



CLOSING THE 'Water for People & Communities' GAP



WATER SERVICES
ASSOCIATION OF AUSTRALIA

WSAA Preliminary report:
Improving water services to
remote First Nations communities

Acknowledgement of country

A photograph of a person sitting on a rocky bank overlooking a river. The person is wearing a light blue shirt and white pants. The river flows through a natural setting with trees and rocks. The sky is blue with some clouds.

The Water Services Association of Australia acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation. We recognise their continuing connection to land and waters and thank them for protecting our waterways and environment since time immemorial.

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AUTHOR

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Image source: Developing Northern Australia Conference

Eric is a water engineer who specialises in the conception, planning and delivery of water strategies and infrastructure projects in remote settings where holistic solutions are required.

Eric works as a consultant across Northern Australia by providing economic, strategic, engagement and evaluation expertise to various governments and organisations.

Eric lived in the Northern Territory for 11 years including three years in Alice Springs. Eric was responsible for delivering a range of water and wastewater projects across the NT remote communities as well as developing Power and Water Corporation's water infrastructure investment program for its 72 remote communities with a focus on water quality and water security.

'Water is precious like a sacred site; we need to be consulted and asked. Our ancestors have been here forever and still are. Working together, better communication.'

(Community members from Yeperenye in Northern Territory)



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Many stakeholders across Australia are leading many important initiatives in ‘Closing the Gap’ for First Nations peoples, addressing health, social, economic and other aspects. Yet amid this work, stories regularly emerge about remote communities with limited and sometimes no access to safe drinking water, poor health outcomes associated with lack of clean and reliable water supplies, and unclear accountabilities for providing water services.

Most important of all: a voice. A voice in the water services that remote First Nations peoples receive.

As Prime Minister Albanese said at Garma in July 2022:

“ *When a government listens to people with experience, with earned knowledge of kinship and country and culture and community...
...when we trust in the value of self-determination and empowerment...
...then the policies and programs are always more effective.* ”



We have highlighted through the report direct feedback of community members on their water supplies as provided to Jimmy Cocking in his work for the Northern Territory Government (NTG). We congratulate the NTG for taking the bold but necessary step to seek this feedback from First Nations communities.

WSAA commissioned this review of remote water services in 2021 to elevate these issues in the national conversation, and to recommend ways to close the gap in the delivery of safe drinking water including water quality and water security.

In 2021, WSAA commissioned Eric Vanweydevel, who has spent many years working on water quality and First Nations engagement in the water industry, to research and document the arrangements for water servicing of these remote communities across Australia. Through extensive research and engagement with the communities themselves, Eric is developing a report which maps the complex and opaque arrangements in each jurisdiction, highlighting the linkages, differences and legacies. In this short report we outline some preliminary findings and recommendations about how improving water can help close the gap – and where we can start.

Eric’s full report will be released in November 2022. WSAA continues to work with governments and the urban water industry, on how to progress these initiatives and embed them in a new National Water Initiative.

Adam Lovell
Executive Director, WSAA

Every Australian Community should have access to safe drinking water



In Australia, the Australian Drinking Water guidelines set out a comprehensive national framework for water quality that is safe to drink and has acceptable taste, colour and odour.

Most of us take this for granted; but as a number of reports have noted, Australia is falling short in its delivery of services to remote First Nations communities, as measured against the United Nations Sustainable Development Goal 6: *Ensure availability and sustainable management of water and sanitation for all.*

Studies by the Productivity Commission (2021) and Infrastructure Australia (2021) have identified shortcomings in provision of services to remote communities, but there is a lack of both available and consistent information.

For remote First Nations communities the delivery of safe drinking water is not only critical in its own right, but fundamental to many closing the gap targets, particularly its:

- **Impact on public health**
- **Impact on remote living and integration with public housing**
- **Impact on wellbeing of people and communities**

Immediate and Critical First Steps

1. The Commonwealth Government should

a. fund a **national water quality monitoring program** with transparent reporting to establish the gap that all stakeholders need to work towards closing, with an estimated cost of \$30M and the responsible agency NIAA

b. fund a **Voice for First Nations** through national roundtable on water quality for remote First Nations communities, seeking input from organisations including representatives from communities, the Coalition of Peaks, governments, regulators, utilities and research institutions

c. expand the remit of the **National Water Grid funding** to appropriate technology for remote First Nations communities

d. enshrine **water quality and related health outcomes** in the revised National Water Initiative

