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**Water Quality Report 2010**

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# 1 Executive Summary

I am pleased to advise that the quality of water we supplied in 2010 was to a very high standard. Overall, the quality of the water we supplied was 99.86% compliant with all the drinking water standards as set out in the Water (Jersey) Law 1972.

The Company supplied 7,220 million litres of drinking water to its customers, which represents an average of 19.8 million litres per day.

During the year, some 18,685 analyses were undertaken to measure the physical, microbiological and chemical parameters within the water we supplied. There were only 3 samples which failed the microbiological parameters and all of the immediate subsequent re-sample analyses that were taken confirmed negative.

The monitoring programme for water quality and the respective parameters analysed during the year were approved by the States of Jersey Planning & Environment department; which is a requirement of the Water (Jersey) Law 1972. The approved programme is broadly in-line with the requirements of the Water Supply (Water Quality) Regulations 2000 for England & Wales.

Since the majority of our water resources are surface derived, Jersey Water has an extensive monitoring programme of streams, intakes, reservoirs and throughout the treatment processes. In addition to laboratory analysis Jersey Water has a number of on-line quality monitoring equipment installed at strategic raw water resource sites and treatment works. This provides real-time information on water quality and is of great assistance to operating staff in both selecting and blending waters to optimise water treatment and provide the highest quality water.

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7,220 million litres of drinking  
water to its customers, which  
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February of 2010 proved to be very wet, with average rainfall 61% above the average. Whilst this is good news for water resources, the timing is not good for increased run off when nitrates are being applied to the ground. Some 23 samples of treated water taken for nitrate were above 50 mg/l, but well below the dispensation maximum of 70 mg/l. The levels of nitrates in the majority of water resources across the Island exceeded the 50 mg/l limit during the early part of 2010 and the situation does not look promising for the start of 2011.

The tables in this report show the results of the treated water monitoring programme carried out during the year and show the maximum, mean and minimum concentration of the particular parameter.

**Howard N Snowden**  
Managing Director & Engineer

## 2 Water Quality

The high standards in water quality are gained by the efforts of everyone throughout the organisation in some way or another.

Our operational staff are responsible for the continuous and uninterrupted operation of plant and equipment to treat the water to a high standard. The distribution staff ensure water is distributed throughout the Island at adequate volumes and pressure to meet the needs of individual customers.

The monitoring team at our laboratory ensure the quality of raw water is suitable for treatment and that the quality of water following treatment and distribution meets the drinking water quality standards.

The water quality laboratory is based in a purpose designed laboratory facility at Millbrook, St Lawrence.

Our Laboratory Manager, David Mayman, is a Chartered Chemist and Member of the Royal Society of Chemistry. He is ably assisted by Ms Sarah Le Sueur and Mrs Nora Treanor. Sampling and analysis of water is a continuous process, resulting in the fact that the laboratory is manned 365 days of the year.

The care and diligence in the taking of treated water samples cannot be understated. Due to the very high standards of microbiological monitoring used, the sterile condition of sampling taps, bottles, together with general hygiene standards are paramount. Skilled, experienced staff take water samples to strict protocols to ensure the water is representative and does not become contaminated during the sampling process.



### 3 Raw Water Quality

Most of the water we supply is derived from surface water resources, with streams feeding directly into, or where outside the natural catchment areas pumped into, our six large storage reservoirs. Some minor volumes of ground water are abstracted from the sand aquifer, which lies at the southern end of St Ouen's Bay.

Jersey Water uses the EU Directive for standards of surface water to be used for drinking water production. This Directive sets out the maximum allowable concentrations for a number of important quality parameters which must be complied with for the specific treatment process.

To enable further information on raw water quality throughout our resources Jersey Water also takes samples of water from streams throughout the Island. This provides useful information and data for comparison, and highlights any pollution or changes in land use that may occur in the particular catchment area.

During 2010 some 4,551 analyses for herbicides and pesticides in the stream courses were undertaken and 23 were above the 0.1 ug/l (drinking water) limit, compared to 30 in 2009.

