Air Quality Monitoring Results

Air Quality Monitoring Results for

Contract No. SPW 07/2020

Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

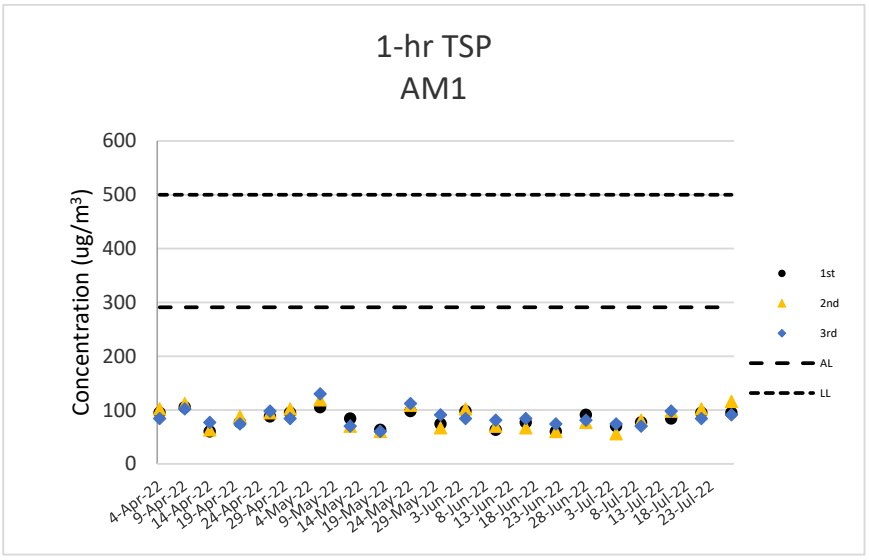
AM1 - Topfine Machinery (China) Co. Ltd.

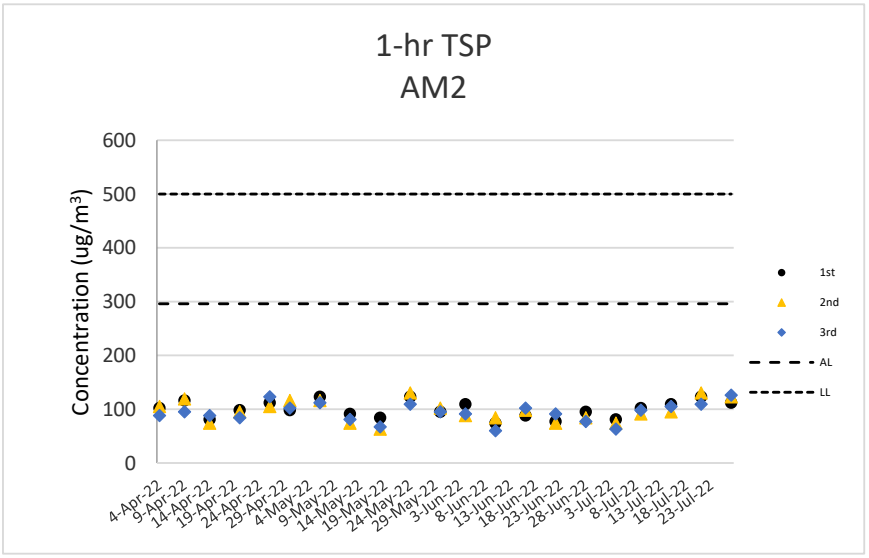
			1-hour TSP (µg/m³)				
Date	Weather Condition	Start Time	1st Measurement	2nd Measurement	3rd Measurement	Action Level (ug/m^3)	Limit Level (ug/m^3)
4-Jul-22	Cloudy	8:35	70	56	74	291	500
9-Jul-22	Cloudy	8:39	77	81	70		
15-Jul-22	Fine	8:33	84	98	98		
21-Jul-22	Fine	8:41	95	102	84		
27-Jul-22	Fine	8:30	95	116	91		
		Min	56				
		Max	116				
		Average	86				

AM2 - Squatter house at the west of Yuen Long STW

			1-hour TSP (µg/m³)				
Date	Weather Condition	Start Time	1st Measurement	2nd Measurement	3rd Measurement	Action Level (ug/m^3)	Limit Level (ug/m^3)
4-Jul-22	Cloudy	8:47	81	74	63	296	500
9-Jul-22	Cloudy	8:53	102	91	98		
15-Jul-22	Fine	8:43	109	95	105		
21-Jul-22	Fine	8:32	123	130	109		
27-Jul-22	Fine	8:41	112	123	126		
		Min	63				
		Max	130				
		Average	103				

Note:
Underline: Exceedance of Action Level
Underline and Bold: Exceedance of Limit Level





Air Quality Monitoring Results

Noise Monitoring Results

Noise Monitoring Results for
Contract No. SPW 07/2020
Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

CM1 - Squatter house to the north of YLSTW

Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
4-Jul-22	10:31	55	58	52	0.5	Cloudy	75
15-Jul-22	10:10	54	56	51	0.2	Fine	75
21-Jul-22	9:33	54	57	51	0.1	Fine	75
27-Jul-22	10:08	55	59	51	0.2	Fine	75
	Max	55					
	Min	54					

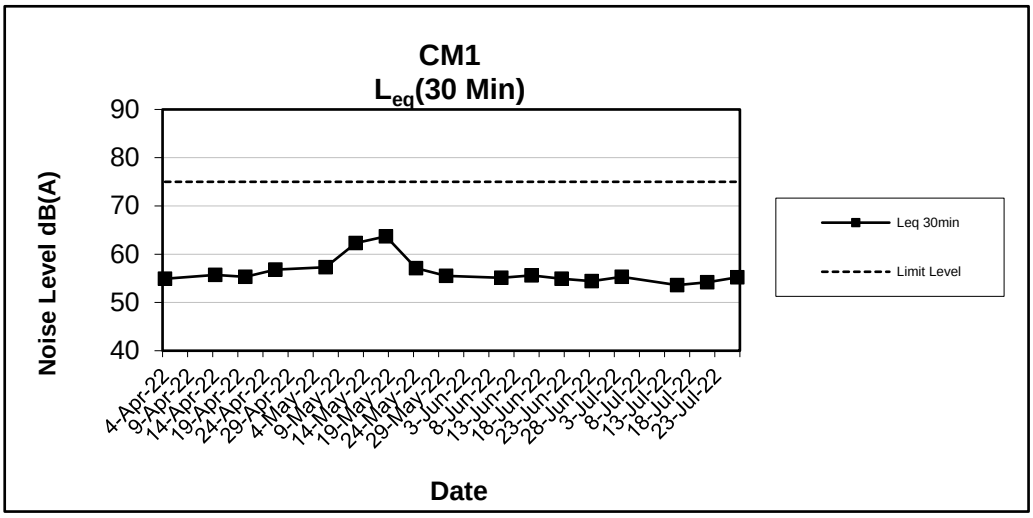
CM2 - Squatter house to the west of YLSTW

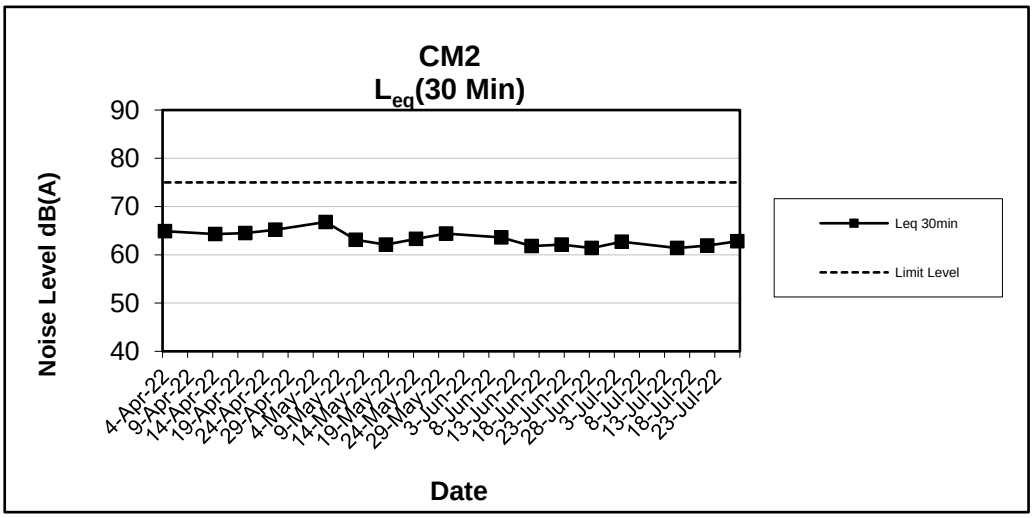
Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
4-Jul-22	8:53	63	65	55	0.6	Cloudy	75
15-Jul-22	8:49	61	64	54	0.2	Fine	75
21-Jul-22	13:41	62	65	55	0.3	Fine	75
27-Jul-22	8:46	63	66	56	0.2	Fine	75
	Max	63					
	Min	61					

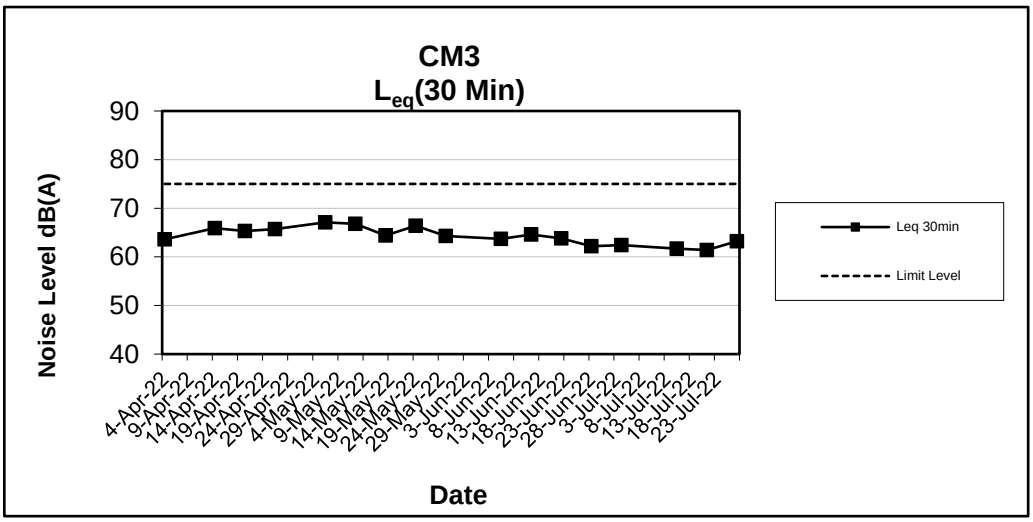
CM3 - Squatter house to the east of YLSTW

Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
4-Jul-22	13:06	62	65	55	0.5	Cloudy	75
15-Jul-22	11:29	62	64	55	0.3	Fine	75
21-Jul-22	11:03	61	64	55	0.3	Fine	75
27-Jul-22	11:29	63	66	57	0.3	Fine	75
	Max	63					
	Min	61					

Note:
CM1, CM2 and CM3: Free-field measurement (+3dB(A) correction has been applied).
No raining or wind with speed over 5 m/s was observed during noise monitoring according to the onsite observation.







Noise Monitoring Results

Water Quality Monitoring Results

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	5/7/2022	Mid-Flood	Cloudy	Moderate	10:59	2.4	M	1.2	1	0.273	174	7.41	7.42	1.31	1.32	27.52	27.52	57.4	57.3	4.51	4.50	19.3	19.4	18	17
M1	5/7/2022	Mid-Flood	Cloudy	Moderate	10:59	2.4	M	1.2	2			7.42		1.32		27.52		57.1		4.48		19.5		16	
M2	5/7/2022	Mid-Flood	Cloudy	Moderate	10:40	1.2	M	0.6	1	0.258	222	7.24	7.24	1.08	1.08	27.90	27.91	47.4	47.8	3.72	3.76	24.9	24.7	16	15
M2	5/7/2022	Mid-Flood	Cloudy	Moderate	10:40	1.2	M	0.6	2			7.23		1.07		27.91		48.2		3.79		24.5		14	
M3	5/7/2022	Mid-Flood	Fine	Moderate	10:40	0.9	M	0.45	1	0.074	81	7.17	7.16	0.72	0.73	27.61	27.60	63.5	63.7	5.29	5.32	22.8	22.8	19	20
M3	5/7/2022	Mid-Flood	Fine	Moderate	10:40	0.9	M	0.45	2			7.14		0.73		27.58		63.8		5.34		22.8		20	
M1	5/7/2022	Mid-Ebb	Cloudy	Moderate	5:39	2	M	1	1	0.219	252	7.09	7.10	0.89	0.90	26.04	26.05	46.2	45.8	3.62	3.59	20.5	20.8	11	12
M1	5/7/2022	Mid-Ebb	Cloudy	Moderate	5:39	2	M	1	2			7.10		0.91		26.05		45.3		3.55		21.0		12	
M2	5/7/2022	Mid-Ebb	Cloudy	Moderate	5:55	1	M	0.5	1	0.236	289	7.33	7.33	1.13	1.13	26.12	26.13	50.5	50.3	3.94	3.93	17.6	18.1	18	19
M2	5/7/2022	Mid-Ebb	Cloudy	Moderate	5:55	1	M	0.5	2			7.32		1.12		26.14		50.1		3.91		18.7		20	
M3	5/7/2022	Mid-Ebb	Fine	Moderate	5:35	1.1	M	0.55	1	0.057	92	7.30	7.29	0.69	0.69	27.80	27.81	60.7	60.6	4.92	4.89	19.7	19.7	21	21
M3	5/7/2022	Mid-Ebb	Fine	Moderate	5:35	1.1	M	0.55	2			7.28		0.68		27.81		60.4		4.86		19.6		20	

