

ZL14 – Warlingham Supply Zone

Monitoring your drinking water supply

The area we supply is divided into 20 smaller water supply areas called Water Supply Zones. SES Water have 8 water treatment works and each supply zone is supplied by one or more of these treatment works.

Properties in Warlingham supply zone are supplied from our Kenley treatment works.

To monitor the quality of the water we supply, we take and test a number of drinking water samples from treatment works and from randomly selected customer properties in each water supply zone.

The number of samples collected and the types of tests carried out are specified in the Water Supply (Water Quality) Regulations 2016 (as amended) and our regulator, the Drinking Water Inspectorate, also reviews our performance.

In 2018, all the Regulatory sample results for this Water Supply Zone complied with the requirements of the Water Supply (Water Quality) Regulations 2016 (as amended).

Helpful facts:

Hardness:

To help you set your domestic appliances, the average hardness results from our 2018 operational monitoring programme are shown in different units below:

Calcium (mg/l)	Calcium Carbonate (mg/l)	Millimols	Degrees		
			German (°dH)	French (°f)	°Clark (or °e)
73	182	1.82	10.17	18.22	12.72

(mg/l = milligrammes per litre is the same as parts per million (ppm))

Chlorine

Chlorine is used to disinfect the water supply and make sure there are no harmful bacteria in the water. We also add a small amount of ammonia to form monochloramine, which has a less noticeable chlorine taste and odour.

Fluoride

We do not add fluoride to our drinking water supplies. There is, however, approximately 0.11 mg/l naturally occurring fluoride present.

Nitrate

The average nitrate level in this supply zone is 24.9 mg/l. This nitrate comes from the source waters supplying the treatment works. The PCV or allowable limit for nitrate in drinking water is 50mg/l.

Other tests

In addition to the tests listed in the Regulations, water companies also carry out extra tests for monitoring purposes. The following average results for this supply zone may also be of interest:

Alkalinity	162.6 mg/l HCO ₃
Magnesium	2.3 mg/l Mg
Total Dissolved Solids	268 ppm (calculated based on conductivity measurement)

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The table below summarises the results of tests carried out on water samples taken from randomly selected consumers' taps in this supply zone.

Test	No. of Samples taken	Standard	Unit of Measure	Samples Contravening Standard		Concentration or Value Detected		
				No.	%	Minimum	Average	Maximum
1,2-Dichloroethane	8	3	µg/l	0	0.00	<0.04	<0.04	<0.04
Aluminium	8	200	µg Al/l	0	0.00	6	28.4	84
Ammonium	39	0.5	mg NH ₄ /l	0	0.00	<0.02	<0.046	0.087
Antimony	8	5	µg Sb/l	0	0.00	<0.02	<0.13	0.8
Arsenic	8	10	µg As/l	0	0.00	0.05	<0.18	<0.5
Benzene	8	1	µg/l	0	0.00	<0.01	<0.01	0.01
Benzo(a)pyrene	8	0.01	µg/l	0	0.00	<0.001	<0.001	<0.001
Boron	8	1	mg B/l	0	0.00	0.036	<0.044	<0.05
Cadmium	8	5	µg Cd/l	0	0.00	<0.01	<0.02	<0.06
Chlorine Residual – Total chlorine as Monochloramine	156	-	mg/l	0	0.00	0.04	0.18	0.3
Chromium	8	50	µg Cr/l	0	0.00	0.4	0.5	0.6
Coliforms (Total)	156	0	No/100ml	0	0.00	0	0	0
Colony Count 72h at 22°C	52	N/A	No/1ml	0	0.00	0	3	108
Colour	39	20	mg/l Pt/Co	0	0.00	<0.8	<0.8	1.4
Copper	9	2	mg Cu/l	0	0.00	<0.001	<0.016	0.06
E. coli	156	0	No/100ml	0	0.00	0	0	0
Enterococci	9	0	No/100ml	0	0.00	0	0	0
Iron	52	200	µg Fe/l	0	0.00	<1	<5.1	15
Lead	9	10	µg Pb/l	0	0.00	<0.2	<0.7	4.1
Manganese	8	50	µg Mn/l	0	0.00	<1.2	<1.2	<1.2
Nickel	9	20	µg Ni/l	0	0.00	<0.3	<0.6	0.9
Nitrate	52	50	mg NO ₃ /l	0	0.00	22.9	24.9	30.9
Nitrite	52	0.5	mg NO ₂ /l	0	0.00	0.008	0.057	0.102
Nitrite/Nitrate formula	52	1	-	0	0.00	0.5	0.5	0.6
Odour (Quantitative)	39	N/A	Dil. Num.	0	0.00	0	0	0
pH (Hydrogen Ion)	39	6.5 - 9.5	pH units	0	0.00	7.5	7.7	7.8
Selenium	8	10	µg Se/l	0	0.00	0.59	0.66	0.77
Sodium	8	200	mg Na/l	0	0.00	12.5	13.9	14.7
Sum Tetra- & Trichloroethene	8	10	µg/l	0	0.00	0.27	0.36	0.49
Taste (Quantitative)	39	N/A	Dil. Num.	0	0.00	0	0	0
Tetrachloromethane	8	3	µg/l	0	0.00	<0.06	<0.06	<0.06
Total PAH (4 Substances)	8	0.1	µg/l	0	0.00	0	0	0
Total Trihalomethanes	8	100	µg/l	0	0.00	1.8	2.1	2.3
Turbidity	39	4	NTU	0	0.00	<0.04	<0.09	0.23

