Guernsey Water
Quality Report
2024

Guernsey Water

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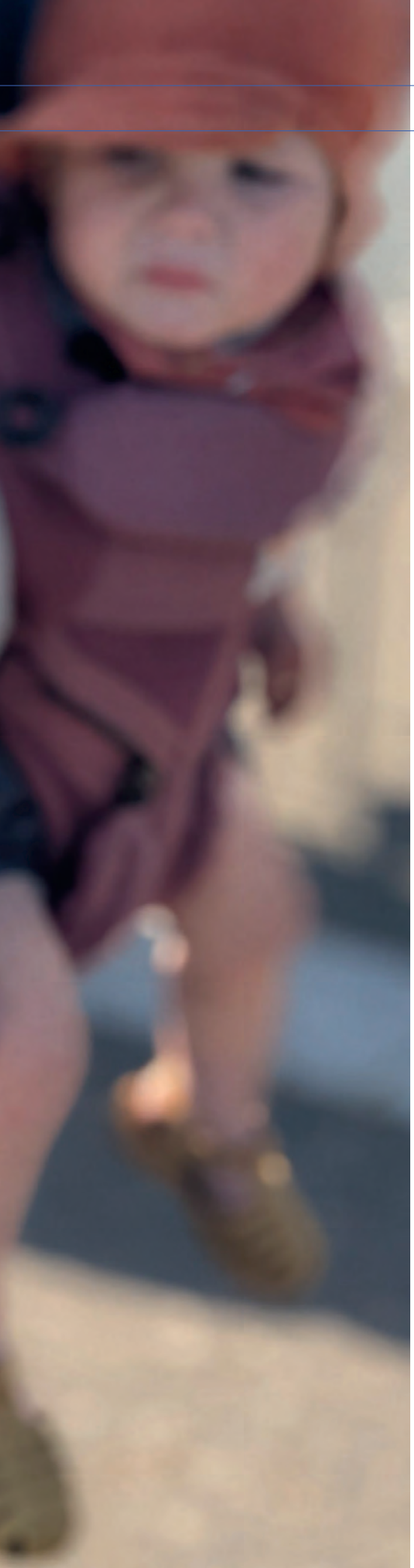
Guernsey Water's Liberation Monument refill station in use



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We continue to demonstrate high levels of compliance versus the Regulations,with 2024's result of 99.95% a slight improvement on the 99.93% compliance achieved in 2023.

An aerial view of St Andrew's reservoir and the Brickfield House offices

Foreword

In 2024, Guernsey Water provided 4,395 megalitres of drinking water as treated at our three Water Treatment Works. This water was then stored at our four Treated Water Service Reservoirs and conveyed by over 420km of potable water main pipes to our customers within the Distribution Zones.

We test water quality at each of these stages and perform over 26,000 laboratory analyses each year, with around 6,000 of these total analyses used to assess compliance against water quality Regulations and the remaining coming under our operational monitoring of catchment areas and treatment processes.

We continue to demonstrate high levels of compliance versus the Regulations, with 2024's result of 99.95% a slight improvement on the 99.93% compliance achieved in 2023. This report details the results of those analyses.

Introduction

Safe drinking water plays a vital role in protecting public health and the wellbeing of our island. Therefore maintaining a sufficient and resilient supply of high quality drinking water is Guernsey Water's highest priority. Addressing this priority forms a key part of our business plan and the day-to-day considerations of all our colleagues.

Guernsey law requires that water we produce is "wholesome" but makes no specific reference to acceptable limits or sampling frequency. To demonstrate the quality of our water we test it against the standards outlined within the Water Supply (Water Quality) Regulations 2018, as is standard for any water company operating in England and Wales. The Regulations set strict health-based limits that water must meet to be considered wholesome. Our performance against these standards is overseen by the Director of Environmental Health and Pollution Regulation in their role as shadow drinking water quality regulator, which was assigned by the States of Guernsey in 2012.

In total our partner laboratories completed over 26,000 analyses of samples collected in 2024 to meet our compliance and operational monitoring sampling programmes of drinking water from source to tap.

In addition to sampling, our expert teams utilise visual observations, subjective testing and specialist continuous monitoring equipment to ensure we can see, understand and optimise our critical processes 24 hours a day, every day.

"Maintaining performance and improving water quality for the long-term is a key consideration at Guernsey Water. With the impacts of climate change on drought and water quality likely to be significant, and stricter guidelines around substances such as PFAS we will need to develop new treatment solutions.

The water quality data we collect is invaluable in informing how we work today and what our capital programme should address in regards to upcoming risks."

Daffyd Griffiths, Water Quality Risk Manager.

Drinking Water Compliance

In 2024 a total of 6,177 tests of drinking water were performed on treated water samples collected by our Water Quality team for our treatment works, service reservoirs and customers' taps for assessment against the Water Quality Regulations. These samples were tested by accredited laboratory methods, with 99.95% of samples achieving compliance with UK and European Standards.

Tables 1-11 (pages 18 to 23) detail the results of our analyses for each parameter.

Water Treatment Works

We collect 'raw' untreated water from the island's streams and store it in 14 raw water reservoirs such as St Saviours Reservoir. Our three water treatment works use clarification, filtration and disinfection processes to turn stored raw water into treated, potable water which is safe for human consumption.