Remark

1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	7/7/2022	Mid-Flood	Fine	Moderate	13:05	1.3	M	0.65	1	0.055	205	7.11	7.12	2.71	2.72	28.27	28.26	66.1	66.2	4.85	4.87	19.3	19.3	19	19
M1	7/7/2022	Mid-Flood	Fine	Moderate	13:05	1.3	M	0.65	2			7.12		2.72		28.24		66.3		4.88		19.3		18	
M2	7/7/2022	Mid-Flood	Fine	Moderate	12:43	1	M	0.5	1	0.085	265	7.23	7.24	2.64	2.66	28.43	28.46	62.4	62.3	4.69	4.68	19.6	19.6	14	13
M2	7/7/2022	Mid-Flood	Fine	Moderate	12:43	1	M	0.5	2			7.24		2.67		28.49		62.2		4.67		19.6		12	
M3	7/7/2022	Mid-Flood	Cloudy	Smooth	12:46	0.6	M	0.3	1	0.221	87	7.30	7.29	1.29	1.28	28.92	28.93	48.3	48.6	3.75	3.78	23.9	24.2	23	24
M3	7/7/2022	Mid-Flood	Cloudy	Smooth	12:46	0.6	M	0.3	2			7.28		1.27		28.93		48.9		3.81		24.5		25	
M1	7/7/2022	Mid-Ebb	Fine	Moderate	7:39	1.1	M	0.55	1	0.043	175	7.07	7.08	2.39	2.39	28.67	28.68	49.8	49.8	4.38	4.37	23.0	23.1	28	28
M1	7/7/2022	Mid-Ebb	Fine	Moderate	7:39	1.1	M	0.55	2			7.08		2.38		28.69		49.7		4.36		23.1		27	
M2	7/7/2022	Mid-Ebb	Fine	Moderate	7:55	0.9	M	0.45	1	0.062	94	7.06	7.06	2.44	2.45	28.64	28.64	51.8	51.7	4.43	4.42	23.8	23.9	22	23
M2	7/7/2022	Mid-Ebb	Fine	Moderate	7:55	0.9	M	0.45	2			7.05		2.46		28.64		51.6		4.40		23.9		23	
M3	7/7/2022	Mid-Ebb	Cloudy	Smooth	7:29	0.4	M	0.2	1	0.202	251	7.21	7.22	0.73	0.74	26.23	26.24	42.7	43.0	3.31	3.33	21.5	21.1	21	22
M3	7/7/2022	Mid-Ebb	Cloudy	Smooth	7:29	0.4	M	0.2	2			7.22		0.74		26.24		43.2		3.35		20.8		22	

Remark

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4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	9/7/2022	Mid-Flood	Fine	Moderate	16:20	1.4	M	0.7	1	0.078	302	7.32	7.32	2.83	2.84	28.53	28.56	71.4	71.5	5.30	5.32	22.6	22.7	16	16
M1	9/7/2022	Mid-Flood	Fine	Moderate	16:20	1.4	M	0.7	2			7.31		2.84		28.59		71.6		5.34		22.7		15	
M2	9/7/2022	Mid-Flood	Fine	Moderate	16:05	1.1	M	0.55	1	0.056	261	7.25	7.27	2.62	2.63	29.18	29.19	70.2	70.4	5.13	5.16	21.6	21.6	17	16
M2	9/7/2022	Mid-Flood	Fine	Moderate	16:05	1.1	M	0.55	2			7.28		2.64		29.19		70.5		5.19		21.6		15	
M3	9/7/2022	Mid-Flood	Cloudy	Calm	16:09	0.4	M	0.2	1	0.208	97	7.39	7.39	1.36	1.37	31.09	31.10	55.9	55.5	4.26	4.23	17.2	16.8	10	11
M3	9/7/2022	Mid-Flood	Cloudy	Calm	16:09	0.4	M	0.2	2			7.38		1.37		31.10		55.1		4.19		16.5		11	
M1	9/7/2022	Mid-Ebb	Fine	Moderate	9:37	1.3	M	0.65	1	0.045	124	7.16	7.15	2.34	2.37	30.01	30.02	56.2	56.3	4.43	4.45	18.8	18.8	10	10
M1	9/7/2022	Mid-Ebb	Fine	Moderate	9:37	1.3	M	0.65	2			7.14		2.39		30.02		56.4		4.46		18.8		10	
M2	9/7/2022	Mid-Ebb	Fine	Moderate	9:57	1	M	0.5	1	0.048	104	7.18	7.19	2.61	2.62	30.29	30.29	60.7	60.6	4.81	4.77	19.2	19.2	11	10
M2	9/7/2022	Mid-Ebb	Fine	Moderate	9:57	1	M	0.5	2			7.19		2.62		30.28		60.4		4.73		19.2		9	
M3	9/7/2022	Mid-Ebb	Cloudy	Calm	9:28	0.6	M	0.3	1	0.234	245	7.59	7.58	0.65	0.66	29.11	29.12	45.4	45.8	3.46	3.49	13.3	13.5	6	6
M3	9/7/2022	Mid-Ebb	Cloudy	Calm	9:28	0.6	M	0.3	2			7.57		0.66		29.13		46.1		3.52		13.6		6	

Remark

1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	12/7/2022	Mid-Flood	Fine	Calm	5:34	2.4	M	1.2	1	0.263	238	7.54	7.54	1.95	1.94	27.33	27.34	65.2	65.4	4.82	4.84	28.5	29.0	36	36
M1	12/7/2022	Mid-Flood	Fine	Calm	5:34	2.4	M	1.2	2			7.53		1.93		27.34		65.6		4.85		29.5		35	
M2	12/7/2022	Mid-Flood	Fine	Calm	5:51	1.4	M	0.7	1	0.297	210	7.40	7.41	1.66	1.67	27.81	27.82	62.2	61.8	4.58	4.55	22.9	23.3	21	22
M2	12/7/2022	Mid-Flood	Fine	Calm	5:51	1.4	M	0.7	2			7.42		1.68		27.82		61.3		4.51		23.6		23	
M3	12/7/2022	Mid-Flood	Fine	Moderate	5:29	0.9	M	0.45	1	0.065	110	7.57	7.56	1.10	1.11	31.59	31.59	75.0	75.2	5.48	5.48	49.5	49.5	54	54
M3	12/7/2022	Mid-Flood	Fine	Moderate	5:29	0.9	M	0.45	2			7.54		1.11		31.58		75.4		5.47		49.4		53	
M1	12/7/2022	Mid-Ebb	Fine	Calm	12:51	2	M	1	1	0.391	271	7.26	7.27	0.81	0.80	32.59	32.59	50.6	51.1	3.74	3.78	31.1	30.9	35	36
M1	12/7/2022	Mid-Ebb	Fine	Calm	12:51	2	M	1	2			7.27		0.79		32.58		51.5		3.81		30.7		37	
M2	12/7/2022	Mid-Ebb	Fine	Calm	12:33	1	M	0.5	1	0.364	329	7.33	7.33	0.88	0.88	32.19	32.20	56.1	55.9	4.13	4.12	27.8	27.4	14	13
M2	12/7/2022	Mid-Ebb	Fine	Calm	12:33	1	M	0.5	2			7.32		0.87		32.21		55.7		4.10		26.9		12	
M3	12/7/2022	Mid-Ebb	Fine	Moderate	12:34	1.1	M	0.55	1	0.104	78	7.89	7.89	1.44	1.46	31.09	31.07	87.0	87.1	6.36	6.35	45.9	46.0	39	39
M3	12/7/2022	Mid-Ebb	Fine	Moderate	12:34	1.1	M	0.55	2			7.88		1.48		31.04		87.2		6.34		46.0		38	

Remark

1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	14/7/2022	Mid-Flood	Fine	Moderate	7:05	1.2	M	0.6	1	0.062	124	8.88	8.88	3.43	3.41	30.91	30.90	81.2	81.0	6.97	6.91	31.1	31.0	44	42
M1	14/7/2022	Mid-Flood	Fine	Moderate	7:05	1.2	M	0.6	2			8.87		3.39		30.90		80.7		6.84		31.0		40	
M2	14/7/2022	Mid-Flood	Fine	Moderate	7:29	1	M	0.5	1	0.048	92	8.72	8.72	3.49	3.49	30.64	30.65	79.4	79.7	6.72	6.75	30.0	30.1	32	32
M2	14/7/2022	Mid-Flood	Fine	Moderate	7:29	1	M	0.5	2			8.71		3.48		30.66		79.9		6.77		30.1		31	
M3	14/7/2022	Mid-Flood	Fine	Calm	6:58	1.2	M	0.6	1	0.306	82	7.79	7.79	1.73	1.74	27.96	27.97	86.9	86.8	6.36	6.35	41.7	41.9	40	40
M3	14/7/2022	Mid-Flood	Fine	Calm	6:58	1.2	M	0.6	2			7.78		1.75		27.97		86.6		6.33		42.1		40	
M1	14/7/2022	Mid-Ebb	Fine	Moderate	14:43	1	M	0.5	1	0.067	277	8.74	8.73	2.64	2.65	31.97	31.98	70.4	70.6	6.45	6.48	28.0	28.0	38	39
M1	14/7/2022	Mid-Ebb	Fine	Moderate	14:43	1	M	0.5	2			8.72		2.66		31.99		70.8		6.51		28.0		40	
M2	14/7/2022	Mid-Ebb	Fine	Moderate	14:23	0.9	M	0.45	1	0.076	245	8.91	8.92	2.58	2.59	31.68	31.69	74.4	74.5	6.71	6.72	28.3	28.4	29	30
M2	14/7/2022	Mid-Ebb	Fine	Moderate	14:23	0.9	M	0.45	2			8.93		2.59		31.69		74.6		6.73		28.4		31	
M3	14/7/2022	Mid-Ebb	Fine	Calm	14:13	0.8	M	0.4	1	0.369	266	7.33	7.34	1.36	1.36	32.89	32.90	97.1	97.4	7.15	7.17	39.5	39.6	43	43
M3	14/7/2022	Mid-Ebb	Fine	Calm	14:13	0.8	M	0.4	2			7.34		1.35		32.90		97.6		7.19		39.8		43	

Remark

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5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	16/7/2022	Mid-Flood	Fine	Moderate	8:28	1.2	M	0.6	1	0.04	118	8.35	8.36	1.53	1.54	30.18	30.19	89.2	89.0	6.67	6.61	21.0	21.1	11	11
M1	16/7/2022	Mid-Flood	Fine	Moderate	8:28	1.2	M	0.6	2			8.36		1.54		30.19		88.7		6.54		21.1		11	
M2	16/7/2022	Mid-Flood	Fine	Moderate	8:42	0.9	M	0.45	1	0.038	53	8.39	8.39	1.84	1.86	30.34	30.37	87.8	87.4	6.58	6.55	24.0	24.1	20	20
M2	16/7/2022	Mid-Flood	Fine	Moderate	8:42	0.9	M	0.45	2			8.39		1.88		30.39		86.9		6.51		24.1		20	
M3	16/7/2022	Mid-Flood	Fine	Calm	8:38	1.2	M	0.6	1	0.287	87	7.65	7.66	2.08	2.09	30.01	30.02	66.8	66.5	4.93	4.90	38.2	38.6	29	28
M3	16/7/2022	Mid-Flood	Fine	Calm	8:38	1.2	M	0.6	2			7.66		2.09		30.02		66.1		4.87		39.0		26	
M1	16/7/2022	Mid-Ebb	Fine	Moderate	16:09	1	M	0.5	1	0.074	98	8.37	8.38	2.94	2.95	29.43	29.44	85.7	85.7	6.41	6.41	18.8	18.8	25	25
M1	16/7/2022	Mid-Ebb	Fine	Moderate	16:09	1	M	0.5	2			8.39		2.95		29.44		85.6		6.40		18.8		25	
M2	16/7/2022	Mid-Ebb	Fine	Moderate	15:52	0.8	M	0.4	1	0.092	192	8.32	8.33	2.93	2.94	29.26	29.25	84.1	84.0	6.37	6.36	19.8	19.8	32	34
M2	16/7/2022	Mid-Ebb	Fine	Moderate	15:52	0.8	M	0.4	2			8.34		2.94		29.24		83.8		6.34		19.8		35	
M3	16/7/2022	Mid-Ebb	Fine	Calm	15:51	1	M	0.5	1	0.34	256	7.43	7.44	1.23	1.24	33.19	33.20	73.8	74.3	5.40	5.44	26.9	26.2	37	36
M3	16/7/2022	Mid-Ebb	Fine	Calm	15:51	1	M	0.5	2			7.44		1.25		33.21		74.7		5.47		25.6		35	

Remark

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	19/7/2022	Mid-Flood	Fine	Calm	11:36	2.2	M	1.1	1	0.27	221	7.51	7.52	1.98	1.98	30.58	30.59	72.2	71.8	5.44	5.41	29.2	29.5	57	56
M1	19/7/2022	Mid-Flood	Fine	Calm	11:36	2.2	M	1.1	2			7.52		1.98		30.59		71.4		5.38		29.9		54	
M2	19/7/2022	Mid-Flood	Fine	Calm	11:18	1.2	M	0.6	1	0.257	275	7.67	7.67	1.69	1.70	30.47	30.48	64.4	64.7	4.83	4.85	26.2	25.8	59	60
M2	19/7/2022	Mid-Flood	Fine	Calm	11:18	1.2	M	0.6	2			7.66		1.71		30.48		64.9		4.87		25.4		60	
M3	19/7/2022	Mid-Flood	Fine	Calm	11:20	0.6	M	0.3	1	0.213	95	7.55	7.55	1.33	1.34	30.81	30.82	67.3	67.1	5.07	5.05	36.1	36.5	34	33
M3	19/7/2022	Mid-Flood	Fine	Calm	11:20	0.6	M	0.3	2			7.54		1.34		30.83		66.8		5.03		36.8		31	
M1	19/7/2022	Mid-Ebb	Fine	Calm	6:19	2	M	1	1	0.229	292	7.27	7.27	1.17	1.16	27.59	27.60	54.2	53.8	4.03	4.00	25.3	25.0	55	53
M1	19/7/2022	Mid-Ebb	Fine	Calm	6:19	2	M	1	2			7.26		1.15		27.61		53.4		3.97		24.6		51	
M2	19/7/2022	Mid-Ebb	Fine	Calm	6:41	1.2	M	0.6	1	0.243	312	7.41	7.41	1.06	1.05	28.03	28.04	60.1	59.8	4.53	4.50	26.2	26.7	59	62
M2	19/7/2022	Mid-Ebb	Fine	Calm	6:41	1.2	M	0.6	2			7.40		1.04		28.04		59.4		4.47		27.1		64	
M3	19/7/2022	Mid-Ebb	Fine	Calm	6:21	0.4	M	0.2	1	0.191	263	7.31	7.31	1.19	1.20	27.35	27.36	56.8	56.5	4.23	4.21	24.0	23.6	61	61
M3	19/7/2022	Mid-Ebb	Fine	Calm	6:21	0.4	M	0.2	2			7.30		1.20		27.36		56.1		4.18		23.2		61	

