



SHIRE OF EAST PILBARA  
NEWMAN AIRPORT  
WATER QUALITY REPORT

October – December 2022

## Contents

WATER PROVIDER INFORMATION .....	2
PERFORMANCE SUMMARY .....	3
MICROBIAL PERFORMANCE.....	4
MICROBIOLOGICAL INCIDENT SPECIFIC INFORMATION.....	5
CHEMICAL – HEALTH RELATED PERFORMANCE.....	6
CHEMICAL - HEALTH.....	7
CHEMICAL – AESTHETIC PERFORMANCE .....	8
CHEMICAL - AESTHETIC.....	8
PLANNED SAMPLE SUMMARY .....	9
GENERAL NOTES/OTHER NEWS .....	9

## WATER PROVIDER INFORMATION

### WATER PROVIDER CONTACT DETAILS

<b>Name Of Company</b>	Shire of East Pilbara		
<b>Company Address</b>	PMB 22, Newman WA 6753		
<b>Company Phone</b>	(08) 9175 8000	<b>Fax</b>	(08) 9175 2668
<b>Company Email</b>	admin@eastpilbara.wa.gov.au		
<b>Chief Executive Officer</b>	Steven Harding		
<b>CEO Email</b>	ceo@eastpilbara.wa.gov.au		
<b>DOH Liaison Officer</b>	Coordinator Environmental Health Services		
<b>DOH Liaison Officer Email</b>	phudson@eastpilbara.wa.gov.au		

Table 1: System Information

Locality						
Zone Name & Number	Number of Consumers	Average Amount of Water Supplied (L/Day)	Sources of Water (% Bore/Surface Catchment)	Treatment Systems	Length of Mains	Number of Sample Points
(1) Newman Airport	10x Residential Tenants 10x Business Tenants 1x RPT Terminal	12,000	Raw water (bore and dewatering water) supplied by BHP WAIO water pipeline	Reverse Osmosis	2.9kms	6

## PERFORMANCE SUMMARY

Table 2: Performance summary overview

<b>Water Quality Meeting The Drinking Water Guidelines/Minister Of Health's Directions</b>			
<b>Microbiological quality</b>	<b>No assessed<sup>1</sup></b>	<b>Zone 1<sup>2</sup> No Within Guidelines</b>	<b>Variance<sup>3</sup></b>
Thermotolerant Coliforms / E. Coli	10	10	0
Amoeba (Thermophilic Naegleria)	10	10	0
<b>Chemical quality<sup>4</sup></b>			
Chemical – Health Related <sup>5</sup>	11	11	0
Chemical – Aesthetic <sup>6</sup>	32	32	0
Radiological	0	0	0

<sup>1</sup> Number of samples taken for the quarter

<sup>2</sup> Table maybe expanded or collapsed according to the number of zones

<sup>3</sup> Number of samples that do not comply with the drinking water guidelines

<sup>4</sup> Chemical performances based on the results of the quarter

<sup>5</sup> Chemical tested with a health guideline value – Refer to small community Sampling Grid

<sup>6</sup> Chemicals without health guideline values

Table 3: MICROBIAL PERFORMANCE

<b>Microbiological Water Quality Exceptions</b>							
<b>Region / Scheme / Zone / Service Provider</b>	<b>Volume Of Water Provided (L/day)</b>	<b>Date</b>	<b>Microbiological Character</b>	<b>Alert Level</b>	<b>Remedial Action</b>	<b>DoH Notified</b>	<b>Close Out Date</b>
1	12,000	NIL	NIL	NIL	NIL	NIL	NIL

## Microbiological Incident Specific Information

### Zone 1

A total of 10 microbiological potable water samples were collected in this quarter of the 2022/23 financial year. Both Thermotolerant Coliforms/*E. Coli* and *Amoeba* (Thermophilic *Naegleria*) results were within the recommended values for all samples collected and tested over this reporting period.

## Microbiological General Information

Micro-organisms (or microbes) are microscopic living organisms, occurring naturally in our environment - in the air, soil and in water bodies. Some are beneficial to life but some can have serious health impacts to humans. Pathogens (pathogenic micro-organisms) are micro-organisms that cause disease or illness. The most common and widespread health risk to people is associated with drinking water contaminated by pathogens.

