water and get good quality water to them. Testing of water is priority and working with pastoralists for access to good water. Recycling water for water theme park or pool? Filters and producing good quality water. No mines or irrigated agriculture in the region. Some outstations thinking about growing fruit and vegetables but want to know more about water quality. No water on Native Title Living Areas. Bore out near police station. One or more outside of the lease. New bore across town. Bore 4 and 5 and commissioning a new one? Are all the bores coming from the same aquifer? Want to know more about where the water comes from. Sign says we're using too much. In community, PWC checking for leaks and checking pipelines going to bore. Could have people in the community working to help monitor water use. Pipelines coming out from borefield. Don't see PWC coming out to community much. Really need to talk to Akron. CDRC reporting what they see and forward to Akron. PWC still sending people out twice per year and run an education program. Still using a fair bit. Some figures include the service providers 3km from community where all the police, teachers etc live. Water meters connected - smart meters? Not sure. Rainwater? Is the mining connected to the same water? Wanting to get water from the community - told they should go see the pastoralists. Haven't seen plans or if they are using aquifer nearby bore from pastoral land.</p>

	Engawala	<p>Smart meters connected. Scale build up. Water quality. Ekistica came out - horrified still had lawns. Water recycling? It's been hard to deal with - no lawns, people still getting small swimming pools in summer. Need to educate people about the water and the aquifers. Reporting leaks. Wild horses were turning taps on at outstations a few years ago. Culling horses decreased impacts. Ampilatwatja used fencing too. Enough water elsewhere in country. NTG doing what they can. Engawala saving more water. Could desalination of salty aquifers like in coastal areas work here? Filtration plants in community. Electricity to run? Atitjere has solar banks and upgrades. Engawala could have more solar to help reduce costs to filter water. System changing over from Bushlight system. Plug and play systems. Ekistica did some water education - slides and presentation to community, didn't go to the school. Improvement in education is needed. Rivers flowing and waterholes filled up, people are connecting with it. Topping up aquifers. Soakages all coming up 1-2m - water moving around the country. Young trees are all smiling. Number of bores in community. Well known issues, talked about by the whole community. Decreased water use. TV ads - Imparja? Turning water off and being responsible. PWC signage? Water meters went in about 4 years ago. Rush to get them in and engagement and recording. Don't get records for domestic water supplies. Wi-Fi in community and mobile coverage. Good idea for kids to know usage. Wearing seatbelt ads are a good example.</p>
	Lajamanu	<p>Outstations - bores and structures. Funding for outstations and assistance to move back. # of dwellings occupied, increased funding. Worried about water - Yuendumu and Laramba. Brought up at last LA meeting. Don't know how much water using. Don't know about the quality. Worried about silica levels. need to know how much water is being used. Don't know how much water supplies. Old bores? Still get water? 'Don't know'. Want to hear from PWC every 6-12 months - how much usage, taste, quality. Workers in town don't drink from same water and causing some concerns. In homelands, no water. Bores - emergency bore water. Water running down drains. Worrying thing - can't move back. CLC? Long drops at homelands. Kitchen - no water. Stopping yapa from returning to homelands. Raised with the CLC, past leaders have raised and nothing happened. Swimming pool - not enough water. Water parks happening now - building now. Water recycling to grow in the future. Planting trees, more shade trees. Education about how much water we use and waste. Water is very important for our community and for where we travel. Water is very important. We need water in community and in the homelands. Take kids to outstations and no water - have to take own jerry cans. No competing interests for water. Surrounding stations and don't know much about water in</p>

		<p>the surrounding area. Jurrambah - got a pipeline and a machine to help get drinking water from the lake. CLC communication with pastoralists. Not good communication between station and land owners. Jurrambah also pumping water from underground. Water isn't suitable for drinking. Tanami Rd to Yuendumu - emergency water pump - want to know if can drink it. Got a sign saying not to. Why? No treatment, not chlorinated. Emergency pump is 30km out of Lajamanu -bore with hand pump. Can we drink it? Radiation? First time talking about water at LA. Want annual updates about water. How much are we using? How many years left? Quality of drinking water. Want meeting with LA and community meetings on water too.</p>
	Laramba	<p>Clear the taps - can't clean. Build up in the pipes - need clean water so that it doesn't happen. Meetings last couple of years. PWC came along with plans to remove the uranium. Add something to the water. Filter before it gets to the community. Lots of water leaks - pipes into community, leaks everywhere. Territory Housing and PWC not fixing the leaks. Piping since 70s-80s. Calcium build up in pipes and continually bursting and leaking. Childcare had to replace. Replacement of pipes needed before water treatment connected. Old pipes. 2018 bore upgraded, replace 1km of pipes because of build-up. Pressure builds and more leaks. 12 months to get solutions while we wait. Going to be a problem until the solution is in place. What is the solution? What is happening to the salt? No engagement, haven't heard from them in 6 months. Quality of water is the biggest issue. Want to have the answers 'in a nutshell'. Dialysis not normal characteristics. Kidney problems. Laramba further away from Nolans bore. Community generally supportive of it. Few outstations have no water - or not good drinking water. Polardi - problem water. Tanami - no drinking water. Signs on taps saying 'no drinking'. No-one looking after them. Have water tanks. 'No water, you die.' Water places and important sites around Laramba. Used to have orchards and gardens. No water - had to cut everything out. People got lawns. Pipes and filters and make it people friendly. Leaks a big issue and new houses need to have water sorted. Childcare - no swimming pool, want water activities for kids. Water quality and quantity an issue. Clam shells and sprinklers. Someone died in pool at Kintore, now all water activities restricted. Not too much water. Water play area needed. Education for kids about water is needed. Community drive to show how we should use water. Turn off the tap. Wasting water is impacting on the holding tank filling up. Families in the last 4-5 years are all buying blow up pools. Need to show how much water we use - education. Laramba people have no idea how much water or the quality of the water. People want to know and have raised their voices about uranium. People have moved out because of water - a sad thing. 6</p>