Remark

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	73.5	79.625

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	21/7/2022	Mid-Flood	Fine	Smooth	13:38	2	M	1	1	0.241	238	7.32	7.32	1.31	1.31	32.88	32.89	66.1	66.5	4.95	4.98	29.4	30.1	26	26
M1	21/7/2022	Mid-Flood	Fine	Smooth	13:38	2	M	1	2			7.31		1.30		32.89		66.8		5.01		30.8		26	
M2	21/7/2022	Mid-Flood	Fine	Smooth	13:19	1	M	0.5	1	0.255	250	7.27	7.26	1.23	1.24	32.40	32.40	63.7	63.5	4.76	4.74	27.7	28.1	27	27
M2	21/7/2022	Mid-Flood	Fine	Smooth	13:19	1	M	0.5	2			7.25		1.25		32.39		63.2		4.72		28.5		26	
M3	21/7/2022	Mid-Flood	Fine	Moderate	13:20	1.3	M	0.65	1	0.071	132	7.14	7.15	0.67	0.67	31.53	31.54	62.9	62.2	4.53	4.47	29.8	29.9	25	25
M3	21/7/2022	Mid-Flood	Fine	Moderate	13:20	1.3	M	0.65	2			7.15		0.66		31.54		61.4		4.41		29.9		24	
M1	21/7/2022	Mid-Ebb	Fine	Smooth	8:25	2.2	M	1.1	1	0.233	264	7.14	7.14	0.94	0.95	28.91	28.92	45.7	45.3	3.38	3.35	24.0	23.7	24	24
M1	21/7/2022	Mid-Ebb	Fine	Smooth	8:25	2.2	M	1.1	2			7.13		0.96		28.92		44.8		3.31		23.3		23	
M2	21/7/2022	Mid-Ebb	Fine	Smooth	8:44	1.2	M	0.6	1	0.218	174	7.21	7.22	1.12	1.13	29.33	29.34	48.2	48.4	3.61	3.63	26.7	26.2	24	24
M2	21/7/2022	Mid-Ebb	Fine	Smooth	8:44	1.2	M	0.6	2			7.22		1.13		29.35		48.6		3.64		25.7		23	
M3	21/7/2022	Mid-Ebb	Fine	Moderate	8:10	1.1	M	0.55	1	0.058	237	6.81	6.82	0.50	0.51	31.16	31.15	52.3	52.4	3.85	3.86	23.1	23.1	12	12
M3	21/7/2022	Mid-Ebb	Fine	Moderate	8:10	1.1	M	0.55	2			6.82		0.52		31.14		52.4		3.86		23.0		11	

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	23/7/2022	Mid-Flood	Fine	Moderate	17:25	1	M	0.5	1	0.048	313	7.40	7.35	0.55	0.55	32.46	32.48	60.4	60.6	3.39	3.40	31.4	31.2	26	26
M1	23/7/2022	Mid-Flood	Fine	Moderate	17:25	1	M	0.5	2			7.29		0.54		32.49		60.7		3.41		31.1		26	
M2	23/7/2022	Mid-Flood	Fine	Moderate	17:06	1.1	M	0.55	1	0.093	74	7.39	7.38	0.72	0.73	32.93	32.94	62.8	62.7	3.58	3.56	29.5	29.5	27	27
M2	23/7/2022	Mid-Flood	Fine	Moderate	17:06	1.1	M	0.55	2			7.36		0.73		32.94		62.5		3.54		29.5		26	
M3	23/7/2022	Mid-Flood	Fine	Calm	17:04	0.4	M	0.2	1	0.195	85	7.65	7.64	1.40	1.41	33.86	33.87	63.2	63.0	4.63	4.62	21.5	21.2	15	16
M3	23/7/2022	Mid-Flood	Fine	Calm	17:04	0.4	M	0.2	2			7.63		1.42		33.88		62.7		4.60		20.9		16	
M1	23/7/2022	Mid-Ebb	Fine	Moderate	10:01	0.9	M	0.45	1	0.065	123	7.27	7.27	0.59	0.59	32.79	32.79	64.1	64.2	3.87	3.87	30.4	30.5	24	24
M1	23/7/2022	Mid-Ebb	Fine	Moderate	10:01	0.9	M	0.45	2			7.26		0.58		32.78		64.3		3.86		30.5		23	
M2	23/7/2022	Mid-Ebb	Fine	Moderate	10:21	0.7	M	0.35	1	0.057	73	7.80	7.80	0.42	0.43	31.65	31.66	72.3	72.4	4.26	4.29	31.1	31.2	24	24
M2	23/7/2022	Mid-Ebb	Fine	Moderate	10:21	0.7	M	0.35	2			7.80		0.43		31.66		72.5		4.31		31.2		23	
M3	23/7/2022	Mid-Ebb	Fine	Calm	9:59	0.6	M	0.3	1	0.229	256	7.30	7.31	0.67	0.67	31.27	31.28	54.9	55.2	4.01	4.03	18.2	18.1	12	13
M3	23/7/2022	Mid-Ebb	Fine	Calm	9:59	0.6	M	0.3	2			7.31		0.66		31.29		55.4		4.05		18.0		13	

Remark

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	26/7/2022	Mid-Flood	Fine	Moderate	20:13	1.1	M	0.55	1	0.082	71	7.81	7.82	2.47	2.47	31.24	31.23	66.1	66.2	5.03	5.02	29.4	29.4	28	28
M1	26/7/2022	Mid-Flood	Fine	Moderate	20:13	1.1	M	0.55	2			7.82		2.46		31.22		66.2		5.01		29.4		27	
M2	26/7/2022	Mid-Flood	Fine	Moderate	19:51	1	M	0.5	1	0.064	123	7.69	7.68	2.25	2.26	32.73	32.72	64.8	63.9	4.87	4.88	29.5	29.5	34	33
M2	26/7/2022	Mid-Flood	Fine	Moderate	19:51	1	M	0.5	2			7.66		2.26		32.71		62.9		4.88		29.6		32	
M3	26/7/2022	Mid-Flood	Fine	Moderate	19:53	1.2	M	0.6	1	0.065	122	7.35	7.28	1.94	1.93	33.05	33.09	56.6	56.5	4.02	4.02	44.6	44.3	50	49
M3	26/7/2022	Mid-Flood	Fine	Moderate	19:53	1.2	M	0.6	2			7.20		1.92		33.12		56.3		4.01		43.9		47	
M1	26/7/2022	Mid-Ebb	Fine	Moderate	12:25	0.8	M	0.4	1	0.044	75	7.67	7.65	1.72	1.73	33.06	33.06	45.7	45.7	3.41	3.41	30.3	30.3	33	34
M1	26/7/2022	Mid-Ebb	Fine	Moderate	12:25	0.8	M	0.4	2			7.63		1.74		33.06		45.6		3.40		30.3		34	
M2	26/7/2022	Mid-Ebb	Fine	Moderate	12:46	0.7	M	0.35	1	0.068	215	7.64	7.65	1.83	1.85	33.15	33.16	52.3	52.2	4.07	4.06	29.5	29.5	50	52
M2	26/7/2022	Mid-Ebb	Fine	Moderate	12:46	0.7	M	0.35	2			7.66		1.87		33.16		52.1		4.05		29.5		54	
M3	26/7/2022	Mid-Ebb	Fine	Moderate	12:32	0.9	M	0.45	1	0.044	210	7.40	7.30	1.92	1.87	33.56	33.66	55.6	55.0	3.91	3.54	43.6	43.3	51	53
M3	26/7/2022	Mid-Ebb	Fine	Moderate	12:32	0.9	M	0.45	2			7.20		1.82		33.76		54.3		3.16		43.1		55	

Remark

1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	63	68.25

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	28/7/2022	Mid-Flood	Fine	Moderate	21:16	1.5	M	0.75	1	0.056	208	7.86	7.85	2.93	2.94	28.34	28.35	80.5	80.5	5.74	5.75	30.9	30.9	32	31
M1	28/7/2022	Mid-Flood	Fine	Moderate	21:16	1.5	M	0.75	2			7.84		2.94		28.36		80.5		5.76		30.9		30	
M2	28/7/2022	Mid-Flood	Fine	Moderate	20:59	1.3	M	0.65	1	0.047	123	7.97	7.94	2.58	2.59	29.14	29.16	83.8	83.8	5.96	5.95	30.2	30.2	29	30
M2	28/7/2022	Mid-Flood	Fine	Moderate	20:59	1.3	M	0.65	2			7.91		2.59		29.18		83.7		5.94		30.2		30	
M3	28/7/2022	Mid-Flood	Fine	Moderate	21:20	1.4	M	0.7	1	0.045	74	7.99	8.00	1.73	1.73	33.00	33.00	84.8	84.7	6.03	6.03	33.1	32.7	27	29
M3	28/7/2022	Mid-Flood	Fine	Moderate	21:20	1.4	M	0.7	2			8.00		1.73		33.00		84.5		6.02		32.2		30	
M1	28/7/2022	Mid-Ebb	Fine	Moderate	13:53	0.9	M	0.45	1	0.066	24	7.80	7.81	4.11	4.12	31.94	31.95	68.5	68.6	4.90	4.92	27.5	27.5	25	25
M1	28/7/2022	Mid-Ebb	Fine	Moderate	13:53	0.9	M	0.45	2			7.81		4.12		31.95		68.7		4.94		27.4		24	
M2	28/7/2022	Mid-Ebb	Fine	Moderate	14:21	0.8	M	0.4	1	0.052	295	7.83	7.84	4.26	4.27	30.73	30.72	67.1	67.2	4.83	4.84	28.1	28.1	26	25
M2	28/7/2022	Mid-Ebb	Fine	Moderate	14:21	0.8	M	0.4	2			7.84		4.27		30.71		67.2		4.84		28.1		24	
M3	28/7/2022	Mid-Ebb	Fine	Moderate	13:57	0.9	M	0.45	1	0.063	143	7.91	7.91	1.49	1.49	32.80	32.90	82.6	82.4	5.88	5.87	34.1	33.1	33	34
M3	28/7/2022	Mid-Ebb	Fine	Moderate	13:57	0.9	M	0.45	2			7.90		1.49		33.00		82.1		5.85		32.1		35	

Remark

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	30/7/2022	Mid-Flood	Fine	Moderate	22:15	1.1	M	0.55	1	0.07	234	7.41	7.42	2.56	2.57	28.71	28.72	64.3	64.4	4.71	4.72	26.3	26.3	24	23
M1	30/7/2022	Mid-Flood	Fine	Moderate	22:15	1.1	M	0.55	2			7.42		2.58		28.72		64.4		4.72		26.2		22	
M2	30/7/2022	Mid-Flood	Fine	Moderate	21:57	0.9	M	0.45	1	0.086	203	7.38	7.39	2.43	2.46	28.91	28.93	62.4	62.2	4.53	4.50	27.3	27.3	19	21
M2	30/7/2022	Mid-Flood	Fine	Moderate	21:57	0.9	M	0.45	2			7.39		2.49		28.94		61.9		4.47		27.2		23	
M3	30/7/2022	Mid-Flood	Cloudy	Moderate	21:49	1.2	M	0.6	1	0.095	123	7.66	7.65	1.77	1.76	31.10	30.90	55.7	55.3	4.09	4.06	48.9	48.6	24	23
M3	30/7/2022	Mid-Flood	Cloudy	Moderate	21:49	1.2	M	0.6	2			7.64		1.75		30.70		54.8		4.03		48.3		22	
M1	30/7/2022	Mid-Ebb	Fine	Moderate	15:04	0.9	M	0.45	1	0.066	92	7.24	7.23	3.55	3.55	30.87	30.87	53.8	53.6	4.01	3.99	30.1	30.2	20	19
M1	30/7/2022	Mid-Ebb	Fine	Moderate	15:04	0.9	M	0.45	2			7.22		3.54		30.87		53.4		3.97		30.2		17	
M2	30/7/2022	Mid-Ebb	Fine	Moderate	15:21	0.7	M	0.35	1	0.044	103	7.31	7.30	3.62	3.63	30.47	30.46	58.2	58.5	4.41	4.45	29.2	29.3	27	27
M2	30/7/2022	Mid-Ebb	Fine	Moderate	15:21	0.7	M	0.35	2			7.29		3.64		30.44		58.8		4.49		29.3		27	
M3	30/7/2022	Mid-Ebb	Cloudy	Moderate	14:48	1	M	0.5	1	0.083	63	7.54	7.54	1.64	1.63	31.20	31.17	51.9	51.6	3.81	3.80	42.7	42.5	34	34
M3	30/7/2022	Mid-Ebb	Cloudy	Moderate	14:48	1	M	0.5	2			7.54		1.62		31.14		51.3		3.79		42.3		34	

