



Microbiological water quality test results for REMS communities: 2012-14; 2018-20; 2020-21, 2021-22 and 2022-23

This table shows test results for key microbiological health indicators in drinking water supplied to Aboriginal communities through the Remote Essential and Municipal Services (REMS) program, being:

- *Escherichia coli* (*E. coli*) (pathogenic), which is the primary indicator of faecal contamination of drinking water supplies;
- *Naegleria* species, which are an indicator for the possible presence of the harmful *Naegleria fowleri* and
- *Naegleria fowleri*.

Our testing regime for the communities listed in this table is as follows:

- monthly microbiological testing of reticulated (tap) water;
- six monthly chemical testing of reticulated water; and
- six monthly chemical and bacteriological testing of groundwater bores (untreated water) and river source for Kalumburu.

We also test for other microbiological organisms and chemical elements to provide further assurance of water quality and this other data is available on request. Chemical test results (for nitrate and uranium) are provided in separate tables.

Water sampling and laboratory analysis is carried out to industry standards for drinking water. Test results are assessed against the Australian Drinking Water Guidelines (ADWG) and advice from the Department of Health (WA). All test results are provided monthly to the Department of Health.

KEY		Microbiological testing															Comments
		(number of samples in which detected)															
Region	Community	Community Size ⁴	 <i>E. coli</i> ¹			 <i>Naegleria species</i> ²					 <i>Naegleria fowleri</i> ³						
			1 July 2012 to 30 June 2014	1 July 2018 to 30 June 2020	1 July 2020 to 30 June 2021	1 July 2021 to 30 June 2022	1 July 2022 to 30 June 2023	1 July 2012 to 30 June 2014	1 July 2018 to 30 June 2020	1 July 2020 to 30 June 2021	1 July 2021 to 30 June 2022	1 July 2022 to 30 June 2023	1 July 2012 to 30 June 2014	1 July 2018 to 30 June 2020	1 July 2020 to 30 June 2021	1 July 2021 to 30 June 2022	1 July 2022 to 30 June 2023
GOLD	Blackstone	Large					3										
GOLD	Cosmo Newberry	Small					2										
GOLD	Jameson	Large					5										
GOLD	Mt Margaret	Small	2	1			1										Reported detection of <i>E. coli</i> December 2018 was a sampling error; sample was discarded as unreliable.
GOLD	Mulga Queen	Small		1				2									<i>E. coli</i> detected July 2019 was less than or equal to 5 cfu/100ml. This level is considered as a possible sample contamination.
GOLD	Patjarr	Small	3	1	1		2	2									
GOLD	Tjirrkarti	Small					1	1	1	1	2	1					<i>E. coli</i> detected in two samples taken from same reticulated water on 9 March 2023, and thus represents 1 detection.

¹ The ADWG guideline is that *E. coli* should not be detected in any 100mL sample of drinking water. Water suppliers are required to take all reasonable actions to meet the guideline. The Guidelines also state that '...in practice, *E. coli* may occasionally be present in drinking water in the absence of any identifiable source of faecal contamination'.

² *Naegleria* species are found in soil and water throughout Australia. The only species harmful to human health is *Naegleria fowleri*. In accord with water industry practice, we test for *Naegleria* as an indicator of the potential presence of *Naegleria fowleri*. When *Naegleria* is detected, we immediately do further specific tests for *Naegleria fowleri*. No samples tested during the reporting periods contained *Naegleria fowleri*.

³ The ADWG set no guideline value for *Naegleria fowleri* but an 'action level' is recommended for drinking water supplies likely to be contaminated. *Naegleria fowleri* is only harmful to human health when it enters the body via the nose.

⁴ Community Size: "Very small" means less than five houses; or less than 30 people; or not permanently occupied.

"Small" means between 5 and 39 houses (indicative population estimate of 30 to 199 people).

"Large" means between 40 and 200 houses (indicative population estimate of more than 200 people).

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(no testing regime during period)

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		(number of samples in which detected)																
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GOLD	Tjukurla	Small					2					2						
GOLD	Tjuntjuntjarra	Small																
GOLD	Warnarn	Large	1				2											
GOLD	Warakurna	Large					4											
GOLD	Warburton	Large	1				3											
GOLD	Wingellina	Large					1											
KIMB	Balgo							2										
KIMB	Bardi																	
KIMB	Bayulu	Large	2															
KIMB	Beagle Bay	Large																
KIMB	Bidyadanga	Large				1												Single instance of <i>E. coli</i> detection during 2022 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
KIMB	Bobieding	V Small		2			1											<i>E. coli</i> detected in two samples taken from same reticulated water on 9 October 2019, and thus represents 1 detection.
KIMB	Bow River	V Small	8		1		5		1									Single instance of <i>E. coli</i> detection during 2021 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
KIMB	Budgarjook	V Small	12				1	1										<i>E. coli</i> detected in two samples taken from same reticulated water on 17 May 2023, and thus represents 1

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																		detection. Detections were less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
KIMB	Burks Park (Burralluba)				1													Single instance of <i>E. coli</i> detection during 2021 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
KIMB	Djarandjin	Large																
KIMB	Djugerari	Small						1										
KIMB	Dodnun	Small	1					3	1									
KIMB	Emu Creek	V Small			2													Both instances of <i>E. coli</i> detection during 2021 were less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
KIMB	Galeru Gorge	V Small						2										
KIMB	Ganinyi	Small																
KIMB	Imintji	Small									1							
KIMB	Jarlmadangah	Small	3					10										
KIMB	Jimbalakadunj	Small	2															
KIMB	Joy Springs	Small																
KIMB	Junjuwa	Town based																
KIMB	Kadjina	Small	1	4				1	5									<i>E. coli</i> detected during 2 years to 2020 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.

