



ROTTNEST ISLAND AUTHORITY

**Report to the Economic
Regulatory Authority by the
Rottnest Island Authority
July to September 2008**



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1 Water provider information

Rottnest Island Authority Contact Details	
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1.1 SYSTEM INFORMATION

Rottnest Island Distribution System						
Zone	No. of Consumers / Customers	Average Amount of Water Supplied (L/Day)	Sources of Water (Bore/Catchment)	Treatment System	Length of Mains	No. of Sample Points
1	100	35,445	R.O. / Bore / Catchment	Cl ₂	3*	2
2	320	189,413	R.O. / Bore / Catchment	Cl ₂	17*	4

1.1.1 Catchment Details

The Catchment Area on Rottnest Island is currently not being used for drinking water collection. Also, the groundwater bores have been used during this period due to a production fault at the desalination plant, and a high ratio of water consumption to water production on Rottnest Island for this period.



1.1.2 Distribution System

The Rottnest Island distribution system is relatively small, consisting of approximately 20 km of mains. The distribution system consists of two zones. Zone 1 supplies Geordie and Longreach Bays while Zone 2 supplies the Kingstown Barracks and Thompson Bay areas.

For the purpose of this report Zone 1 consists of sampling points R12/001, R12/002 and R12/007. Zone 2 consists of sampling points R12/003, R12/004, R12/005 and R12/006.



2 Performance summary

Water Quality meeting the Drinking Water Guidelines						
	Zone 1			Zone 2		
Microbiological Quality	No. Assessed	No. Within Guidelines	Variance	No. Assessed	No. Within Guidelines	Variance
Total Coliforms	9	9	0	12	12	0
Thermotolerant Coliforms	7	7	0	10	10	0
Amoeba (Thermophyllic Naegleria)	9	9	0	12	12	0
Chemical Quality						
Chemical - Health related	17	18	0	31	34	0
Chemical - Aesthetic	67	65	2	66	64	2
Radiological	0	0	0	0	0	0



3 Microbial performance – July 2008 - September 2008

3.1 MICROBIOLOGICAL - EXCEPTION NOTIFICATIONS

Microbiological Water Quality Exceptions							
Zone	Population Served	Date	Microbiological Characteristic	MoU Alert Level	Remedial Action	DoH Notified	Close Out Date
No Exceptions							

3.2 MICROBIOLOGICAL - COMPLIANCE BY ZONE (SUMMARY)

Zone	No. of bacterial samples	Total Coliforms		Thermotolerant Coliforms		No. of amoebae samples	Thermophilic Amoebae		Thermophilic Naegleria	
		Failures	%Compliance	Failures	%Compliance		Failures	%Compliance	Failures	%Compliance
1	16	0	100	0	100	9	0	100	0	100
2	22	0	100	0	100	12	0	100	0	100
Total	38	0	100	0	100	21	0	100	0	100

3.3 MICROBIOLOGICAL INCIDENT SPECIFIC INFORMATION

No microbiological incidents occurred between July 2008 and September 2008.

4 Chemical - health related performance

4.1 CHEMICAL – HEALTH RELATED - CHART

Rottneest Island Distribution System			
Aesthetic Characteristic	No. of Analyses	No. of Analyses Complying	% Compliance
NO ₃	6	6	100
NO ₂	6	6	100
F	1	1	100
CN	0	0	100
Cd	3	3	100
Cr	0	0	100
Cu	6	6	100
Zn	6	6	100
Ni	3	3	100
As	0	0	100
Pb	5	5	100
Se	0	0	100
Sb	3	3	100
THMs	9	9	100



4.2 CHEMICAL - HEALTH RELATED - EXCEPTION NOTIFICATIONS

Health Related Water Quality Exceptions							
Zone	Population Served	Date	Health Related Chemical Characteristic	MoU Alert Level	Remedial Action	DoH Notified	Close Out Date
No Exceptions							

4.3 CHEMICAL - HEALTH RELATED

No chemical health related incidents occurred between July 2008 and September 2008.

5 Chemical - aesthetic performance

5.1 CHEMICAL - AESTHETIC - CHART

Rottnest Island Distribution System			
Aesthetic Characteristic	No. of Analyses	No. of Analyses Complying	% Compliance
Al	1	1	100
Cl	63	61	97
Colour	11	11	100
Hardness	1	1	100
Fe	11	11	100
Mn	7	7	100
pH	65	63	97
Na	1	1	100
SO4	1	1	100
NH4	6	6	100
TDS	1	1	100
Turbidity	12	12	100
H2S	6	6	100

5.2 CHEMICAL - AESTHETIC - INCIDENT SPECIFIC INFORMATION

The Chlorine dosing at Tank 4 required manual adjustment and hence 2 readings were slightly exceeded. Two samples for ph slightly exceeded the upper limit at sample point R12/001 and R12/004.

6 Radiological performance

6.1 RADIOLOGICAL - EXCEPTIONS NOTIFICATIONS

Radiological Water Quality Exceptions							
Zone	Population Served	Date	Radiological Characteristic	MoU Alert Level	Remedial Action	DoH Notified	Close Out Date
No Analyses Performed							

6.2 RADIOLOGICAL PERFORMANCE

Rottnest Island Distribution System	
Zone	% Samples Within Range
1	N/A
2	N/A



7 Planned sample summary (July 08 – September 08)

Zone	Microbiological			Chemical			Radiological		
	Planned	Taken	% Taken	Planned	Taken	% Taken	Planned	Taken	% Taken
1	17	17	100	67	67	100	0	0	-
2	31	31	100	66	66	100	0	0	-

7.1 PLANNED SAMPLE EXCEPTION

Planned Sample Exceptions				
Zone	Sampling Point	Date Due	Characteristic	Reason for Missing Sample

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The islands bitumen catchment runoff collection system has been decommissioned pending a review on storage tanks and maintenance requirements. No water from rainfall collection will be used for drinking purposes. Primary source of water is now from desalination and backed up with minimal amounts from fresh groundwater abstraction. Any change to this procedure will be advised in the next report.

Desalination plant is going through an upgrade of main pumps from piston type to centrifugal, this will improve the efficiency and operation of the plant.