		families - 24 people have left. Total community 250. Around 10% of community have moved into town. Water no good - people moving. Uranium been a hot topic - people scared and voting with their feet.
	Nyirrpi	DNM
	Ordinary Council	No questions or comments. Discussed in relation to motion.
	Ti Tree	Water Allocation Plan - better information needed to make it easy to see water quality, water licences, updated regularly and keep an eye on it in real time. Warnings needed about particular areas and bores with nitrates, where can drink and where can't. Robbie Henderson did some workshops years ago. Anmatyere Kwatyere group hasn't been meeting 1-2 times per year as originally planned. Rangers involved in water testing. Information needs to be passed on. Interested in Strategic Water Reserves - how they use it and work with outsiders? Water quality in homelands is a big issue. Different way of using water - town vs bush - water creation stories. Cleaning water holes to keep them safe. Waterholes and rockholes, young fells being educated. Need to educate young people about water. Bush people - how you want to look after water and how you use it. On-going education with kids needed. Anmatyere developing water resources through CLC - rangers are in the development meetings. Rangers already testing water since 2010. Hugh Pringle - erosion and water, CLC water quality results online somewhere? Jayne Brimbox - community gets the information, project needs to be done. More education and wanting to see how others do it. Special tablets to make the water good, or filtration. Looking at areas affected by water - download information and go through it with community. Lots of changes with the rain - green and plenty of water. Impact on water use and waste. Nolans Bore - rare earth and private horticulture - all share same aquifers. Farms - fertilisers and pesticides. Farm couldn't get workers, not engaging with local community enough. People live here and looking for employment. 'Should be looking to have better relationships with us' Singleton station a concern. Impact studies being undertaken and the impact on cultural sites. Water allocation is underused at present, what will happen if fully used.
	Willowra	Outstations. Check water at Rabbit bore. Haven't had drinking water there for 10 years and need drinking water. Checked by Land Council, comments to land council and for homelands to be checked. People need to know water is safe in outstations. CLC has got more information. Want to do some horticulture. Check the old farm and check that the water is still good. No water leaks in community. Using water wisely. Used to have donkeys break taps but not anymore. Happy with water in Willowra. Rabbit Bore needs water. White Stone Bore - quality? Want to know more about our water.

	Yuelamu	<p>Drinking water taps - good quality. Very poor in all other taps. Drinking water machine - one good tap for drinking water. Smart meters on houses. Problem is using too much water. Some pipes broken in houses. Advanced Water Filtration system installed 2 years ago. 60L per household per day. Also solar+ water system from air in CDRC Yard. Filling up bottles and portable. All drinking water is ground water. People not sure how much water they use. Some houses using more water, some people wasting water. Save water information poster at the store. People at home with AC/Swampies wasting water. Territory Housing. Some not working. Some people are fixing them up. Problems with outstations at Ten Mile. Bore water not working. Fill up containers in town and take out. Want to have someone from PWC speak at the next LA meeting. Talk about water quality and update. Livestock and dam - kids swimming in the dam. When drought cattle come into community.</p>
	Yuendumu	<p>Water is very important. Concern during summer. Swampies on roof waste a lot of water. Shower and leaking taps. Filters? Drive around community and see leaks and disrepair. Only organisations have water meters. Get notified when a leak. Ability to notify in general housing. If water leak - then you get told. Using lots of hot water might use a lot of power. Calcium build up. Every property has a smart meter. Information to Housing and Housing organises repair. What are the alternatives? Constant education is needed. Lawns aren't getting watered like they used to. PWC trying to figure out how to get water from new bores in 2020. Biggest problem is outstation water control. Greening the oval - not supported because of water. A water stressed community. More control over alerting people about the leaks? Taps running and broken taps in community. Who to report to? Lack of information. People report it yourself to Alice Springs - Territory Housing. Inform the kids and tell them so that they know about it. Old houses and bad plumbing. Other houses - hot during summer, cold during winter. Cooling in houses needed, too hot in house. No air conditioners. Housing A/C to no A/C - sick family - and told no AC. Need to come and look at housing, own conditioners. Sweating in the house. Old house - toilet problem and sink blockage. Smell from sink. East camp in Yuendumu. Not a water woman - but could we have a dam to hold water. Solar system catching water from sky in Yuelamu. Drink water in tap sometimes. Box of water and put in fridge or freezer. Don't think the water is healthy at all. Does taste a bit off. Don't drink coming through tap from tank. Should be clean, if don't like water, if water no good, complain? How to complain about water quality. Housing issues. Know that they can speak out. 'Everybody is talking about it - something needs to be done.' Some people got shown around and some good education at the start. Some kids understand that they</p>

		<p>shouldn't use the fire hose. Need for more education for the future. Mining exploration - gold, gas and mineral sands. Some mines planned and use a lot of water. Good for using water for orchard, who's going to get up and do it. Young ones to get good work ethic, need to teach them. Worried about water being used up. Mining companies use a lot of water and chemicals and waste. Prefer water to grow food and for animals than for mining. Water situation - extra pipelines to go in? Men's business camp - water there. West camp - broken pipe and hose - could be replaced? Yapa want water for ceremony and access to water. Hard to provide. Council to provide tank water? Current set up - no ceremony sites have water provided. Who's the bill payer? CLC, YDAC or CDRC? Ablution blocks connected to arts centre and got \$5000 bill. Accountability. High water use at the time of building. Shed tanks? Want to see examples of what other people are doing? Need water but need accountability for use. Working public toilets? Cleaning toilets, basin and vandalism. Power and water tanks - solar power - hydro panels. 60 panels. Housing provided \$100000 - solar powered drinking water. Local authority to be more engaged. Radioactivity in the water. Uranium in the water. Uranium guidelines? 2L per day every day. Accumulation of heavy metals in the body. Cail PWC - can share more information. Public service announcements in language on PAW media. Posters at shops. Need powerful messaging - NTG, ICTV, Ch7, 10 - everything. Local radio in local language. Signage in community. Big sign replacement at the school, another sign at the shops would be good.</p>
MacDonnell Regional	Amoonguna	<p>Want a swimming pool. Used to have - don't know what happened. Water is precious. Aboriginal culture is somebody's dreaming so can't talk about someone else's dreaming. Find out who's dreaming it is through Lhere Artepe? Water safety. Leaks - Territory Housing, ring straight away. Summer - kids and fire hoses. Running taps - leaving taps on. Call the ESO. Footy oval - pop up sprinklers. Used to be green. Want a green oval - recycled water? - interested at looking at. Backyard pools and sprinklers using water. Bores used for roads. Used to have an orchard - grapes and citrus. PWC - not much engagement with. Chlorine test? How much going out to ponds? Keen to see recycled water used - dust suppression and health implications. Working together with CLC for water park - could put towards water on footy oval. Softball - own bore. Someone should talk to school and kids about wasting water.</p>
	Areyonga	DNM
	Docker River	DNM
	Finke	<p>Happy with water. Concerned about water contamination from landfill. Don't know how much water we use. Horses were a problem with PWC and metering, closed off</p>