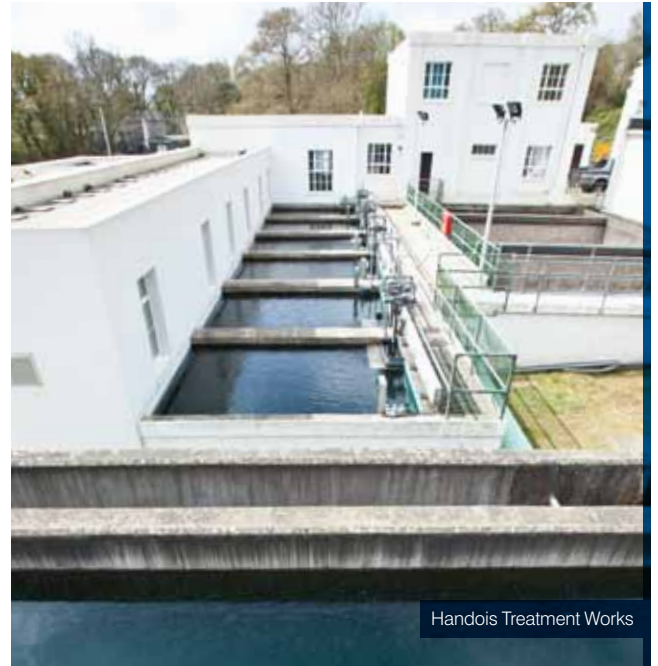
Jersey Water uses the EU Directive for standards of surface water to be used for drinking water production.



## 4 Treatment Works and Service Reservoir Performance

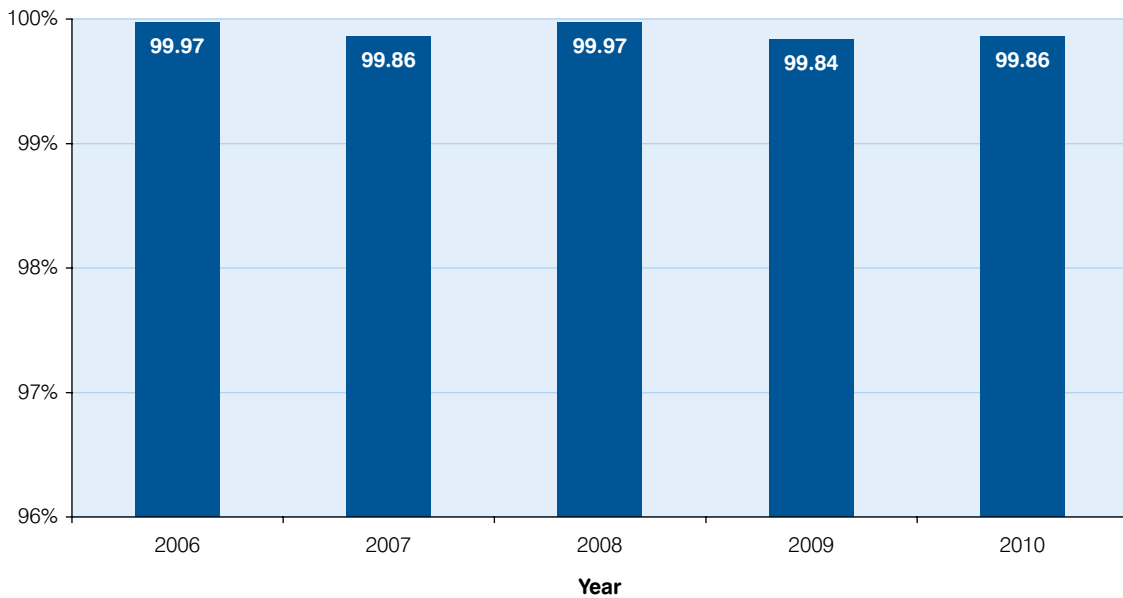
Jersey Water operates two treatment works located at Handois, St Lawrence and Augrès, Trinity. With the majority of water derived from surface water resources, full treatment of the water is required to produce high quality drinking water. A two-stage treatment process is used comprising; chemically assisted clarification, followed by filtration using a combination of sand and anthracite media.