Remark

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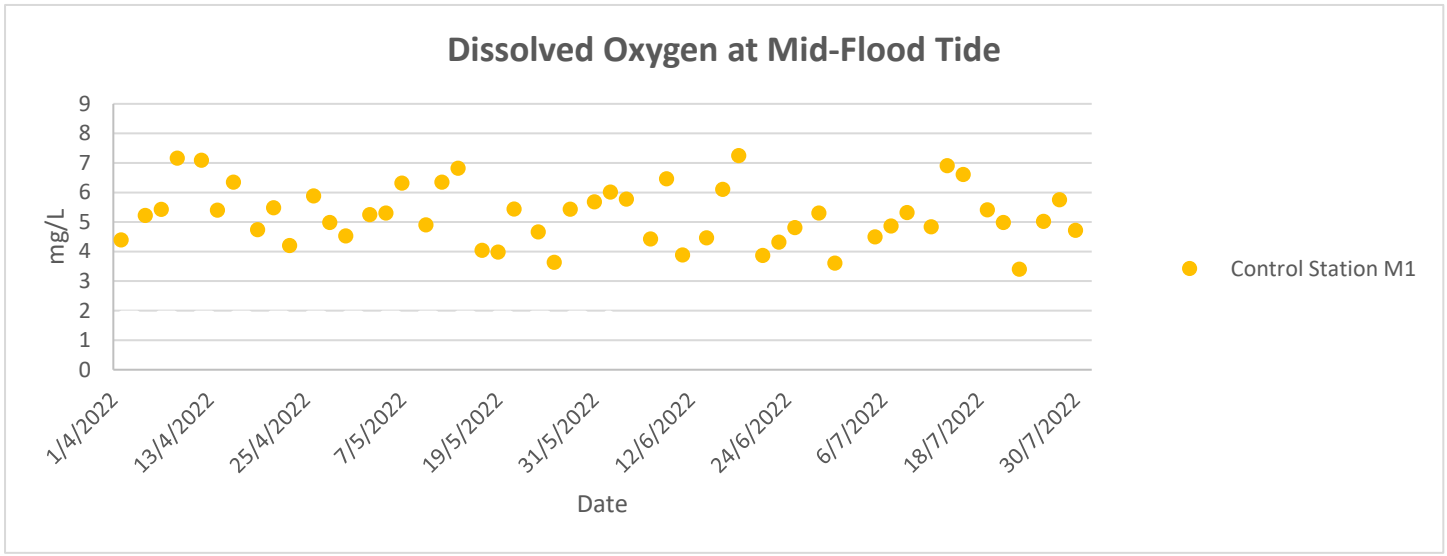
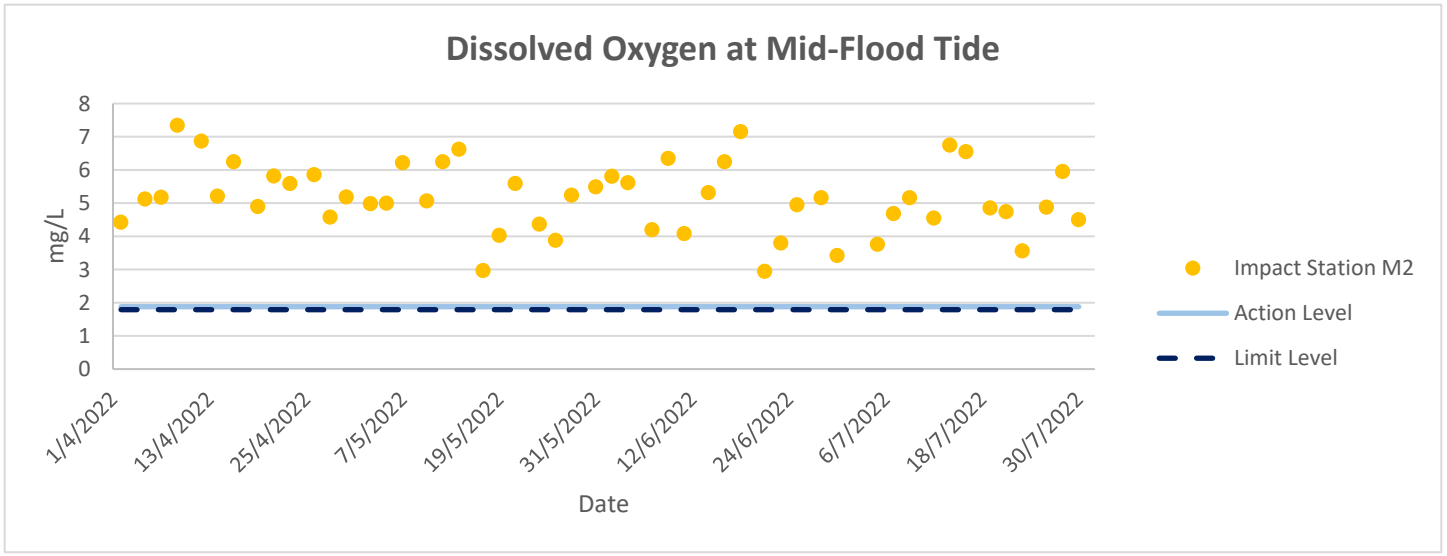
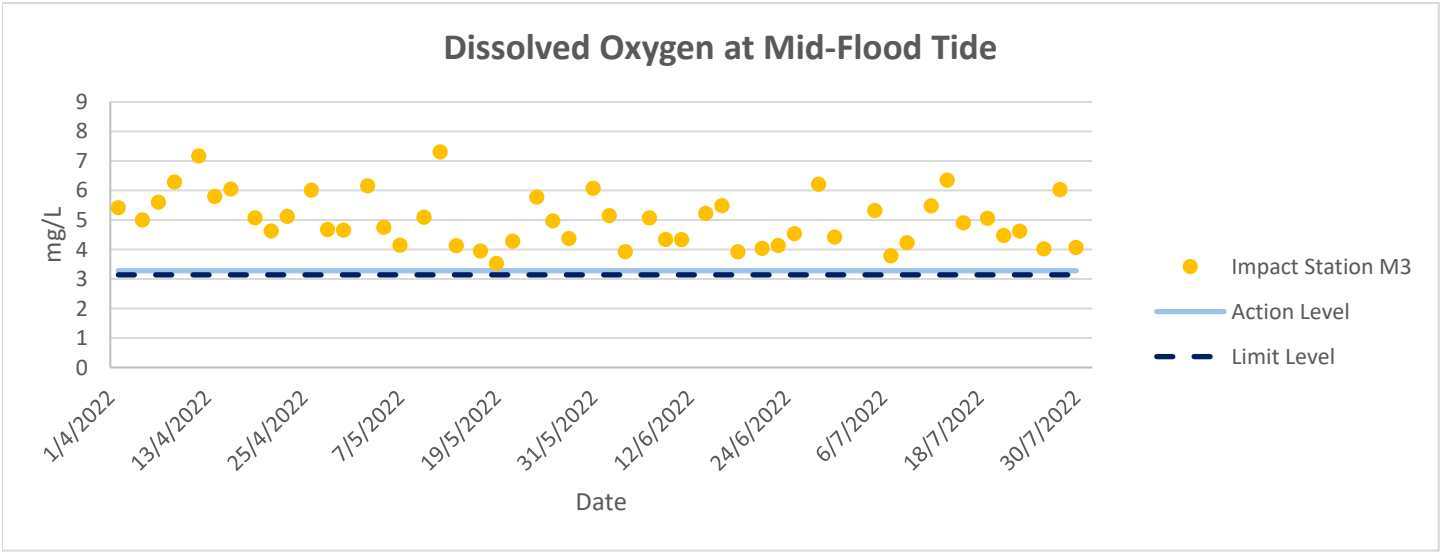
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

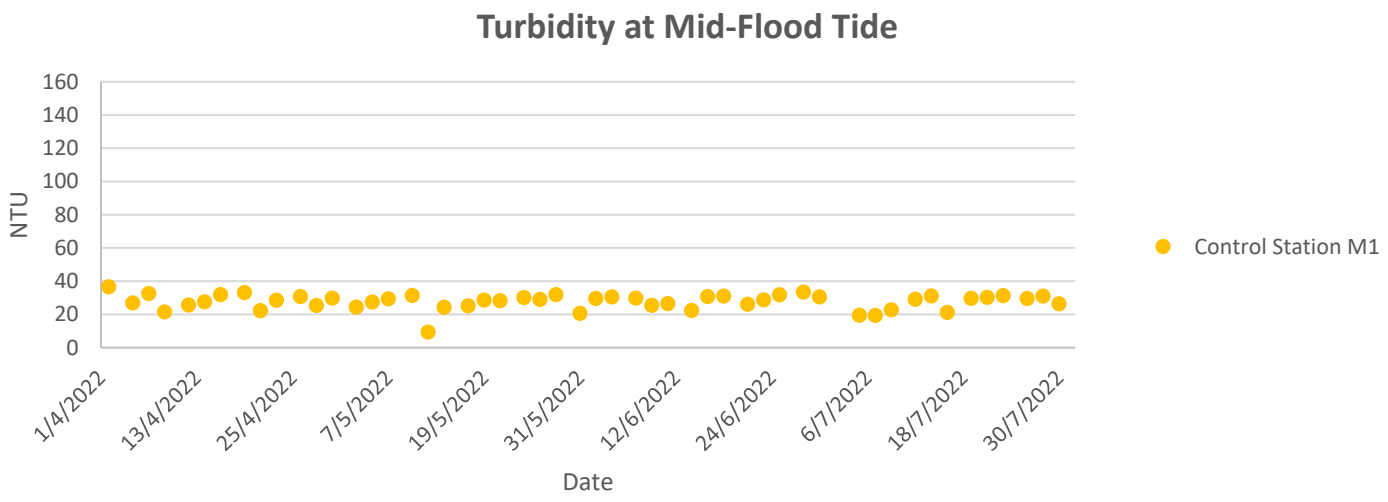
Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