		troughs and fixed some leaking pipes. Contractors get water from town bores for roads. People don't know how much water we use - no feedback to show people as a community. Annual feedback on water very important. Drilling any more bores? Are these sufficient for community? Interested to know more about Strategic Aboriginal Reserve. Not much engagement with community, PWC should engage with community more. More information to get a breakdown - monthly or quarterly water use for the community as a whole, compared to previous years. Keen for more engagement, please come and speak to LA about water again.
	Haasts Bluff	DNM
	Hermannsburg	Water pressure is an issue. Springs dry from fracking - Kuprilya springs - too many bores from fracking. Meters in housing? No water restrictions. no bills. No knowledge of a demand management program. Residents have no messaging on water. Kids letting water taps go. No backyard swimming pools because of water in waterholes from rain. No local pool. Want to see graphs with water use on community. Territory Housing leaks take ages to be replaced. Water recycling? Health? More information. Kuprilya Springs used to have water all year round. Want to get answers from PWC and Hermannsburg want a community meeting on water.
	Imanpa	Calcium build up - blocks everything, AC washing machine, blocks up within 5-6 months. Can it be filtered? PWC aware of the issue. Definitely tastes different, visitors don't like the water, takes a couple of weeks to get used to it. Leaks in housing, PWC said it's not their issue, Housing issues. Leaks all over the community - good at reporting but maintenance requests not acted upon, takes a long time to fix. Water pressure is very low. Not enough water. Does the bore need replacing? Restricting water flow to save water. AC not working because blocked up, summer without AC is hard. Rockholes up in the hills after big rains. No water sites in area. People just want to get the calcium out of the water. Want a pool but not enough water. Can't build new houses because not enough water. Water usage sign damaged by kids. No water saving programs. Need school programs to teach the kids. Some people wasting water. Need to get the message out to families. Whole community. Get everyone on board. Need education for the whole community about saving water. School needs to lead on water safety and saving water. ICTV ads on water saving. Grandchildren learning. 'PWC needs to come out and give information on how much water we have and the quality of the water'. Rainwater tanks like the APY lands but couldn't get them into community. Want to grow trees but can't, not enough water. Community been working trying to make things happen. PWC put in new bores, same problems. 4 running bores, 2 shut down? 3 going? Old song lines run

		<p>through here. Want housing to fix plumbing and install tanks. Territory Housing maintenance ware of issue. Not being reported up the chain. Maintenance officer skips a lot of requests. Don't have a local housing officer. people getting frustrated. Water is an important issue for our community. Housing should employ someone in the community. Where to report and to who? Leaking pipes in community vs leaking at home. Phone number goes to message. More people back in community, putting more pressure on water use. Don't drink the tank water, use for gardens.</p>
	Kintore	<p>Water is OK. Leaking at housing. Waiting to have list reported. Someone to do testing. 2 outstations -empty tanks. Waterholes damaged by camels and horses. Kintore rangers protecting water holes. Drinking water is good. Handpump - emergency pump at an outstation, in between Iniyi - long time ago to Kiwirrkurra. Salty water and getting worse. People don't know where else to get water from - animals sometimes using it when really hot. Lots of waterholes full at the moment. Water story - under the ground - not sure of story. Sometimes concerned about water underground. Kintore - strong, from little things big things grow. Land Council finding out if something around. 'So precious to our people and other people in the community. Keep us alive, keep animals alive.' Tjukurpa. People went from place to place. Kintore on top of Tjukurpa. Come and talk to Kintore - PWC. Everyday CLC come find someone, find something - mining company. Concern about the prospect of mining in the area and the impact of mining on water and Tjukurpa. Story. from generation to generation. Stand up for Pintupi people. young people, not just the old ones. We need more young people learning. Teach our young people. Role models for them. Water is so precious. CLC and handpumps on way to Kiwirrkurra. Outstations. Meningee and outstations. CLC and LA Community meetings to talk water.</p>
	Mt Liebig	<p>Warren Creek outstation - water pressure issue. Needs filtering, water comes out not clean. Pipes out of ground. Water put in 60s or 70s not running properly, mould in pipes? PWC fixed leak in community, but having trouble getting leak fixed inside yard. Notified but not fixed yet. Waterhole is full. Rainwater tanks for community needed. 'Too worried about water to grow anything. Just want to drink it.' Horses eating vegetables in the garden. Worried about water at outstations. Pressure and knowing the water is safe. PWC need to let people know how much water there is and the quality of it. Numbers don't mean anything. Need posters and present in person. Talk to people. People want to know if the water quality is affecting their health. Workshops on water and the impacts of minerals on health. What the taste is? How it is going. Tell the community - is water making people sick? Local authority should be involved - would tell everyone</p>

		about the community meeting. CLC water - Singleton Station. Water hole needs protection. Drinking water soakage - spring water.
	Ordinary Council meeting	Education needed. Backyard pools being used and filled and emptied like baths. Soakages and springs need protection. Mosquitoes and leaks - AC and pipes, Pricing of water, Aboriginal people paying to drink water on own country? Not happy
	Papunya	Pressure in outstations not good, same in Papunya. Most houses have low water pressure. Water quality concern. Calcium build up. Wears out taps, washers and water meters. Desalination an option? Whole of community could go on tanks? Water softeners - machine at household level? Water at sporting ground. Drinking water tank and bore at oval - not connected at the moment. Could bore be used at oval? Irrigating the oval is currently under investigation. Priority is drinking water at the oval. Double the amount of water for community to water oval. Outstations - water quality. Testing for water quality? Some aquifers are different. 8-10 houses have meters, 100 more to be metered.
	Santa Teresa	A lot of people used to waste water. Really looking after water. Reporting straight away. Water is precious. Look at recycling water for the oval. Talked about water. Community - kids at school talking about it. 'Talking about water changes everything' Annie Young. People just started caring about water. All know that water is precious to us. We have an orchard but not using water for a few years. Too much water bills - got shut down. Nobody helping out and bills too much. People want to get it up and running. Grapes and vegetables. People loved it. Resources and food coming into community. Supported by government, supported in community - no funding. Water is wrecking the road. Erosion. Main road in and other roads. Springs and water holes. Rangers are looking after water outside of the community. Oval made big difference to people. Smart meters. PWC monitors water - easy to track. People let officers know if leak under house so PWC can fix. Happening regularly with leaks under the houses. No information about water use.
	Titjikala	Interested in rainwater tanks. Groundwater for drinking and water tanks for gardens. Swimming pools in backyards. Education on water is needed. In dry seasons and everyone has a swimming pool. Treating pools like baths. Fill up and drain after single use. Kids getting growled for using firehoses. Donkeys come in when dry. Don't see much damage lately. Cattle around but lots of dams. Hard water is costing money for housing and with pipes damaged and bursting. Calcification - is getting fixed straight away. More education and water saving workshops needed. Schools and community engagement. youth program. School teaching and a summer program. Used to have orchards with pumps. Orchard - families

