Appendix 9.3 - Surface Water Hydrochemistry Database

Sample Details		Environmental Quality Standards (EQSs)										
Sample ID			SW1	SW1	SW2	SW2	SW3	SW3	SW4	SW4	SW5	SW5
Project COC Reference			603680 (C0C1)	603680 (C0C2)	603680 (C0C1)	603680 (C0C2)	603680 (C0C1)	603680 (C0C2)	603680 (C0C1)	603680 (C0C2)	603680 (C0C1)	603680 (C0C2)
Sample Type	*Medum*		Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Date Sampled	*dd/mm/yyyy*		21/03/2023	17/04/2023	21/03/2023	17/04/2023	21/03/2023	17/04/2023	21/03/2023	17/04/2023	21/03/2023	17/04/2023
Grid Reference for Sampling Location	*ITM*		589186.5,823282.9	589186.5,823282.9	589209.4,826475.3	589209.4,826475.3	590048.0,825176.5	590048.0,825176.5	587639.9,824031.8	587639.9,824031.8	587596.96,823412.90	587596.96,823412.90
Comment												
Field Data Discharge Data												
Surface Water Feature	*Type*		River	River	River	River	River	River	Stream	Stream	River	River
Description of sample location	*Type*		Bridge on road	Bridge on road	Bridge on road	Bridge on road	Bridge on road	Bridge on road	On site	On site	Bridge on road	Bridge on road
Width of Water Body	*m*		3 metres	3 metres	1.5 metres	1.5 metres	4 metres	4 metres	0.6 metres	0.6 metres	1 metres	1 metres
Depth (d)	*m*		0.5 metres	0.5 metres	.3 metres	.3 metres	0.2 metres	0.2 metres	0.1 metres	0.1 metres	0.2 metres	0.2 metres
Total Rain 3 Days Prior R1 (mm)	*mm/72hours*		24.4	7.2	24.4	7.2	24.4	7.2	24.4	7.2	24.4	7.2
Field Data												
Clarity			Clear	Clear	Cloudy	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Colour			Brown	Yellow	yellow	Golden	Brown	Brown	Yellow tint	Mustard	Brown Tint	Brown Tint
Odour			No odour	No odour	No odour	none	No Odour	Earthy	No Odour	No Odour	No Odour	No Odour
pH	*pH Units*	>6 & <9	7.13	7.8	7.16	8.45	7.88	6.8	7.17	8.08	7.44	6.93
Conductivity	*µS/cm*	2.5	98	201.6	76	325	117	278	124	196	92	3.1
Temperature	*deg. C*	21.5	9.7	9.7	9.2	10.8	9.5	13.4	8.4	11.9	8.5	9.5
Dissolved Oxygen (mg/l)	*%*		N/A	19.28	N/A	23.4	N/A	55.4	N/A	23.4	N/A	13.23
Oxidation Reduction Potential	*mg/l*	50% Samples >9	N/A	120	N/A	-50.4	N/A		N/A	-50.4	N/A	-1.54
Laboratory data												
Conductivity @ 25 deg.C	*uS/cm*	2.5	81	89	79	87	120	126	122	150	87	103
pH	*pH Units*	>6 & <9	6.66	6.62	6.62	6.62	6.83	6.86	6.91	6.86	6.69	6.7
Carbon, Organic (diss.filt)	*mg/l*		13	17	18	18	16	16	16	16	13	13
Ammoniacal Nitrogen as N (low level)	*mg/l*	0.02	<0.01	0.02	0.02	0.02	<0.01	0.02	<0.01	0.02	<0.01	0.02
Nitrate as NO3	*mg/l*		<0.2	<0.2	0.5	<0.2	0.9	1.3	2.2	1.3	<0.2	0.6
Nitrite as NO2	*mg/l*	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
OrthoPhosphate (P04)	*mg/l*		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Suspended solids, Total	*mg/l*	25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Turbidity	*ntu*		6.4	10.2	4.9	7	19.3	12.4	5.7	7	8.6	7.2
Copper (diss.filt)	*µg/l*	5	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7
Phosphorus (diss.filt)	*µg/l*		12	10	18	17	19	18	15	25	12	13
Zinc (diss.filt)	*µg/l*		5	4	7	5	4	6	9	7	5	4
Copper (tot.unfilt)	*µg/l*	2000	<7	<7	<7	<7	<7	<7	9	<7	<7	<7
Hardness, Total as CaCO3 unfiltered	*mg/l*		22	24	20	33	34	39	45	55	25	28
Zinc (tot.unfilt)	*µg/l*	30	6	14	6	20	4	5	12	5	5	3
Apparent Colour	*mg/l PtCo*		210	234	219	290	217	244	238	319	161	226
Phosphorus (tot.unfilt)	*µg/l*	No Impact on Fish	16	13	27	22	27	28	20	29	17	15