2. The Commonwealth, States and Territories, should move to formalise (preferably through legislation and regulation) the Australian Drinking Water Guidelines for all communities, including First Nations communities

3. The National Health and Medical Research Council, as owners of the Australian Drinking Water Guidelines, be provided with funding of \$2M to **revise the Community Water Planner**

4. All governments should **commit to, and report against, targets in Closing the Gap** and the **Sustainable Development Goals** on drinking water quality

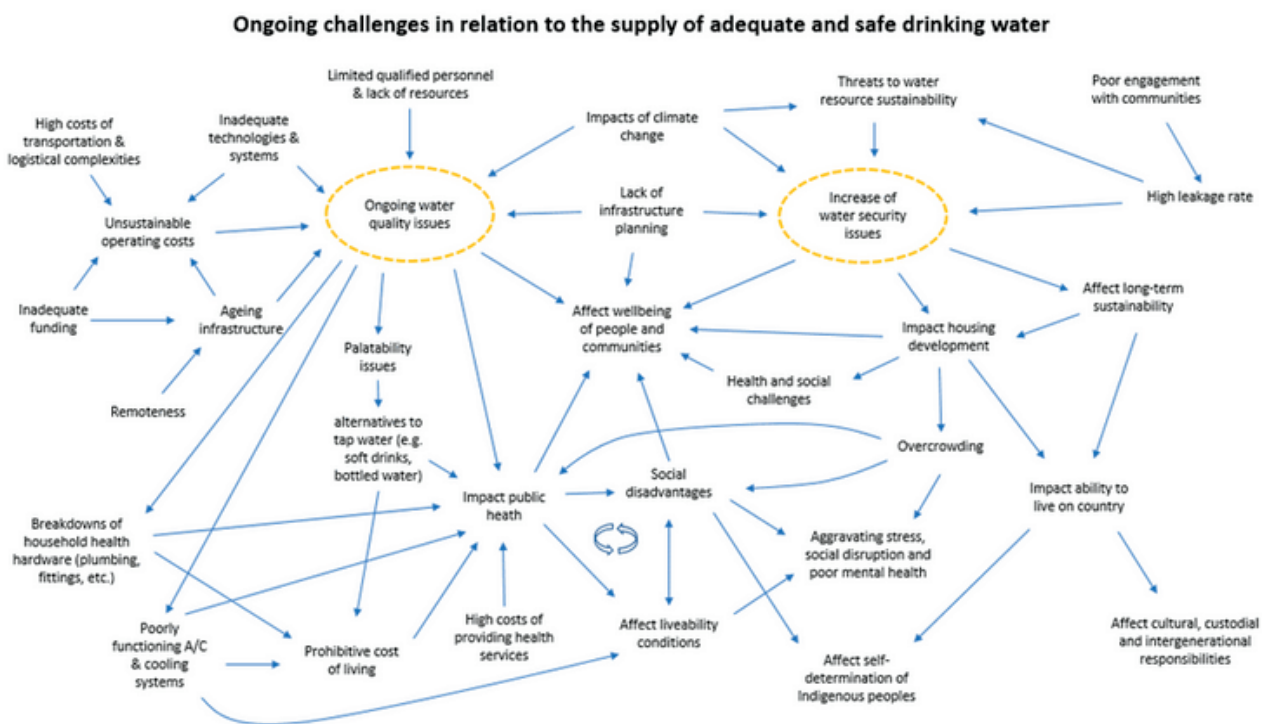


Figure 1 There are complex linkages between water quality and water security outcomes for remote communities.

Key findings and recommendations

Water is critical to many closing the gap targets, but there are significant challenges in meeting water quality and supply needs in remote First Nations communities

Water is core to life for First Nations people and has an important role in their connection to country. Protecting and managing water is seen as a custodial and intergenerational responsibility. The delivery of safe drinking water plays a critical role in the viability, self-determination, and sustainability of First Nations remote communities.

'People just want to get the calcium out of the water.'