		used to walk up and eat fruit. Catholicare was running it. No need to worry about the salt mine - finished. Fix up the hardwater. Rainwater tanks. Save water, save money for other things in the community.
	Wallace Rockhole	Concern with the amount of calcium build up in showers and kettles. Calcium and health impacts. Kidney stones? More kettles being sold. Plenty of water. Orchard and melons - want a greenhouse. Water is an issue. CDP paying for water- if new program will the greenhouse water costs be covered. Lawns are reasonable and people understand not to waste water. Every weekend - watermelons for the community, could expand depending on water.
Barkly	Ali Curung	Mayor was nominated for WDWAC but was declined. Land trusts, land council delegates have been shut down. Legal stuff with Singleton - can't talk. Murray Downs put in for water. Concern about the allocations. ALT and CLC people in court - can't talk. Water play by LA for water park. LA money and external funding - 6-7 years ago. Like the Elliott one. Good for the community. Meetings led to certain allocation for so much water. Natural overflow. Straight bore water could go into it. Already have smart meters. Quarterly readings. Need for information. Graphs. Customers for with only have if there was a leak. Smart meters on housing, school and Council. Aboriginal people won't get a notification. Smart meters - no impact on people in Ali Curung - working well in the community. Barkly CEO - is this the only way to inform the water strategy? How to better engage with Local Authorities? Circle back on how to better bring in the constraints on water and more meaningful input by local government. More detailed engagement with Barkly Council requested.
	Alpurrurulam	Water from somewhere else. White stuff coming out - calcium- hardness. Trying to find good water. Better water - bore water. Last update was late last year - test bore. Being designed. Went cap in hand to Feds for funding. No outstations. Currently use the water at the bore. Don't have resource for any other water for irrigation of oval or water parks. More concerned about the water supply. Groundwater doesn't fill up. Volume of water is 3 times for the community. PWC need to confirm. Can we get special pipes for bore that don't leak? PWC update to the LA is requested. Housing issues. Housing is being delivered with an increase of bedrooms are accounted for with water. Replace housing - relatively good response to maintenance requests. Hard to increase water supply in summer to keep up with the demand. Reduce flow by 50% - otherwise would run out of water. ESO on the ground. Furthest end of town doesn't have enough pressure. Maintenance takes a long time to get sorted and people going without for an extended period. More information on water quality and supply. Poster 5-6 years ago. Reporting leaks and better use of water. Took campaign on board.

		Maintenance takes so long that people get disenchanted with reporting.
	Ampilatwatja	DNM
	Arlparra	DNM
	Elliott	DNM
	Ordinary	Water safety, breaches of water tank. Water chlorination and fluoridation. Safe drinking water for communities and town camps are important. PWC water issues for years. Water Allocation Planning and Ali Curung - important. Regional water security - greywater like Yulara? Rainwater for dry areas, concerned about the NT Water Act and the review. National Water Infrastructure fund and need to avoid problems of the Murray Darling Basin.
	Tennant Creek	DNM
	Wutunugurra	DNM
Joint Management	Karlu Karlu	DNM
	Tjoritja	DNM
	Western Davenports	DNM
	Yeperenye	Changing river flows, buffel and couch grass, water - used to get together culturally, now nothing, need to be thinking about saving water, Kwatja dreaming in Ewaninga, worries - waterholes drying up, water going down, drinking water different from ST and Amoonguna, no more kangaroos from water drying up, water for the kids/Future, if no water, no homelands, Cattle having water - too much to pastoral stations, need to know water is safe and not contaminated, rangers cleaning our water holes, costs of water, how much are pastoralists and companies paying for water, orchard at Santa Teresa - we have to pay for it but big ag companies don't have to - paying for water finished it. People enjoyed growing food, people are interested in it. Chairman- interested in dams. Pastoralists putting in bores without TO permission, yes - sharing arrangements? No permissions sought for dams etc. Decommissioning bores - Allambi station - stopped pumping bore but TOs wanted water - stopped on boundary, same aquifer not on land trust. Need to talk to TOs and ask permission. Road makers make dam without permission. Need to ask, talk with TOs through CLC. People need to talk about it. Water precious like a sacred site. We need to be consulted and asked - we don't go into someone else's backyard and just dig a hole. Our ancestors have been here forever and still are. Working together. Better communication. communication most important. Two-way learning. Altyerre not Tjukurpa.

Potential solutions

Based on the recent consultation with Local Authorities across Central Australia a number of solutions have been recommended:

- 1) Ensure all Territory communities have access to safe and clean water in accordance with the Australian Drinking Water Guidelines within 10 years.
- 2) Prioritise quality and source security of drinking water in communities over all other potential beneficial water uses in the area.
- 3) Prioritise provision of clean and safe drinking water in outstations and a clear governance and service delivery framework is established in consultation with residents and Traditional Owners.
- 4) Establish a collaborative framework for regional water governance through co-design with Central Land Council, Local Governments, Power and Water Corporation, NT Departments including Department of Environment, Parks and Water Security and Territory Families, Housing and Communities and other service providers.
- 5) Develop a regional 'Water Story' through a co-design process to communicate the values and issues associated with water in Central Australia.
- 6) Establish a 'Talking water' community education and engagement campaign with a focus on reducing water waste and to support better understanding of water services in Central Australia.
- 7) Ensure all water planning processes include climate modelling and consider water use that may be needed to support community adaptation to climate change.
- 8) Power and Water Corporation develop a communications strategy and plan to engage with all Central Australian communities on water quality and source security.
- 9) Develop opportunities for residents in communities to be engaged and employed in water quality and source security monitoring and reporting processes as part of a region-wide Demand Management Strategy.
- 10) Establish a Remote Water Innovation Hub in Alice Springs to demonstrate and test solar powered water filtration systems in preparation for a regional scale roll-out.
- 11) Water infrastructure in communities is prioritised in forward estimates and budgets until all Territory communities have access to safe and clean drinking water in accordance with the Australian Drinking Water Guidelines.
- 12) Establish support mechanisms for Traditional Owners to access and make use of Strategic Water Reserves as part of the Water Allocation Planning processes.
- 13) Address the inequity of regional water use through making provisions for water use for food growing in communities.

Moving forwards

This report has identified a range of issues associated with water in Central Australian communities. The recommendations are focused on providing direction for the NT Strategic Water Plan in line with the issues raised through consultation with Local Authorities across the Barkly, Central Desert and MacDonnell Regional Councils. In moving forwards and to build and maintain momentum towards the development and implementation of the NT Strategic Water Plan there are some key actions that can be taken by NT Government agencies and Power and Water in the short term.

Firstly, this report should be shared with Power and Water Corporation, NT Department of Families, Housing and Communities and the Regional Councils to ensure the issues raised can be considered, better understood and contribute to improved service delivery on a community-by-community basis.

The most consistent issue raised was a lack of information and engagement by communities in regards to the water quality and source status reports. Throughout the consultation process a number of Local Authorities specifically requested updates from PWC including: Alpururulam, Atitjere, Finke, Hermannsburg, Imanpa, Kintore, Lajamanu, Laramba, Mt Liebig, Willowra, Yuelamu and Yuendumu. While face-to-face is the preferred method of engagement, this consultation process demonstrates that the Local Authorities are willing and able to receive information and updates via video link and teleconference (with printed information provided prior) if costs and time constraints do not permit. The most important consideration is that the information is clear and people are able to have their questions answered.

