

Summary of water quality statistics for the Port Shelter WCZ in 2005

Parameter	Inner Port Shelter				Hebe Haven
	PM1	PM2	PM3	PM4	PM6
Number of samples	12	12	12	12	12
Temperature (°C)	23.4 (15.2 - 29.2)	23.6 (15.5 - 29.6)	23.0 (15.3 - 28.7)	23.2 (14.9 - 28.8)	23.1 (15.3 - 28.5)
Salinity	32.3 (30.9 - 33.4)	32.3 (30.9 - 33.3)	32.6 (31.4 - 33.4)	32.3 (30.8 - 33.5)	32.5 (31.3 - 33.3)
Dissolved Oxygen (mg/L)	6.7 (5.2 - 8.2)	6.7 (4.6 - 8.9)	6.6 (4.7 - 8.2)	6.6 (4.9 - 8.0)	6.4 (4.6 - 8.1)
Bottom	6.7 (4.8 - 8.3)	6.6 (3.8 - 8.9)	6.3 (3.9 - 8.1)	6.6 (4.7 - 8.0)	6.3 (4.0 - 8.0)
Dissolved Oxygen (% Saturation)	94 (75 - 128)	95 (69 - 139)	93 (71 - 127)	93 (72 - 123)	90 (67 - 124)
Bottom	93 (71 - 127)	94 (57 - 139)	87 (55 - 124)	92 (66 - 120)	88 (57 - 122)
pH	8.2 (7.8 - 8.5)	8.2 (7.9 - 8.5)	8.2 (7.8 - 8.3)	8.2 (7.7 - 8.4)	8.1 (7.4 - 8.4)
Secchi Disc Depth (m)	2.9 (2.0 - 4.4)	2.8 (1.6 - 4.0)	3.0 (1.6 - 5.0)	2.9 (2.0 - 4.8)	3.0 (2.0 - 7.0)
Turbidity (NTU)	7.4 (3.5 - 9.7)	7.2 (3.4 - 10.0)	7.2 (3.1 - 12.0)	7.7 (3.7 - 10.1)	7.6 (3.5 - 10.0)
Suspended Solids (mg/L)	1.6 (0.9 - 2.6)	4.3 (0.7 - 33.9)	1.5 (0.6 - 3.1)	2.5 (0.9 - 6.6)	1.8 (0.7 - 2.8)
5-day Biochemical Oxygen Demand (mg/L)	0.9 (0.5 - 1.8)	0.8 (0.5 - 1.4)	0.7 (0.5 - 1.5)	0.8 (0.5 - 1.5)	0.7 (0.4 - 1.1)
Ammonia Nitrogen (mg/L)	0.03 (0.01 - 0.08)	0.03 (0.01 - 0.06)	0.02 (0.01 - 0.05)	0.03 (0.01 - 0.05)	0.03 (0.01 - 0.05)
Unionised Ammonia (mg/L)	0.002 (<0.001 - 0.005)	0.002 (0.001 - 0.004)	0.001 (<0.001 - 0.003)	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 - 0.02)	0.01 (<0.01 - 0.02)	<0.01 (<0.01 - 0.01)	0.01 (<0.01 - 0.02)
Nitrate Nitrogen (mg/L)	0.02 (<0.01 - 0.08)	0.03 (<0.01 - 0.09)	0.03 (<0.01 - 0.09)	0.02 (<0.01 - 0.08)	0.03 (<0.01 - 0.10)
Total Inorganic Nitrogen (mg/L)	0.06 (0.02 - 0.16)	0.06 (0.01 - 0.16)	0.06 (0.02 - 0.15)	0.06 (0.01 - 0.13)	0.07 (0.02 - 0.15)
Total Kjeldahl Nitrogen (mg/L)	0.14 (0.09 - 0.19)	0.13 (0.10 - 0.21)	0.13 (0.10 - 0.18)	0.14 (0.11 - 0.25)	0.14 (0.11 - 0.20)
Total Nitrogen (mg/L)	0.16 (0.11 - 0.26)	0.17 (0.11 - 0.24)	0.17 (0.11 - 0.28)	0.17 (0.11 - 0.26)	0.17 (0.12 - 0.24)
Orthophosphate Phosphorus (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 - 0.01)
Total Phosphorus (mg/L)	0.02 (0.02 - 0.03)	0.02 (0.02 - 0.03)	0.02 (0.02 - 0.02)	0.02 (0.02 - 0.03)	0.02 (0.02 - 0.03)
Silica (as SiO ₂) (mg/L)	0.6 (0.1 - 1.0)	0.6 (0.1 - 1.0)	0.6 (0.1 - 0.9)	0.7 (0.2 - 1.1)	0.7 (0.2 - 1.1)
Chlorophyll- <i>a</i> (µg/L)	2.6 (0.9 - 5.0)	2.4 (1.3 - 4.1)	2.4 (1.2 - 4.6)	2.3 (0.7 - 5.3)	2.5 (1.3 - 5.6)
<i>E. coli</i> (count/100mL)	2 (1 - 10)	4 (1 - 57)	1 (1 - 4)	1 (1 - 4)	2 (1 - 11)
Faecal Coliforms (count/100mL)	4 (1 - 60)	16 (1 - 120)	4 (1 - 32)	3 (1 - 29)	7 (1 - 130)

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.