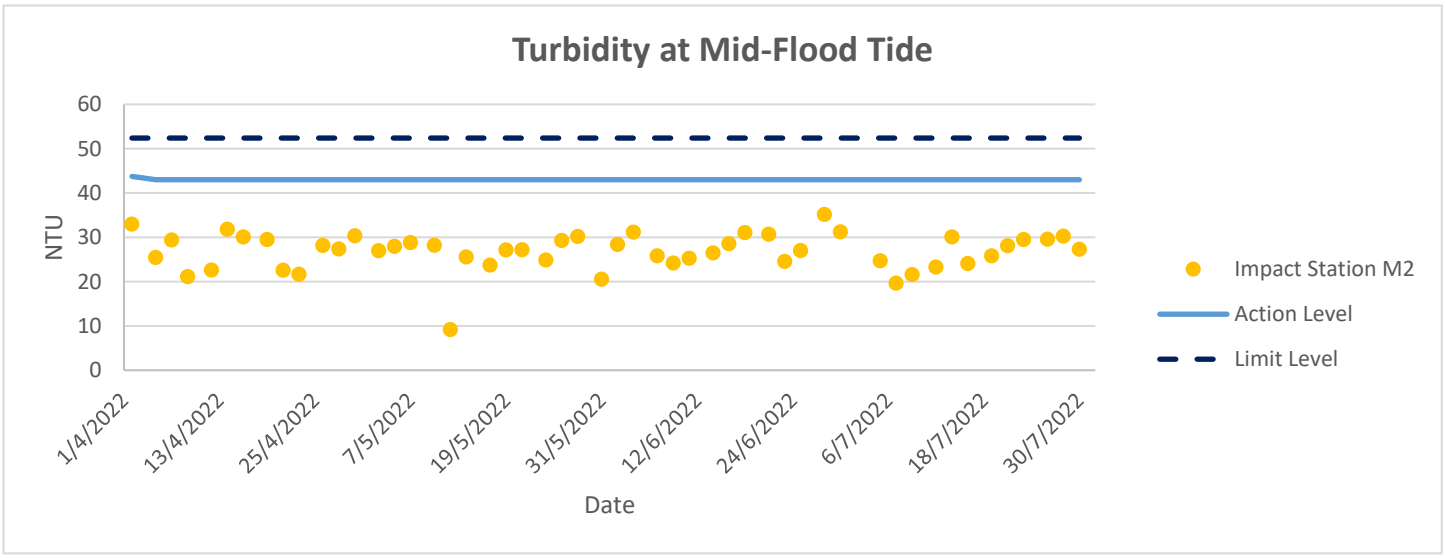


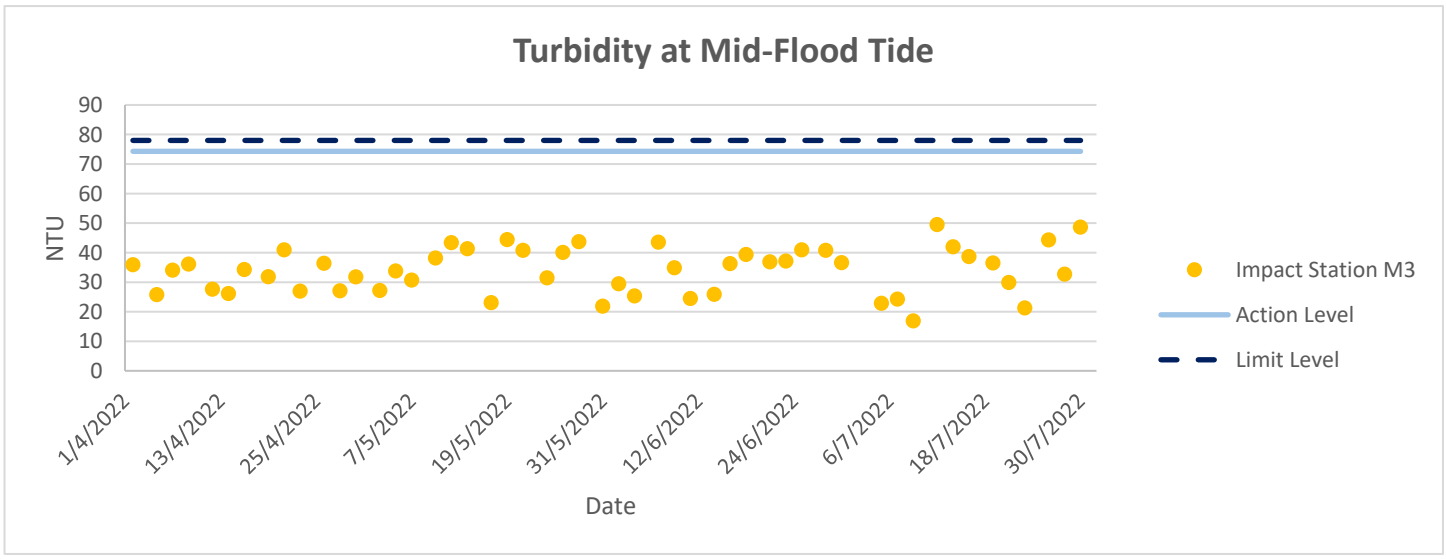




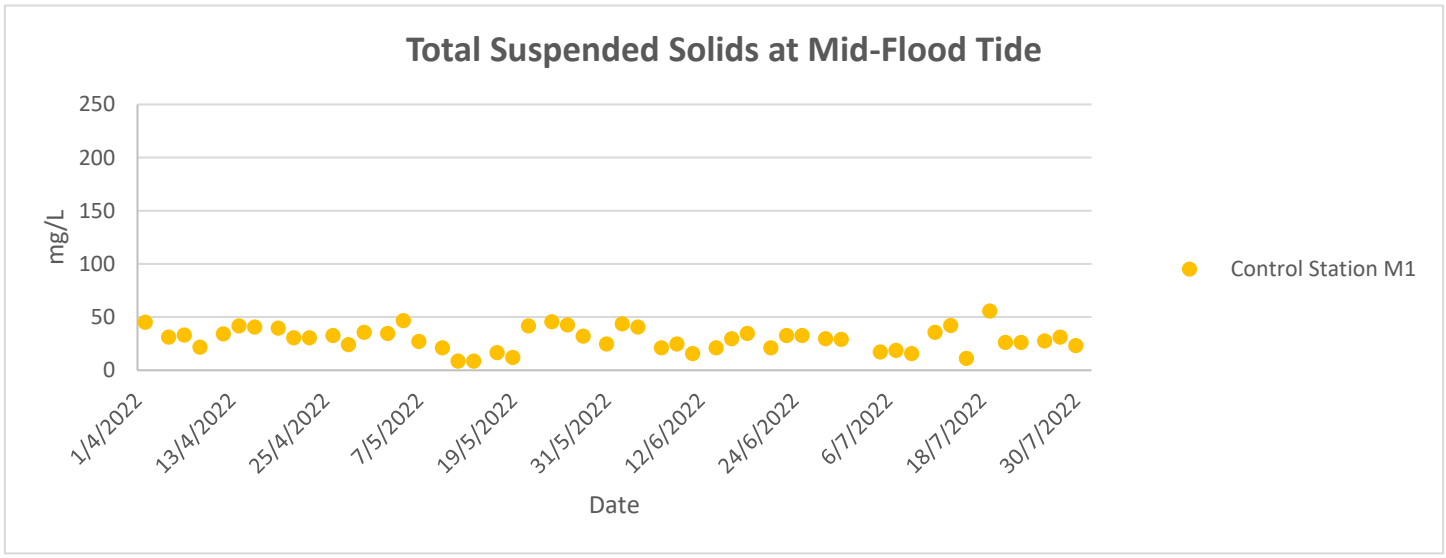
Water Quality Monitoring Results

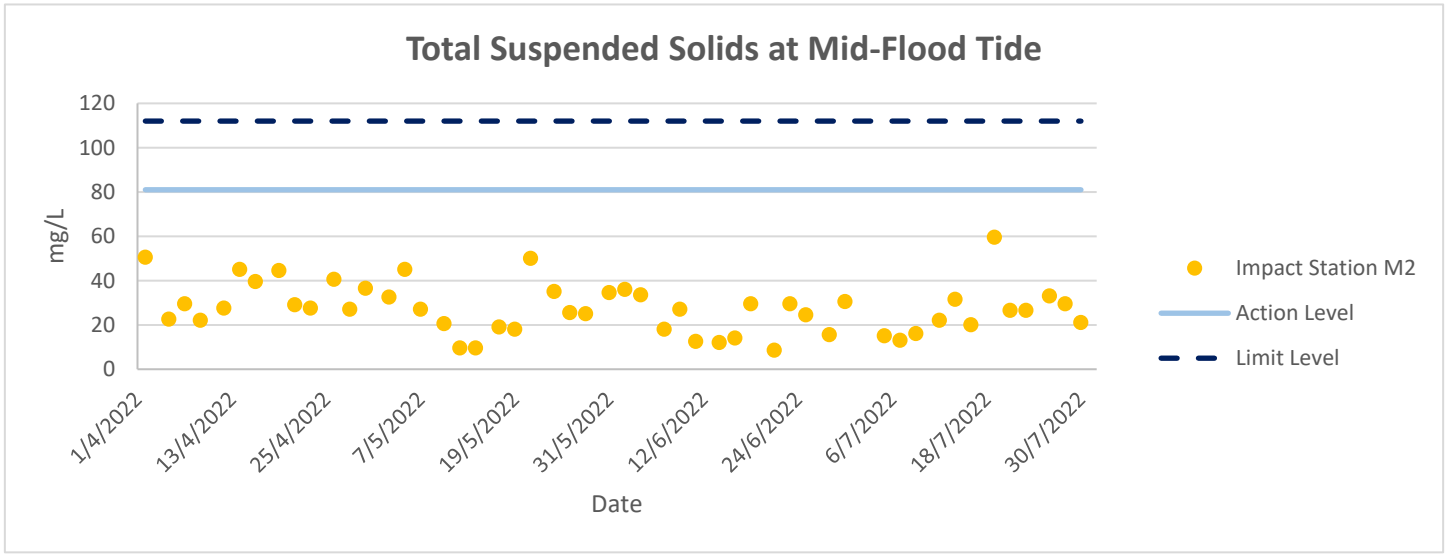


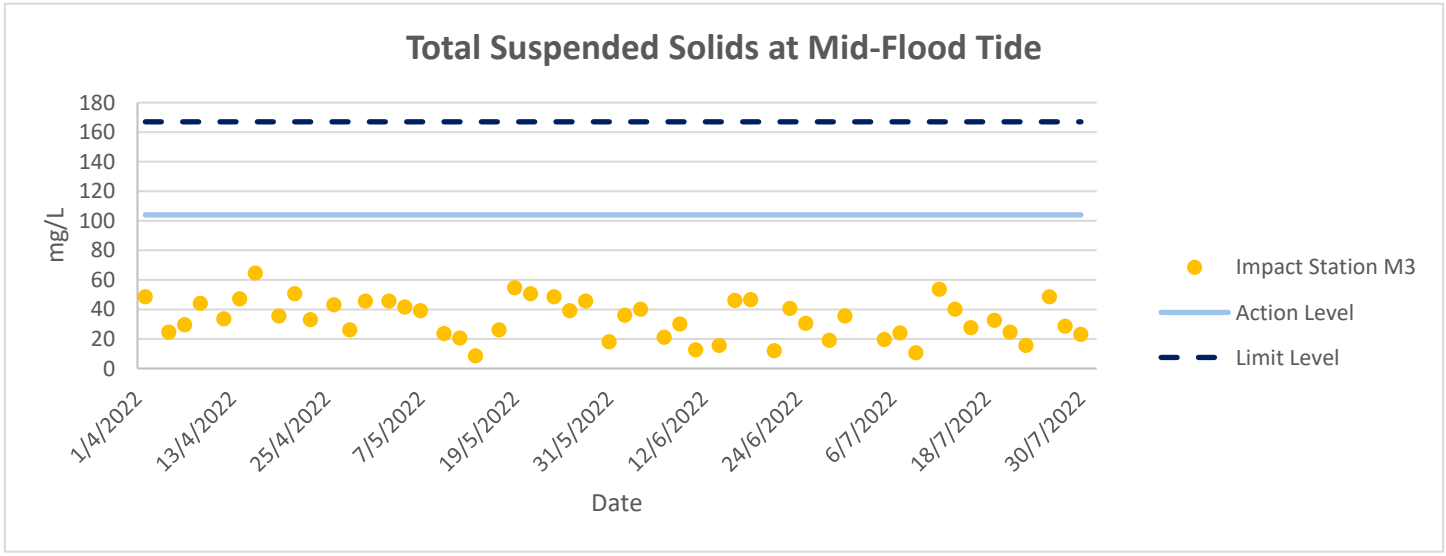




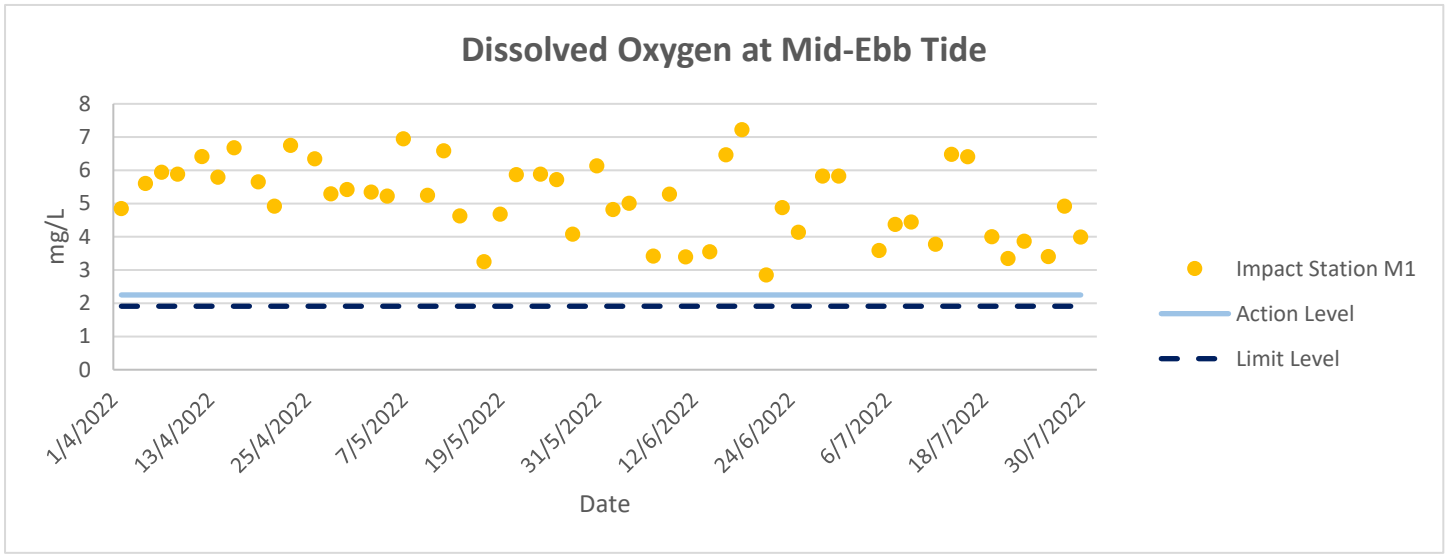
Water Quality Monitoring Results

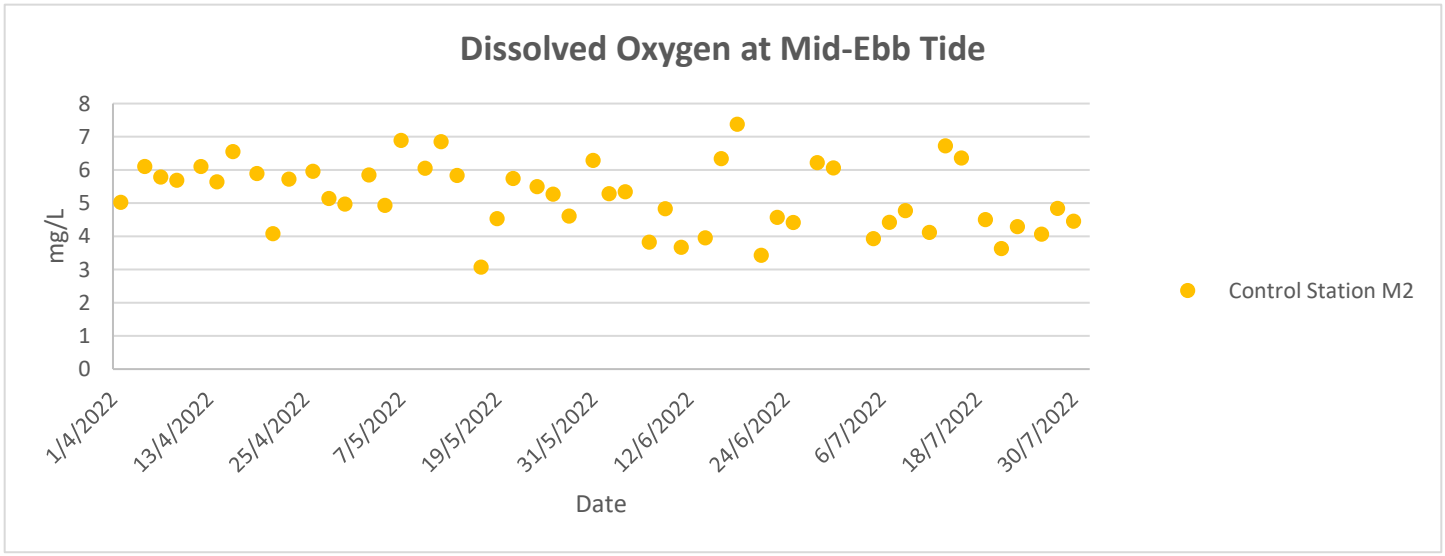


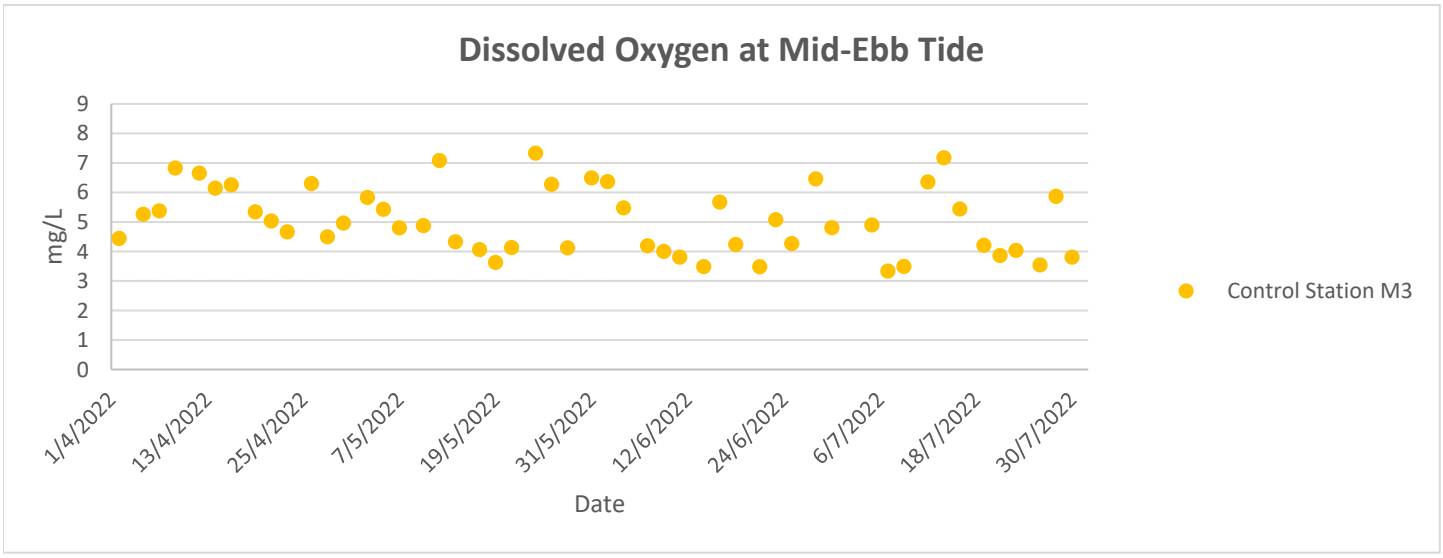




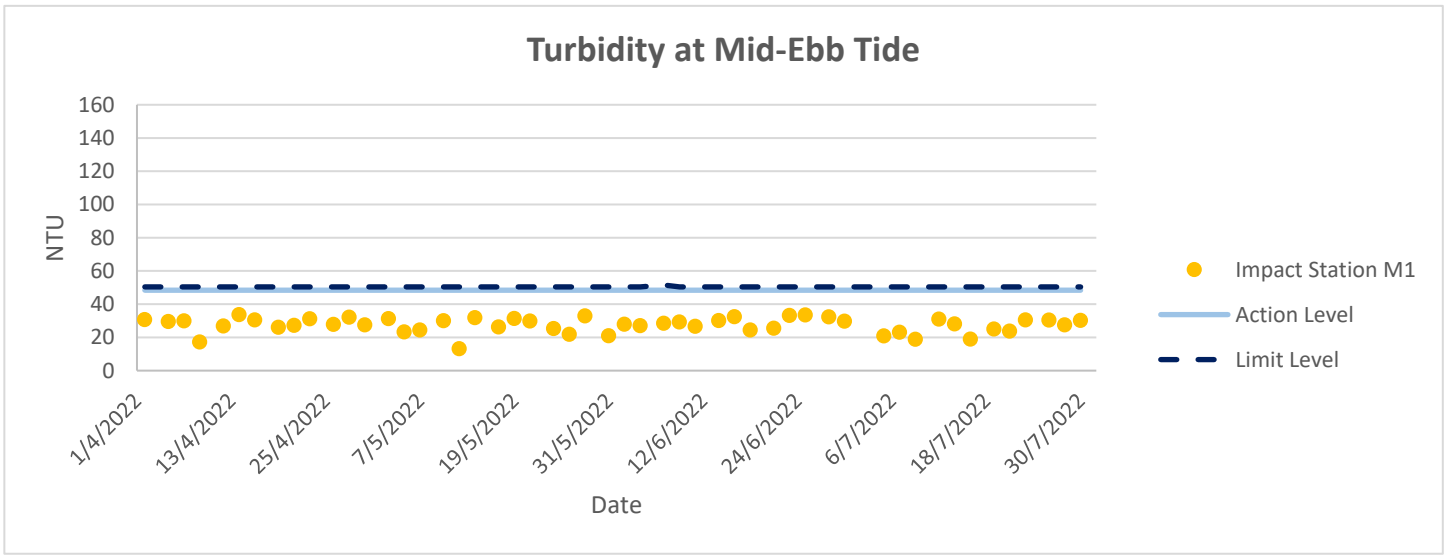
Water Quality Monitoring Results

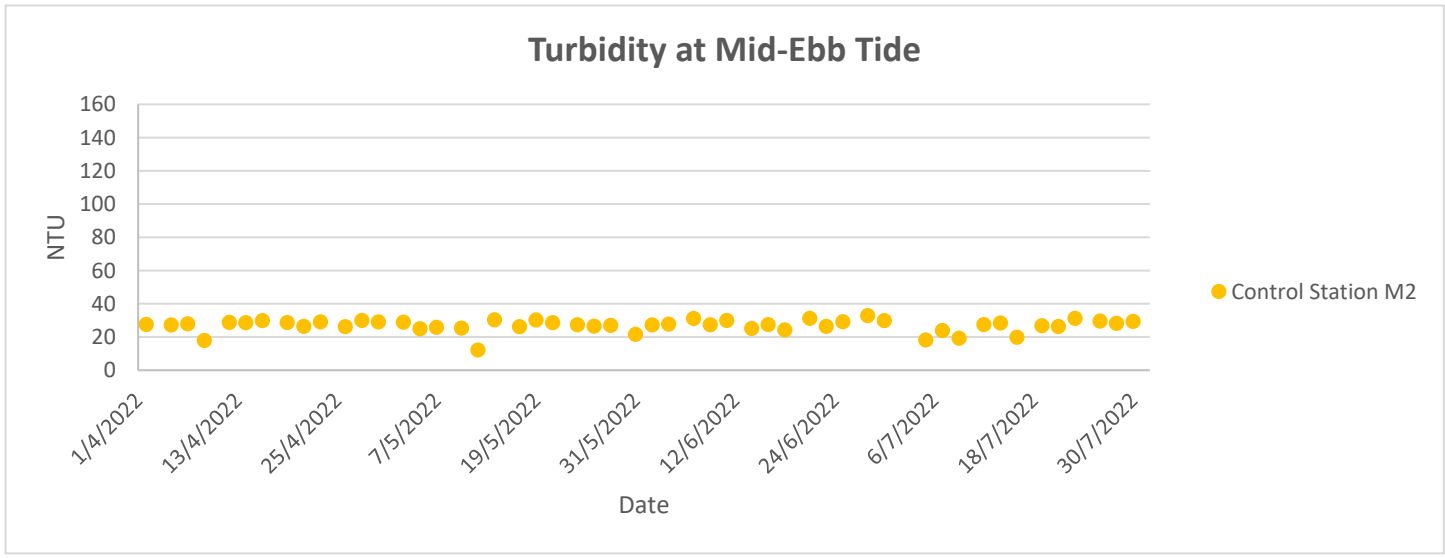


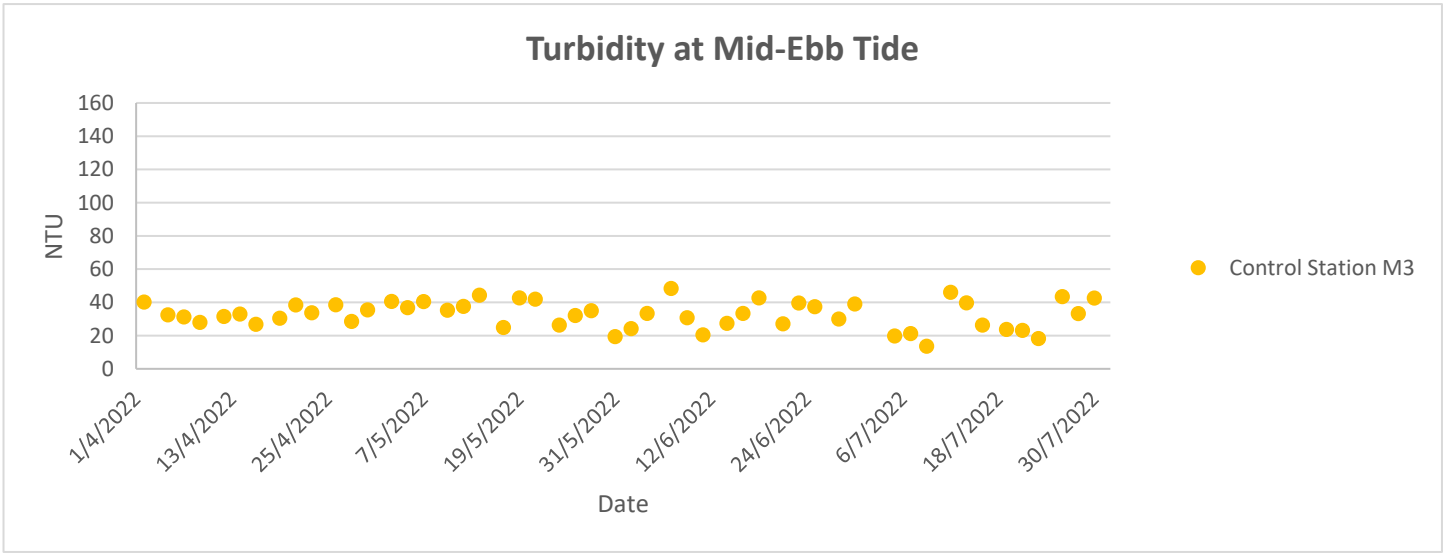




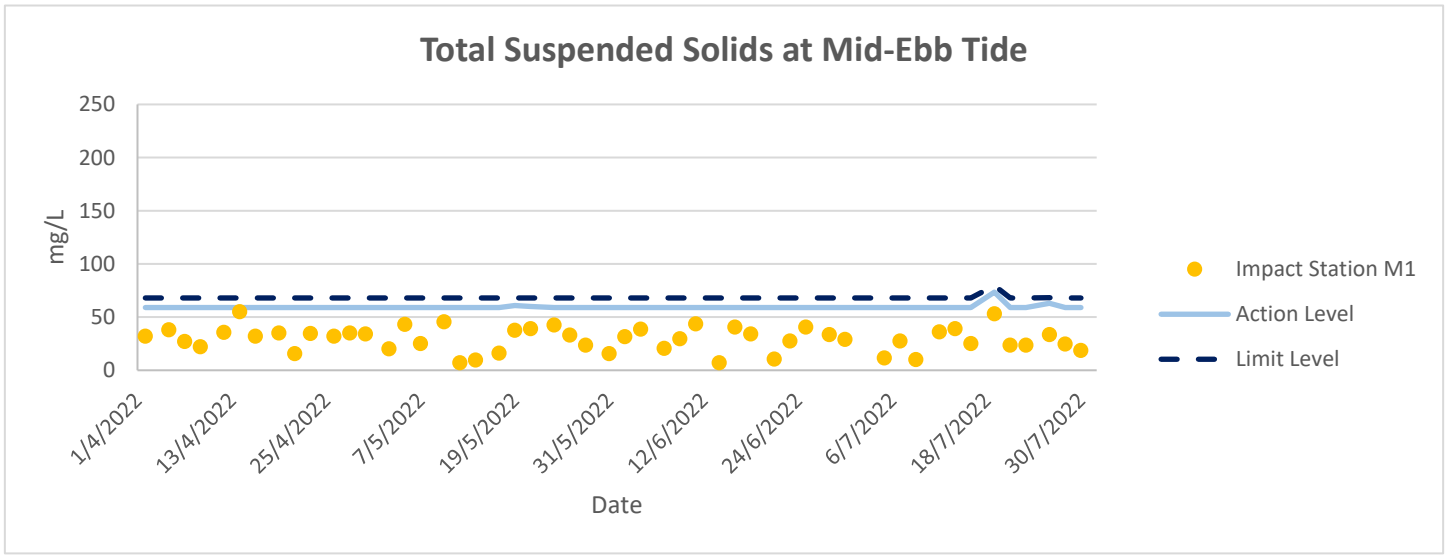
Water Quality Monitoring Results

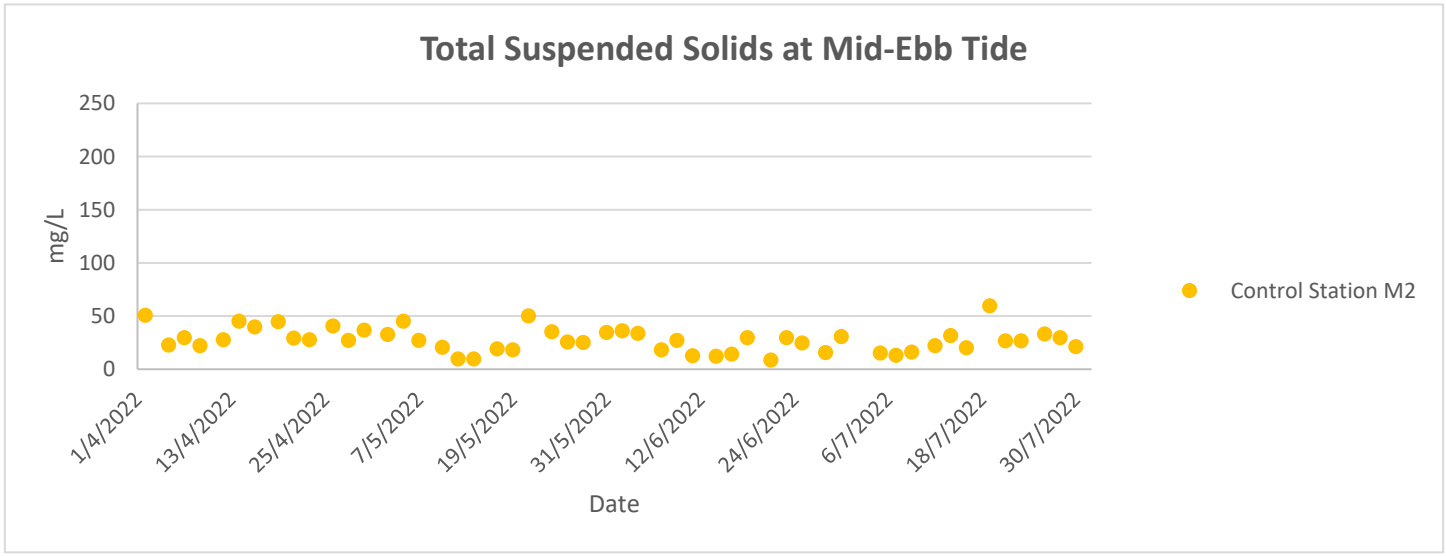


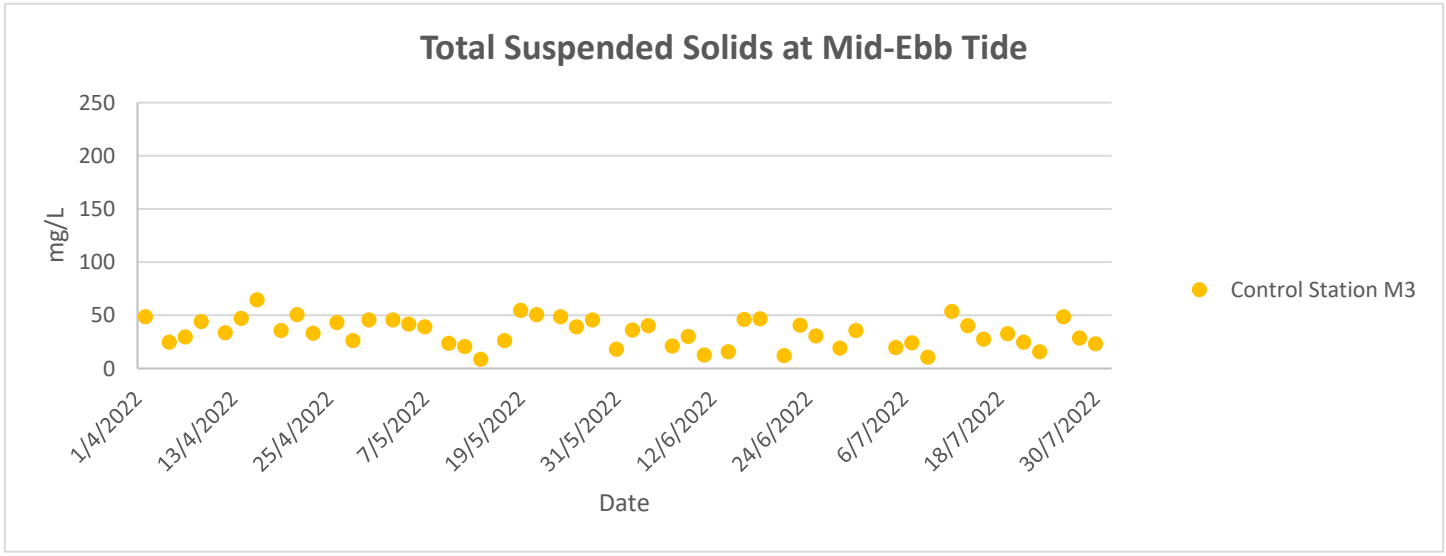




Water Quality Monitoring Results







Water Quality Monitoring Results

Ecology Monitoring Results

Ecology Monitoring Results for
Contract No. SPW 07/2020
Environmental Team for Construction of Yuen long Effluent Polishing Plant Stage 1

Appendix F.1 Ecological Bird Monitoring Result (15&18 July 2022)

Date (dd/mm/yyyy)	Daytime/Night time	Season	Area	Transect/Point Count	Point Count (Location)/Transect Impact	Habitat	Common Name	Scientific Name	Abundance	Distribution in Hong Kong[2]	Principal Status[3]	Level of Concern[4]	Protection Status in China[5]	China Red Data Book [6]	Red List of China's Vertebrates [10]	IUCN Red List [7] (v.2020-3)	Species of Conservation Importance	Wetland Dependent
18/07/2022	Daytime	Wet Season	FLW	Transect	FLW	In Flight	Barn Swallow	*Hirundo rustica*	1	Abundant	PM,SV	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Transect	FLW	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	4	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Transect	FLW	Pond-FLW	Common Myna	*Acridotheres tristis*	3	Uncommon	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Transect	FLW	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Transect	FLW	Pond-FLW	Great Egret	*Ardea alba*	2	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Transect	FLW	Pond-FLW	Intermediate Egret	*Egretta intermedia*	1	Common	PM	RC	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Transect	