Compliance for samples at water treatment works was 99.98%, with only a single test from 4,908 exceeding the specification. This exceedance was for a single coliform bacterium at our Juas WTW. All investigatory resamples were satisfactory; root cause analysis did not highlight any issues with the treatment process.

	St Saviours	Kings Mills	Juas	Total
Breaches	0	0	1	1
Passes	917	2073	1917	4907
Tests	917	2073	1918	4908
% Compliance	100%	100%	99.95	99.98%

Case Study: St Saviours WTW Refurbishment

Work underway in one of the St Saviour's Water Treatment Works rapid gravity filters

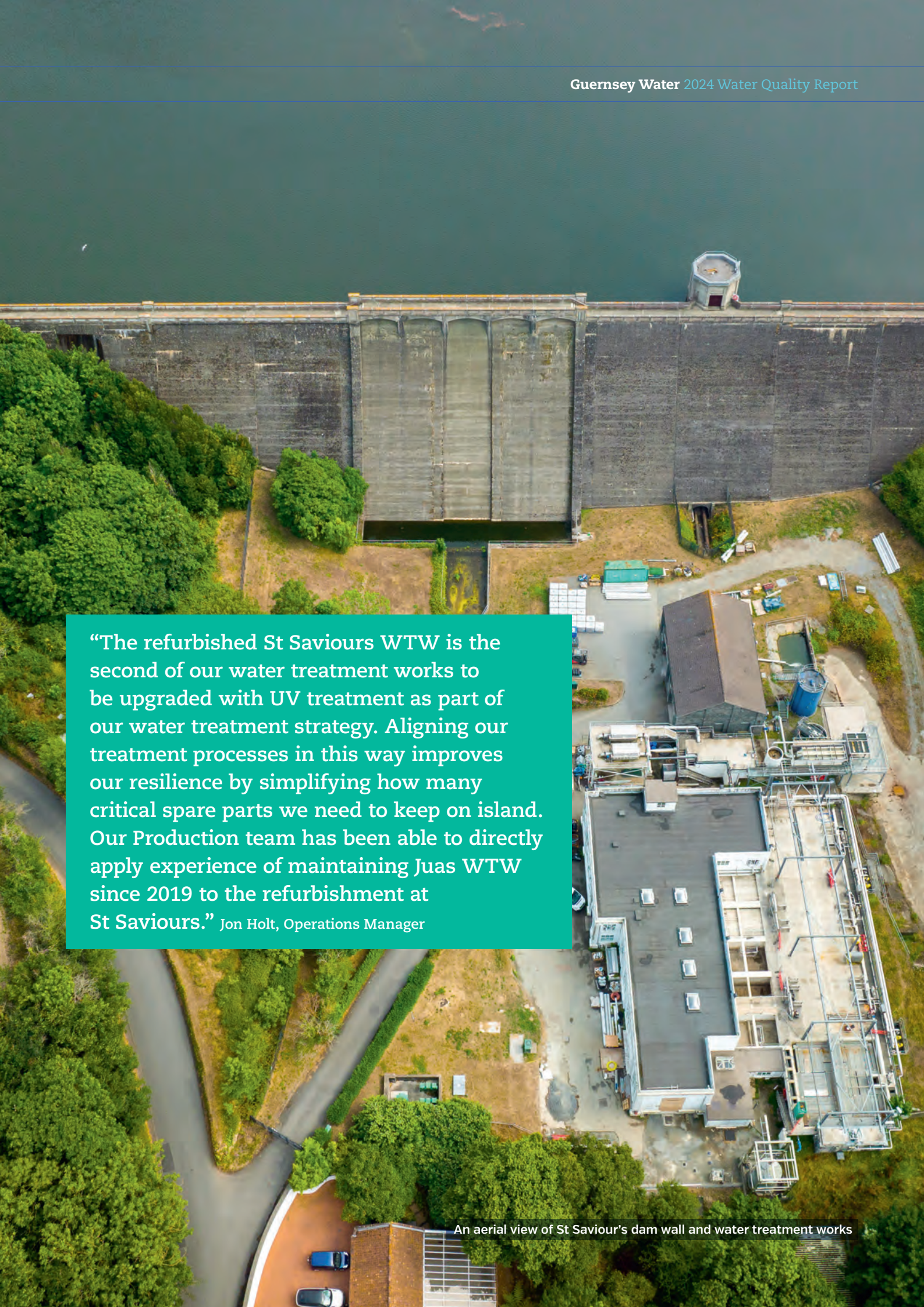
December 2024 marked the completion of our refurbishment of St Saviours Water Treatment Works, enhancing its capability to produce a sufficient supply of wholesome drinking water for years to come.

The refurbishment returned the treatment processes from membrane filtration, to conventional clarification and filtration as the membranes and associated assets had reached the end of their useable lifespan. Much of the civil infrastructure was already in place having been originally constructed in the 1940s. The addition of ultraviolet disinfection brings the treatment process into the 21st Century to ensure water quality meets modern day standards.

Work on site commenced in 2022 and was completed in December 2024, with much of the work completed in house by our Production Maintenance team. The project was far from simple; the water treatment works was required each summer to meet higher demand for potable water, meaning work was completed in several phases of construction during the winter months.

The intended benefits of the project are threefold:

1. Improved reliability by replacing end-of-life mechanical and electrical equipment and serviceability by aligning treatment processes with our Juas and Kings Mills water treatment works;
2. Operational efficiencies realised by saving on electrical, chemical and labour costs versus membrane filtration technology;
3. Improved water quality by using UV disinfection, limiting the formation of disinfection byproducts.



