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

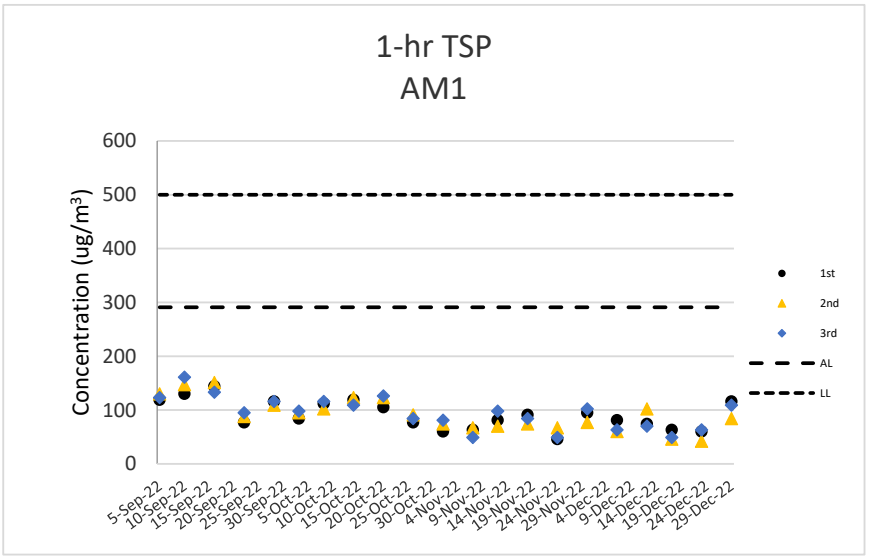
AM1 - Topfine Machinery (China) Co. Ltd.

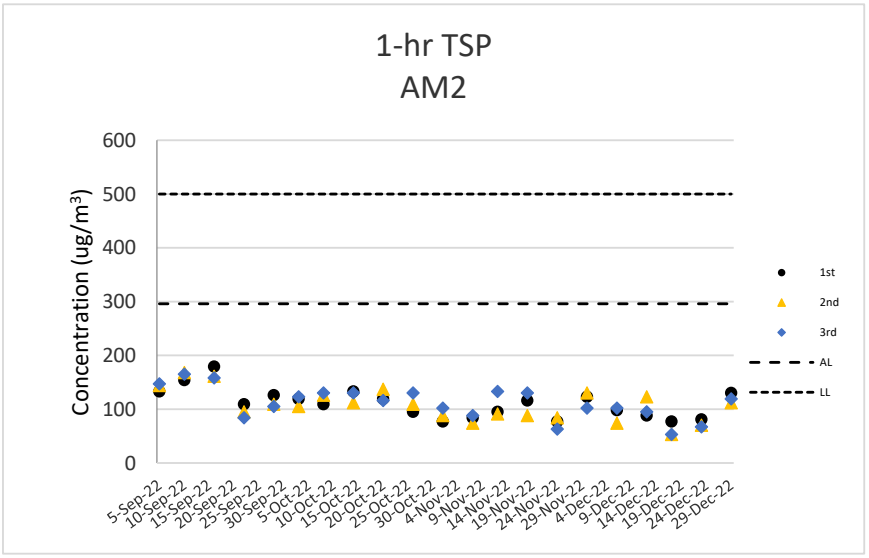
Date	Weather Condition	Start Time	1-hour TSP (µg/m³) 1st Measurement	2nd Measurement	3rd Measurement	Action Level (ug/m^3)	Limit Level (ug/m^3)
6-Dec-22	Cloudy	8:31	81	60	63	291	500
12-Dec-22	Cloudy	8:32	74	102	70		
17-Dec-22	Cloudy	8:43	63	46	49		
23-Dec-22	Fine	8:31	60	42	63		
29-Dec-22	Fine	8:32	116	84	109		
		Min	42				
		Max	116				
		Average	72				