Following treatment, the water is disinfected to ensure any remaining bacteria present in the water are removed before it passes into the supply distribution network and to our customers. The disinfection process is essential to ensure safe drinking water and is widely used in the western world for this purpose. Disinfection is carried out using a combination of chlorine and ammonia, which results in longer retention of chlorine levels in the water as it passes through the distribution network. The quantities of chemicals used in disinfection are infinitesimal, with levels being continuously monitored to ensure they are within acceptable aesthetic levels.



Handois Treatment Works

Percentage Compliance



## 4 Treatment Works and Service Reservoir Performance - continued

The water quality regulations require two types of monitoring to be undertaken, these are designated as “check” and “audit” monitoring. Check monitoring is carried out on a frequent basis to ensure the treatment processes are operating as expected and the water in the distribution system is of an acceptable standard, whereas the audit monitoring is used to investigate the quality of water more thoroughly.

The results of the check monitoring of treated water leaving the treatment works, their respective Maximum Allowable Concentrations and compliance levels are shown in the following tables. The results from the audit monitoring programme can be found in the appendix.

### Check Monitoring: Handois WTW

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
E.coli	0 per 100ml	0	0	0	312	100
Coliform bacteria	0 per 100ml	0	0	1	312	99.7
Colony counts	No abnormal change	No abnormal change			313	100
Nitrite	0.1 mg NO <sub>2</sub> /l	<0.003	0.004	0.009	104	100
Residual disinfectant	No value mg Cl <sub>2</sub> /l	0.44	0.57	0.74	313	
Turbidity	4 NTU	0.08	0.25	0.49	252	100
Clostridium perfringens	0 per 100ml	0	0	0	52	100
Conductivity	2500 µS/cm at 20°C	458	572	630	52	100

### Check Monitoring: Augrès WTW

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
E.coli	0 per 100ml	0	0	0	312	100
Coliform bacteria	0 per 100ml	0	0	0	312	100
Colony counts	No abnormal change	No abnormal change			313	100
Nitrite	0.1 mg NO <sub>2</sub> /l	<0.003	0.003	0.006	104	100
Residual disinfectant	No value mg Cl <sub>2</sub> /l	0.34	0.44	0.54	313	
Turbidity	4 NTU	0.05	0.21	0.56	252	100
Clostridium perfringens	0 per 100ml	0	0	0	52	100
Conductivity	2500 µS/cm at 20°C	539	582	641	52	100

## 4 Treatment Works and Service Reservoir Performance - continued

In order to ensure adequate treated water is available to meet peak demand periods in the morning and evening and exceptional hot summer days, enclosed storage reservoirs are provided within the distribution system. The total storage capacity of the reservoirs is 18 ML, just below the average daily demand of 19.8 ML. There are two service reservoirs which are strategically located on high ground and situated at Westmount Road, St Helier and at Les Platons, Trinity.

The results of the check monitoring of treated water leaving the water storage reservoirs, their respective Maximum Allowable Concentrations and compliance levels are shown in the following tables. The results from the audit monitoring programme can be found in the appendix.

### Check Monitoring: Les Platons Service Reservoir, East Compartment

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
E.coli	0 per 100ml	0	0	0	278 <sup>1</sup>	100
Coliform bacteria	0 per 100ml (95% of samples)	0	0	0	278 <sup>1</sup>	100
Colony counts	No abnormal change	No abnormal change			279 <sup>1</sup>	100
Clostridium perfringens	0 per 100ml	0	0	0	46 <sup>1</sup>	100
Conductivity	2500 $\mu$ S/cm at 20°C	485	574	629	46 <sup>1</sup>	100

### Check Monitoring: Les Platons Service Reservoir, West Compartment

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
E.coli	0 per 100ml	0	0	0	300 <sup>1</sup>	100
Coliform bacteria	0 per 100ml (95% of samples)	0	0	0	300 <sup>1</sup>	100
Colony counts	No abnormal change	No abnormal change			301 <sup>1</sup>	100
Clostridium perfringens	0 per 100ml	0	0	0	50 <sup>1</sup>	100
Conductivity	2500 $\mu$ S/cm at 20°C	482	573	631	50 <sup>1</sup>	100

### Check Monitoring: Westmount Service Reservoir

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
E.coli	0 per 100ml	0	0	0	312	100
Coliform bacteria	0 per 100ml (95% of samples)	0	0	0	312	100
Colony counts	No abnormal change	No abnormal change			313	100
Clostridium perfringens	0 per 100ml	0	0	0	52	100
Conductivity	2500 $\mu$ S/cm at 20°C	531	579	619	52	100

<sup>1</sup> the number of samples taken at Les Platons East and West Service Reservoirs was reduced by them being taken out of service for cleaning.



