Attachment 1

Surface Water Monitoring Program

		Sample Locations		
	Site Code	SW07	SW01	SW04
	Easting (m E)*	715031	715054	714895
	Northing (m S)*	8614965	8615118	8614982
Parameter	**Units**	**Trigger Value[1]**	**Frequency**	
Field Measurement				
Flow[3]	L/s	-	M	M	M
pH	pH units	6 – 8.5[2]			
Electrical Conductivity (EC)	µS/cm	-			
Dissolved Oxygen (DO)	% saturation	80 – 100[2]			
Temperature	ºC	-			
Turbidity	NTU	-			
Metals/Metalloids (filtered (0.45µm) and unfiltered)				
Cadmium (Cd)	µg/L	5.5[6]	M	M	M
Chromium (Cr)[4]		4.4[5,6]			
Copper (Cu)		0.6[6]			
Lead (Pb)		4.4[6]			
Mercury (Hg)		0.4[6]			
Nickel (Ni)		70[6]			
Zinc (Zn)		8[6]			
Other				
Chemical Oxygen Demand (COD)	µg/L	-	M	M	M
Total Suspended Solids (TSS)		10[2]			
Total Dissolved Solids (TDS)		-			
Nutrients				
Ammonia (NH3 as N)	µg/L	20[2]	M	M	M
Total Nitrogen (TN)		300[2]			
Total Phosphorous (TP)		30[2]			
Hydrocarbons				
Total Recoverable Hydrocarbons (TRH)	µg/L	-	M	M	M
Benzene		700[6]			
Toluene		-			
Ethylbenzene		-			
Xylene		-			
Naphthalene		70[6]			

Key

* – EPSG:32752 (WGS 84 / UTM zone 52S)

M – Monthly during the months December to March

[1] – Trigger values only apply to monitoring location **SW07**

[2] – Based on *Darwin Harbour Water Quality Objectives* *(Marine and Estuarine Systems – Upper Estuary)*

[3] – Estimate the flow at the time of sampling

[4] – Analyse for Trivalent and Hexavalent Chromium if total Chromium exceeds trigger value

[5] – Based on Hexavalent Chromium (Marine water) 95% species protection *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG 2018)

[6] – Based on 95% species protection for marine waters (ANZG 2018)