

Cambridge Waste Water Treatment Plant Relocation Project
Anglian Water Services Limited

Appendix 14.4: Geoenvironmental Results – Waterbeach

Application Document Reference: 5.4.14.4
PINS Project Reference: WW010003
APFP Regulation No. 5(2)a

Determinand	Unit	LOD	Location ID	BH01	BH02	BH03	BH04	BH05	BH05	BH06	BH06	BH07	BH08	BH08	BH09	
				Date Sampled	10/01/22	13/01/22	12/01/22	17/01/22	21/01/22	21/01/22	19/01/22	19/01/22	24/01/22	25/01/22	25/01/2022	26/01/2022
			Depth	0.65	2	0.75	0.80	0.35	2.1	0.25	1.3	0.10 - 0.20	0.35	0.8	1.35	
			Strata	SUPD	Topsoil	SUPD	Peat	topsoil	SUPD	Topsoil	Chalk	MG	MG	SUPD	SUPD	
			PoS Park 1% SOM	Commercial 1% SOM												
Asbestos Screen (S)	N/a	N/a	-	-	Not Detected	-	Not Detected	-	Not Detected	Not Detected	-	Not Detected	Not Detected	-	-	
pH	pH Units	N/a	-	-	7.8	8.3	7.6	7.3	-	7.2	7.4	8.1	7.8	-	8.2	7.9
Total Cyanide	mg/kg	< 2	18	85	< 2	< 2	< 2	< 2	-	6	< 2	< 2	< 2	-	< 2	< 2
TOC (Total Organic Carbon)	%	< 0.1	-	-	0.3	0.7	0.4	2.6	-	10.7	2.7	2.2	1.5	-	0.3	0.4
Arsenic (As)	mg/kg	< 2	170	640	7	3	17	17	-	< 2	11	4	9	-	11	6
Cadmium (Cd)	mg/kg	< 0.2	560	190	< 0.2	< 0.2	< 0.2	< 0.2	-	< 0.2	< 0.2	< 0.2	< 0.2	-	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	33000	8600	10	12	15	17	-	5	15	5	16	-	11	9
Chromium (hexavalent)	mg/kg	< 2	220	33	< 2	< 2	< 2	< 2	-	< 2	< 2	< 2	< 2	-	< 2	< 2
Copper (Cu)	mg/kg	< 4	44000	68000	< 4	27	12	24	-	22	13	7	12	-	5	7
Lead (Pb)	mg/kg	< 3	-	-	5	12	9	18	-	4	27	3	24	-	5	5
Mercury (Hg)	mg/kg	< 1	26 (4.3)	15	< 1	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	-	< 1	< 1
Nickel (Ni)	mg/kg	< 3	800	980	8	54	24	32	-	14	15	8	14	-	13	13
Selenium (Se)	mg/kg	< 2	1800	12000	< 3	< 3	< 3	< 3	-	< 3	< 3	< 3	< 3	-	< 3	< 3
Zinc (Zn)	mg/kg	< 3	170000	730000	18	52	38	73	-	44	41	11	47	-	22	18
Total Phenols (monohydric)	mg/kg	< 2	440	440	< 2	< 2	< 2	< 2	-	< 2	< 2	< 2	< 2	-	< 2	< 2
TPH - Aliphatic >C35 - C40	mg/kg	< 10	45000	1600000	< 10	< 10	< 10	< 10	-	< 10	< 10	-	< 10	< 10	-	-
TPH - Aromatic >C35 - C40	mg/kg	< 10	7800	28000	< 10	< 10	< 10	< 10	-	< 10	< 10	-	< 10	< 10	-	-
TPH - Aliphatic / Aromatic (C6 - C40) Total	mg/kg	< 42	-	-	< 42	< 42	< 42	< 42	-	< 42	< 42	-	< 42	< 42	-	-
Naphthalene	mg/kg	< 0.1	1200 [76]	190	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	0.18	< 0.1	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	29000	83000	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	29000	84000	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	20000	63000	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	6200	22000	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	150000	520000	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	6300	23000	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	0.12	-	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	15000	54000	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	0.11	-	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	49	170	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	93	350	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	13	44	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	370	1200	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	11	35	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	150	500	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	1.1	3.5	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	1400	3900	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Coronene	mg/kg	< 0.1	-	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1