## 5 Water Quality in the Distribution System

It is very important that the quality of water is maintained as it passes through the distribution network and to ensure this sampling of water is carried out throughout the distribution network in accordance with an approved programme. The analysis of water is carried out to ensure the water maintains its high level of physical, bacteriological and chemical standards.

During 2010, 1462 samples of water were taken and the following tables show the results of the check and audit monitoring programme together with the compliance levels.

### Check Monitoring: Supply Zone

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
E.coli	0 per 100ml	0	0	0	731	100
Coliform bacteria	0 per 100ml	0	0	1	731	99.7
Residual disinfectant	No value mg Cl <sub>2</sub> /l	<0.02	0.12	0.56	631	
Aluminium	200 µg Al/l	<20	<20	66	100	100
Ammonium	0.50 mg NH <sub>4</sub> /l	<0.04	0.05	0.13	100	100
Clostridium perfringens	0 per 100ml	0	0	0	100	100
Colony counts	No abnormal change	No abnormal change			631	100
Colour	20 mg/l Pt/Co	<0.69	2.11	8.82	100	100
Conductivity	2500 µS/cm at 20°C	487	580	638	100	100
Hydrogen ion	10.0 pH value 6.5(min)	7.00	7.37	8.48	100	100
Iron	200 µg Fe/l	<4	16	100	100	100
Manganese	50 µg Mn/l	<2.0	6.2	31.0	100	100
Nitrate <sup>1</sup>	50 mg NO <sub>3</sub> /l	25.1	42.1	56.7	100	77
Nitrite	0.5 mg NO <sub>2</sub> /l	<0.010	0.030	0.213	100	100
Odour	3 at 25°C Dilution number	1	1	1	100	100
Taste	3 at 25°C Dilution number	1	1	3	100	100
Turbidity	4 NTU	0.11	0.21	0.57	100	100

<sup>1</sup>A dispensation for nitrates exists which allows up to 33% of samples to be above 50mg/l but not exceed 70 mg/l