Organisms associated with faecal matter from humans or other mammals cause several waterborne diseases. It is impossible to test for the presence of all pathogens that may be present in water. The Australian Drinking Water Guidelines recommends testing for the presence of *Escherichia coli* (*E.coli*) as an indicator of faecal pathogen contamination. The Australian Drinking Water Guidelines state that *E.coli* should not be present in a minimum 100mL sample of drinking water.

Thermophilic *Naegleria* refers to a group of common water borne amoebae which includes *Naegleria fowleri*, the organism that causes the serious disease primary amoebic meningoencephalitis (PAM). *Naegleria fowleri* is an environmental pathogen which naturally lives in fresh warm water.

The Shire immediately notifies the Department of Health of any confirmed detection of *E.coli* or Thermophilic *Naegleria* in any microbiological analysis of a drinking water sample.

The "Australian Drinking Water Guidelines" is produced by the National Health and Medical Research Council (NHMRC) and is available from the NHMRC website at

<http://nhmrc.gov.au/about-us/publications/australian-drinking-water-guidelines>

## CHEMICAL – HEALTH RELATED PERFORMANCE

Table 4: Chemical – Health Related – Exception Notifications

<b>Health Related Chemical Water Quality Exceptions</b>							
<b>Region/Scheme/Zone/Service Provider</b>	<b>Volume of Water (L/day)</b>	<b>Date</b>	<b>Health Related Chemical Characteristic</b>	<b>Alert Level</b>	<b>Remedial Action</b>	<b>DoH Notified</b>	<b>Close Out Date</b>
1	12,000	None	None	None	None	None	None

Table 5: Chemical – Health

Zone			
Health Characteristic	No of Analyses	No of Analyses Complying	Maximum Individual Value
Barium	1	1	0.0008 mg/L
Boron	1	1	0.21 mg/L
Cadmium	1	1	<0.0001 mg/L
Copper	1	1	<0.001 mg/L
Lead	1	1	<0.0005 mg/L
Manganese	1	1	0.0011 mg/L
Nickel	1	1	<0.001 mg/L
Nitrate	2	2	0.31 mg/L
Nitrite	2	2	<0.1 mg/L
<b>Total samples taken</b>	<b>11</b>	<b>11</b>	-

*mg/L = milligrams per litre*



## CHEMICAL – AESTHETIC PERFORMANCE

Table 6: Chemical – Aesthetic

Zone			
Aesthetic Characteristic	No of Analyses	No of Analyses Complying	Maximum Individual Value
Alkalinity	2	2	70 mg/L
Aluminium 0.2 mg/L	1	1	<0.01 mg/L
Bicarbonate	1	1	79 mg/L
Calcium	2	2	8.5 mg/L
Carbonate	1	1	<1 mg/L
Chloride 250mg/L	1	1	30 mg/L
Colour TCU	2	2	<1
Electrical Conductivity	2	2	23.7 mS/m
Hardness 200 mg/L	2	2	52 mg/L
Hydroxide	1	1	<1 mg/L
Ionic Balance	1	1	-1.8 %
Iron 0.3 mg/L	1	1	<0.01 mg/L
Magnesium	2	2	7.6 mg/L
pH	2	2	7.9
Potassium	1	1	2.0 mg/L
Silica 80mg/L	1	1	5.7 mg/L
Sodium 180 mg/L	1	1	26.6 mg/L
Sulphate 250 mg/L	1	1	9 mg/L
Total Suspended Solids	2	2	<1 mg/L
TDS 500 mg/L	2	2	120 mg/L
Turbidity 5 NTU	2	2	1.6 NTU
Zinc	1	1	0.58 mg/L
<b>Total samples taken</b>	<b>32</b>	<b>32</b>	-

*mg/L = milligrams per litre*

## PLANNED SAMPLE SUMMARY

Zone	Microbiological			Chemical		
	Planned	Taken	% Taken	Planned	Taken	% Taken
1	15	10	67%	55	43	78%

## GENERAL NOTES/OTHER NEWS

The Shire of East Pilbara has undertaken microbiological sampling of drinking water at the Newman Airport water supply system for many years.

The Shire of East Pilbara commenced chemical sampling of drinking water at the Newman Airport water supply system in November 2021.

Sampling is undertaken on a monthly basis.