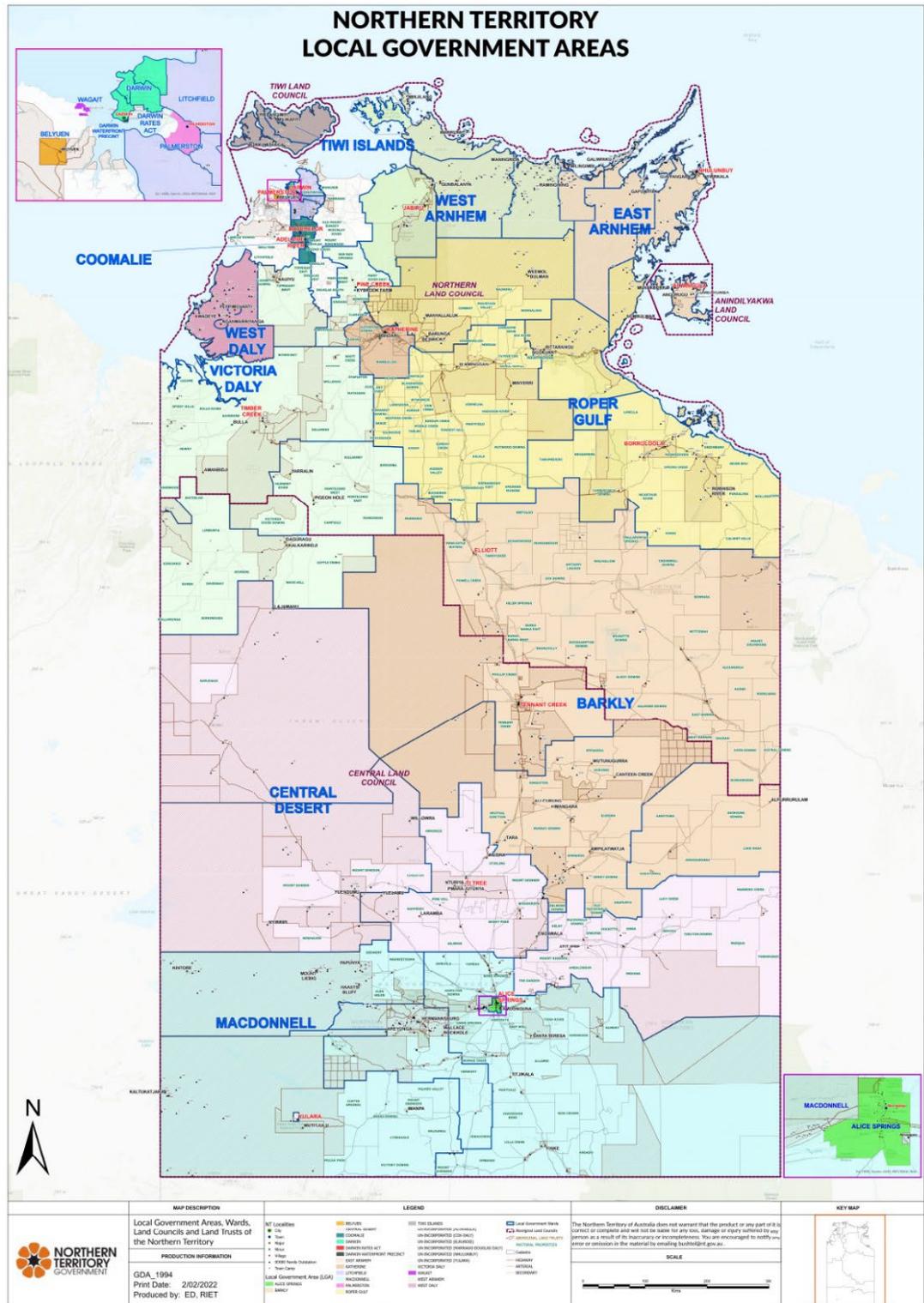
A number of Local Authorities were not able to participate in the consultation and these communities should be prioritised for future engagement on water – these include Docker River, Nyirripi and the Barkly Local Authorities of Arparra, Ampilatwatja, Elliott, Tennant Creek, Wutunugurra. Specific engagement with the Barkly Regional Council in regards to water and the range of competing interests in the region should be prioritised. The MacDonnell and Central Desert Regional Councils also expressed interest in annual updates in regards to water quality and source status for their regions.

Regional coordination and collaboration between NT Government agencies, Regional Councils, Power and Water Corporation, Central Land Council and other service providers in regards to water quality and source status in communities and outstations are required to address the issues raised through this report. It is recommended that this process begin as soon as possible.

Communication and timely information provision have been raised by Central Australian communities as a key issue when it comes to water. The quality and sustainable use of water must focus on the needs of people. Information and engaging communication tools can help build agency for community members to take control of their water use and become active participants in developing their own 'water story'. Work in this area needs to be prioritised alongside the technical aspects of service delivery.