"The refurbished St Saviours WTW is the second of our water treatment works to be upgraded with UV treatment as part of our water treatment strategy. Aligning our treatment processes in this way improves our resilience by simplifying how many critical spare parts we need to keep on island. Our Production team has been able to directly apply experience of maintaining Juas WTW since 2019 to the refurbishment at St Saviours." Jon Holt, Operations Manager

An aerial view of St Saviour's dam wall and water treatment works

Forest Road water tower

Treated Water Service Reservoirs

Service reservoirs are tanks of treated water which provide a buffer against varying rates of water usage, ensuring that supply is not lost during busy mornings and allowing us time to increase production during hot weather. Water stored within service reservoirs is booster chlorinated to ensure it arrives at customer taps with a small disinfectant residual to ensure it remains wholesome.

Compliance for samples collected from service reservoirs was 99.48%, with two tests from 386 exceeding the specification. See table below.

A single sample from Forest Road West Tank exceeded the standard for coliform bacteria and E. Coli. Investigatory resamples did not identify any further exceedances, however the tank was immediately removed from supply and inspected as a precaution. As Shadow Regulator, the Director of Environmental Health and Pollution Regulation was kept up-to-date with the decision making process.

The tank was drained and an internal inspection identified ingress, after which the tank remained out of supply until remedial work to replace the tank's roof membrane was completed. This example emphasises the value of our ongoing water quality testing which enables us to understand the condition of our assets and react to eliminate any risk to water quality as soon as possible.

	Forest Rd East	Forest Rd West	Forest Rd Tower	Frie Plaidy	Total
Breaches	0	2	0	0	2
Passes	98	90	98	98	384
Tests	98	92	98	98	386
% Compliance	100%	97.83%	100%	100%	99.48%

Case Study: Forest Road West Tank

Work to replace the roof membrane on Forest Road West Tank was completed in the first half of 2025 by local contractor Geomarine, with design and specification handled by our in-house Project Engineers in close partnership with the specialist membrane manufacturer and water industry experts. The project was completed at a cost of approximately £1.1million.

The West Tank is our largest Treated Water Service Reservoir with a volume of 13 megalitres (million litres). Work involved scabbling the surface of the roof to bare concrete, over-banding construction joints and relaying a new waterproof membrane over the top of the whole structure, which has an area of around 3,000m2 (about half the size of Wembley football pitch).

> "Working with local contractor Geomarine on this project has acted as a positive proof of concept for future work included within our strategic investment plan by developing critical skills and experience. The scope of work was significant on such a large asset and we were delighted to deliver it within the timeframe we achieved." Carl Falla, Capital Delivery Manager