## 5 Water Quality in the Distribution System - continued

### Audit Monitoring: Supply Zone

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
Antimony	5.0 µg Sb/l	0.24	0.31	0.37	12	100
Arsenic	10 µg As/l	0.12	0.42	0.63	12	100
Benzene	1.0 µg/l	<0.07	<0.07	<0.07	12	100
Benzo(a)pyrene	10.0 ng/l	<0.5	<0.5	<0.5	12	100
Boron	1.0 mg B/l	0.060	0.075	0.100	12	100
Cadmium	5.0 µg Cd/l	<0.02	<0.02	0.03	12	100
Chromium	50 µg Cr/l	<0.15	<0.15	0.31	12	100
Copper	2.0 mg Cu/l	<0.003	0.007	0.021	12	100
Cyanide	50 µg CN/l	<1.0	1.7	110	12	100
1,2 dichloroethane	3.0 µg/l	<0.12	<0.12	<0.12	12	100
Enterococci	0 per 100ml	0	0	0	12	100
Fluoride	1.5 mg F/l	0.050	0.056	0.070	12	100
Lead	25 µg Pb/l <sup>1</sup>	<0.5	1.2	14.0	12	100
Mercury	1.0 µg Hg/l	<0.002	<0.002	0.004	12	100
Nickel	20 µg Ni/l	<0.90	0.93	1.40	12	100
Isoproturon <sup>2</sup>	0.1 µg/l	<0.003	<0.003	0.004	12	100
Linuron <sup>2</sup>	0.1 µg/l	<0.004	<0.004	0.008	12	100
Diuron <sup>2</sup>	0.1 µg/l	<0.005	<0.005	0.008	12	100
2,4-D <sup>2</sup>	0.1 µg/l	<0.011	<0.011	0.048	12	100
Mecoprop <sup>2</sup>	0.1 µg/l	<0.010	<0.010	0.011	12	100
Prometryne <sup>2</sup>	0.1 µg/l	<0.002	<0.002	0.003	12	100
Tebuconazole <sup>2</sup>	0.1 µg/l	<0.003	<0.003	0.003	12	100
Glyphosate <sup>2</sup>	0.1 µg/l	<0.014	<0.014	0.039	12	100
Pesticides total	0.5 µg/l	<0.010	0.013	0.048	12	100
Polycyclic aromatic hydrocarbons	0.10 µg/l	<0.010	<0.010	<0.010	12	100
Selenium	10 µg Se/l	<0.2	0.5	1.1	12	100
Sodium	200 mg Na/l	46.3	53.8	60.0	12	100
Trichloroethene and Tetrachloroethene	10 µg/l	<0.1	<0.1	0.16	12	100
Tetrachloromethane	3 µg/l	<0.1	<0.1	<0.1	12	100
Trihalomethanes	100 µg/l	7.78	13.0	18.6	12	100
Chloride	250 mg Cl/l	62.8	66.7	69.4	12	100
Sulphate	250 mg SO <sub>4</sub> <sup>2-</sup> /l	87.3	100.2	113.0	12	100
Total Organic Carbon	No abnormal change	1.55	1.87	2.35	12	100
Tritium	100 Bq/l	<10.0	<10.0	<10.0	12	100
Gross alpha	0.1 Bq/l	<0.024	<0.024	0.025	12	100
Gross beta	1.0 Bq/l	0.16	0.19	0.22	12	100

<sup>1</sup> The value of 25 µg Pb/l is valid until immediately before 25th December 2013, reducing to 10 µg Pb/l on and after 25th December 2013.

<sup>2</sup> Detected pesticide – 81 other pesticides analysed for and not detected.

## 6 Water Quality Complaints

During the year 76 complaints from customers relating to water quality were received. Every reported complaint is investigated and samples of water are taken. Where possible an on-the-spot assessment of the customer's complaint is undertaken and action taken to rectify the problem. Samples of water taken from customers taps are, where appropriate, given a full physical, bacteriological and chemical analysis and the results are sent to the customer, with a narrative explaining the results. The following table shows a breakdown of the type of complaint or query received and the analytical compliance level.

Most water quality complaints are due to discoloured water, resulting from old corroded steel or cast iron pipes. Many water quality issues, which are influenced by private plumbing and pipe work systems which are old or in poor internal condition are not within the control of Jersey Water. Whilst Jersey Water is not responsible for replacing these pipes, we do provide assistance in advising on the most effective solutions.



Type of query	No
Discoloured water	61
Taste/Odour	8
Air in supply	3
Illness	4
<b>Total</b>	<b>76</b>

During the year 1,276 m of treated water mains were replaced with pipe work made of modern lined materials.

The programme of replacing or re-lining old pipes and service connections within the distribution system continues and unfortunately these works require the water supply to be disrupted, which may cause discolouration of water for very small periods. During the year 1,276 m of treated water mains were replaced with pipe work made of modern lined materials, while 1,441 m of mains which were prone to giving rust problems but were otherwise sound, were relined with an epoxy resin. These works require a great deal of planning and customers are always advised in advance of the planned works, which results in improvements to the infrastructure supplying them with water and we are grateful for their cooperation.

The Planning & Environment department are responsible for the administration of the Water (Jersey) Law 1972 and their officers make quarterly inspections of analytical results of samples derived from customer water quality complaints.

## 7 New and Replacement Water Mains

The process of replacing and laying new water mains involves disinfection of the pipes before the infrastructure is deemed safe for operation. All such infrastructure is disinfected, flushed and sampled before being brought into service. The sampling programme is rigorous and requires three samples to be taken, each sample taken at least 24 hours apart, with all three samples being subject to a full physical and bacteriological analysis to ensure the pipes are sterile and fit for service. Before any new water mains are brought into service they are signed off by the Laboratory Manager and Managing Director.

