8. SUPPORTING INFORMATION

Water Performance Tables

Table 7 Summary of SW assets 2023.

Asset Type	Number
Water Abstraction Point	662
Length of Water Mains (km)	49,111
Service Reservoirs	956
Water Supply Zones	278
Water Treatment Works	226

Table 8 Summary of water quality at WTW.

Parameter	Prescribed Concentration or Value (PCV)	No. of tests	No. of tests failing	% of tests failing	No. of works failing
Coliform Bacteria	0 number/100ml	25,967	26	0.10%	22
Colony Counts After 3 Days At 22°C	No abnormal change	25,933	N/A	N/A	N/A
Cryptosporidium oocysts (per 10L)	N/A - no regulatory standard	5,745	8	0.14%	7
E. coli	0 number/100ml	25,969	1	0.00%	1
Nitrite	0.1mg NO_2/l	3,294	0	0.00%	0
Residual Disinfectant - Free	N/A - no regulatory standard	26,060	N/A	N/A	N/A
Residual Disinfectant - Total	N/A - no regulatory standard	26,060	N/A	N/A	N/A
Turbidity	1NTU	7,023	3	0.04%	2

Table 9 Summary of water quality at storage points.

Parameter	Prescribed Concentration or Value (PCV)	No. of tests	No. of tests failing	% of tests failing	N of SRs with sample failures	No. of SR failing
Coliform Bacteria	0 number/100ml	48,153	70	0.15%	57	2
Colony Counts After 3 Days At 22°C	No abnormal change	48,192	N/A	N/A	N/A	N/A
E. coli	0 number/100ml	48,157	2	0.00%	2	0
Residual Disinfectant - Free	N/A - no regulatory standard	48,263	N/A	N/A	N/A	N/A
Residual Disinfectant - Total	N/A - no regulatory standard	48,254	N/A	N/A	N/A	N/A

Table 10 Water quality at consumers' taps.

Parameter	Total No. of Samples	No. Failed Samples	No. Zones with Failures	% Compliance in 2023	% Compliance in 2022	% Compliance in 2021
Key Parameters						
Bacteria						
Coliform Bacteria	14,983	38	33	99.75%	99.74%	99.83%
E. coli	14,983	4	4	99.97%	99.97%	99.99%
Enterococci	4,906	1	1	99.98%	100.00%	99.86%
Clostridium perfringens	4,906	1	1	99.98%	99.98%	99.94%
Total bacteria	39,778	44	39	99.89%	99.88%	99.91%
Metals						
Aluminium	4,831	3	3	99.94%	99.98%	99.96%
Copper	585	0	0	100.00%	99.93%	100.00%
Iron	4,831	22	18	99.54%	99.44%	99.58%
Lead	585	2	2	99.66%	99.48%	99.73%
Manganese	4,831	10	7	99.79%	99.67%	99.37%
Nickel	585	0	0	100.00%	99.93%	99.25%
Total metals	16,248	37	30	99.77%	99.72%	99.61%
Other key parameters						
Colour	4,906	0	0	100.00%	100.00%	100.00%
Hydrogen ion (pH)	4,906	1	1	99.98%	99.94%	99.96%
Nitrite	2,000	4	3	99.80%	99.93%	99.96%
Odour	4,906	9	8	99.82%	99.85%	100.00%
Radon	63	0	0	100.00%	N/A	100.00%
Taste	4,907	3	2	99.94%	99.92%	100.00%

Total Trihalomethanes	586	0	0	100.00%	99.93%	99.86%
Turbidity	4,906	3	3	99.94%	100.00%	100.00%
Total Other key parameters	27,180	20	17	99.59%	99.94%	99.98%
Other Parameters						
1,2 Dichloroethane	586	0	0	100.00%	100.00%	100.00%
All Other Individual Pesticides	1,564	0	0	100.00%	100.00%	100.00%
Ammonium	2,000	0	0	100.00%	100.00%	100.00%
Antimony	585	0	0	100.00%	100.00%	100.00%
Arsenic	585	0	0	100.00%	100.00%	100.00%
Benzene	586	0	0	100.00%	100.00%	100.00%
Benzo 3,4 Pyrene	579	0	0	100.00%	100.00%	100.00%
Bisphenol A	588	0	0	100.00%	N/A	N/A
Boron	585	0	0	100.00%	100.00%	100.00%
Bromate	585	0	0	100.00%	100.00%	100.00%
Cadmium	585	0	0	100.00%	100.00%	100.00%
Chlorate	585	23	22	99.53%	N/A	N/A
Chloride	4,907	0	0	100.00%	100.00%	100.00%
Chlorite	585	0	0	100.00%	N/A	N/A
Chromium	585	0	0	100.00%	100.00%	100.00%
Conductivity	4906	0	0	100.00%	100.00%	100.00%
Cyanide	585	0	0	100.00%	100.00%	100.00%
Fluoride	584	0	0	100.00%	100.00%	100.00%
Haloacetic Acids (Sum of 5 HAA)	576	10	8	98.26%	N/A	N/A
Mercury	585	0	0	100.00%	100.00%	100.00%