AM2 - Squatter house at the west of Yuen Long STW

Date	Weather Condition	Start Time	1-hour TSP (µg/m³) 1st Measurement	2nd Measurement	3rd Measurement	Action Level (ug/m^3)	Limit Level (ug/m^3)
6-Dec-22	Cloudy	8:39	98	74	102	296	500
12-Dec-22	Cloudy	8:43	88	123	95		
17-Dec-22	Cloudy	8:31	77	53	53		
23-Dec-22	Fine	8:41	81	70	67		
29-Dec-22	Fine	8:40	130	112	119		
		Min	53				
		Max	130				
		Average	89				

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)
6-Dec-22	10:01	54	56	51	0.1	Cloudy	75
12-Dec-22	10:09	54	57	51	0.2	Cloudy	75
23-Dec-22	10:04	55	57	51	0.1	Fine	75
29-Dec-22	10:05	54	56	51	0.2	Fine	75
	Max	55					
	Min	54					

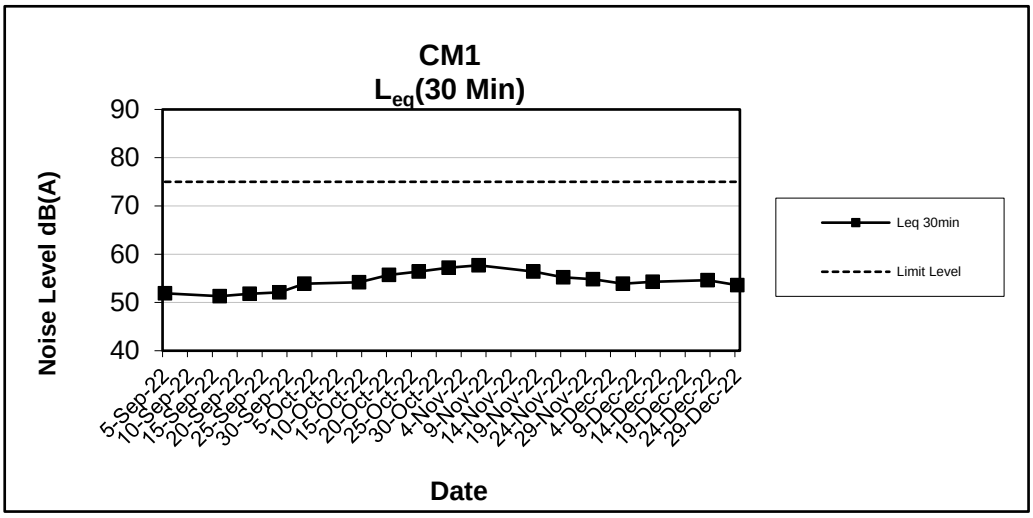
CM2 - Squatter house to the west of YLSTW

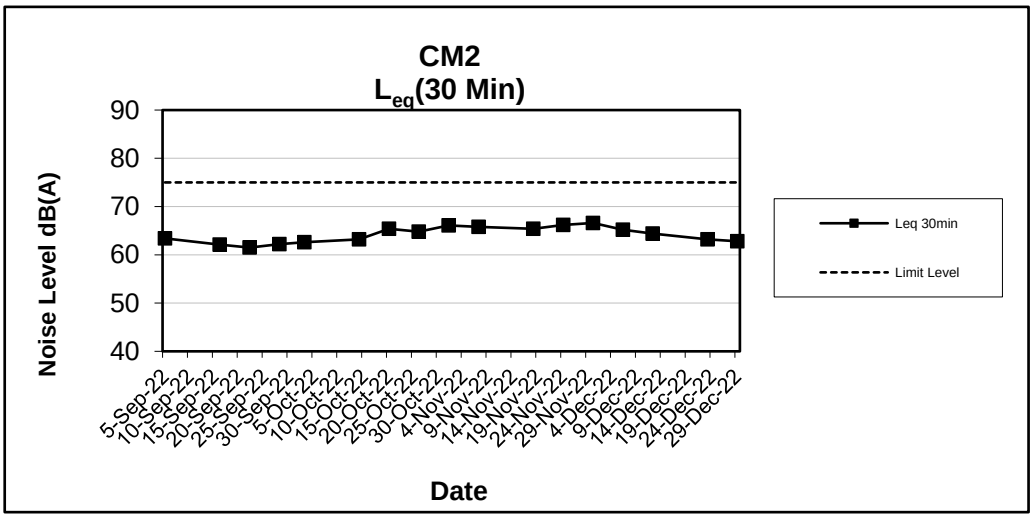
Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
6-Dec-22	8:44	65	68	57	0.2	Cloudy	75
12-Dec-22	8:49	64	67	57	0.4	Cloudy	75
23-Dec-22	8:46	63	66	56	0.2	Fine	75
29-Dec-22	8:45	63	65	56	0.2	Fine	75
	Max	65					
	Min	63					