FLW	Pond-FLW	Little Egret	*Egretta garzetta*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Transect	FLW	Pond-FLW	Little Grebe	*Tachybaptus ruficollis*	2	Common	R	LC	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW1	Pond-FLW	Barn Swallow	*Hirundo rustica*	1	Abundant	PM,SV	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW1	Pond-FLW	Black-collared Starling	*Gracupica nigricollis*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW1	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	5	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW1	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW1	Pond-FLW	Greater Coucal	*Centropus sinensis*	1	Common	R	-	Class II	Vulnerable	LC	LC	Y	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW1	Pond-FLW	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW1	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW1	Pond-FLW	Yellow-bellied Prinia	*Prinia flaviventris*	3	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW2	Pond-FLW	Plain Prinia	*Prinia inornata*	3	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW2	Pond-FLW	Yellow Bittern	*Ixobrychus sinensis*	1	Uncommon	PM,SV	-	-	-	LC	LC	N	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW3	Pond-FLW	Oriental Magpie Robin	*Copsychus saularis*	1	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW3	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	4	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW4	Pond-FLW	Chinese Bulbul	*Pycnonotus sinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW4	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW4	Pond-FLW	Yellow-bellied Prinia	*Prinia flaviventris*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW5	Pond-FLW	Black-collared Starling	*Gracupica nigricollis*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW5	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW5	Pond-FLW	Common Myna	*Acridotheres tristis*	2	Uncommon	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW5	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW5	Pond-FLW	Euarasian Tree Saprrow	*Passer montanus*	3	Abundant	R	-	-	-	LC	LC	N	N

