

Appendix 2: Water quality monitoring for domestic discharges. Red values indicate where effluent exceeds the general standards and blue values where effluent exceeds the target value for coastal waters

Parameter	General Standards	Median and 95% and 5% percentiles	Domestic discharge points										Target range for coastal zone
			Humansdorp STW *	Fish Water WTW *	Flats STW *	Cape STW *	Receifels * Drift	Sands	STW	Hood Point	East Bank WTW	Gonubie STW	
pH	5.5-9.5	Median	7.30	7.40	7.40	7.40	7.40	7.40	6.3	7.4	7.3	7.3	7.3-8.2
		95%	7.60	7.80	7.70	7.70	7.57	7.57	12.5(max)	8.0 (max)	7.7(max)	7.7(max)	
		5%	7.14	7.00	7.15	7.15	7.14	7.14	3.9(min)	6.5 (min)	7.0(min)	7.0(min)	
Conductivity (mS/m)	150mS/m	Median	164.00	193.00	111.50	111.50	89.55	158	158	71.4	490	490	0.02mg/l
		95%	261.70	304.30	146.75	146.75	114.69	982(max)	982(max)	97.9 (max)	577(max)	577(max)	
		5%	131.75	167.20	95.26	95.26	82.03	22.1(min)	22.1(min)	43.2 (min)	378(min)	378(min)	
Ammonia (N)	3mg/l	Median	45.00	3.05	2.95	2.95	3.15	9.8	9.8	0.00	0.40	0.40	0.02mg/l
		95%	46.80	30.80	15.75	15.75	7.83	37.0(max)	37.0(max)	5.3 (max)	6.17(max)	6.17(max)	
		5%	28.80	0.36	0.07	0.07	0.24	0.00(min)	0.00(min)	0.00 (min)	0.15(min)	0.15(min)	
COD	75 mg/l	Median	219.00	59.00	44.50	44.50	44.00	22.04	22.04	85	92	92	0.02mg/l
		95%	266.70	376.85	133.25	133.25	88.25	150000(max)	150000(max)	194 (max)	160(max)	160(max)	
		5%	170.40	32.00	31.80	31.80	39.00	0.45(min)	0.45(min)	8 (min)	53(min)	53(min)	
Permanganate		Median	15.00	6.00	7.00	7.00	6.00	9.81	9.81	5.4	6.5	6.5	0.02mg/l
		95%	22.80	11.35	14.75	14.75	7.95	19.6(max)	19.6(max)	18.6 (max)	22.0(max)	22.0(max)	
		5%	10.20	4.00	5.00	5.00	5.00	0.58(min)	0.58(min)	1.2 (min)	4.8(min)	4.8(min)	
Suspended Solids	25 mg/l	Median	73.50	9.50	5.00	5.00	2.50	626	626	8	26	26	Not to exceed ambient concentration by more than 10%
		95%	130.00	93.40	17.70	17.70	7.60	8720(max)	8720(max)	65 (max)	55(max)	55(max)	
		5%	32.30	2.50	2.50	2.50	2.50	40(min)	40(min)	1 (min)	4(min)	4(min)	
Nitrate (mg/l)	15 mg/l	Median	0.05	3.20	0.80	0.80	1.30	4.1	4.1	4.1	2.04	2.04	No target value selected, concentrations not to induce excessive algal growth or reduce DO levels
		95%	0.05	7.67	9.15	9.15	1.79	11.2 (max)	11.2 (max)	11.2 (max)	5.58(max)	5.58(max)	
		5%	0.05	1.05	0.23	0.23	0.75	0.00 (min)	0.00 (min)	0.00 (min)	0.00(min)	0.00(min)	
Faecal Coliforms/100ml	1 000 per 100ml	Median	200000	50.00	145.00	145.00	50.00	360	360	360	92	92	No target value selected, concentrations not to induce excessive algal growth or reduce DO levels
		95%	2712000	100000	2510	2510	83	110 000(max)	110 000(max)	46000(max)	46000(max)	46000(max)	
		5%	7240	5.00	50.00	50.00	6.75	23 (min)	23 (min)	23 (min)	23(min)	23(min)	
E. coli/100ml		Median	-	5	1360	1360	-	230	230	230	36	36	No target value selected, concentrations not to induce excessive algal growth or reduce DO levels
		95%	-	5	1360	1360	-	46 000 (max)	46 000 (max)	4300(max)	4300(max)	4300(max)	
		5%	-	5	1360	1360	-	9 (min)	9 (min)	23(min)	23(min)	23(min)	
Phosphorous	10 mg/l	Median	6.300	-	5.200	5.200	6.200	0.8	0.8	0.8	-	-	No target value selected, concentrations not to induce excessive algal growth or reduce DO levels
		95%	8.190	-	6.270	6.270	7.270	10.6 (max)	10.6 (max)	10.6 (max)	-	-	

	5%	3.060		3.210		0.2 (min)		not to induce excessive algal growth or reduce DO levels
Total sulphides (mg/l)	Median	-				-		
	95%	-				-		
	5%	-				-		
Sulphate (mg/l)	Median	-				-		
	95%	-				-		
	5%	-				-		
Iron (Total) Fe 0.3mg/l	Median	0.070				0.1	0.07	
	95%	0.133				8.46 (max)	0.22(max)	
	5%	0.061				0.00 (min)	0.09(min)	
Manganese (Total) Mn 0.1mg/l	Median	0.010				0.02	0.02	
	95%	0.019				2.33(max)	0.12(max)	
	5%	0.010				0.10(min)	0.00(min)	
Cadmium (Cd) 0.005mg/l	Median	0.010				0.00	0.00	
	95%	0.010				0.03(max)	0.02(max)	0.004mg/l
	5%	0.006				0.00(min)	0.00(min)	
Chromium (Total) Cr 0.05mg/l	Median	0.008				0.01	0.00	
	95%	0.055				1.24(max)	0.25(max)	0.008mg/l
	5%	0.008				0.00(min)	0.00(min)	
Copper (Cu) 0.01mg/l	Median	0.005				0.01	0.01	
	95%	0.010				0.90 (max)	0.06(max)	
	5%	0.003				0.00 (min)	0.00(min)	
Nickel	Median	0.020				0.01	0.00	
	95%	0.038				0.13(max)	0.03(max)	0.025mg/l
	5%	0.011				0.00(min)	0.00(min)	
Lead (Pb) 0.01mg/l	Median	0.070				0.00	0.00	
	95%	0.088				2.5(max)	0.00(max)	0.012mg/l
	5%	0.014				0.00 (min)	0.05(min)	
Zinc (Zn) 0.1mg/l	Median	0.070				0.03	0.01	
	95%	85.9				2.84(max)	0.09(max)	0.025mg/l
	5%	0.036				0.00(min)	0.00(min)	
Total alkalinity	Median	-				88	-	
	Maximum	-				124	-	
	Minimum	-				67	-	
Total solids	Median	-				442	-	