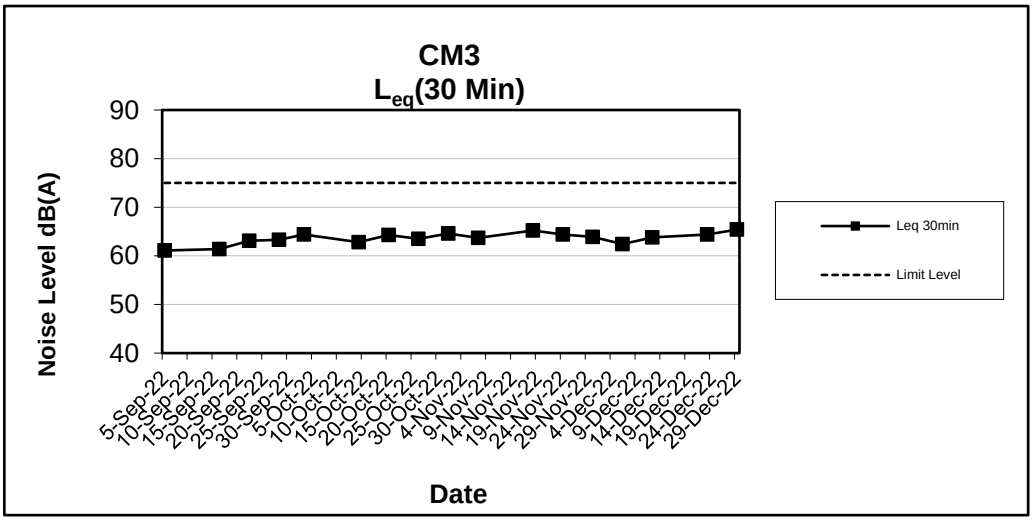
CM3 - Squatter house to the east of YLSTW

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)
6-Dec-22	11:14	62	65	57	0.2	Cloudy	75
12-Dec-22	11:28	64	67	58	0.4	Cloudy	75
23-Dec-22	11:22	64	68	57	0.3	Fine	75
29-Dec-22	11:27	65	68	58	0.3	Fine	75
	Max	65					
	Min	62					

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	1/12/2022	Mid-Flood	Fine	Moderate	15:43	1.2	M	0.6	1	0.046	22	7.63	7.64	7.81	7.82	21.14	21.15	60.7	60.8	4.89	4.90	25.3	25.3	34	33
M1	1/12/2022	Mid-Flood	Fine	Moderate	15:43	1.2	M	0.6	2			7.64		7.82		21.16		60.8		4.91		25.3		31	
M2	1/12/2022	Mid-Flood	Fine	Moderate	15:25	1	M	0.5	1	0.038	292	7.49	7.50	7.92	7.93	21.47	21.48	52.3	52.0	4.41	4.39	26.0	26.1	26	27
M2	1/12/2022	Mid-Flood	Fine	Moderate	15:25	1	M	0.5	2			7.51		7.93		21.48		51.6		4.37		26.1		28	
M3	1/12/2022	Mid-Flood	Cloudy	Smooth	15:28	0.4	M	0.2	1	0.33	95	7.42	7.43	7.83	7.84	21.93	21.93	67.8	67.5	5.71	5.69	26.5	26.2	28	28
M3	1/12/2022	Mid-Flood	Cloudy	Smooth	15:28	0.4	M	0.2	2			7.43		7.84		21.92		67.2		5.67		25.8		27	
M1	1/12/2022	Mid-Ebb	Fine	Moderate	7:20	0.9	M	0.45	1	0.088	71	7.43	7.42	7.47	7.47	22.18	22.18	49.2	49.3	4.17	4.18	25.1	25.2	33	31
M1	1/12/2022	Mid-Ebb	Fine	Moderate	7:20	0.9	M	0.45	2			7.41		7.46		22.17		49.4		4.19		25.3		28	
M2	1/12/2022	Mid-Ebb	Fine	Moderate	7:47	0.8	M	0.4	1	0.083	265	7.39	7.39	7.52	7.52	22.48	22.49	52.6	52.5	4.28	4.27	24.9	24.9	10	11
M2	1/12/2022	Mid-Ebb	Fine	Moderate	7:47	0.8	M	0.4	2			7.38		7.51		22.49		52.4		4.26		24.9		11	
M3	1/12/2022	Mid-Ebb	Cloudy	Smooth	7:21	0.6	M	0.3	1	0.349	268	7.05	7.06	6.48	6.47	19.67	19.68	54.1	53.7	4.54	4.51	33.4	33.1	19	20
M3	1/12/2022	Mid-Ebb	Cloudy	Smooth	7:21	0.6	M	0.3	2			7.07		6.46		19.68		53.3		4.48		32.8		21	