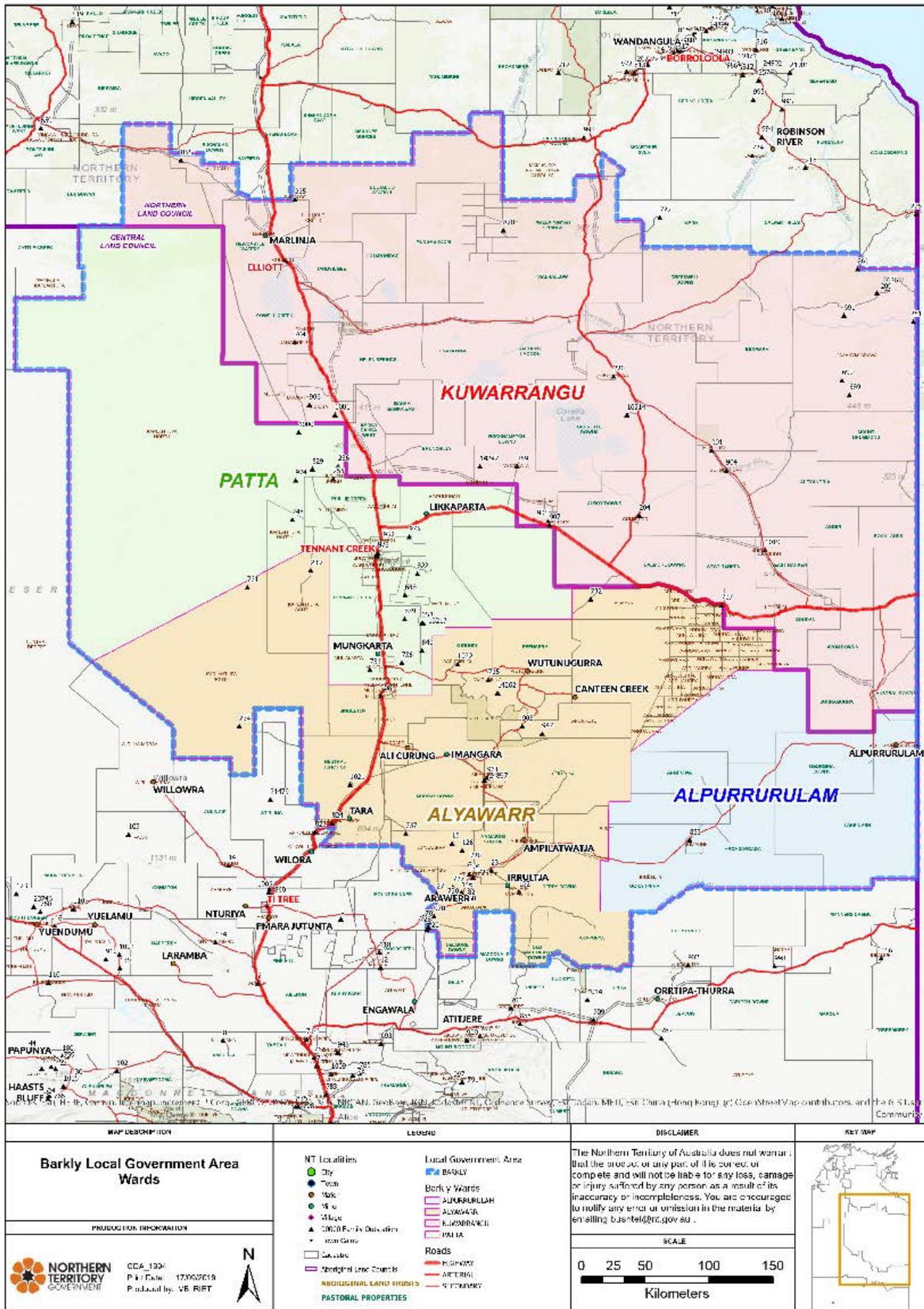
Appendix 1

a) Northern Territory Local Government Areas Map

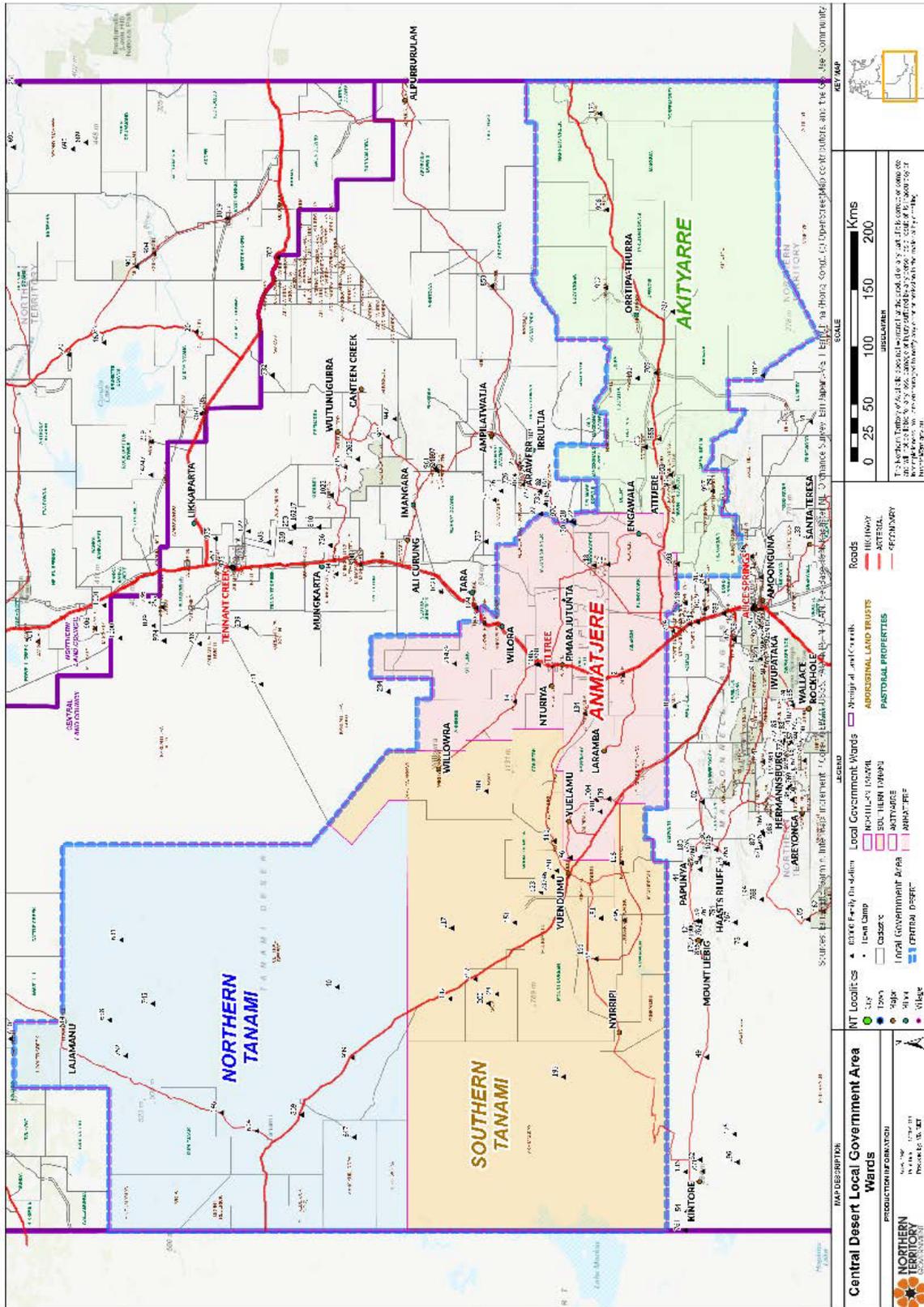


<https://nt.gov.au/community/local-councils-remote-communities-and-homelands/maps-of-shires,-councils-and-local-authorities>

b) Local Government Area Map – Barkly Regional Council



c) Local Government Area Map – Central Desert Regional Council



Appendix 2

a) Slide template for consultations

Department of **Environment, Parks and Water Security**

Talking to people about The Water Plan

John Gaynor – Regional Director Department of Environment Parks and Water Security

Jimmy Cocking – Independent Consultant – Northern Possibilities





Strategic Water Plan

- Laws – who is responsible
- Good Water – drinking water quality
- Money- value for money – water for growing/making
- Jobs – Aboriginal Economic Dev. / Aboriginal Water Reserve
- Community – service reliability
- Culture – Proper engagement/Aboriginal Knowledge
- Country – Information and Values
- Thinking about Water – expert information & access
- Leaders – community owned water stories
- Climate Change – ensure water available for all