18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW5	Pond-FLW	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW5	Pond-FLW	Little Grebe	*Tachybaptus ruficollis*	2	Common	R	LC	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW5	Pond-FLW	Japanese White-eye	*Zosterops japonicus*	1	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW6	Pond-FLW	Black-collared Starling	*Gracupica nigricollis*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW6	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW6	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW6	Pond-FLW	Great Egret	*Ardea alba*	2	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW7	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW7	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW7	Pond-FLW	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW7	Pond-FLW	Pied Kingfisher	*Ceryle rudis*	2	Uncommon	R	-	-	-	LC	LC	N	Y
18/07/2022	Daytime	Wet Season	FLW	Point Count	FLW7	Pond-FLW	White-throated Kingfisher	*Halcyon smyrnensis*	1	Common	R	-	-	-	LC	LC	N	Y
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Chinese Bulbul	*Pycnonotus sinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Euarasian Tree Saprrow	*Passer montanus*	2	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Japanese White-eye	*Zosterops japonicus*	2	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Masked Laughingthrush	*Garrulax perspicillatus*	5	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Plain Prinia	*Prinia inornata*	3	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Spotted Dove	*Spilopelia chinensis*	1	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Common Tailorbird	*Orthotomus sutorius*	2	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Transect	NSW	Plantation-NSW	Asian Koel	*Eudynamys scolopaceus*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	NSW1	Pond-NSW	Chinese Bulbul	*Pycnonotus sinensis*	3	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	NSW1	Pond-NSW	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	NSW1	Pond-NSW	Eurasian Collared Dove	*Streptopelia decaocto*	2	Found in Mai Po, Tsim Bei Tsui, Fung Lok Wai	-	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	NSW1	Pond-NSW	Spotted Dove	*Spilopelia chinensis*	1	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	NSW1	Pond-NSW	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	NSW1	Pond-NSW	White-shouldered Starling	*Sturnia sinensis*	2	Common	PM	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	NSW1	Pond-NSW	Common Kingfisher	*Alcedo atthis*	1	Common	PM,WV	-	-	-	LC	LC	N	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	NSW1	Pond-NSW	White-throated Kingfisher	Halcyon smyrnensis	1	Common	R	-	-	-	LC	LC	N	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	4	Common	R	PRC (RC)	-	-	LC	LC	Y	Y

18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Common Moorhen	*Gallinula chloropus*	1	Common	R	-	-	-	LC	LC	N	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Crested Myna	*Acridotheres cristatellus*	3	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Euarasian Tree Saprrow	*Passer montanus*	2	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Great Egret	*Ardea alba*	3	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Common Sandpiper	*Actitis hypoleucos*	1	Common	PM,WV	-	-	-	LC	LC	N	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Little Egret	*Egretta garzetta*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Yellow-bellied Prinia	*Prinia flaviventris*	3	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Chinese Bulbul	*Pycnonotus sinensis*	4	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW2	Mangrove	Chinese Pond Heron	*Ardeola bacchus*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Yellow-bellied Prinia	*Prinia flaviventris*	1	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW2	Modified Watercourse	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Barn Swallow	*Hirundo rustica*	2	Abundant	PM,SV	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Little Egret	*Egretta garzetta*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	NSW	Point Count	SP/NSW3	Mangrove	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
18/07/2022	Daytime	Wet Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Euarasian Tree Saprrow	*Passer montanus*	2	Abundant	R	-	-	-	LC	LC	N	N
18/07/2022	Daytime	Wet Season	YLIE	Transect	YLIE-CW	Modified Watercourse	White-breasted Waterhen	*Amaurornis phoenicurus*	1	Common	R	-	-	-	LC	LC	N	Y
15/07/2022	Night-time	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

(1) All wild birds are protected under Wild Animals Protection Ordinance (Cap. 170).
(2) AFCD (2021). Hong Kong Biodiversity Database.
(3) Carey et al. (2001): R=resident; WV=winter visitor; SV=summer visitor; PM=passage migrant; Sp=spring; A=autumn;
(4) Fellowes et al. (2002): GC=Global Concern; LC=Local Concern; RC=Regional Concern; PRC=Potential Regional Concern; PGC: Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in nesting and/or roosting sites rather than in general occurrence.
(5) List of Wild Animals under State Protection (promulgated by State Forestry Administration and Ministry of Agriculture on 14 January, 1989).
(6) Zheng, G. M. and Wang, Q. S. (1998). China Red Data Book
(7) IUCN 2021. The IUCN Red List of Threatened Species. Version 2020-3.
(9) Wetland-dependent species (including wetland-dependent species and waterbirds).
(10) Jiang et al. (2016). Red List of China's Vertebrates

Appendix F.2.1 Ecological Bird Monitoring Diversity (All avifauna species in Point Count Method) in All Habitats (15&18 July 2022)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Acridotheres cristatellus	14	0.125	-2.07944	-0.25993	0.54051
Acridotheres tristis	2	0.017857	-4.02535	-0.07188	0.289347
Actitis hypoleucos	1	0.008929	-4.7185	-0.04213	0.198788
Alcedo atthis	1	0.008929	-4.7185	-0.04213	0.198788
Ardea alba	8	0.071429	-2.63906	-0.1885	0.497473
Ardeola bacchus	23	0.205357	-1.583	-0.32508	0.514605
Centropus sinensis	1	0.008929	-4.7185	-0.04213	0.198788
Ceryle rudis	2	0.017857	-4.02535	-0.07188	0.289347
Copsychus saularis	1	0.008929	-4.7185	-0.04213	0.198788
Egretta garzetta	7	0.0625	-2.77259	-0.17329	0.480453
Gallinula chloropus	1	0.008929	-4.7185	-0.04213	0.198788
Gracupica nigricollis	3	0.026786	-3.61989	-0.09696	0.350989
Halcyon smyrnensis	2	0.017857	-4.02535	-0.07188	0.289347
Hirundo rustica	3	0.026786	-3.61989	-0.09696	0.350989
Ixobrychus sinensis	1	0.008929	-4.7185	-0.04213	0.198788
Motacilla alba	2	0.017857	-4.02535	-0.07188	0.289347
Passer montanus	5	0.044643	-3.10906	-0.1388	0.431529
Prinia flaviventris	8	0.071429	-2.63906	-0.1885	0.497473
Prinia inornata	4	0.035714	-3.3322	-0.11901	0.396557
Pycnonotus sinensis	9	0.080357	-2.52127	-0.2026	0.510816
Spilopelia chinensis	7	0.0625	-2.77259	-0.17329	0.480453
Streptopelia decaocto	2	0.017857	-4.02535	-0.07188	0.289347
Sturnia sinensis	2	0.017857	-4.02535	-0.07188	0.289347
Tachybaptus ruficollis	2	0.017857	-4.02535	-0.07188	0.289347
Zosterops japonicus	1	0.008929	-4.7185	-0.04213	0.198788
Total	112	1	-91.895	-2.761	8.468793
Richness	25				
SS	8.47				
SQ	7.62				
H	2.76				
S^2_H	0.01				

Appendix F.2.2 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Point Count Method) in All Habitats (15&18 July 2022)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Ardea alba	8	0.195122	-1.63413	-0.31885	0.52105
Ardeola bacchus	23	0.560976	-0.57808	-0.32429	0.187463
Centropus sinensis	1	0.02439	-3.71357	-0.09057	0.336357
Egretta garzetta	7	0.170732	-1.76766	-0.3018	0.533473
Tachybaptus ruficollis	2	0.04878	-3.02042	-0.14734	0.445023
Total	41	1	-10.7139	-1.18285	2.023366

Richness	5				
SS	2.02				
SQ	1.4				
H	1.18				
S^2_H	0.02				

Appendix F.2.3 Ecological Bird Monitoring Diversity (All avifauna species in Transect Walk Method) in All Habitats (15&18 July 2022)

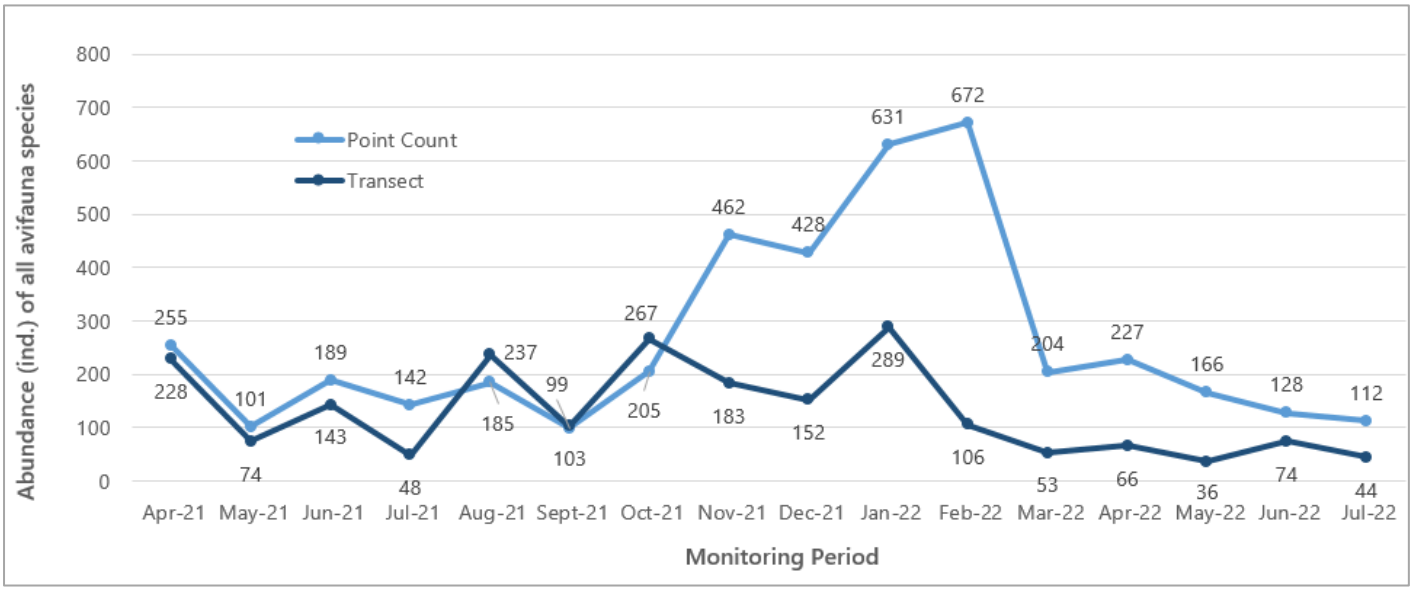
Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Acridotheres cristatellus	4	0.090909	-2.3979	-0.21799	0.522718
Acridotheres tristis	3	0.068182	-2.68558	-0.18311	0.491749
Amaurornis phoenicurus	1	0.022727	-3.78419	-0.086	0.325457
Ardea alba	2	0.045455	-3.09104	-0.1405	0.434297
Ardeola bacchus	7	0.159091	-1.83828	-0.29245	0.537611
Egretta garzetta	3	0.068182	-2.68558	-0.18311	0.491749
Egretta intermedia	1	0.022727	-3.78419	-0.086	0.325457
Eudynamys scolopaceus	1	0.022727	-3.78419	-0.086	0.325457
Garrulax perspicillatus	5	0.113636	-2.17475	-0.24713	0.537448
Hirundo rustica	1	0.022727	-3.78419	-0.086	0.325457
Orthotomus sutorius	2	0.045455	-3.09104	-0.1405	0.434297
Passer montanus	4	0.090909	-2.3979	-0.21799	0.522718
Prinia inornata	3	0.068182	-2.68558	-0.18311	0.491749
Pycnonotus sinensis	2	0.045455	-3.09104	-0.1405	0.434297
Spilopelia chinensis	1	0.022727	-3.78419	-0.086	0.325457
Tachybaptus ruficollis	2	0.045455	-3.09104	-0.1405	0.434297
Zosterops japonicus	2	0.045455	-3.09104	-0.1405	0.434297
Total	44	1	-51.2417	-2.65742	7.394515
Richness	17				
SS	7.39				
SQ	7.06				
H	2.66				
S^2_H	0.01				

Appendix F.2.4 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Transect Walk Method) in All Habitats (15&18 July 2022)