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	3/12/2022	Mid-Flood	Cloudy	Moderate	17:10	2.2	M	1.1	1	0.366	255	7.83	7.84	8.45	8.46	21.79	21.79	47.3	47.6	4.15	4.17	15.7	15.5	22	21
M1	3/12/2022	Mid-Flood	Cloudy	Moderate	17:10	2.2	M	1.1	2			7.85		8.46		21.78		47.9		4.19		15.3		20	
M2	3/12/2022	Mid-Flood	Cloudy	Moderate	16:51	1.2	M	0.6	1	0.327	297	7.94	7.94	8.72	8.73	21.93	21.94	50.2	50.7	4.42	4.46	20.5	20.2	25	25
M2	3/12/2022	Mid-Flood	Cloudy	Moderate	16:51	1.2	M	0.6	2			7.93		8.74		21.94		51.1		4.49		19.9		25	
M3	3/12/2022	Mid-Flood	Fine	Moderate	16:55	1.1	M	0.55	1	0.059	92	7.21	7.22	3.21	3.21	20.05	20.05	53.4	53.3	4.76	4.77	22.6	22.6	28	27
M3	3/12/2022	Mid-Flood	Fine	Moderate	16:55	1.1	M	0.55	2			7.22		3.20		20.05		53.1		4.77		22.6		26	
M1	3/12/2022	Mid-Ebb	Cloudy	Moderate	10:07	2	M	1	1	0.35	215	7.55	7.55	6.28	6.29	19.74	19.75	59.2	59.4	5.21	5.23	16.6	17.0	21	21
M1	3/12/2022	Mid-Ebb	Cloudy	Moderate	10:07	2	M	1	2			7.54		6.30		19.75		59.6		5.24		17.4		21	
M2	3/12/2022	Mid-Ebb	Cloudy	Moderate	10:25	1.2	M	0.6	1	0.315	247	7.71	7.72	6.13	6.14	20.17	20.17	63.1	62.9	5.56	5.54	18.8	18.6	24	23
M2	3/12/2022	Mid-Ebb	Cloudy	Moderate	10:25	1.2	M	0.6	2			7.72		6.15		20.17		62.6		5.52		18.4		22	
M3	3/12/2022	Mid-Ebb	Fine	Moderate	10:04	0.9	M	0.45	1	0.045	175	7.39	7.39	3.25	3.24	20.01	20.02	55.0	55.0	4.90	4.87	20.3	20.3	37	36
M3	3/12/2022	Mid-Ebb	Fine	Moderate	10:04	0.9	M	0.45	2			7.38		3.22		20.02		54.9		4.84		20.3		34	