Shots inside the Forest Road service reservoir west tank

An aerial view of Forest Road service reservoirs East and West tanks

Ring main installation on Route de L'Eglise, Castel

Guernsey Water Pressure Zones

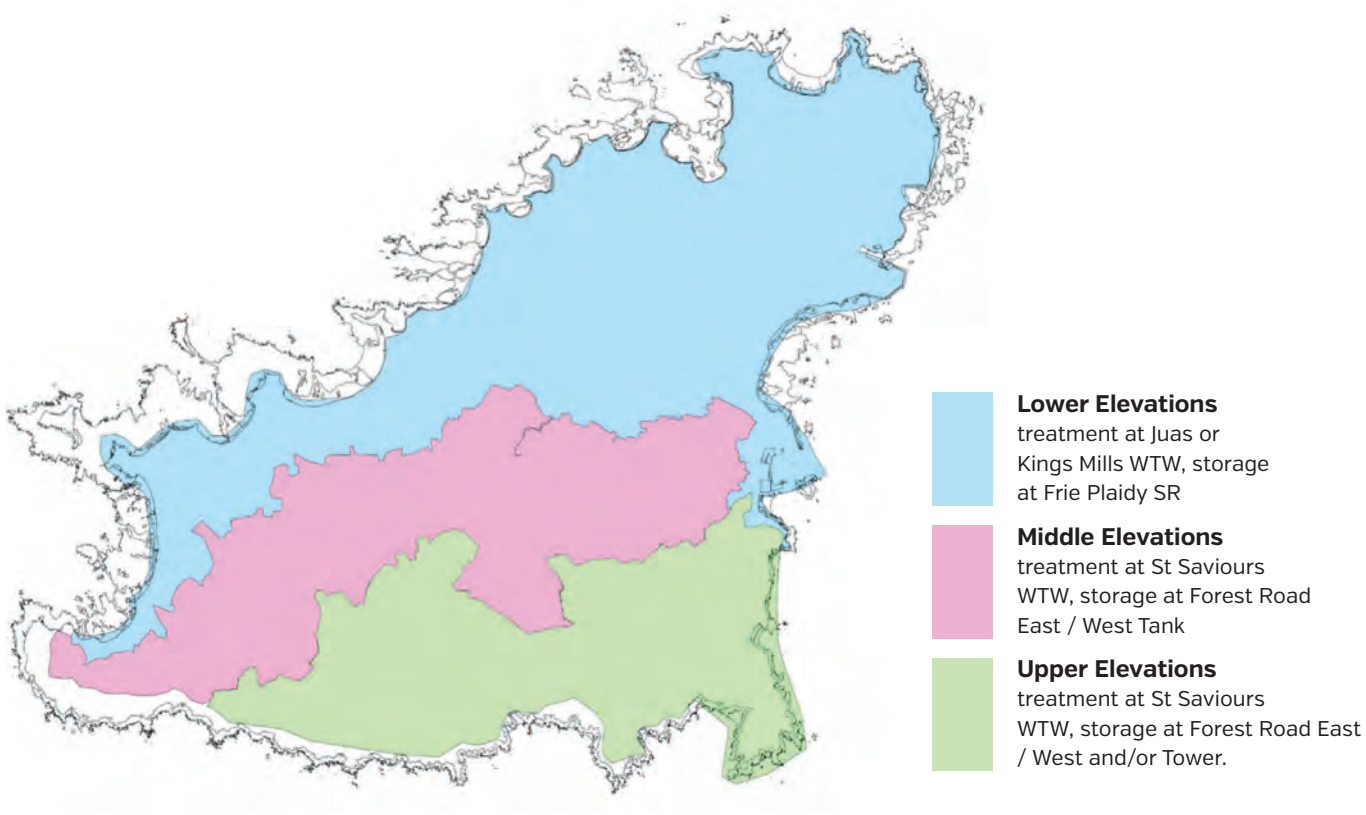


Figure 1 Pressure zones group supplies within the distribution zone based on their elevation.

In 2024 we replaced or re-lined over 3.5km of water mains and started construction on an upsized Potable Water Ring Main, needed to meet the demand of projected population growth and development for decades to come. The project is expected to be completed in 5-7 years and cost around £11million.

- ✔ **3.5km of existing water mains renewed**
- ✔ **154m of new water mains laid**
- ✔ **Phase 1 of Ring Main completed**

Distribution Zones

Over 400km of water pipes distribute water from our treatment works and service reservoirs to our customers' properties. The route that water takes to a given location in the distribution zone varies based on our specific pumping and treatment arrangements, but broadly speaking follows the three pressure zones which are defined by elevation (Figure 1).

A total of 151 randomly selected customer taps were sampled to test water in our distribution zones, with 100% of the 886 tests performed on these samples compliant with regulations.

To ensure our customers receive a sufficient supply of the best possible water to their homes for years to come, and that we continue to maintain high compliance with Regulations in the Distribution Zones, we renew our water mains on a rolling programme.

	Distribution Zone
Breaches	0
Passes	886
Tests	886
% Compliance	100%

Operational Monitoring

In addition to our treated water compliance sampling, a further ~19,000 tests were performed on samples of raw and treated water ranging from streams within catchments to our water refill units as part of our monitoring sampling programme.

Tables 12-14 (pages 22 to 23) detail the results of our analyses for key parameters.

Water quality testing at the KGV Refill Station

Water Refill Units

Our 8 water refill stations are situated in prime recreational areas around the island to provide drinking water free of charge and reduce plastic waste from single use water bottles.

During 2024 the refill units provided over 11,900 litres of water saving an estimated 23,000 standard sized water bottles.

DON'T SPRAY
THERE'S A BETTER WAY

EVEN SMALL AMOUNTS OF PESTICIDES, INCLUDING WEEDKILLER, CAN AFFECT OUR WATER SUPPLY AND DAMAGE ECOSYSTEMS

TOXIC TO WILDLIFE
Pesticides don't just kill the weeds and insects you don't want, but impact on the wider ecosystem too, killing beneficial insects and disrupting food chains.

CAUSES WATER SHORTAGES
On average we're unable to collect 250 million litres of water annually as a result of contamination from pesticides. As temperatures rise due to climate change, this adds extra pressure to our water resources and could result in water restrictions.

SPRAY TODAY, PAY TOMORROW
Continued use of pesticides, inc. weedkillers, may result in the need for additional and expensive water treatment systems which will have an impact on customer bills.

WHAT CAN YOU DO INSTEAD?

PREVENTION
Apply weed barriers in the form of mulch or wood chips. This will also help stop your plants from drying out and therefore reduce your need for watering.

ECO-FRIENDLY SOLUTIONS
Vinegar solutions can help fight off garden pests. Boiling water will tackle most weeds or invest in a weed torch to scorch them away.

DIY
Hand weeding is a great way to get familiar with your garden and get some exercise too.