Looking after Country



9



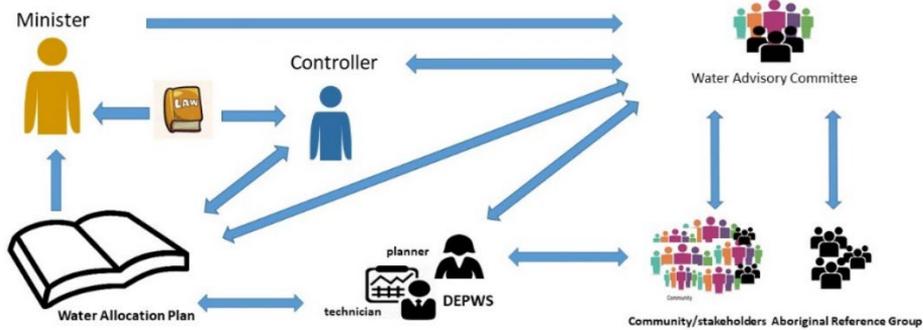
Looking after Communities



10



Water Laws, Listening to You & Making Decisions About Water



Regional Council Support

LGANT Motion at November General Meeting in Alice Springs

"LGANT supports municipal and Regional Councils engaging in the NT Water Strategy Directions Paper consultation process (2021-Feb 2022) and contributing to local community engagement efforts in the development of both local and NT Government Water Policy"

Request for Regional Council Support

'Council to work with the NTG and water consultants to ensure adequate information and support is provided to Local Authorities to enable their engagement in the water consultations and their perspectives are collated for inclusion in a submission to the NT Strategic Water Plan consultation process.'

12



What do you think?

We would like to hear any questions or comments that you have about water.



14



Key questions

- Why is water important to you?
- What worries you about water?
- What do you need to know about water?
- What jobs/business are you interested in?
- What does the government need to know?
- What needs to happen to make things better?
- How can we do this together?



15



Thank you

NT Water Security Plan

<https://watersecurity.nt.gov.au/northern-territory-strategic-water-plan>



Drinking Water Quality Report

https://www.powerwater.com.au/data/assets/pdf_file/0015/73221/Drinking-Water-Quality-Report-2020.pdf



More comments:

Email: jimmy@northernpossibilities.com.au
Call: 0423511931



16



b) Individual Local Authority Slides

Ali Curung

Water source

- Large sandstone aquifer, episodic recharge
- Lots of competing users
- Western Davenport WAP

Water quality

- Free chlorine 1.2mg/L vs 0.6mg/L
- Nitrates, high TDS – treatment

Current actions

- Advanced water treatment plan – bring water to Drinking Water Standards
- Smart meters

What else do we need to know?



21



Alpurrurulam

Water source

- Limestone aquifer – Georgina River catchment
- Large amount of water storage

Water quality

- Fluoride 1.7mg/L vs 1.5mg/L
- Free Chlorine 1.0mg/L vs 0.6mg/L
- Hardness 476mg/L vs 200mg/L

Proposed and future actions

- New bores drilled to improve water source options
- Working with NIAA to secure funding to build pipeline to new bores.
- Design of new water tanks to improve water storage.

What else do we need to know?



20



Amoonguna

Water source

Mereenie aquifer – same as Alice Springs

Water quality

Good quality water

Free chlorine 0.9mg/L vs 0.6mg/L

MRC maintains water infrastructure

What else do we need to know?



25



Areyonga

Water source

- Mereenie aquifer
- A lot of good quality water

Water quality

- Hardness 472mg/L vs 200mg/L
- Free Chlorine 1.0mg/L vs 0.6mg/L
- TDS 702mg/L vs 600mg/L

Proposed and future actions

None to date

What else do we need to know?



41



Atitjere

Water source

- Mining the aquifer – water is not being replenished by rainfall
- Mining and pastoralism using the same aquifer
- PWC engagement programs
- Water demand signage

Water quality

- Hardness 252mg/L vs 200mg/L
- Chlorine 1.1mg/L vs 0.6 mg/L

What else do we need to know?



32



Central Desert LA Consultation

Laramba	2/3/22*
Lajamanu	16/3/22*
Nyirripi	10/3/22*
Yuendumu	9/3/22*
Yuelamu	3/3/22*
Engawala	17/2/22
Atitjere	16/2/22
Willowra	10/2/22*
Anmatjere	21/1/22
Ti Tree	9/2/22*

- Zoom meetings due to Covid unless circumstances change
- 1hr preferred minimum
- Significant water issues in the region
- Problems and solutions



* any time except 11am-12pm if possible

37



Elliott

Water source

- Regionally extensive aquifer system.
- Limestone aquifer, very hard water

Water quality

- Hardness 440mg/L vs 200mg/L
- TDS 730mg/L vs 600mg/L

Proposed and future actions

- Extreme per capita demand should be addressed.
- Average daily use in Elliott is extremely high in the NT
- Mainly water leaks inside and outside homes; large volumes of continuous irrigation

What else do we need to know?

.



24



Engawala

Water source

- Alternative source of water is being explored – current source unsustainable
- PWC engagement programs – smart meters
- Water demand signage

Water quality

- Water hardness 371mg/L vs 200mg/L
- Chlorine 1.2mg/L vs 0.6mg/L

New bores being drilled south of community

What else do we need to know?



33



Finke (Aputula)

GAB Water Allocation Plan 2013-23

- Great Artesian Basin – J aquifer
- Finke River
- 96ML per year licensed to PWC for public water supply
- Stock and domestic use – 1200ML per year
- Potential impacts of coal/oil/gas mining on environmental flows to Dalhousie Springs

IES Water Quality Report 2020

Chlorine – 1.2 (0.6mg/L), Hardness 213 (200mg/L),

High water use is an issue

What else do we need to know?



34



Haasts Bluff

Water source

Arumbera sandstone – better quality water shallow. Source capacity unknown.

Water quality

Defined as poor.

Chloride 375mg/L vs 250mg/L , **Free chlorine** 1.1mg/L vs 0.6mg/L , **Hardness**

595mg/L vs 200mg/L, **TDS** 1205mg/L vs 600mg/L .

Mix of minerals just below the guidelines.

Proposed and future actions

- Demand management
- Water resource assessment
- More drilling but treatment may be necessary.

What else do we need to know?



26



Hermannsburg - Ntaria

Water source

Fractured rock aquifer – deep 220m

Water quality

• Free Chlorine 1.3mg/L vs 0.6mg/L

• Hardness 260mg/L vs 200mg/L

Proposed and future actions

- Demand management program.
- Additional bore drilling completed 2020 - to be connected in future.
- Elevated tank upgrade completed 2021 to improve water storage and pressure.
- Connecting the new bores to improve water source capacity.

What else do we need to know?