During the year 1.7 km of new water mains were laid and 2.7 km of water mains were replaced or relined, requiring 116 water samples to be taken and analysed.



## 8 Appendices

### Appendix A

#### Audit Monitoring: Handois TW

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
Benzene	1.0 µg/l	<0.07	<0.07	<0.07	10	100
Boron	1.0 mg B/l	0.060	0.080	0.100	10	100
Bromate	10 µg BrO <sub>3</sub> /l	<0.2	<0.2	<0.2	10	100
Cyanide	50 µg CN/l	<1	<1	4.0	10	100
1,2 dichloroethane	3.0 µg/l	<0.12	<0.12	<0.12	10	100
Fluoride	1.5 mg F/l	<0.05	0.055	0.070	10	100
Mercury	1.0 µg Hg/l	<0.002	<0.002	0.004	10	100
Isoproturon <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.008	35	100
Linuron <sup>1</sup>	0.1 µg/l	<0.004	<0.004	0.010	35	100
Diuron <sup>1</sup>	0.1 µg/l	<0.005	<0.005	0.007	35	100
2,4-D <sup>1</sup>	0.1 µg/l	<0.011	<0.011	0.031	35	100
Mecoprop <sup>1</sup>	0.1 µg/l	<0.010	<0.010	0.019	35	100
2,4,5-T <sup>1</sup>	0.1 µg/l	<0.015	<0.015	0.024	35	100
Bentazone <sup>1</sup>	0.1 µg/l	<0.008	<0.008	0.008	35	100
Atrazine <sup>1</sup>	0.1 µg/l	<0.002	<0.002	0.003	35	100
Prometryne <sup>1</sup>	0.1 µg/l	<0.002	<0.002	0.002	35	100
Terbutryn <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.005	35	100
Pesticides total	0.5 µg/l	<0.010	<0.010	0.042	35	100
Trichloroethene and Tetrachloroethene	10 µg/l	<0.1	<0.1	<0.1	10	100
Tetrachloromethane	3 µg/l	<0.07	<0.07	<0.07	10	100
Chloride	250 mg Cl/l	61.9	67.1	71.1	10	100
Sulphate	250 mg SO <sub>4</sub> /l	87.0	101.3	125.0	10	100
Total Organic Carbon	No abnormal change	1.50	2.02	2.51	10	100
Tritium	100 Bq/l	<10.0	<10.0	<10.0	10	100
Gross alpha <sup>2</sup>	0.1 Bq/l	<0.03	<0.03	0.039	10	100
Gross beta <sup>2</sup>	1.0 Bq/l	0.13	0.18	0.22	10	100

<sup>1</sup> Detected pesticide - 78 other pesticides analysed for and not detected.

## 8 Appendices - continued

### Appendix B

#### Audit Monitoring: Augrés TW

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
Benzene	1.0 µg/l	<0.06	<0.06	<0.06	10	100
Boron	1.0 mg B/l	0.041	0.078	0.100	10	100
Bromate	10 µg BrO <sub>3</sub> /l	<0.2	<0.2	0.9	10	100
Cyanide	50 µg CN/l	<1	4.0	36.0	10	100
1,2 dichloroethane	3.0 µg/l	<0.12	<0.12	<0.12	10	100
Fluoride	1.5 mg F/l	<0.05	<0.05	0.090	10	100
Mercury	1.0 µg Hg/l	<0.002	<0.002	0.003	10	100
Isoproturon <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.008	35	100
Linuron <sup>1</sup>	0.1 µg/l	<0.004	<0.004	0.014	35	100
Diuron <sup>1</sup>	0.1 µg/l	<0.005	<0.005	0.010	35	100
M.C.P.B. <sup>1</sup>	0.1 µg/l	<0.011	<0.011	0.013	35	100
2,4-D <sup>1</sup>	0.1 µg/l	<0.011	0.013	0.061	35	100
Terbutryne <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.003	35	100
Propiconazole <sup>1</sup>	0.1 µg/l	<0.004	<0.004	0.004	35	100
Tebuconazole <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.006	35	100
Pesticides total	0.5 µg/l	<0.010	0.017	0.061	35	100
Trichloroethene and Tetrachloroethene	10 µg/l	<0.1	<0.1	0.17	10	100
Tetrachloromethane	3 µg/l	<0.1	<0.1	<0.1	10	100
Chloride	250 mg Cl/l	59.7	64.5	72.9	10	100
Sulphate	250 mg SO <sub>4</sub> /l	100.0	105.2	110.0	10	100
Total Organic Carbon	No abnormal change	1.50	1.97	2.74	10	100
Tritium	100 Bq/l	<10.0	<10.0	<10.0	10	100
Gross alpha <sup>2</sup>	0.1 Bq/l	<0.03	<0.03	<0.03	10	100
Gross beta <sup>2</sup>	1.0 Bq/l	<0.02	0.17	0.23	10	100

