

## Summary of water quality statistics for the Tolo Harbour &amp; Channel WCZ in 2005

Parameter	Harbour Subzone			Buffer Subzone		Channel Subzone	
	TM2	TM3	TM4	TM5	TM6	TM7	TM8
<b>Number of samples</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>
Temperature (°C)	23.9 (16.1 - 29.4)	23.7 (16.6 - 29.1)	23.6 (16.3 - 29.1)	24.0 (16.4 - 29.6)	23.2 (15.7 - 28.6)	23.2 (16.1 - 28.8)	22.7 (15.8 - 28.3)
Salinity	30.7 (27.6 - 32.6)	31.4 (28.6 - 33.0)	31.5 (29.4 - 32.8)	31.3 (28.1 - 33.0)	31.9 (30.3 - 33.0)	32.0 (30.4 - 33.2)	32.5 (31.3 - 33.4)
Dissolved Oxygen (mg/L)	7.0 (5.4 - 8.1)	7.0 (5.3 - 9.5)	6.9 (6.0 - 8.3)	6.8 (4.4 - 8.9)	6.5 (4.2 - 9.5)	6.5 (5.1 - 9.1)	6.2 (4.0 - 9.1)
	Bottom						
	7.1 (5.5 - 8.2)	6.3 (2.1 - 9.0)	6.1 (3.7 - 8.4)	6.7 (4.6 - 8.9)	5.5 (1.0 - 9.4)	5.9 (2.9 - 8.9)	5.4 (2.4 - 9.1)
Dissolved Oxygen (% Saturation)	100 (70 - 123)	99 (75 - 147)	98 (78 - 128)	97 (57 - 138)	92 (63 - 121)	92 (76 - 118)	86 (59 - 112)
	Bottom						
	101 (72 - 126)	89 (32 - 139)	86 (55 - 119)	95 (59 - 138)	75 (15 - 115)	81 (41 - 109)	75 (35 - 111)
pH	8.2 (7.5 - 8.6)	8.2 (7.5 - 8.4)	8.2 (7.5 - 8.5)	8.2 (7.5 - 8.7)	8.2 (7.5 - 8.4)	8.2 (7.5 - 8.4)	8.2 (7.9 - 8.4)
Secchi Disc Depth (m)	2.0 (1.4 - 2.9)	2.4 (1.3 - 3.5)	2.3 (1.5 - 3.4)	2.5 (1.1 - 4.0)	2.9 (1.9 - 5.8)	3.0 (2.0 - 4.3)	3.7 (1.8 - 5.9)
Turbidity (NTU)	8.2 (3.6 - 10.8)	7.8 (4.4 - 10.0)	7.9 (4.3 - 11.0)	8.0 (4.8 - 11.0)	7.8 (4.6 - 10.4)	7.6 (4.3 - 9.7)	8.0 (4.5 - 10.3)
Suspended Solids (mg/L)	2.6 (1.1 - 5.3)	2.1 (0.8 - 3.7)	1.9 (0.8 - 3.7)	2.1 (1.2 - 4.5)	1.7 (1.0 - 2.9)	1.5 (0.8 - 3.2)	1.8 (0.7 - 3.5)
5-day Biochemical Oxygen Demand (mg/L)	2.2 (1.2 - 3.6)	1.7 (1.2 - 3.2)	1.5 (0.8 - 2.2)	1.5 (0.8 - 2.3)	1.3 (0.8 - 2.3)	1.2 (0.3 - 2.2)	0.7 (0.1 - 1.2)
Ammonia Nitrogen (mg/L)	0.07 (0.04 - 0.18)	0.06 (0.03 - 0.16)	0.06 (0.03 - 0.13)	0.05 (0.02 - 0.14)	0.05 (0.02 - 0.10)	0.04 (0.02 - 0.08)	0.03 (0.01 - 0.06)
Unionised Ammonia (mg/L)	0.004 (0.001 - 0.010)	0.004 (<0.001 - 0.009)	0.004 (<0.001 - 0.007)	0.003 (<0.001 - 0.007)	0.003 (<0.001 - 0.006)	0.002 (<0.001 - 0.005)	0.002 (0.001 - 0.003)