17

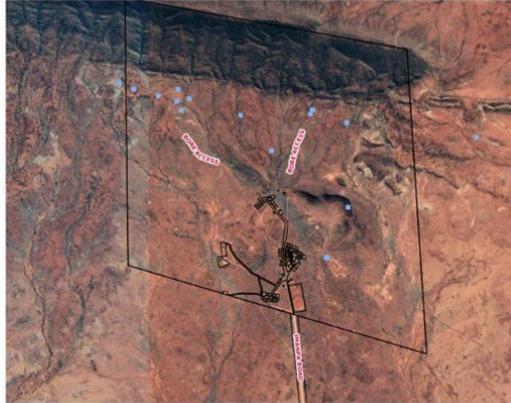


Imanpa

From IES Water Quality Report 2020

- Groundwater
- Chloride – 417 mg/L (250 mg/L)
- Free chlorine- 1.0mg/L (0.6mg/L)
- Iodide – 0.32 mg/L (0.15mg/L)
- Sodium 227mg/L (180mg/L)
- Hardness 497mg/L (200mg/L)
- TDS 1369 mg/L (600mg/L)

Scaling of kettles and pipes etc.
Taste can be affected, is it?



What else do we need to know?

36



Kaltukatjara/ Docker River

Good quality water – slight hardness
271mg/L vs 200mg/L

Modest water use

Not much known about water source
and sustainable use.

What else do we need to know?



38



Kintore

Water source

- Fractured basalt aquifer– 30m down
- Low demand, recharge only from large rainfall events
eg. 2017
- Future water source potential competition with mining

Water quality

- Free Chlorine 1.1mg/L vs 0.6mg/L
- Silica 90mg/L vs 80mg/L
- Nitrates present

Current and future actions

Advanced water treatment system has been installed

What else do we need to know?



23



Lajamanu

Water source

- Declining water level – uncertain of source capacity – though likely satisfactory
- High demand

Water quality

- Free Chlorine 1.3mg/L vs 0.6mg/L
- Silica 104mg/L vs 80mg/L

Current and future actions

- Upgraded disinfection system installed in 2020
- Source assessment and demand management recommended

What else do we need to know?



19



Laramba

Water source

- Source capacity unknown but likely large.
- Concerns on quality and impact of nearby mine.
- High demand for water.
- New bore could be developed but same quality issues exist.

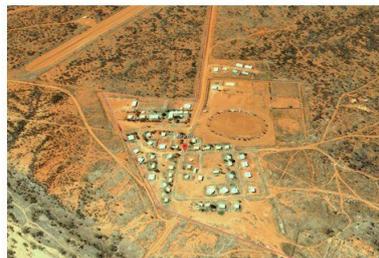
Water quality

- Uranium – 0.052mg/L vs 0.017mg/L
- Silica 87mg/L vs 80mg/L
- TDS 660mg/L vs 600mg/L
- Hardness 254mg/L vs 200mg/L

Proposed and future actions

Water treatment solution to be designed to improve water quality. Smart water meters to be installed on all properties to enable prompt leak identification and preserve water.

What else do we need to know?



31



Ltyentye Apurte – Santa Teresa

Water from Borefield 5-6km north east of town

Slightly hard water 233mg/L of CaCO₃ but generally good water

Community uses around 120ML per year – 48 Olympic Pools – long term decline of water resource compared to recharge (maybe topped up a bit lately?)

Need better understanding of how much water there is

MCG of the desert Orchard?

What else do we need to know?



18



Mt Liebig

Water source

- Unknown amount of water, but expected to be much more than demand.
- On-going demand management as no known alternative source.

Water quality

- Free Chlorine 1.1mg/L vs 0.6mg/L
- Hardness 282mg/L vs 200mg/L
- Sodium 230mg/L vs 180mg/L
- TDS 963mg/L vs 600mg/L

Proposed and future actions

- New ground level tank being designed to improve water storage.
- Assessment of elevated tank to be undertaken to identify if replacement is required.

What else do we need to know?



29



Nyirripi

Water source

Layer of freshwater sitting on top of more saline aquifer
– impacting on quality of water.

Water quality

- **Fluoride** 2.4mg/L vs 1.5mg/L
- **Silica** 85mg/L vs 80mg/L
- **Chloride** 1.0mg/L vs 0.6mg/L
- **Hardness** CaCO₃ 254mg/L vs 200mg/L

Proposed and future actions

Water treatment. Drilling new bores not recommended.

What else do we need to know?



27



Papunya

Water source

- Large water source, though unknown quantity – moderate water use.
- More work needed to understand.

Water quality

Hardness 259mg/L vs 200mg/L
Free Chlorine 1.1mg/L vs 0.6mg/L

Proposed and future actions

Smart water meters to be installed on all properties to enable prompt leak identification and preserve water. Assessment of sewer mains to identify where/if sewer main replacement is required.

What else do we need to know?



28



Titjikala

Slightly hard water 215mg/L CaCO₃ but generally good quality water

Demand management – water saving program in place
Water level is going down faster than being topped up.

Need more information about how much water there is and better monitoring to know more about how much water can be sustainably used.

What else do we need to know?



13



Ti Tree

Water Allocation Plan 2020-2030

- Water supply to communities –290ML/year but only 101ML on average per year
- Agricultural licences (15) 7029 ML 39% being used
- Strategic Water Reserve (1505ML) is available for rights holders Ahakeye ALT
- Aquifer recharges after big rains
- Anmatyerr Kwaty Advisory group

Water quality

- Nitrates – guidelines 50mg/L for babies and 100mg/L adults – 70mg/L to 350mg/L exceeds.
- Potable water in NW has lower nitrates
- Slight water hardness – CaCO₃



40



Wallace Rockhole

Good quality water – slightly hard
283 mg/L (200mg/L)

New bores

Relatively low water use

What else do we need to know?



39



Willowra

From IES Water Quality Report 2020

- Uranium 0.025mg vs 0.017mg/L guidelines
- Iodine 0.17mg/L vs 0.15mg/L
- TDS 748 mg/L over 600mg/L threshold
- Hardness 252mg/L vs 200mg/L



Impact on taste?

Large aquifer, stable water levels

Water treatment seen as the most likely option to improve quality

What else do we need to know?

35



Yuelamu

Water source

- Poor water quality, dual pipe system.
- Uncertain source capacity – demand management continuation is essential.

Water quality

- Free Chlorine – 1.1mg/L vs 0.6mg/L

Proposed and future actions

- Assessment of capacity is recommended.
- Advanced Water Treatment Plant
- Smart meters

What else do we need to know?



30



Yuendumu

Water source

Mt Eclipse and Kerridy Formation. Unsustainable – more water being used than aquifer capacity to maintain.

Housing growth restriction.

Water quality

Hardness

513mg/L vs 500mg/L

TDS

943mg/L vs 500mg/L

Iodine

0.20mg/L vs 0.15mg/L

Proposed and future actions

Demand management – signage, smart meters. Additional bore drilling in 2020. Design of water treatment for new bores.

Assessment of entire water main.

What else do we need to know?



22