<sup>1</sup> Detected pesticide - 80 other pesticides analysed for and not detected.

## 8 Appendices - continued

### Appendix C

#### Audit Monitoring: Les Platons Service Reservoir, East Compartment

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
Benzene	1.0 µg/l	<0.06	<0.06	<0.06	10	100
Boron	1.0 mg B/l	0.060	0.072	0.100	10	100
Bromate	10 µg BrO <sub>3</sub> /l	<1.0	<1.0	<1.0	10	100
Cyanide	50 µg CN/l	<1.0	<1.0	2.0	10	100
1,2 dichloroethane	3.0 µg/l	<0.1	<0.1	<0.1	10	100
Fluoride	1.5 mg F/l	0.040	0.056	0.070	10	100
Mercury	1.0 µg Hg/l	<0.002	<0.002	0.003	10	100
Linuron <sup>1</sup>	0.1 µg/l	<0.004	<0.004	0.008	10	100
Diuron <sup>1</sup>	0.1 µg/l	<0.005	<0.005	0.007	10	100
Prometryne <sup>1</sup>	0.1 µg/l	<0.002	<0.002	0.002	10	100
Propiconazole <sup>1</sup>	0.1 µg/l	<0.004	<0.004	0.004	10	100
Tebuconazole <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.004	10	100
Propetamphos <sup>1</sup>	0.1 µg/l	<0.005	<0.005	0.022	10	100
Pesticides total	0.5 µg/l	<0.010	0.010	0.027	10	100
Trichloroethene and Tetrachloroethene	10 µg/l	<0.1	<0.1	<0.1	10	100
Tetrachloromethane	3 µg/l	<0.1	<0.1	0.1	10	100
Chloride	250 mg Cl/l	56.0	66.3	70.8	10	100
Sulphate	250 mg SO <sub>4</sub> /l	82.9	100.7	117.0	10	100
Total Organic Carbon	No abnormal change	1.50	1.84	2.61	10	100
Tritium	100 Bq/l	<10.0	<10.0	<10.0	10	100
Gross alpha <sup>2</sup>	0.1 Bq/l	<0.03	<0.03	0.033	10	100
Gross beta <sup>2</sup>	1.0 Bq/l	0.15	0.18	0.22	10	100

<sup>1</sup> Detected pesticide - 82 other pesticides analysed for and not detected.