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	6/12/2022	Mid-Flood	Fine	Moderate	7:01	1.1	M	0.55	1	0.053	92	6.97	6.97	7.09	7.09	20.27	20.23	56.9	56.9	4.94	4.94	19.0	19.0	20	22
M1	6/12/2022	Mid-Flood	Fine	Moderate	7:01	1.1	M	0.55	2			6.96		7.08		20.19		56.8		4.93		18.9		23	
M2	6/12/2022	Mid-Flood	Fine	Moderate	7:17	0.9	M	0.45	1	0.065	318	7.03	7.03	7.14	7.14	20.57	20.58	58.4	58.5	5.08	5.09	17.3	17.3	27	26
M2	6/12/2022	Mid-Flood	Fine	Moderate	7:17	0.9	M	0.45	2			7.02		7.13		20.59		58.6		5.10		17.3		25	
M3	6/12/2022	Mid-Flood	Cloudy	Smooth	7:06	0.4	M	0.2	1	0.313	91	7.34	7.33	7.26	7.26	15.85	15.86	65.6	65.4	5.88	5.87	16.6	16.4	21	22
M3	6/12/2022	Mid-Flood	Cloudy	Smooth	7:06	0.4	M	0.2	2			7.32		7.25		15.87		65.1		5.85		16.1		22	
M1	6/12/2022	Mid-Ebb	Fine	Moderate	12:50	0.9	M	0.45	1	0.044	167	7.41	7.42	6.01	6.02	19.27	19.26	63.4	63.6	5.48	5.50	22.6	22.6	30	29
M1	6/12/2022	Mid-Ebb	Fine	Moderate	12:50	0.9	M	0.45	2			7.42		6.03		19.24		63.7		5.51		22.6		28	
M2	6/12/2022	Mid-Ebb	Fine	Moderate	12:32	0.7	M	0.35	1	0.056	144	7.33	7.34	6.07	6.08	19.54	19.54	59.1	59.2	5.22	5.23	22.2	22.2	24	24
M2	6/12/2022	Mid-Ebb	Fine	Moderate	12:32	0.7	M	0.35	2			7.34		6.08		19.53		59.2		5.24		22.2		24	
M3	6/12/2022	Mid-Ebb	Cloudy	Smooth	12:34	0.6	M	0.3	1	0.267	258	7.21	7.21	6.24	6.25	19.29	19.29	70.3	70.5	6.31	6.33	19.7	20.0	18	19
M3	6/12/2022	Mid-Ebb	Cloudy	Smooth	12:34	0.6	M	0.3	2			7.21		6.26		19.28		70.7		6.34		20.2		19	

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	8/12/2022	Mid-Flood	Cloudy	Smooth	8:42	2	M	1	1	0.359	262	7.51	7.50	8.72	8.72	18.31	18.32	50.1	49.9	4.38	4.37	19.4	19.2	18	19
M1	8/12/2022	Mid-Flood	Cloudy	Smooth	8:42	2	M	1	2			7.49		8.72		18.32		49.6		4.35		19.0		19	
M2	8/12/2022	Mid-Flood	Cloudy	Smooth	9:05	1	M	0.5	1	0.336	284	7.38	7.37	8.98	8.98	18.84	18.85	53.5	53.7	4.58	4.60	23.1	23.5	22	21
M2	8/12/2022	Mid-Flood	Cloudy	Smooth	9:05	1	M	0.5	2			7.36		8.97		18.86		53.9		4.61		23.8		19	
M3	8/12/2022	Mid-Flood	Cloudy	Smooth	8:37	0.4	M	0.2	1	0.321	97	7.44	7.44	8.36	8.36	19.07	19.08	54.8	55.0	4.68	4.70	24.2	24.6	27	27
M3	8/12/2022	Mid-Flood	Cloudy	Smooth	8:37	0.4	M	0.2	2			7.43		8.35		19.09		55.2		4.71		24.9		26	
M1	8/12/2022	Mid-Ebb	Cloudy	Smooth	13:42	2.2	M	1.1	1	0.303	247	7.29	7.30	7.35	7.36	22.97	22.98	60.1	59.9	5.31	5.30	18.2	18.4	40	42
M1	8/12/2022	Mid-Ebb	Cloudy	Smooth	13:42	2.2	M	1.1	2			7.31		7.36		22.98		59.6		5.28		18.6		43	
M2	8/12/2022	Mid-Ebb	Cloudy	Smooth	14:09	1.2	M	0.6	1	0.286	284	7.23	7.24	7.01	7.02	23.36	23.35	62.2	62.5	5.45	5.47	21.1	21.3	44	44
M2	8/12/2022	Mid-Ebb	Cloudy	Smooth	14:09	1.2	M	0.6	2			7.24		7.03		23.34		62.8		5.49		21.5		43	
M3	8/12/2022	Mid-Ebb	Cloudy	Smooth	13:38	0.6	M	0.3	1	0.276	263	7.21	7.21	6.34	6.34	23.95	23.94	57.2	57.0	5.13	5.12	20.8	20.9	27	28
M3	8/12/2022	Mid-Ebb	Cloudy	Smooth	13:38	0.6	M	0.3	2			7.21		6.34		23.93		56.8		5.11		21.0		29	