DO YOUR BIT TO PROTECT GUERNSEY'S PRECIOUS WATER RESOURCE & ENVIRONMENT. VISIT: WATER.GG

GuernseyWater

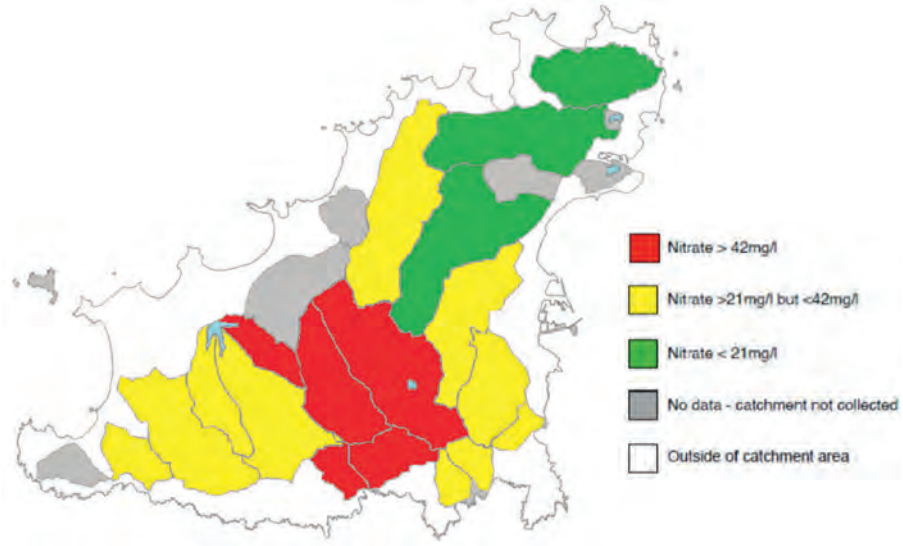
#PESTICIDEFREEGUERNSEY

Catchment Investigation

Our routine monitoring of 18 streams enables us to select the best sources for treatment, minimising risk and improving cost efficiency of treatment processes.

In 2024 we performed over 15,000 tests on streams and stored waters to ensure that we can manage levels of substances such as nitrates, pesticides and PFAS compounds in the water we collect for treatment.

We engage with catchment stakeholders ranging from farmers to airport operations as part of pollution prevention audits in which we promote minimisation and best practice when using pesticides, fertilisers or other potential pollutants.



Around 70% of our total analyses are for wide groups of parameters such as pesticides and PFAS. The results of these analyses are key considerations in determining whether raw water is safe to collect for treatment.

✔ **Checking for 128 different pesticides in our routine monitoring**

✔ **Checking for 48 different PFAS compounds**

Nitrates

The 2024 nitrate loadings have been evaluated to produce a nitrate map, showing the 95th percentile level of nitrates in each catchment area. The results show a slight increase in the 95%ile nitrate loading in the southern catchments when compared to 2023, however the average nitrate loadings (listed in Table 14) did not see an equivalent increase suggesting that wet weather conditions may have influenced our maximum sample results.

The Environmental Pollution (Water Pollution) Ordinance 2022 permitted discharge level for nitrate is set at 42mg/L (as NO3) – this value has been set to ensure that nitrate loadings decrease over time. The nitrate drinking water limit as prescribed in The Water Supply (Water Quality) Regulations 2018 (as amended) is 50mg/L.

Pesticides

The regulatory standard for pesticides in drinking water is very stringent, with anything more than 100ng/L (nanograms per litre or parts per trillion) considered an exceedance for any individual pesticide, and 500ng/L for the sum of all pesticides.

Pesticides are removed at varying efficiencies by our treatment processes, therefore the most effective way to reduce levels in treated water is to closely monitor streams and reduce pesticide levels in our stored raw water. In 2024 we retained 100% compliance with the Water Quality Regulations for pesticides in treated water.

Guernsey Water actively engages with stakeholders in the catchment to manage the impact of human activity on our island's water resources. Working with partners such as the Pollinator Project and Guernsey Waste, Guernsey Water takes an active role in promoting the reduction, correct usage and disposal of pesticide products by running media campaigns (figure 2).

When our monitoring detects a pesticide in the catchment at a concerning level we liaise closely with the Office of Environmental Health and Pollution Regulation, who have legal powers under the Environmental Pollution (Water Pollution) Ordinance 2022, to investigate the source of pollution and reach a resolution.

Figure 2 #PesticideFreeGuernsey media campaign to raise awareness of pesticide risk to the water supply and encourage alternative methods.

Case Study: Glyphosate

In 2021 we were forced to stop collecting water from the Vale Pond catchment for several months due to excessive glyphosate contamination, with our peak detected result >10µg/L (over 100 times the permissible level in drinking water). This catchment continues to be an unreliable source of water. Being unable to collect water in this way is necessary to protect public health but reduces our ability to recharge our reservoirs and hampers our drought resilience, increasing the likelihood that water usage restrictions might be required.

Following multiple communications initiatives and a ban on the domestic use of glyphosate in Guernsey from the start of 2023 we have observed a drop in its average levels in our catchment areas, with the trend more apparent in the more densely populated northern catchments (Figure 3).

Average Glyphosate Concentration – North vs South Catchments

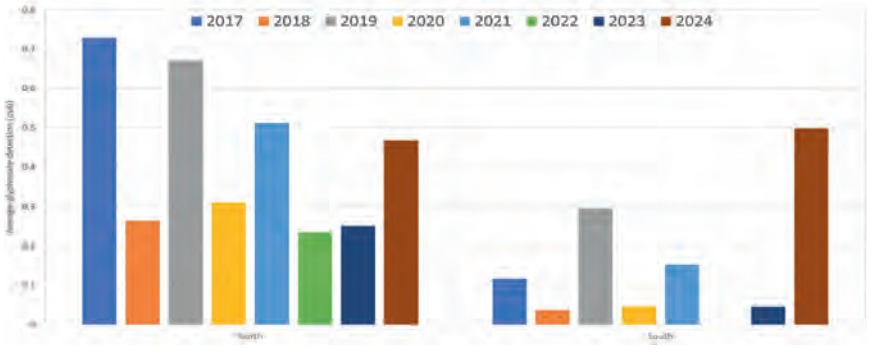


Figure 3 Average glyphosate concentrations detected from streams in the North and South raw water zones. Note: no samples were taken from the South during 2022 due to staff shortages

2024's data shows an increase in average glyphosate in both raw water collection areas. The average was skewed by some significant detections in samples collected following the first rainfall after the fair weather Liberation Day bank holiday, emphasising the consequences of spraying pesticides in the days prior to rainfall.