Summary of water quality statistics for the Port Shelter WCZ in 2005 (continued)

Parameter	Outer Port Shelter		Rocky Harbour	Bluff Island
	PM7	PM8	PM9	PM11
Number of samples	12	12	12	12
Temperature (°C)	22.8 (15.5 - 27.9)	22.5 (15.2 - 27.8)	22.8 (15.0 - 28.1)	22.4 (15.0 - 27.8)
Salinity	32.8 (31.6 - 33.6)	32.9 (32.1 - 33.7)	32.8 (31.8 - 33.7)	33.0 (32.2 - 33.8)
Dissolved Oxygen (mg/L)	6.5 (4.6 - 7.9)	6.5 (4.6 - 8.5)	6.5 (4.9 - 7.7)	6.4 (4.0 - 7.8)
Bottom	6.0 (2.9 - 7.6)	6.1 (3.2 - 8.4)	6.2 (3.3 - 7.7)	6.0 (2.9 - 7.7)
Dissolved Oxygen (% Saturation)	91 (68 - 121)	91 (66 - 116)	92 (71 - 118)	89 (58 - 118)
Bottom	84 (41 - 113)	83 (44 - 110)	86 (46 - 117)	82 (41 - 117)
pH	8.1 (7.4 - 8.3)	8.1 (7.6 - 8.3)	8.2 (7.7 - 8.4)	8.1 (7.6 - 8.3)
Secchi Disc Depth (m)	4.1 (2.5 - 7.5)	4.6 (3.0 - 6.5)	4.0 (3.0 - 5.5)	5.2 (3.5 - 8.3)
Turbidity (NTU)	7.1 (3.3 - 9.6)	8.1 (3.8 - 12.1)	7.3 (3.5 - 9.6)	7.9 (3.8 - 11.8)
Suspended Solids (mg/L)	2.8 (0.5 - 14.4)	2.1 (0.6 - 6.0)	5.1 (0.7 - 43.8)	1.7 (0.6 - 4.7)
5-day Biochemical Oxygen Demand (mg/L)	0.6 (0.3 - 2.0)	0.5 (0.2 - 1.0)	0.6 (0.4 - 0.9)	0.5 (0.3 - 0.8)
Ammonia Nitrogen (mg/L)	0.02 (0.01 - 0.04)	0.02 (0.01 - 0.06)	0.02 (0.01 - 0.05)	0.02 (0.01 - 0.04)
Unionised Ammonia (mg/L)	0.001 (<0.001 - 0.003)	0.001 (<0.001 - 0.004)	0.001 (<0.001 - 0.004)	0.001 (<0.001 - 0.002)
Nitrite Nitrogen (mg/L)	0.01 (<0.01 - 0.02)	0.01 (<0.01 - 0.02)	0.01 (<0.01 - 0.02)	0.01 (<0.01 - 0.02)
Nitrate Nitrogen (mg/L)	0.03 (<0.01 - 0.09)	0.04 (<0.01 - 0.09)	0.03 (<0.01 - 0.09)	0.03 (<0.01 - 0.10)
Total Inorganic Nitrogen (mg/L)	0.06 (0.02 - 0.13)	0.07 (0.02 - 0.13)	0.06 (0.02 - 0.14)	0.06 (0.02 - 0.14)
Total Kjeldahl Nitrogen (mg/L)	0.13 (0.09 - 0.18)	0.11 (0.08 - 0.15)	0.12 (0.09 - 0.23)	0.12 (0.08 - 0.21)
Total Nitrogen (mg/L)	0.17 (0.10 - 0.22)	0.16 (0.09 - 0.24)	0.16 (0.10 - 0.28)	0.16 (0.09 - 0.25)
Orthophosphate Phosphorus (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)
Total Phosphorus (mg/L)	0.02 (0.02 - 0.03)	0.02 (0.02 - 0.03)	0.02 (0.02 - 0.06)	0.02 (0.02 - 0.02)
Silica (as SiO ₂) (mg/L)	0.6 (0.1 - 1.1)	0.6 (0.2 - 1.1)	0.6 (0.1 - 1.0)	0.6 (0.2 - 1.0)
Chlorophyll- <i>a</i> (µg/L)	1.6 (1.2 - 2.6)	1.5 (0.6 - 2.3)	1.8 (0.9 - 4.2)	1.5 (0.9 - 2.3)
<i>E. coli</i> (count/100mL)	1 (1 - 4)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)
Faecal Coliforms (count/100mL)	2 (1 - 14)	2 (1 - 22)	2 (1 - 16)	2 (1 - 150)

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.