

4. TREATMENT WORKS & SERVICE RESERVOIR PERFORMANCE



Handois Treatment Works

The Company operates two treatment works located at Handois, St Lawrence and Augrés, Trinity. Both treatment works have identical treatment processes; a physio-chemical primary treatment system, which uses aluminium sulphate, followed by dual media rapid gravity filtration using sand and anthracite.

Disinfection is the key to a safe water supply. The use of chlorine in the water industry has been mandatory in England and Wales since 1945 and has resulted in the eradication of diseases which were caused by waterborne pathogens. Disinfection of the water in Jersey is carried out by the use of chlorine and ammonia. This process ensures a residual concentration of chlorine exists in the water throughout the relatively long and radial type distribution system to ensure bacteriological standards are maintained.

The results of analysis of water leaving the treatment works for key quality parameters and their respective Maximum Allowable Concentrations (MAC) are shown in the tables overleaf.



Augrés Treatment Works

4. TREATMENT WORKS & SERVICE RESERVOIR PERFORMANCE CONTINUED

Compliance with Maximum Allowable concentrations (MAC)

Handois WTW

Parameter	Maximum concentration Detected	MAC	% compliance
E Coliform	0 (No.)	0	100
Coliforms	1 (No.)	0	99.9
Cryptosporidium	0 (No.)	1 oocyst in 10 litres	100
Turbidity	0.44 NTU	4.0 NTU	100
Chlorine	0.68 mg/l	*	100

Augrés WTW

Parameter	Maximum concentration Detected	MAC	% compliance
E Coliform	0 (No.)	0	100
Coliforms	0 (No.)	0	100
Cryptosporidium	0 (No.)	1 oocyst in 10 litres	100
Turbidity	0.47 NTU	4.0 NTU	100
Chlorine	0.48 mg/l	*	100

* There is no MAC for Chlorine. The World Health Organisation has a guideline value of 5mg/l.

The Company operates treated water reservoirs at Handois WTW, Augrés WTW and at Westmount Road, above St Helier. These reservoirs are provided to ensure adequate treated water is in-hand to supply our customers at periods of peak daily demand, which are normally 0700 to 0900 and 1700 to 1900 hours.

The bacteriological standards of water in the service reservoirs during 2003 is shown in the following table.

Service Reservoir	Total no of samples taken	MAC E Coli %	E Coli % compliance	MAC Coliforms %	Coliforms % compliance
Handois WTW	1,037	100	100	100	99.9
Augrés WTW	365	100	100	100	100
Westmount	347	100	100	95	100
Total	1,749		100%		100