PFAS

Global understanding of risks associated with PFAS compounds, a group of over 5000 chemicals characterised by a strong carbon-fluorine chemical bond, has continued to grow. PFAS are persistent and ubiquitous in the environment and can be found in household products from cosmetics to textiles and historically in industrial applications such as firefighting foams.

Drinking water regulators are continuing to adapt to evolving toxicological understanding and improving analytical capability and this has resulted in a tightening of regulations in recent years, with further developments expected in the coming years. Guernsey Water follows guidance published by the Drinking Water Inspectorate of England and Wales as best practice. Our water is currently and has always remained compliant with the limits applied to PFAS in drinking water.

Guernsey Water has regularly monitored levels of two key PFAS substances (PFOS and PFOA) since 2007 and has installed its own assets and collaborated with other States of Guernsey departments to introduce innovative PFAS management solutions in known polluted catchment areas. In combination with selective collection and blending of sources, we have been able to remain compliant with the Regulations as the permissible levels have reduced over time.

Since 2022, the Drinking Water Inspectorate has expanded the scope of its guidance to apply to 48 named PFAS compounds and their sum total, with a new 3-tiered approach of risk assessment to determine required actions at each level.

Guernsey Water has adapted its monitoring sampling in line with DWI's guidance and analysis has demonstrated that treated water

remains wholesome, falling into Tier 2 of the assessment criteria. In 2024 our treated water contained between 0.049 and 0.070µg/L of total PFAS; up to 51% lower than the Tier 3 trigger level for wholesomeness. The guidance indicates that we should take steps to further reduce the concentration of named PFAS in treated water and we are in the process of assessing the most appropriate treatment solutions to achieve this reduction.

Stream divert at Beau Vallee, allowing water from this catchment to bypass St Saviours Reservoir when pollution is present. This structure allows us to mitigate against PFAS, pesticides or any other potential contaminants from the Airport runway.

The Beau Vallee Stream Divert

Water quality testing at a customer's home

Customer Enquiries

Our continuous oversight of treatment and distribution processes and extensive compliance and monitoring sampling programmes mean that we can proactively prevent most water quality issues, however there are some situations in which customers contact us to enquire about their water quality.

Customers can make a water quality enquiry by the following means:

- Phone: 01481 229500
- Online: **www.water.gg/contactus**
- Email: **customer.service@water.gg**

When a customer enquiry is received our Water Quality team respond to provide advice, investigate or resolve the issue.

Guernsey Water categorises water quality related customer contacts in line with Drinking Water Inspectorate guidance. We received 124 customer contacts relating to water quality in 2024 and they were classified as below:

A – Water quality information enquiries

A1 Fluoride	A2 Water Hardness	A3 Water Quality Report	A4 Other
0	3	0	7

B – Water quality appearance enquiries

B1 Discolouration (black / brown / orange)	B2 Discolouration (blue / green)	B3 Particles	B4 White (air)	B5 White (chalk)	B6 Animacules	B7 General
6	0	5	0	1	0	2

C – Water quality taste and odour enquiries

C1 Chlorine	C2 Earthy / Musty	C3 Petrol / Diesel	C4 Other
7	67	1	7

D – Contacts about illness

D1 Gastroenteritis	D2 Oral	D3 Skin	D4 Medical Opinion
3	1	0	0

E – Water quality concern

A1 Fluoride	A2 Water Hardness	A3 Water Quality Report	A4 Other
0	3	0	7

The most common enquiry was regarding taste and odour, with 49 of these attributed to category C2 – Earthy / Musty and being made during the summer months coinciding with algal blooms in our raw water reservoirs.

While the taste compounds are harmless we work hard to minimise the impacts of any algal blooms on the taste of our water by blending or changing the source water at our treatment works and undertaking algal control measures to reduce algal growth at source.

Results of Water Quality Testing

Abbreviation	Term	Definition
-	Parameter	The item or substance being tested for.
PCV	Prescribed concentration or value	The maximum value or range of acceptable values for a given parameter within the Regulations.
mg/L	Milligrams per litre	Equivalent to parts per million
µg/L	Micrograms per litre	Equivalent to parts per billion
ng/L	Nanograms per litre	Equivalent to parts per trillion
Min	Minimum	The smallest or lowest detectable result.
-	Mean	The average value of all detectable results.
Max	Maximum	The largest or highest detectable result.
<	Less than	Prefixes a number where the result is less than the Limit of Detection for the analytical method
>	Greater than	Prefixed a number where the result is greater than the Limit of Detection for the analytical method
µS/cm	microSiemens per centimeter	Unit of measurement for quantifying electrical conductivity of water
NTU	Nephelometric Turbidity Unit	Unit of measurement for quantifying turbidity, the clarity of water
MPN	Most Probable Number	A statistical estimate of the number of bacteria detected in a sample
CFU	Colony-Forming Units	A count of the number of colonies of bacteria grown from a sample
Bq/L	Becquerel per litre	Unit of measurement for quantifying radioactivity

Table 1: Quality of water leaving treatment works – Directive requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of WTWs with failures
Nitrite	0.1 mg NO2/l	12	0	<0.02	<0.03	0
TOTAL	-	**12**	**0**	-	-	-