Total Oily Waste PAHs	mg/kg	< 1	-	-	< 1	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	-	< 1	< 1
Total Dutch 10 PAHs	mg/kg	< 1	-	-	< 1	< 1	< 1	< 1	-	< 1	< 1	< 1	< 1	-	< 1	< 1
Total EPA-16 PAHs	mg/kg	< 1.6	-	-	< 1.6	< 1.6	< 1.6	< 1.6	-	< 1.6	< 1.6	< 1.6	< 1.6	-	< 1.6	< 1.6
Total WAC-17 PAHs	mg/kg	< 1.7	-	-	< 1.7	< 1.7	< 1.7	< 1.7	-	< 1.7	< 1.7	< 1.7	< 1.7	-	< 1.7	< 1.7
Aliphatic >C5 - C6	mg/kg	< 0.01	95000	3200	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
Aliphatic >C6 - C8	mg/kg	< 0.05	150000	7800	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	-
Aliphatic >C8 - C10	mg/kg	< 2	14000	2000	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
Aliphatic >C10 - C12	mg/kg	< 2	21000	9700	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
Aliphatic >C12 - C16	mg/kg	< 3	25000	59000	< 3	< 3	< 3	< 3	-	< 3	< 3	-	< 3	< 3	-	-
Aliphatic >C16 - C35	mg/kg	< 10	450000	1600000	< 10	< 10	< 10	< 10	-	< 10	< 10	-	< 10	< 10	-	-
Aliphatic >C35 - C44	mg/kg	< 10	450000	1600000	< 10	< 10	< 10	< 10	-	< 10	< 10	-	< 10	< 10	-	-
Aliphatic (C5 - C44)	mg/kg	< 30	450000	1600000	< 30	< 30	< 30	< 30	-	< 30	< 30	-	< 30	< 30	-	-
Aromatic >C5 - C7	mg/kg	< 0.01	76000	26000	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
Aromatic >C7 - C8	mg/kg	< 0.05	87000	56000	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	-	< 0.05	< 0.05	-	-
Aromatic >C8 - C10	mg/kg	< 2	7200	3500	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
Aromatic >C10 - C12	mg/kg	< 2	9200	16000	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
Aromatic >C12 - C16	mg/kg	< 2	10000	36000	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
Aromatic >C16 - C21	mg/kg	< 3	7600	28000	< 3	< 3	< 3	< 3	-	< 3	< 3	-	< 3	< 3	-	-
Aromatic >C21 - C35	mg/kg	< 10	7800	28000	< 10	< 10	< 10	< 10	-	< 10	< 10	-	< 10	< 10	-	-
Aromatic >C35 - C44	mg/kg	< 10	7800	28000	< 10	< 10	< 10	< 10	-	< 10	< 10	-	< 10	< 10	-	-
Aromatic (>C5 - C44)	mg/kg	< 30	7800	28000	< 30	< 30	< 30	< 30	-	< 30	< 30	-	< 30	< 30	-	-
Total >C5 - C44	mg/kg	< 60	7800	28000	< 60	< 60	< 60	< 60	-	< 60	< 60	-	< 60	< 60	-	-
Benzene	ug/kg	< 2	90	27	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
Toluene	ug/kg	< 5	87000 (569)	56000	< 5	< 5	< 5	< 5	-	< 5	< 5	-	< 5	< 5	-	-
Ethylbenzene	ug/kg	< 2	17000 (518)	5700	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
p & m-xylene	ug/kg	< 2	17000	5900	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
o-xylene	ug/kg	< 2	17000	6600	< 2	< 2	< 2	< 2	-	< 2	< 2	-	< 2	< 2	-	-
MTBE	ug/kg	< 5	98000	7500	< 5	< 5	< 5	< 5	-	< 5	< 5	-	< 5	< 5	-	-

Get in touch

You can contact us by:



Emailing at info@cwwtpr.com



Calling our Freephone information line on **0808 196 1661**



Writing to us at **Freepost: CWWTPR**

You can view all our DCO application documents and updates on the application on The Planning Inspectorate website:

<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/cambridge-waste-water-treatment-plant-relocation/>