SKTW - Kenley TW Supply Point

The table below summarises the results of tests carried out on water samples taken from Kenley treatment works which supplies properties in the Warlingham supply zone.

Test	No. of Samples taken	Standard	Unit of Measure	Samples Contravening Standard		Concentration or Value Detected		
				No.	%	Minimum	Average	Maximum
Aldrin	9	0.03	µg/l	0	0.00	<0.007	<0.007	<0.007
Atrazine	8	0.1	µg/l	0	0.00	0.028	0.032	0.038
Azoxystrobin	8	0.1	µg/l	0	0.00	<0.007	<0.007	<0.007
Boscalid	8	0.1	µg/l	0	0.00	<0.005	<0.005	<0.005
Bromate	8	10	µg BrO ₃ /l	0	0.00	<0.4	<0.4	<0.4
Carbendazim	8	0.1	µg/l	0	0.00	<0.002	<0.002	<0.002
Carbetamide	8	0.1	µg/l	0	0.00	<0.002	<0.002	<0.002
Chloride	8	250	mg Cl/l	0	0.00	24.5	26.6	27.6
Chlorotoluron	8	0.1	µg/l	0	0.00	<0.002	<0.002	<0.002
Clostridium perfringens	8	0	No/100ml	0	0.00	0	0	0
Conductivity	80	2500	µS/cm	0	0.00	333	399	580
Cyanide	8	50	µg CN/l	0	0.00	<2	<2	<2
Dieldrin	9	0.03	µg/l	0	0.00	<0.006	<0.006	<0.006
Diflufenican	8	0.1	µg/l	0	0.00	<0.003	<0.003	<0.003
Dimethenamid	8	0.1	µg/l	0	0.00	<0.003	<0.003	<0.003
Diuron	8	0.1	µg/l	0	0.00	<0.003	<0.003	<0.003
Epoxiconazole	8	0.1	µg/l	0	0.00	<0.004	<0.004	<0.004
Flufenacet	8	0.1	µg/l	0	0.00	<0.003	<0.003	<0.003
Fluoride	8	1.5	mg F/l	0	0.00	0.08	0.11	0.14
Flutriafol	8	0.1	µg/l	0	0.00	<0.002	<0.002	<0.002
Heptachlor	8	0.03	µg/l	0	0.00	<0.007	<0.007	<0.007
Heptachlor Epoxide	9	0.03	µg/l	0	0.00	<0.012	<0.012	<0.012
Isoproturon	8	0.1	µg/l	0	0.00	<0.003	<0.003	<0.003
Mercury	8	1	µg Hg/l	0	0.00	<0.02	<0.02	<0.02
Metazchlor	8	0.1	µg/l	0	0.00	<0.001	<0.001	<0.001
Methabenzthiazuron	8	0.1	µg/l	0	0.00	<0.001	<0.001	<0.001
Pendimethalin	8	0.1	µg/l	0	0.00	<0.007	<0.007	<0.007
Picloram	8	0.1	µg/l	0	0.00	<0.007	<0.007	<0.007
Propyzamide	8	0.1	µg/l	0	0.00	<0.001	<0.001	<0.001
Prosulfocarb	8	0.1	µg/l	0	0.00	<0.001	<0.001	<0.001
Simazine	8	0.1	µg/l	0	0.00	0.007	0.008	0.009
Sulphate	8	250	mg SO ₄ /l	0	0.00	21	22.2	23.8
Tebuconazole	8	0.1	µg/l	0	0.00	<0.002	<0.002	<0.002
Total Organic Carbon	8	N/A	mg C/l	0	0.00	0.32	0.37	0.42
Total Pesticides	8	0.5	µg/l	0	0.00	0.035	0.04	0.047
Tri-Allate	8	0.1	µg/l	0	0.00	<0.005	<0.005	<0.005