Table 2: Quality of water leaving treatment works – National requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of WTWs with failures
Coliform Bacteria	0 MPN/100ml	534	1	0	1	1
E. coli	0 MPN/100ml	534	0	0	0	0
Cryptosporidium	oocysts <1 in 10 litres	3	0	<0.00378	<0.01149	0
TOTAL	-	**1071**	**1**	-	-	-

Table 3: Quality of water leaving treatment works – Additional monitoring requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum
Colony Counts After 3 Days At 22°C	No abnormal change	531	0	0	12
Turbidity	1 NTU	531	0	0.02	0.88
TOTAL	-	**1062**	**0**	-	-

Table 4: Quality of water leaving service reservoirs – National requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of reservoirs failing standard
Coliform Bacteria	0 MPN/100ml	193	1	0	10	1
E. coli	0 MPN/100ml	193	1	0	2	1
TOTAL	-	**386**	**2**	-	-	-

Table 5: Quality of water leaving service reservoirs – National requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of reservoirs failing standard
Colony Counts After 3 Days At 22°C	No abnormal change	193	0	0	14	1
Colony Counts After 48 Hours At 37°C	No abnormal change	193	0	0	4	1
Residual Disinfectant – Free	No abnormal change	466	0	0.01	0.40	
Residual Disinfectant – Total	No abnormal change	465	0	0.06	0.75	
TOTAL	-	**1317**	**0**	-	-	-

Table 6a: Quality of water leaving bulk supply points – European requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of reservoirs failing standard
1,2 Dichloroethane	3 µg/L	8	0	<0.15	<0.16	0
Benzene	1 µg/L	8	0	<0.06	<0.06	0
Boron	1 mg B/L	8	0	77	86	0
Bromate	10 µg Br03/L	8	0	0.10	0.50	0
Cyanide	50 µg CN/L	19	0	<1.2	<1.2	0
Fluoride	1.5 mg F/L	8	0	<0.10	<10	0
Mercury	1 µg Hg/L	19	0	<0.04	<0.06	0
Tetrachloroethene / Trichloroethene	10 µg/L	8	0	0	0	0
TOTAL	-	**86**	**0**	-	-	-

Table 6b: Quality of water leaving bulk supply points – European requirements (pesticides)

Parameter	PCV	Count of times detected	Tests Exceeding Specification	Minimum	Maximum
2,4-D	0.1 µg/L	0	0	<0.01	<0.011
Atrazine		0	0	<0.006	<0.006
Atrazine Desethyl		0	0	<0.005	<0.005
Atrazine Desisopropyl		0	0	<0.009	<0.009
Bentazone		4	0	<0.004	0.01
Bromoxynil		0	0	<0.007	<0.01
Carbendazim		1	0	<0.005	0.008
Chloridazon		-	-	-	-
Chlorpyriphos Ethyl		0	0	<0.008	<0.008
Clopyralid		8	0	<0.011	0.035
Cyanazine		0	0	<0.007	<0.007
Dicamba		0	0	<0.011	<0.012
Diflufenican		0	0	<0.009	<0.0090
Diuron		0	0	<0.009	<0.009
Endrin		-	-	-	-
Fenpropimorph		0	0	<0.010	<0.010
Fluroxypyr		0	0	<0.008	<0.011
Glyphosate		0	0	<0.005	<0.005
MCPA		2	0	<0.003	0.011
MCPP (Mecoprop)		0	0	<0.009	<0.010
Methabenzthiazuron		0	0	<0.006	<0.006
Metoxuron		0	0	<0.006	<0.006
Pendimethalin		0	0	<0.009	<0.009
Propazine		0	0	<0.005	<0.005
Propiconazole		0	0	<0.009	<0.009
Simazine		0	0	<0.005	<0.005
Tebuconazole		0	0	<0.006	<0.006
Terbuthylazine		0	0	<0.005	<0.005
Terbutryn		5	0	<0.004	0.007
Triclopyr		1	0	<0.016	0.019
Aldrin	0.03 µg/L	0	0	<0.008	<0.008
Dieldrin		0	0	<0.009	<0.009
Heptachlor		0	0	<0.005	<0.005
Heptachlor epoxide		0	0	<0.007	<0.007
Pesticides – Total Substances	0.5 µg/L	12	0	0.006	0.04
Total	-	**33**	**0**	-	-

Table 7: Quality of water leaving bulk supply points – National requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of supply points failing standard
Tetrachloromethane	3 µg/L	8	0	<0.15	<0.16	0
TOTAL	**-**	**8**	**0**	**-**	**-**	**-**

Table 8: Quality of water leaving bulk supply points – Additional monitoring requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of supply points failing standard
Chloride	250 mg Cl/L	8	0	80	93	0
Clostridium Perfringens	0 CFU /100ml	11	0	0	0	0
Conductivity	2500 µS/cm	112	0	474	584	0
Radioactivity - Gross Alpha	0.1 Bq/L	0	-	-	-	-
Radioactivity - Gross Beta	1 Bq/L	0	-	-	-	-
Radioactivity - Tritium	100 Bq/L	3	0	<5	<5	0
Sulphate	250 mg SO4/L	8	0	49	56	0
Total Organic Carbon (TOC)	No abnormal change	112	0	1.50	3.2	0
TOTAL	**-**	**254**	**0**	**-**	**-**	**-**

