

## Water Quality Summary Report

<b>Period:</b>	<b>From</b>	1 <sup>st</sup> January 2019	<b>To</b>	31 <sup>st</sup> December 2019
<b>Zone Name:</b>	Barnhorn – Rosewood Park Bexhill			
<b>Zone Reference</b>	ZBSE01			

Parameter name	Units	Samples taken	< or >	Min	Mean	< or >	Max	Regulatory Limit or Range	No of Failures
Colour	mg/l Pt/Co	4	<	1	1.4		2.2	20	0
Turbidity	NTU	4		0.16	0.18		0.2	4	0
Odour	No.	4		0	0		0	1	0
Taste	No.	4		0	0		0	1	0
pH	pH value	4		7.34	7.61		7.75	6.5(min) to 9.5(max)	0
Sulphate	mg/l	4		39.2	48.7		54.8	250	0
Sodium	mg/l	4		43.5	46.6		52.0	200	0
Nitrate	mg/l	4		4.4	6.7		10.0	50	0
Nitrite	mg/l	4	<	0.002	0.002	<	0.002	0.5	0
Nitrite/Nitrate formula	mg/l	4		0.09	0.13		0.20	1	0
Ammonium	mg/l	4	<	0.004	0.004		0.005	0.5	0
Total Organic Carbon	mg/l	4		1.6	2.1		3	-	0
Aluminium	µg/l	4		14.9	18.9		27.8	200	0
Iron	µg/l	4		10.3	12.8		17.7	200	0
Manganese	µg/l	4		0.52	2.64		4.32	50	0
Copper	mg/l	4		0.005	0.016		0.035	2	0
Fluoride (Total)	mg/l	4		0.07	0.075		0.08	1.5	0
Arsenic	µg/l	4		0.16	0.22		0.31	10	0
Cadmium	µg/l	4	<	0.013	0.014		0.016	5	0
Cyanide	µg/l	4	<	0.7	2.2	<	5.5	50	0
Chromium	µg/l	4		0.19	0.33		0.44	50	0
Mercury (Total)	µg/l	4	<	0.03	0.03	<	0.03	1	0
Nickel (Total)	µg/l	4		1.13	2.51		5.33	20	0

Lead	µg/l	4		0.07	0.14		0.3	10	0
Antimony	µg/l	4		0.05	0.07		0.10	5	0
Selenium	µg/l	4	<	0.16	0.16	<	0.16	10	0
Pesticides	µg/l	4		0.011	0.069		0.182	0.5	0
Polycyclic Aromatic Hydrocarbons	µg/l	4		0	0		0	0.1	0
Coliform Bacteria	No. /100ml	12		0	0		0	1	0
E.Coli	No. /100ml	12		0	0		0	1	0
Enterococci	No. /100ml	4		0	0		0	1	0
Clostridium Perfringens	No. /100ml	4		0	0		0	1	0
Colony Counts After 3 Days At 22øc	Count	4		4	32		61	-	0
Residual Disinfectant - Total	mg/l	12		0.14	0.24		0.47	-	0
Colony Counts After 48 Hours At 37øc	Count	4		4	21		41	-	0
Conductivity (Electrical Conductivity)	µS/cm @ 20 °C	4		378	389		395	2500	0
Chloride	mg/l	4		10.0	44.9		58.7	250	0
Boron	mg/l	4		0.043	0.063		0.079	1	0
Benzo[a]Pyrene	µg/l	4	<	0.0003	0.0003	<	0.0003	0.01	0
Tetrachloromethane	µg/l	4	<	0.02	0.06	<	0.14	3	0
Trichloroethene & Tetrachloroethene	µg/l	4		0	0		0	10	0
Trihalomethanes	µg/l	4		37.3	60.6		75.2	100	0
1,2 Dichloroethane	µg/l	4	<	0.07	0.09	<	0.13	3	0
Benzene	µg/l	4	<	0.02	0.04	<	0.07	1	0
Bromate	µg/l	4	<	0.1	0.53		1.1	10	0
Carbetamide	µg/l	4	<	0.002	0.004		0.006	0.1	0
2 4-D	µg/l	4	<	0.003	0.007		0.011	0.1	0
Dieldrin	µg/l	4	<	0.002	0.003	<	0.003	0.03	0
Heptachlor	µg/l	4	<	0.002	0.002	<	0.002	0.03	0
MCPP	µg/l	4	<	0.003	0.004		0.005	0.1	0
MCPA	µg/l	4		0.004	0.005		0.006	0.1	0
Triclopyr	µg/l	4	<	0.009	0.009	<	0.009	0.1	0
Metaldehyde	µg/l	4	<	0.005	0.053		0.169	0.1	1



## Commentary on Water Quality

The regulatory limit for the pesticide metaldehyde was exceeded in one sample collected in October 2019. The European Food Standards Agency (EFSA) has set Acceptable Daily Intake (ADI) 20 µg per Kg (Body weight) per day <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2010.1856> . Using the WHO guidelines for drinking water quality default assumptions that 60 kg adult drinks 2 litres of water daily, 10 kg young child drinks 1 litres daily and that a 5 kg bottled-fed infant consumes 0.75 litres daily. The estimated intake for a metaldehyde drinking water concentration of 0.169 µg/L would be approximately 0.006, 0.02 and 0.03 µg per Kg (Body weight) per day. These estimated intakes are well below the EFSA ADI of 20 µg per Kg (Body weight) per day (even allowing for potential additional intake from the diet). Therefore, the levels of metaldehyde observed do not pose a risk to health.

All other the samples collected from this zone to date have complied with the Water Supply (Water Quality) Regulations 2016. No Undertakings or Authorised Departures currently apply to this water supply zone.

## Additional Water Quality Information

The supply to this area is from ground water treated at Hazards Green and Sweet Willow Wood Water Treatment Works. These works are owned and operated by South East Water. As part of the treatment process phosphate is dosed for plumbosolvency control. Icosa Water take a bulk supply of water from South East Water with the connection point occurring in South East Waters Standard Hill supply zone. This water is transported via Icosa Waters publicly regulated water supply network to supply the development at Rosewood Park which is off Barnhorn Road, Bexhill.

## Water Hardness Information

<b>Hardness Classification</b>	Moderately Soft
<b>Calcium Carbonate (CaCO<sub>3</sub>)</b>	93 ppm
<b>Calcium</b>	38 ppm
<b>Degrees Clark</b>	8
<b>Degrees French</b>	9.3
<b>Degrees German</b>	6
<b>Millimoles per litre</b>	1