Appendix N

Water Quality Data Summary 27th October, 2010



Figure 1 Spatial change in TDS (g/L) concentration, on the seafloor, in the Port Stanvac region. The coloured scale bar represents changes in TDS concentration between 36.7 g/L and 37.0 g/L. Contour lines denote a five metre change in depth. X coordinates refer to eastings and Y coordinates refer to northings measured in metres. Black dot represents position of ADP outfall. Water quality survey undertaken on the 27th October, 2010.



Figure 2 Spatial change in water temperature, on the seafloor, in the Port Stanvac region. The coloured scale bar represents temperature changes between 15.4 °C and 16.4 °C. Contour lines denote a five metre change in depth. X coordinates refer to eastings and Y coordinates refer to northings measured in metres. Black dot represents position of ADP outfall. Water quality survey undertaken on the 27th October, 2010.



Figure 3 Spatial change in dissolved oxygen concentration, on the seafloor, in the Port Stanvac region. The coloured scale bar represents a change in the dissolved oxygen concentration between 7.8 mg/L and 8.3 mg/L. Contour lines denote a five metre change in depth. X coordinates refer to eastings and Y coordinates refer to northings measured in metres. Black dot represents position of ADP outfall. Water quality survey undertaken on the 27th October, 2010.



Figure 4 Spatial change in dissolved oxygen concentration (expressed as percentage saturation), on the seafloor, in the Port Stanvac region. The coloured scale bar represents a change in the dissolved oxygen concentration between 98 % and 105 %. Contour lines denote a five metre change in depth. X coordinates refer to eastings and Y coordinates refer to northings measured in metres. Black dot represents position of ADP outfall. Water quality survey undertaken on the 27th October, 2010.



Figure 5 Spatial change in chlorophyll a concentration, one metre below the surface, in the Port Stanvac region. The coloured scale bar represents a change in chlorophyll concentration between 2.4 μ g/L and 4.1 μ g/L. Contour lines denote a five metre change in depth. X coordinates refer to eastings and Y coordinates refer to northings measured in metres. Black dot represents position of ADP outfall. Water quality survey undertaken on the 27th October, 2010.



Figure 6 Change in water temperature (x axis; degrees Celsius) at different depths (y axis; metres) throughout the water column. Water quality profiles were conducted at a depth of 5 m, 10 m, 15 m, 20 m, 25 m and 10 km offshore (Reference sites); north (solid lines) and south (broken line) of the ADP diffuser. Orange represents 100 m, blue 500 m and green 5 km either north or south of the diffuser. Water quality survey undertaken on the 27th October, 2010.

October 2010



Figure 7 Change in dissolved oxygen (x axis; mg/L) at different depths (y axis; metres) throughout the water column. Water quality profiles were conducted at a depth of 5 m, 10 m, 15m, 20 m, 25 m and 10 km offshore (Reference sites); north (solid lines) and south (broken line) of the ADP diffuser. Orange represents 100 m, blue 500 m and green 5 km either north or south of the diffuser. Water quality survey undertaken on the 27th October, 2010.

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Figure 8 Change in turbidity (x axis; NTU) at different depths (y axis; metres) throughout the water column. Water quality profiles were conducted at a depth of 5 m, 10 m, 15m, 20 m, 25 m and 10 km offshore (Reference sites); north (solid lines) and south (broken line) of the ADP diffuser. Orange represents 100 m, blue 500 m and green 5 km either north or south of the diffuser. Water quality survey undertaken on the 27th October, 2010.

			10m
F			
, , , , , , , , , , , , , , , , , , ,			
-0.5	0	0.5	1
		25	m



Figure 9 Change in pH (x axis; pH units) at different depths (y axis; metres) throughout the water column. Water quality profiles were conducted at a depth of 5 m, 10 m, 15m, 20 m, 25 m and 10 km offshore (Reference sites); north (solid lines) and south (broken line) of the ADP diffuser. Orange represents 100 m, blue 500 m and green 5 km either north or south of the diffuser. Water quality survey undertaken on the 27th October, 2010.

						10	10m	
8	.5	8.6	8.7	8.8	8	8.9	ġ	
						25m		
8.5	8.6	8.7		8.8	8.9		9	



Figure 10 Change in specific conductivity (x axis; μS/cm) at different depths (y axis; metres) throughout the water column. Water quality profiles were conducted at a depth of 5 m, 10 m, 15m, 20 m, 25 m and 10 km offshore (Reference sites); north (solid lines) and south (broken line) of the ADP diffuser. Orange represents 100 m, blue 500 m and green 5 km either north or south of the diffuser. Water quality survey undertaken on the 27th October, 2010.





Figure 11 Change in total dissolved solids (x axis; g/L) at different depths (y axis; metres) throughout the water column. Water quality profiles were conducted at a depth of 5 m, 10 m, 15m, 20 m, 25 m and 10 km offshore (Reference sites); north (solid lines) and south (broken line) of the ADP diffuser. Orange represents 100 m, blue 500 m and green 5 km either north or south of the diffuser. Water quality survey undertaken on the 27th October, 2010.