Table 9: Quality of water at consumer's tap (zones) – European requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of supply points failing standard
Antimony	5 µg Sb/L	8	0	0.470	1.010	0
Arsenic	10 µg As/L	8	0	0.25	0.60	0
Benzo(a)pyrene	0.01 µg/L	8	0	<0.00042	<0.00042	0
Cadmium	5 µg Cd/L	8	0	<0.03	<0.03	0
Chromium	50 µg Cr/L	7	0	0.22	0.30	0
Copper	2000 µg Cu/L	8	0	<10	820	0
E. Coli	0 number/100ml	151	0	0	0	0
Enterococci	0 number/100ml	151	0	0	0	0
Lead	10 µg Pb/L	8	0	0.27	2.66	0
Nickel	20 µg Ni/L	8	0	1.18	4.07	0
Nitrate	50 mg NO3/L	8	0	12	21.5	0
Nitrite	0.5 mg NO2/L	8	0	<0.03	<0.03	0
Polycyclic aromatic hydrocarbons (PAHs)	0.1 µg/L	8	0	0	0	0
Selenium	10 µg Se/L	8	0	0	0.95	0
Trihalomethanes (THMs)	100 µg/L	8	0	2	83.50	0
TOTAL	**-**	**405**	**0**	**-**	**-**	**-**

Table 10: Quality of water at consumer's tap (zones) – National requirements

Parameter	PCV	Tests	Tests Exceeding Specification	Minimum	Maximum	No. of zones with failures
Aluminium	200 µg Al/L	46	0	13	62	0
Colour	20 mg/L Pt/Co scale	49	0	<5	<5	0
pH	6.5 - 9.5 pH value	49	0	6.89	7.59	0
Iron	200 µg Fe/L	49	0	<10	42	0
Manganese	50 µg Mn/L	49	0	<10	<20	0
Organoleptic Odour	3 at 25°C dilution number	49	0	0	1	0
Organoleptic Taste	3 at 25°C dilution number	49	0	0	0	0
Sodium	200 mg Na/L	8	0	52	31	0
Turbidity	4 NTU	49	0	0.10	0.31	0
TOTAL	-	**397**	**0**	-	-	-

Table 11: Quality of water at consumer's tap (zones) – Additional Monitoring Requirements

Indicator Parameter	Units of Measure	Total number of tests	Minimum	Maximum	Maximum
Ammonium	0.5 mg NH4/L	49	0	<0.01	0.07
Coliform Bacteria	0 number / 100ml	151	0	0	0
Colony Counts after 72 hours at 22°C	No abnormal change	48	0	0	68
Conductivity	2500 µS/cm	49	0	482	556
pH	6.5 - 9.5 pH value	49	0	6.89	7.59
Residual Disinfectant – Free	No abnormal change	151	0	<0.01	0.45
Residual Disinfectant – Total	No abnormal change	151	0	0.01	0.53
TOTAL	-	**648**	**0**	-	-

Table 12: Quality of water in Island streams – Monitoring

Parameter	Units of Measure	Total number of tests	Minimum	Maximum
Conductivity	µS/cm	203	156	1064
Nitrate	mg NO3/L	203	0.04	63.4
Ammonia	mg NH4/L	203	<0.01	0.55
Phosphate	mg P/L	199	<0.02	1.40
Total Organic Carbon (TOC)	mg C/L	203	0.60	27.10
Coliforms	number / 100ml	199	80	>1000000
E.Coli	number / 100ml	199	40	>100000
Enterococci	number / 100ml	199	0	>100000
TOTAL	-	**1608**	-	-

Table 13: Quality of stored water in quarries and reservoirs – Monitoring

Indicator Parameter	Units of Measure	Total number of tests	Minimum	Maximum
pH	pH value	81	6.81	9.51
Conductivity	µS/cm	82	463	662
Tot.Oxid.Nitrogen	mg NO3/L	82	0.02	29.10
Ammonium	mg NH4/L	81	0.01	1.90
Nitrite	mg NO2/L	71	0.020	2.90
Chloride	mg Cl/L	82	63	97
Colforms	number / 100ml	76	0	>10000
E. Coli	number / 100ml	75	0	27000
Enterococci	number / 100ml	72	0	>1000
Total Organic Carbon (TOC)	mg C/L	82	1.9	17
TOTAL	-	**784**	-	-

Table 14: Quality of water in Island streams – Nitrate

Catchment Area	Nitrate (mg/L)Total number of tests		
	5%ile	Mean	95%ile
Beau Vallee	12.7	21.6	27.5
Charroterie	13.1	22.3	27.9
Choffins	14.0	36.8	48.6
Douit du Moulin	13.1	25.9	33.7
Fauxquets	28.7	50.2	61.9
Fermain	21.8	31.1	41.5
Les Clercs	15.5	22.6	28.1
Marais Stream	6.2	11.6	16.7
Mare De Carteret	13.7	19.8	29.0
Moulin Huet	15.6	25.7	30.6
Padins	16.6	28.7	38.7
Petit Bot	15.8	29.3	50.6
Saints	19.3	26.4	31.9
Talbots	26.6	36.5	49.5
Vale Pond	2.3	5.1	7.5
Vielle Marais	1.3	4.1	7.1
Vrangue	12.1	20.0	23.7

GuernseyWater

PO Box 30
Brickfield House
St. Andrew
Guernsey GY1 3AS

T: +44 (0) 1481 229500
E: customer.service@water.gg

water.gg