(Imanpa Local Authority)
(J. Cocking, 2022)

For all its importance, the review has identified that people living in remote communities report a range of concerns about their water supplies:

- They report problems with contamination and water quality, and they are backed up by evidence from various reputable health and epidemiological studies as well as water quality reports from water utilities and service providers. The reports reveal that water quality issues are persistent, and in some cases are getting worse, in many remote communities across Australia.

'Aboriginal health remains an important priority as the life expectancy rates and chronic disease amongst the people is an area of concern with clean water being essential to assist households to improve health and hygiene in the home and amongst vulnerable individuals.'

(D. Rathman AM PSM FIML, 2020 – SACOSS Study: Water Issues in Remote Aboriginal Communities)

- They report issues with the taste, smell, and colour of their water and they are concerned about calcium and uranium.
- They report problems with the reliability of supply. Many communities see delays in maintenance and poor customer service compounding their water supply issues, leading to an increase in the already high cost of living, resulting in neglect.
- They also report being distrustful of government and frustrated by a perceived lack of accountability, transparency and communications between service providers and communities.
- Some communities, logically, report that they are concerned about the potential health impacts on their communities.

'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.'

(J. Cocking, 2022)

'Old houses and bad plumbing. Other houses - hot during summer, cold during winter'.

(Yuendumu LA meeting) (J. Cocking, 2022)

Most telling of all are reports that people living in remote communities would rather drink bottled water or soft drinks in preference to town supplies.

We know that these problems are serious, but we do not know the true scale.

Importantly, communities report not having a voice in the provision of drinking water services. It is vital that in the process of ensuring improved delivery of drinking water services to remote communities, that we ensure that First Nations voices are engaged and listened to on all issues relating to water.

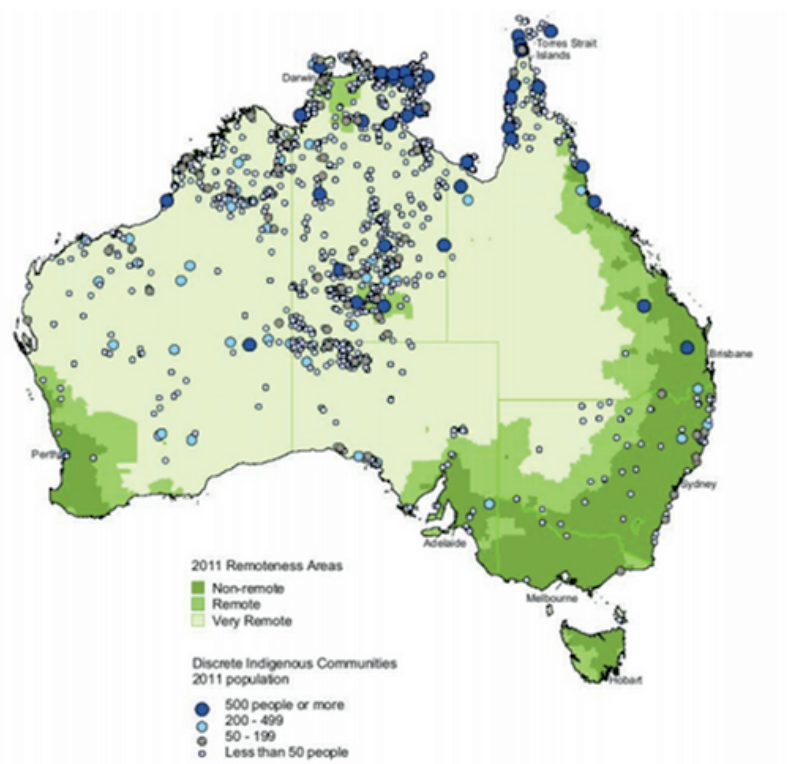
As community members from Yeperenye in NT said in powerful terms in December 2021 *'Water is precious like a sacred site; we need to be consulted and asked. Our ancestors have been here forever and still are. Working together, better communication.'*

Water has been nearly lost from the **Closing the Gap** framework, and we do not know the true scale of the gap in water provision to remote communities

WSAA has identified that there are over 1,100 First Nations remote communities, where around 150,000 First Nations people live. 45 percent of these communities are in the Northern Territory.

Over **1,100** Indigenous remote communities

around **150,000** Aboriginal and Torres Strait Islander peoples



The findings of WSAA's review are consistent with the work of Dr Paul R. Wyrwoll from the ANU who found in recent research that 408 remote or regional communities lacked access to good quality drinking water and 40 percent of these communities are First Nations communities.