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	10/12/2022	Mid-Flood	Fine	Moderate	10:07	1.2	M	0.6	1	0.066	97	7.01	7.02	7.17	7.16	19.80	19.80	62.4	62.2	5.84	5.82	23.8	23.8	50	52
M1	10/12/2022	Mid-Flood	Fine	Moderate	10:07	1.2	M	0.6	2			7.02		7.14		19.79		61.9		5.79		23.8		54	
M2	10/12/2022	Mid-Flood	Fine	Moderate	10:30	1	M	0.5	1	0.083	103	7.46	7.45	6.28	6.26	19.32	19.37	70.8	70.6	6.41	6.42	24.8	24.7	38	38
M2	10/12/2022	Mid-Flood	Fine	Moderate	10:30	1	M	0.5	2			7.44		6.24		19.41		70.4		6.43		24.7		38	
M3	10/12/2022	Mid-Flood	Cloudy	Smooth	10:06	0.2	M	0.1	1	0.311	86	7.86	7.85	7.36	7.37	19.18	19.19	56.1	56.0	4.96	4.95	21.6	22.1	31	32
M3	10/12/2022	Mid-Flood	Cloudy	Smooth	10:06	0.2	M	0.1	2			7.84		7.38		19.20		55.8		4.94		22.6		33	
M1	10/12/2022	Mid-Ebb	Fine	Moderate	15:14	1	M	0.5	1	0.033	69	7.62	7.63	5.32	5.33	19.87	19.88	77.4	77.5	6.54	6.57	21.4	21.4	43	45
M1	10/12/2022	Mid-Ebb	Fine	Moderate	15:14	1	M	0.5	2			7.64		5.34		19.88		77.5		6.59		21.4		46	
M2	10/12/2022	Mid-Ebb	Fine	Moderate	14:56	0.9	M	0.45	1	0.097	91	7.53	7.54	5.47	5.44	19.22	19.23	78.1	78.2	6.69	6.71	26.5	26.5	35	37
M2	10/12/2022	Mid-Ebb	Fine	Moderate	14:56	0.9	M	0.45	2			7.54		5.41		19.24		78.3		6.72		26.4		38	
M3	10/12/2022	Mid-Ebb	Cloudy	Smooth	14:45	0.4	M	0.2	1	0.271	246	7.42	7.42	6.42	6.43	23.97	23.97	66.9	66.6	5.93	5.91	25.3	24.9	30	31
M3	10/12/2022	Mid-Ebb	Cloudy	Smooth	14:45	0.4	M	0.2	2			7.41		6.43		23.97		66.2		5.88		24.6		32	