Nitrite Nitrogen (mg/L)	<0.01 (<0.01 - 0.01)	<0.01 (<0.01 - 0.01)	<0.01 (<0.01 - 0.01)	<0.01 (<0.01 - 0.01)	0.01 (<0.01 - 0.05)	0.01 (<0.01 - 0.04)	0.01 (<0.01 - 0.06)
Nitrate Nitrogen (mg/L)	0.04 (<0.01 - 0.18)	0.04 (<0.01 - 0.17)	0.04 (<0.01 - 0.20)	0.02 (<0.01 - 0.10)	0.03 (<0.01 - 0.10)	0.03 (<0.01 - 0.09)	0.03 (<0.01 - 0.10)
Total Inorganic Nitrogen (mg/L)	0.11 (0.05 - 0.35)	0.10 (0.03 - 0.31)	0.10 (0.03 - 0.33)	0.07 (0.02 - 0.19)	0.08 (0.03 - 0.19)	0.07 (0.02 - 0.17)	0.07 (0.03 - 0.15)
Total Kjeldahl Nitrogen (mg/L)	0.29 (0.25 - 0.40)	0.25 (0.18 - 0.33)	0.24 (0.19 - 0.31)	0.22 (0.18 - 0.32)	0.21 (0.16 - 0.26)	0.18 (0.15 - 0.21)	0.14 (0.12 - 0.17)
Total Nitrogen (mg/L)	0.33 (0.25 - 0.50)	0.29 (0.19 - 0.48)	0.28 (0.21 - 0.50)	0.25 (0.19 - 0.37)	0.25 (0.18 - 0.31)	0.21 (0.15 - 0.30)	0.19 (0.13 - 0.26)
Orthophosphate Phosphorus (mg/L)	0.01 (<0.01 - 0.01)	0.01 (<0.01 - 0.02)	0.01 (<0.01 - 0.02)	<0.01 (<0.01 - 0.01)	0.01 (<0.01 - 0.01)	0.01 (<0.01 - 0.01)	0.01 (<0.01 - 0.02)
Total Phosphorus (mg/L)	0.03 (0.02 - 0.04)	0.02 (0.02 - 0.04)	0.02 (0.02 - 0.03)	0.02 (0.02 - 0.04)	0.02 (0.02 - 0.03)	0.02 (0.02 - 0.03)	0.02 (0.02 - 0.03)
Silica (as SiO <sub>2</sub> ) (mg/L)	0.8 (0.2 - 1.5)	0.8 (0.2 - 1.5)	0.8 (0.3 - 1.4)	0.6 (0.1 - 1.4)	0.8 (0.4 - 1.3)	0.7 (0.4 - 1.1)	0.7 (0.2 - 1.6)
Chlorophyll- <i>a</i> (µg/L)	7.7 (0.8 - 16.5)	5.0 (0.9 - 8.5)	5.0 (0.8 - 6.9)	4.8 (0.7 - 9.7)	3.9 (0.9 - 7.5)	3.1 (0.8 - 9.0)	1.7 (0.7 - 3.7)
<i>E. coli</i> (count/100mL)	14 (1 - 150)	3 (1 - 150)	3 (1 - 22)	2 (1 - 12)	2 (1 - 13)	1 (1 - 4)	1 (1 - 1)
Faecal Coliforms (count/100mL)	140 (7 - 540)	11 (2 - 600)	11 (1 - 60)	9 (1 - 71)	6 (1 - 160)	2 (1 - 18)	2 (1 - 4)

Note : 1. Unless otherwise specified, data presented are depth-averaged (A) values calculated by taking the means of three depths: Surface (S), Mid-depth (M), Bottom (B).

2. Data presented are annual arithmetic means of the depth-averaged results except for *E. coli* and faecal coliforms which are annual geometric means.

3. Data in brackets indicate the ranges.