

## ZL05 - Effingham 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 Effingham supply zone are supplied from our Elmer 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:

**Please note that during 2019, the hardness of the water supplying your property may vary and be less than that shown below. This is due to some ongoing maintenance of our softening equipment at our Elmer Treatment Works. For more details on Water Hardness and Scale please check out our fact sheet.**

Calcium (mg/l)	Calcium Carbonate (mg/l)	Millimols	Degrees		
			German (°dH)	French (°f)	°Clark (or °e)
91	229	2.28	12.80	22.92	16.00

(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 0.13 mg/l naturally occurring fluoride present.

### Nitrate

The average nitrate level in this supply zone is 32 mg/l. This nitrate comes from the source waters supplying the treatment works. The PCV or allowable limit for nitrate in drinking water is 50 mg/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	206.4 mg/l HCO <sub>3</sub>
Magnesium	3.3 mg/l Mg
Total Dissolved Solids	326 ppm (calculated based on conductivity measurement)

**ZL05 - Effingham Supply Zone**

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	27	200	µg Al/l	0	0.00	<4	<5.8	17
Ammonium	27	0.5	mg NH <sub>4</sub> /l	0	0.00	<0.02	<0.061	0.133
Antimony	8	5	µg Sb/l	0	0.00	0.02	0.07	0.13
Arsenic	8	10	µg As/l	0	0.00	0.07	<0.13	<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	0.034	<0.042	<0.05
Cadmium	8	5	µg Cd/l	0	0.00	<0.01	<0.01	0.02
Chlorine Residual – Total chlorine as Monochloramine	108	-	mg/l	0	0.00	<0.02	<0.25	0.4
Chromium	8	50	µg Cr/l	0	0.00	0.3	0.4	0.4
Coliforms (Total)	108	0	No/100ml	0	0.00	0	0	0
Colony Count 72h at 22°C	36	N/A	No/1ml	0	0.00	0	<1	3
Colour	27	20	mg/l Pt/Co	0	0.00	<0.8	<0.9	1.8
Copper	9	2	mg Cu/l	0	0.00	0.005	0.069	0.361
E. coli	108	0	No/100ml	0	0.00	0	0	0
Enterococci	9	0	No/100ml	0	0.00	0	0	0
Iron	27	200	µg Fe/l	0	0.00	<1	<8.7	80
Lead	9	10	µg Pb/l	0	0.00	<0.2	<0.2	0.3
Manganese	27	50	µg Mn/l	0	0.00	<0.9	<1.4	6.6
Nickel	9	20	µg Ni/l	0	0.00	1.4	1.8	2.6
Nitrate	36	50	mg NO <sub>3</sub> /l	0	0.00	27.6	32	34.9
Nitrite	36	0.5	mg NO <sub>2</sub> /l	0	0.00	<0.003	<0.036	0.086
Nitrite/Nitrate formula	36	1	-	0	0.00	0.6	0.7	0.7
Odour (Quantitative)	27	N/A	Dil. Num.	0	0.00	0	0	0
pH (Hydrogen Ion)	27	6.5 - 9.5	pH units	0	0.00	7.2	7.5	7.8
Selenium	8	10	µg Se/l	0	0.00	0.42	0.71	0.88
Sodium	8	200	mg Na/l	0	0.00	18.4	20.4	22.5
Sum Tetra- & Trichloroethene	8	10	µg/l	0	0.00	0.9	1.9	2.7
Taste (Quantitative)	27	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	0.002
Total Trihalomethanes	8	100	µg/l	0	0.00	9.4	12.3	16.1
Turbidity	27	4	NTU	0	0.00	0.04	0.11	0.29

**SETW - Elmer TW Supply Point**

The table below summarises the results of tests carried out on water samples taken from Elmer treatment works which supplies properties in the Effingham 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	0.008	0.009	0.01
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 <sub>3</sub> /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	32.9	35.2	38.5
Chlorotoluron	8	0.1	µg/l	0	0.00	<0.002	<0.002	<0.002
Clostridium perfringens	46	0	No/100ml	0	0.00	0	0	0
Conductivity	118	2500	µS/cm	0	0.00	420	498	569
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	<0.004	0.005
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	0.09	0.13	0.15
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
Metaldehyde	8	0.1	µg/l	0	0.00	0.005	0.007	0.009
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	0.002
Prosulfocarb	8	0.1	µg/l	0	0.00	<0.001	<0.001	<0.001
Simazine	8	0.1	µg/l	0	0.00	<0.004	<0.005	0.007
Sulphate	8	250	mg SO <sub>4</sub> /l	0	0.00	33	35.9	39.2
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	0.68	0.81	0.99
Total Pesticides	8	0.5	µg/l	0	0.00	0.017	0.023	0.028
Tri-Allate	8	0.1	µg/l	0	0.00	<0.005	<0.005	<0.005