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																		Two of the four detections were from samples taken from same reticulated water on 4 June 2019, and thus represent 1 detection.
KIMB	Kalumburu	Large																
KIMB	Kandiwal	V Small	2	2		1	1	4	3	1	1							<i>E. coli</i> detected during 2 years to 2020 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination. The 2 detections were from samples taken from same reticulated water on 8 May 2019, and thus represent 1 detection.
KIMB	Karnparri	Small																
KIMB	Koorabye	Small	10					9	2									
KIMB	Kundat Djaru					1												Single instance of <i>E. coli</i> detection during 2022 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
KIMB	Kupartiya	Small		1					1									<i>E. coli</i> detected during December 2018 was less than or equal to 5 cfu/ 100ml; this level is considered as a Possible sample contamination.
KIMB	Kupungarri	Small																
KIMB	La Djarjarr Bay	V Small	5	1		2	1	3	1									<i>E. coli</i> detected during January 2019 was less than or equal to 5 cfu/100ml; this level is

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																		considered as a possible sample contamination. <i>E. coli</i> detected in two samples taken from same reticulated water on 15 February 2023, and thus represents 1 detection.
KIMB	Lamboogunian	Small					1											
KIMB	Lombadina	Small	5															
KIMB	Looma	Large	2															
KIMB	Looma New						1											
KIMB	Mandangala	Small	5				4											
KIMB	Mindibungu	Large	1				1											
KIMB	Moongardie	Small	3				3											
KIMB	Mud Springs	V Small			1		1											<i>E. coli</i> detected in two samples taken from same reticulated water on 15 December 2022, and thus represents 1 detection.
KIMB	Mulan	Large					1											Single instance of <i>E. coli</i> detection in October 2022 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
KIMB	Muludja	Small																
KIMB	Munthanmar	V Small			1					3	2							Single instance of <i>E. coli</i> detection during 2021 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.

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KIMB	Ngalingkadji	Small						1									
KIMB	Ngallagunda	Small															
KIMB	Ngumpan	Small						4	1								
KIMB	Ngurtuwarta	Small									1						
KIMB	Noonkanbah							4									
KIMB	Pandanus Park	Small						1									
KIMB	Wangkatjunka	Large	2					1									
KIMB	Warmun	Large						3	3								
KIMB	Woolah	Small	2					4									
KIMB	Wurrenranginy	Small					1		6								Single instance of <i>E. coli</i> detection in June 2023 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
KIMB	Yakanarra	Small						2		2	1						
KIMB	Yirralallem	V Small				3											
KIMB	Yiyili	Small	2														
PILB	Cheeditha	Town based															
PILB	Innawonga	Small						3									
PILB	Jigalong	Large	4					2									
PILB	Jinparinya	V Small						1	1								
PILB	Karalundi	Small									1						
PILB	Kiwirrkurra	Small						1									
PILB	Kunawarritji	Small									1						
PILB	Marta Marta	V Small										1					

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PILB	Ngurawaana	Small	2	3	1		1	5	3									<i>E. coli</i> detected in 3 samples during 2 years to 2020. One detection on 7 May 2019 was less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination. The two other detections were from samples taken from same reticulated water on 8 April 2019, and thus represent 1 detection. The single instance of <i>E. coli</i> detection during 2020-21 and 2022-23 were less than or equal to 5 cfu/100ml; this level is considered as a possible sample contamination.
PILB	Parnngurr	Small					1	3			1							
PILB	Punju Ngamal	V Small	1					4	6	1								
PILB	Punmu	Small						2		1		1						<i>Naegleria</i> detected in two samples taken from same reticulated water on 19 September 2022, and thus represents 1 detection.
PILB	Wakathuni	Small	3		1			1										
PILB	Wandanooka (Kardaloo)	V Small						1	1		1							
PILB	Warralong	Small	2						4									
PILB	Yandeyarra	Large				1	1					1						<i>E. coli</i> and <i>Naegleria</i> were both detected in two samples taken from same reticulated water on 13 April 2023, and

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																		thus represents 1 <i>E. coli</i> and 1 <i>Naegleria</i> detection.
PILB	Youngaleena	Small						2										
MIDW	Barrel Well	V Small	1															
MIDW	Burringurrah	Large	3					1										
MIDW	Karalundi	Small																
MIDW	Kutkabubba	V Small			1			2										
MIDW	Pia Wadjari	Small						5										
MIDW	Yulga Jinna	Small	2	1														