## 8 Appendices - continued

### Appendix D

#### Audit Monitoring: Les Platons Service Reservoir, West Compartment

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
Benzene	1.0 µg/l	<0.06	<0.06	<0.06	10	100
Boron	1.0 mg B/l	0.054	0.073	0.100	10	100
Bromate	10 µg BrO <sub>3</sub> /l	<0.2	<0.2	0.2	10	100
Cyanide	50 µg CN/l	<1	3.1	24.0	10	100
1,2 dichloroethane	3.0 µg/l	<0.12	<0.12	<0.12	10	100
Fluoride	1.5 mg F/l	0.050	0.058	0.060	10	100
Mercury	1.0 µg Hg/l	<0.002	<0.002	0.009	10	100
Linuron <sup>1</sup>	0.1 µg/l	<0.004	<0.004	0.010	10	100
Diuron <sup>1</sup>	0.1 µg/l	<0.005	<0.005	0.012	10	100
2,4-D <sup>1</sup>	0.1 µg/l	<0.011	<0.011	0.019	10	100
Mecoprop <sup>1</sup>	0.1 µg/l	<0.010	<0.010	0.012	10	100
Atrazine <sup>1</sup>	0.1 µg/l	<0.002	<0.002	0.002	10	100
Prometryne <sup>1</sup>	0.1 µg/l	<0.002	<0.002	0.002	10	100
Terbutryne <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.004	10	100
Tebuconazole <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.004	10	100
Pesticides total	0.5 µg/l	<0.010	0.010	0.030	10	100
Trichloroethene and Tetrachloroethene	10 µg/l	<0.1	<0.1	<0.1	10	100
Tetrachloromethane	3 µg/l	<0.1	<0.1	<0.1	10	100
Chloride	250 mg Cl/l	57.8	66.2	70.9	10	100
Sulphate	250 mg SO <sub>4</sub> /l	80.7	99.1	114.0	10	100
Total Organic Carbon	No abnormal change	1.51	2.06	3.46	10	100
Tritium	100 Bq/l	<10.0	<10.0	<10.0	10	100
Gross alpha <sup>2</sup>	0.1 Bq/l	<0.03	<0.03	0.030	10	100
Gross beta <sup>2</sup>	1.0 Bq/l	<0.02	0.17	0.23	10	100

<sup>1</sup> Detected pesticide - 80 other pesticides analysed for and not detected.



## 8 Appendices - continued

### Appendix E

#### Audit Monitoring: Westmount Service Reservoir

Substances and parameters	Specific concentration or value (maximum) or state	Min	Mean	Max	No. of samples	% compliance
Benzene	1.0 µg/l	<0.06	<0.06	<0.06	10	100
Boron	1.0 mg B/l	0.055	0.077	0.100	10	100
Bromate	10 µg BrO <sub>3</sub> /l	<1.0	<1.0	<1.0	10	100
Cyanide	50 µg CN/l	<1	2.0	11.0	10	100
1,2 dichloroethane	3.0 µg/l	<0.1	<0.1	<0.1	10	100
Fluoride	1.5 mg F/l	0.050	0.051	0.060	10	100
Mercury	1.0 µg Hg/l	<0.002	<0.002	0.003	10	100
Linuron <sup>1</sup>	0.1 µg/l	<0.004	<0.004	0.006	10	100
Diuron <sup>1</sup>	0.1 µg/l	<0.005	<0.005	0.008	10	100
Pentachlorophenol <sup>1</sup>	0.1 µg/l	<0.009	<0.009	0.025	10	100
2,4-D <sup>1</sup>	0.1 µg/l	<0.011	<0.011	0.045	10	100
Prometryne <sup>1</sup>	0.1 µg/l	<0.002	<0.002	0.003	10	100
Terbutryne <sup>1</sup>	0.1 µg/l	<0.003	<0.003	0.005	10	100
Propiconazole <sup>1</sup>	0.1 µg/l	<0.004	<0.004	0.004	10	100
Pesticides total	0.5 µg/l	<0.010	0.016	0.049	10	100
Trichloroethene and Tetrachloroethene	10 µg/l	<0.1	<0.1	<0.1	10	100
Tetrachloromethane	3 µg/l	<0.1	<0.1	<0.1	10	100
Chloride	250 mg Cl/l	62.5	65.0	68.5	10	100
Sulphate	250 mg SO <sub>4</sub> /l	93.8	102.5	110.0	10	100
Total Organic Carbon	No abnormal change	1.59	1.83	2.21	10	100
Tritium	100 Bq/l	<10.0	<10.0	<10.0	10	100
Gross alpha <sup>2</sup>	0.1 Bq/l	<0.03	<0.03	<0.03	10	100
Gross beta <sup>2</sup>	1.0 Bq/l	<0.02	0.17	0.34	10	100

<sup>1</sup> Detected pesticide - 81 other pesticides analysed for and not detected.



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Jersey Water is the trading name of  
The Jersey New Waterworks Company Limited.