'At least 25,245 people across 99 locations with populations <1000 reportedly accessed water services that did not comply with health-based guideline values. Including larger towns and water systems, the estimated service gap rises to at least 194,572 people across more than 115 locations'

'Considering health parameters and the ADWG definition of 'good' aesthetic characteristics, the reported service gap rises further to at least 627,736 people across 408 locations. Forty percent of all locations with recorded health exceedances were remote Indigenous communities.'

(P. Wyrwoll et al, 2022)

To enable actions to close the gap in drinking water quality, we need to know *what the gap actually is.*

We need a baseline study to document the delivery of safe drinking water to remote communities and, in particular, remote First Nations communities.

Our report will quote a recent article published by the National Indigenous Times (NIT) which highlighted that in WA a large number (44) of communities' water supplies are not tested for water quality and they haven't been tested in more than a decade.

A recent Western Australian Auditor General's report (ref), *Delivering Essential Services to Remote Aboriginal Communities*, highlights a range of issues associated with water quality in small First Nations communities including:

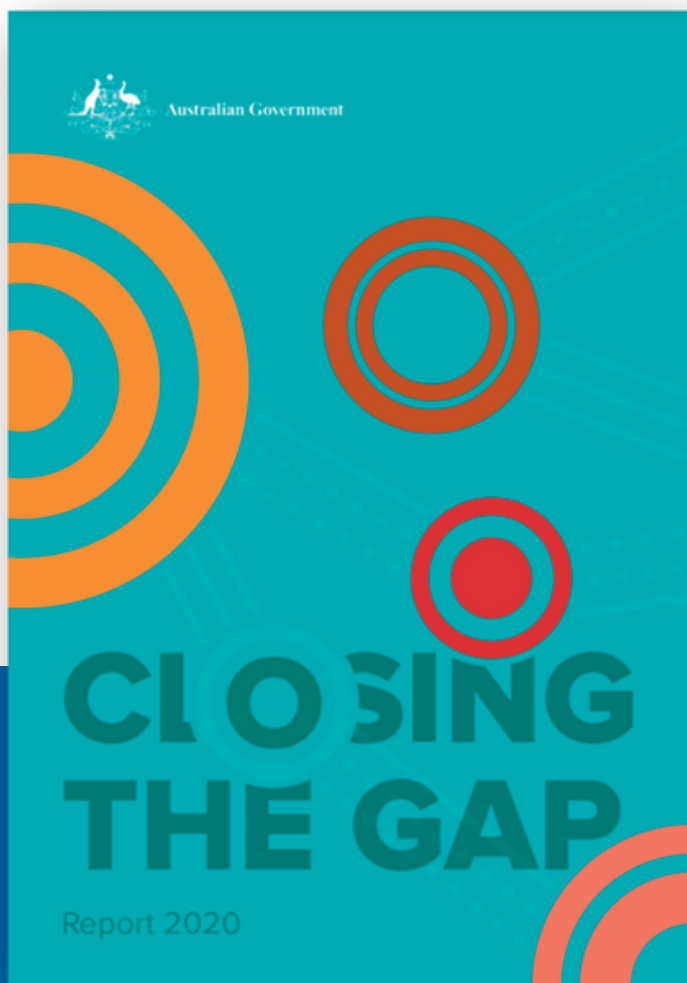
- There was no water quality testing in 51 of the smallest communities previously serviced by the Commonwealth until November 2019.
- It was reported that the Department of Communities didn't undertake regular testing because it was neither necessary nor practical and there was no funding for it.
- Microbial contamination and unsafe levels of uranium and fluoride were detected in some communities when water quality testing started.

In line with other studies, we are calling for a national drinking water database and national monitoring program for remote First Nations communities

RECOMMENDATION 1. Establish the Gap: set up a national water quality monitoring program, funded for at least \$30 million to be initially managed by the Commonwealth Government, and transitioned to state and utilities over time. The program would document the delivery of drinking water supplies in each remote First Nations community and track compliance with appropriate service standards, including the Australian Drinking Water Guidelines, and used to report progress with Closing the Gap targets.