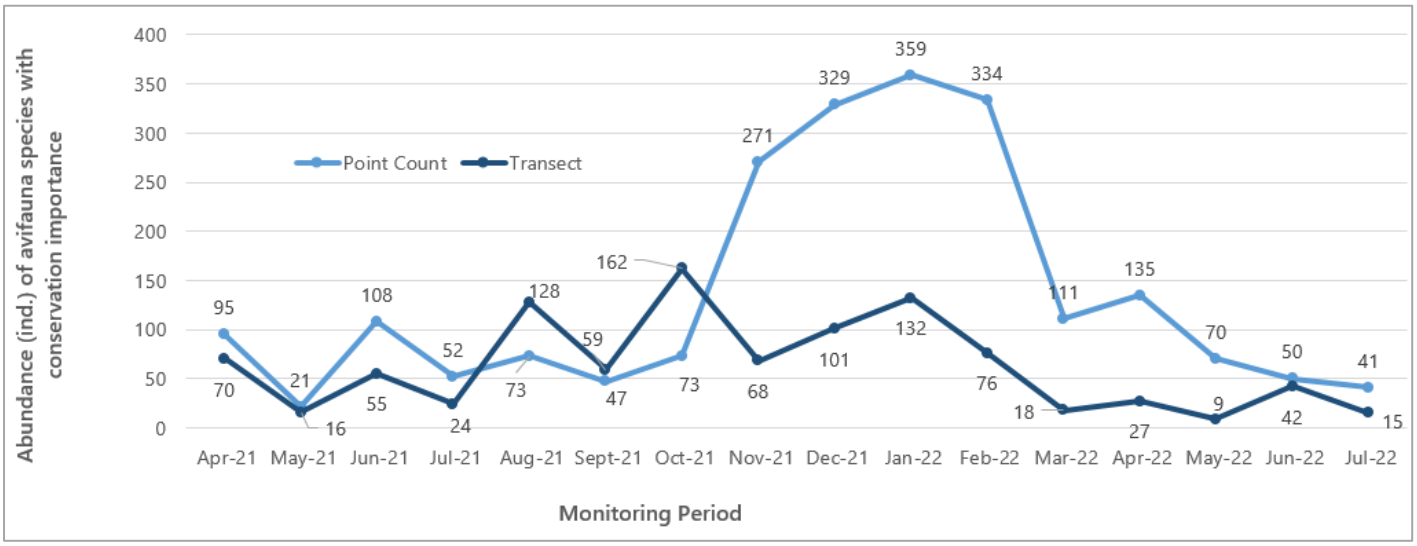
Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Ardea alba	2	0.133333	-2.0149	-0.26865	0.541311
Ardeola bacchus	7	0.466667	-0.76214	-0.35567	0.271067
Egretta garzetta	3	0.2	-1.60944	-0.32189	0.518058
Egretta intermedia	1	0.066667	-2.70805	-0.18054	0.488902
Tachybaptus ruficollis	2	0.133333	-2.0149	-0.26865	0.541311
Total	15	1	-9.10943	-1.3954	2.36065
Richness	5				
SS	2.36				
SQ	1.95				

H	1.40				
S^2_H	0.04				

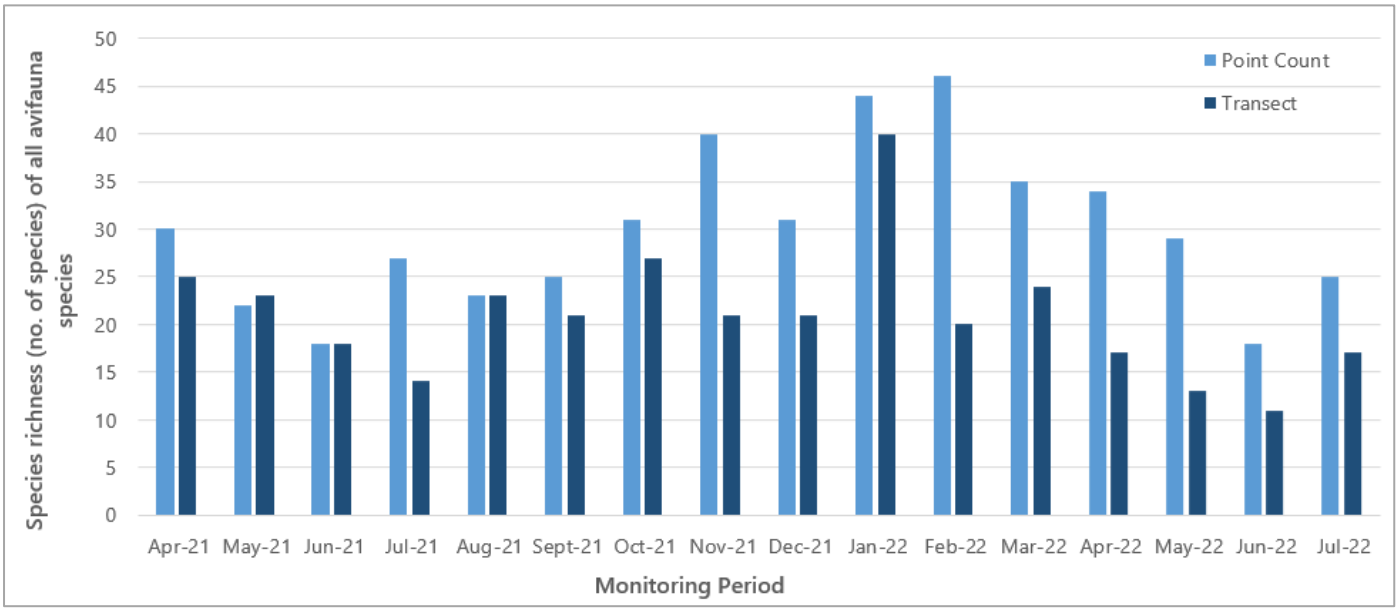
Appendix F.3.1 Abundance of all avifauna species throughout the monitoring period



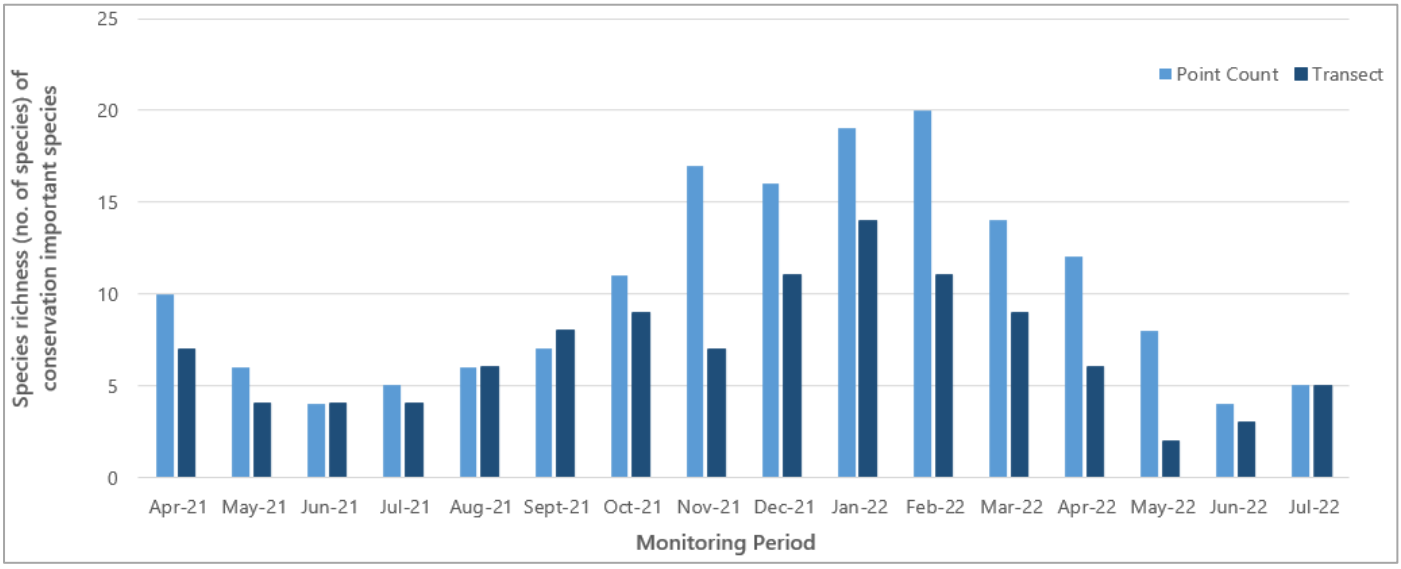
Appendix F.3.2 Abundance of avifauna species with conservation importance throughout the monitoring period



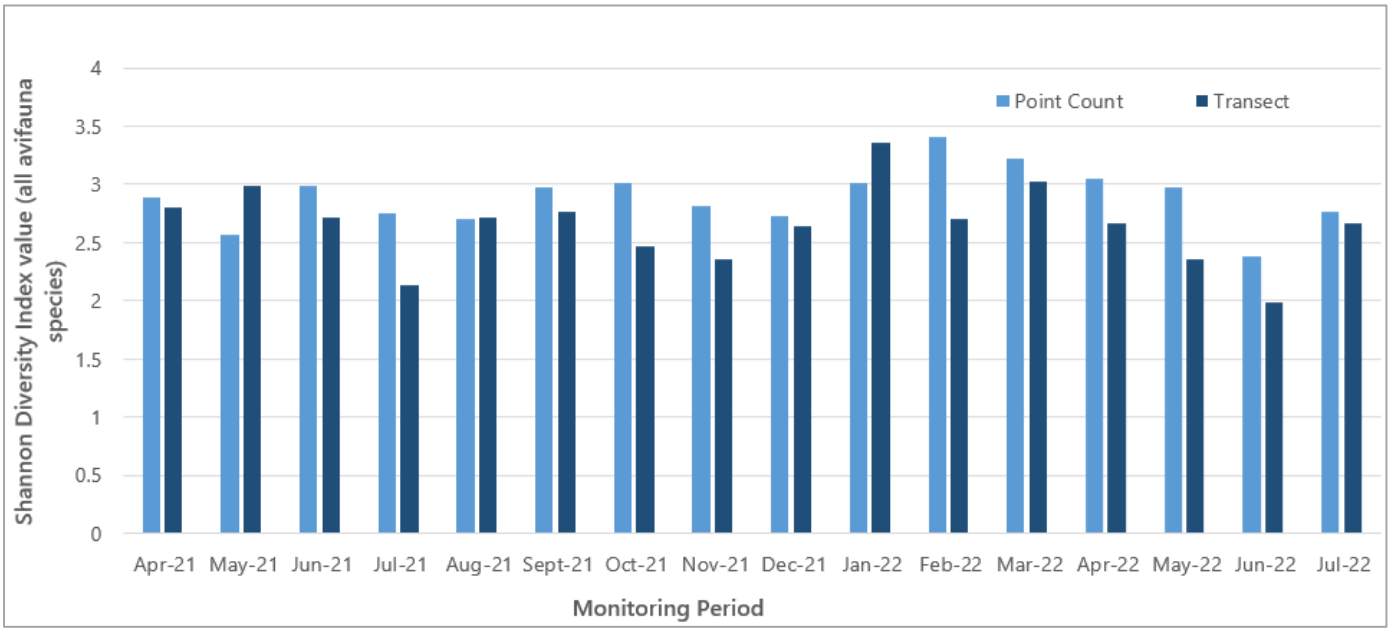
Appendix F.4.1 Species richness of all avifauna species throughout the monitoring period



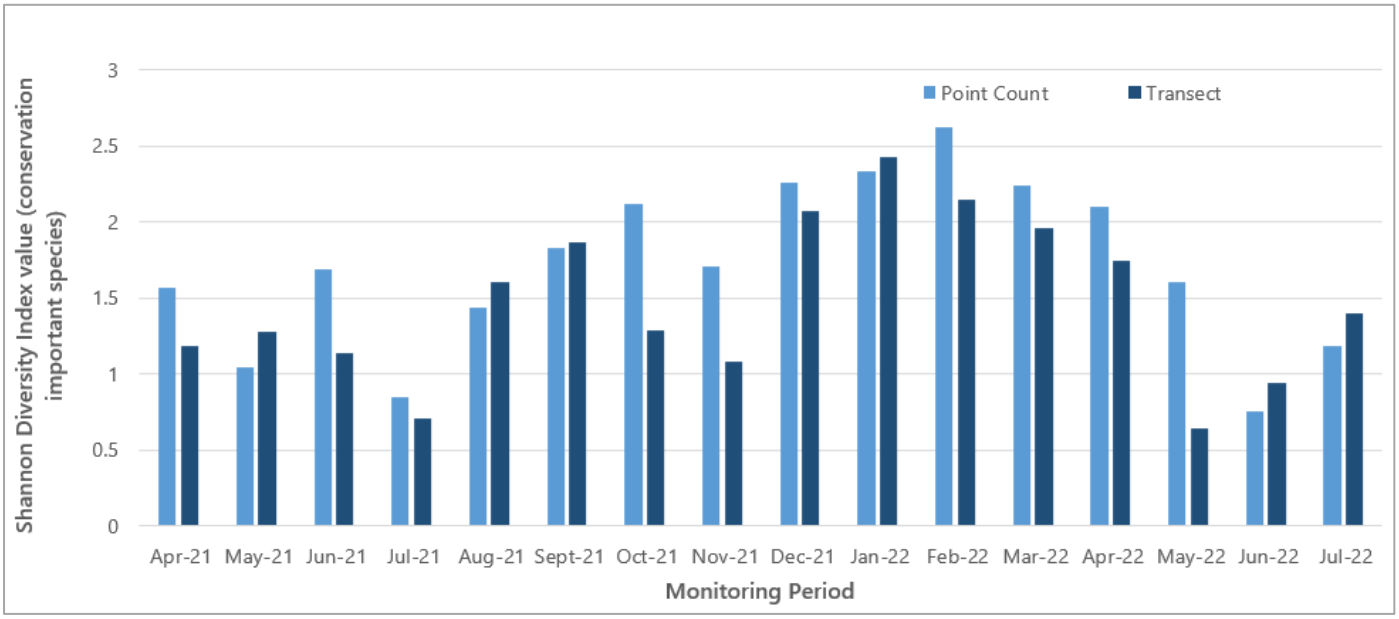
Appendix F.4.2 Species richness of avifauna species with conservation importance throughout the monitoring period



Appendix F.5.1 Shannon Diversity Index values of all avifauna species throughout the monitoring period



Appendix F.5.2 Shannon Diversity Index values of avifauna species with conservation importance throughout the monitoring period



Appendix F.6 Two-tailed Unpaired T-test

Formula:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\left(\frac{(N_1-1)s_1^2 + (N_2-1)s_2^2}{N_1+N_2-2}\right)\left(\frac{1}{N_1}+\frac{1}{N_2}\right)}}$$

Appendix F.6.1 Abundance of all avifauna species – Point Count Method

Months	July 2017	July 2022
N	65	60

Months	July 2017	July 2022
df	64	59
M	2.54	1.87
SS	744.15	58.93
S^2	11.63	1
t-value	1.47	
p-value	0.14	

Notes:
N: Number of samples/observation
df: Degrees of freedom
M: Mean
SS: Sum of Squares
S^2: Measure on a random sample that is used to estimate the variance of the population

Appendix F.6.2 Abundance of avifauna species with conservation importance – Point Count Method

Months	July 2017	July 2022
N	24	19
df	23	18
M	3.33	2.16
SS	363.33	24.53
S^2	15.8	1.36
t-value	1.24	
p-value	0.22	

Notes:
N: Number of samples/observation
df: Degrees of freedom
M: Mean
SS: Sum of Squares
S^2: Measure on a random sample that is used to estimate the variance of the population

Appendix F.7. Hutcheson t-test testing method and output

Formula:

$$t = \frac{H_a - H_b}{\sqrt{s^2_{H_a} + s^2_{H_b}}}$$

Appendix F.7.1 Species diversity of avifauna species with conservation importance – Point Count Method

Months	July 2017	July 2022
Total	80	41
Richness	5	5
H	1.36	1.18
S^2_H	0.004	0.016
t	1.26	
df	63.94	
Crit	2	
p	0.21	
CI	0.13	0.26