Microcystin -LR	584	0	0	100.00%	NA	N/A
Nitrate	584	0	0	100.00%	100.00%	100.00%
Nitrite/Nitrate formula	584	0	0	100.00%	100.00%	100.00%
PAH - Sum of 4 Substances	579	0	0	100.00%	100.00%	100.00%
Pesticides - Total Substances	391	0	0	100.00%	100.00%	100.00%
Selenium	585	0	0	100.00%	100.00%	100.00%
Sodium	585	0	0	100.00%	100.00%	100.00%
Sulphate	585	0	0	100.00%	100.00%	100.00%
Sum of PFAS	1,290	0	0	100.00%	N/A	N/A
Tetrachloroethene/ Trichloroethene	585	0	0	100.00%	N/A	100.00%
Tetrachloromethane	585	0	0	100.00%	100.00%	100.00%
Uranium	585	0	0	100.00%	N/A	N/A
Total other parameters	30,248	33	30	99.89%	100.00%	100.00%
Scotland Total	**113,454**	**134**	**81**	99.88%	99.91%	99.92%

Table 11 Water quality consumer contacts received by Scottish Water.

Contact Category	Number of Contacts					% Change on 2022
	2023	2022	2021	2020	2019	
Appearance						
Discoloured Water	**11,437**	12,251	17,887	12,989	6,623	-7%
Aerated (Milky) Water	**1,532**	1,563	1,662	1,660	882	-2%
Particles in Water	**487**	469	543	553	365	4%
Organisms in Water	**39**	32	30	40	33	22%
Taste and Odour						
Chlorine	**693**	522	731	985	578	33%
Metallic	**426**	347	602	356	358	23%
Solvent/Fuel Taste/Smell	**32**	13	14	31	21	146%
Musty/Earthy	**946**	725	1,058	621	639	30%
TCP/Chemical Taste/Smell	**608**	381	505	525	302	60%
Other contact about Water Quality						
Illness due to Water	**352**	315	733	286	240	12%
Other Contact	**0**	0	5	96	617	0%
Total Contacts about Water Quality	**16,552**	**16,618**	23,770	18,142	10,124	-0.4%

SUMMARY OF EVENTS AND INCIDENTS 2023

Table 12 Classification of incidents.

	Not Significant or Minor	Significant	Serious	Major	Incident Total
Total	**892**	**23**	**5**	**1**	**29**

Table 13 Summary of 2023 incidents

Month	Area	Class	Pop Affected	Site Name	Hazard	Root Cause
Jan	East	Serious	41, 792	Spynie WSZ	Taste/ Odour	Flow Disturbance (Scottish Water)
Jan	West	Serious	554,081	Balmore WTW	pH	Incorrect Dose Settings
Feb	East	Significant	97,440	Lintrathen WTW	Aluminium	Coagulant Aid Failure
Feb	East	Significant	189,520	Clatto WTW	Aluminium	Coagulation Process
Feb	East	Significant	23,461	Mannofield East RSZ	Discolouration	Burst Main
Feb	West	Serious	217	Strathyre WTW	Microbiology	Incorrect Dose Settings
Mar	West	Significant	114,427	Camphill (Gorbals Pumping Station)	pH	Control Failure
Apr	North	Significant	600	Tomich WTW	Taste/ Odour	Dosing Pump Failure

May	North	Significant	35,700	Assynt WTW	Aluminium	pH Adjustment Batch Fail
Jun	North	Significant	2,053	Ullapool WTW	pH	Control Failure
Jun	North	Significant	333	Ballygrant WTW	Cryptosporidium	Membrane Integrity Lost
Jun	South	Significant	5,412	Winterhope WTW	Pesticides	Inadequate Treatment
Jul	East	Serious	294,159	Invercannie WTW	Taste/Odour	Inadequate Treatment
Jul	South	Significant	7,949	Glengap WTW	pH	pH Adjustment Batch Fail
Jul	East	Significant	1,694	Forehill RSZ	Discolouration	Burst Main
Aug	South	Significant	7,949	Glengap WTW	Aluminium	Dosing Line Blockage
Aug	West	Significant	10,175	Amlaird Milngavie Gorbals RSZ	Colour	Burst Main
Aug	East	Significant	6,410	Turriff RSZ	Discolouration	Burst Main
Sept	East	Significant	97,440	Lintrathen WTW	Turbidity	Coagulant Dosing Pump Failure
Sept	West	Serious	38,125	Muirdykes RSZ	Manganese & Iron	Flow Disturbance (Scottish Water)

Sept	North	Major	1,004	Benbecula WTW	Hydrocarbons	Chemical Spill
Sept	West	Significant	35,376	Picketlaw WTW	Aluminium	Direct Air Filtration Saturator Failure
Oct	East	Serious	97,440	Lintrathen WTW	Turbidity	Coagulant Aid Failure
Oct	South	Significant	18,246	Rawburn WTW	Iron	Failure To Respond To Change In Water Quality
Dec	West	Significant	35,376	Picketlaw WTW	Aluminium	Coagulant Aid Failure
Dec	East	Significant	148,170	Glendevon WTW	Aluminium	Incorrect Dose Settings
Dec	South	Serious	46,827	Pateshill WTW	Taste/Odour & Manganese	Inadequate Treatment
Dec	West	Significant	35,376	Picketlaw WTW	Aluminium	Backwash Failure
Dec	South	Significant	23,114	Hopes WTW	Aluminium, Iron & Manganese	Burst Main

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