- **Expand the remit of the National Water Grid Fund to invest in both the capital and operating costs of remote water systems.**
- **Invest in the redevelopment of the Community Water Planner through the NH&MRC to give local communities a voice in drinking water, and help plan and deliver safe drinking water.**

How can we start to close the water quality gap?



Establishing the baseline is the first step in addressing the water quality gap in First Nations communities, but it is only the first step. We also need to ensure that technical solutions are the right solutions.

Invest to Innovate in culturally appropriate technology for remote areas

Often existing technologies are ill suited or need to be adapted to remote settings.

Systems need to be simple to use, have less dependence on chemicals, external operations and maintenance and equipped with a range of redundancies.

Existing water treatment systems and processes used in remote contexts are often rudimentary with limited capacity to deal with poor water quality and high risks of naturally occurring chemical contamination. Contributory factors to poor drinking water supply include challenges such as long distances, high costs of transportation and delivery, lack of appropriate operating funding, limited on-site expertise, slow operational response time and lack of frequent preventative maintenance.

The 2021 Australian Infrastructure Plan highlights:

“*Water and wastewater services in remote communities do not consistently nor reliably meet adequate standards. Also, past approaches to address the problem have not always adequately considered the dynamics of these communities. These include cultural needs and preferences, the ongoing maintenance and reliability of infrastructure solutions, and the impacts of an often-extreme climate.*”

There are a number of positive steps we can take. SA Water has a program to bring together contractors and First Nations businesses in order to develop working partnerships to help their businesses build expertise, capabilities and skill sets and to support greater employment.

RECOMMENDATION 2. Innovate for resilience: The Commonwealth Government establish a multi-year innovation fund, potentially through expansion of the National Water Grid Funding to develop and implement emerging technologies for remote communities that:

- enhances existing programs including the Centre for Appropriate Technology, utility and government research programs with research institutions, Water Research Australia and targeted CRC-P
- leverages community expertise to,
- target the specific needs of remote communities,
- such as the need to operate with lower maintenance requirements,
- increase the use of renewable energy,
- and build in resilience to extreme climates and the long-term impact of climate change.

As appropriate technologies emerge, there will need to be a coordinated rollout of fit-for-purpose solutions for different communities. Not only do we need to invest in the right technologies, but we also need to build the capacity to build and manage appropriate those solutions.

Invest in First Nations people and businesses



'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)

As no single group or entity can be responsible for securing and delivering safe drinking water in its entirety, the codesign of water systems with First Nations communities is critical to transitioning to a sustainable pathway. The bottom line is that we need to ensure that First Nations voices are engaged and listened to on all issues relating to water. Views from communities are universal: more education about water use, about how much water is available is a must going forward.

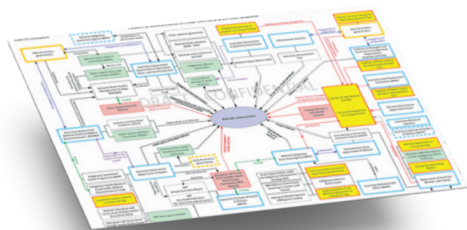
RECOMMENDATION 3. Develop an Implementation Plan to codesign and deploy appropriate treatment systems and approaches in remote communities, including ongoing monitoring.

- **Deploy the Community Water Planner (tried with communities) to assist in codesign of water management**
- **Incentivise First Nations businesses to develop, manage and maintain water systems.**
- **Invest in the skills, capacity and capability of local First Nations communities to operate local infrastructure, ensuring culturally sensitive approaches and innovations.**

If we have the capacity and the technologies to deliver better solutions to remote communities, we also need government to build the shortest path between solution and implementation.

Build-in clear accountabilities

Our work engaging and then building a detailed stakeholder map at a Federal and at state and local government levels, the numbers of stakeholders involved in some part of the process of delivering safe drinking water to First Nations communities is nothing short of breath-taking. No wonder the sense of frustration from communities as they try and work out who has responsibility.



The more stakeholders, the less accountability and the less accountability generally means a lack of efficiency and effectivity in delivering services.

In their extensive analysis of Queensland's service delivery system, the Queensland Productivity Commission (2017) found that for any single remote community, there are at least 13 Queensland Government departments and the Australian Government involved in regulation, coordination and service delivery.

We need to build in clear lines of accountability and reporting to make sure that no one is left out.

RECOMMENDATION 4.

A full review of the end-to-end processes of delivering water services for First Nations communities, nominating clear accountability for continuous engagement with communities, planning, delivery, handover of commissioned assets, maintenance, skills and training, reporting, addressing issues as they arise and, most importantly, water quality.

'The most consistent issue raised was a lack of information and engagement of communities in regard to the water quality and source status reports.'

(J. Cocking, 2022)

We also recommend:

- **Develop new and sustainable transparent funding models, and clear statements of obligations, for states where a single large utility (WA, NT, SA) has the expertise and capability to manage water systems. Ensure that those utilities efficiently transition and take over responsibility to manage water systems in remote First Nations Communities.**
- **For states where there are multiple councils and water utilities, such an approach is more complex, however we recommend consideration be given to pool the resources of First Nations local government for shared growth in technology, skills and management of water systems working with state health and water regulators.**
- **At a federal level, through the National Water Initiative, establish clear accountabilities, roles and responsibilities and funding streams between the National Indigenous Australians Agency (NIAA), Department of Climate Change, Energy, the Environment and Water (DCCEE), Infrastructure Australia (IA), and the Productivity Commission (PC).**
- **Setup reporting arrangements that track progress towards SDG6 as a priority.**

Clear accountabilities and outcomes must be supported by consistent and clear government regulation and legislation.

Make sure that appropriate legislation and regulation is in place

First Nations communities are subject to a maze of government actors, legislation and regulation, much of it disconnected and ineffective. For instance, there are currently no minimum drinking water standards applicable in the Northern Territory.

In Western Australia Regulation of drinking water is divided into licensed and non-licensed providers. The licensing framework under the Water Services Act 2012 doesn't apply to drinking water supplies outside of licensing provisions (un-licensed). This means that there are a large number of regional and remote water supply systems are not covered under an MoU and therefore don't have the required monitoring and reporting regime in place.

Finally, these recommendations need to be included in an appropriate national agreement. WSAA considers that the Australian Government's commitment to renew the National Water Initiative is the appropriate vehicle to implement governments collective commitment to Close the Gap in provision of drinking water to remote First Nations communities.

RECOMMENDATION 5. The Commonwealth Government should use its leadership position and processes for a renewed National Water Initiative to:

- **Gain all state and territory governments commitment to improving the quality and supply of drinking water to remote First Nations communities.**

- **Gain their agreement to review, formalise or develop safe drinking water legislation and minimum drinking water standards (particularly in the Northern Territory where they do not currently exist).**
- **Empower and provide further dedicated funding for the Health Regulators Forum through enHealth across the States and Territories to transparently review and recommend improvements to water quality including through housing and plumbing**
- **Enshrine water quality and security outcomes for remote First Nations communities within the renewed National Water Initiative.**

We know that drinking water is not the whole water story for remote communities. Urban communities would naturally expect to have access to reliable and safe water and wastewater services and they would also expect a level of water available to enhance liveability in their leafy suburbs. But what do reliable wastewater services look like for remote communities and what does liveability look like in practical terms? We need to keep working to fully understand these requirements and further enhance water and wastewater services to remote First Nations communities.

That's water, but what about sanitation, livelihoods liveability?



While this preliminary report has outlined the tasks ahead to close the gap on drinking water, we also need to expand this work into sanitation services. We know that both water and wastewater services in remote communities do not consistently nor reliably meet adequate standards. We need to systematically work to close the information gap and identify where sanitation services are below standard. We also need to understand the potential for doing more than the minimum and accessing the potential of recycled water and delivering clear liveability outcomes. For example, we could be supporting the development of irrigated grassed ovals in remote communities to support physical and mental health.

'Water recycling to grow in the future. Planting trees, more shade trees'

Lajamanu

'Irrigating the oval is under investigation, priority is drinking water at the oval'

Papayuna

'We have an orchard, people want to get it up and running, grapes and vegetables, people loved it'

Santa Teresa

'Desire for water to be used for community recreation including water play areas, irrigated ovals and swimming pools'

(J. Cocking, 2022)

RECOMMENDATION 6.

Establish the gap on sanitation

- **Commission WSAA on a program to establish the gap with the delivery of sanitation services to remote communities**

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Keep in touch at **wsaa.asn.au**
for the publication of the final
report in November 2022.





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