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	13/12/2022	Mid-Flood	Cloudy	Moderate	12:09	2	M	1	1	0.356	246	7.65	7.66	7.52	7.53	17.64	17.64	65.1	65.4	6.05	6.07	18.4	18.3	24	24
M1	13/12/2022	Mid-Flood	Cloudy	Moderate	12:09	2	M	1	2			7.66		7.54		17.64		65.7		6.09		18.2		24	
M2	13/12/2022	Mid-Flood	Cloudy	Moderate	12:28	1	M	0.5	1	0.319	276	7.43	7.44	7.27	7.27	17.96	17.97	60.3	59.9	5.58	5.55	21.6	21.4	28	28
M2	13/12/2022	Mid-Flood	Cloudy	Moderate	12:28	1	M	0.5	2			7.45		7.26		17.97		59.4		5.52		21.2		27	
M3	13/12/2022	Mid-Flood	Fine	Moderate	12:04	1.2	M	0.6	1	0.065	99	7.91	7.90	5.58	5.59	17.20	17.17	65.3	65.3	6.07	6.07	22.3	22.3	35	35
M3	13/12/2022	Mid-Flood	Fine	Moderate	12:04	1.2	M	0.6	2			7.89		5.59		17.14		65.2		6.06		22.3		35	
M1	13/12/2022	Mid-Ebb	Cloudy	Moderate	16:51	2.2	M	1.1	1	0.305	205	7.32	7.32	5.56	5.56	14.78	14.78	50.2	50.7	4.64	4.68	19.2	19.4	25	23
M1	13/12/2022	Mid-Ebb	Cloudy	Moderate	16:51	2.2	M	1.1	2			7.31		5.56		14.77		51.1		4.71		19.6		21	
M2	13/12/2022	Mid-Ebb	Cloudy	Moderate	16:33	1.2	M	0.6	1	0.292	235	7.38	7.37	5.38	5.39	15.31	15.30	57.3	57.6	5.31	5.33	15.8	15.5	23	22
M2	13/12/2022	Mid-Ebb	Cloudy	Moderate	16:33	1.2	M	0.6	2			7.36		5.39		15.29		57.8		5.34		15.2		20	
M3	13/12/2022	Mid-Ebb	Fine	Moderate	16:39	1	M	0.5	1	0.058	264	7.44	7.43	5.39	5.38	17.49	17.47	62.9	62.7	5.86	5.85	20.5	20.5	17	17
M3	13/12/2022	Mid-Ebb	Fine	Moderate	16:39	1	M	0.5	2			7.42		5.37		17.44		62.4		5.84		20.5		17	

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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	15/12/2022	Mid-Flood	Fine	Moderate	14:06	1	M	0.5	1	0.067	265	7.86	7.85	6.11	6.13	16.48	16.49	73.7	73.7	6.81	6.80	15.2	15.2	18	18
M1	15/12/2022	Mid-Flood	Fine	Moderate	14:06	1	M	0.5	2			7.84		6.14		16.49		73.6		6.79		15.2		17	
M2	15/12/2022	Mid-Flood	Fine	Moderate	13:48	0.9	M	0.45	1	0.042	98	7.73	7.73	6.20	6.21	16.25	16.35	71.2	71.4	6.73	6.76	14.9	14.9	20	19
M2	15/12/2022	Mid-Flood	Fine	Moderate	13:48	0.9	M	0.45	2			7.72		6.21		16.44		71.6		6.78		14.9		18	
M3	15/12/2022	Mid-Flood	Cloudy	Moderate	13:35	0.4	M	0.2	1	0.325	94	7.69	7.69	7.38	7.37	16.89	16.89	69.8	69.5	6.58	6.56	26.2	25.8	20	20
M3	15/12/2022	Mid-Flood	Cloudy	Moderate	13:35	0.4	M	0.2	2			7.68		7.36		16.88		69.2		6.53		25.5		20	
M1	15/12/2022	Mid-Ebb	Fine	Moderate	5:48	0.9	M	0.45	1	0.073	103	8.11	8.12	5.93	5.95	15.89	15.89	67.0	67.0	6.40	6.39	16.9	16.9	31	30
M1	15/12/2022	Mid-Ebb	Fine	Moderate	5:48	0.9	M	0.45	2			8.12		5.97		15.88		66.9		6.38		16.8		29	
M2	15/12/2022	Mid-Ebb	Fine	Moderate	6:11	0.8	M	0.4	1	0.048	70	8.04	8.05	5.82	5.82	16.11	16.14	69.8	69.8	6.57	6.57	16.4	16.5	27	27
M2	15/12/2022	Mid-Ebb	Fine	Moderate	6:11	0.8	M	0.4	2			8.05		5.81		16.17		69.7		6.56		16.5		27	
M3	15/12/2022	Mid-Ebb	Cloudy	Moderate	5:46	0.6	M	0.3	1	0.347	254	7.43	7.43	6.12	6.13	13.18	13.18	65.1	65.5	6.15	6.18	19.6	19.9	21	23
M3	15/12/2022	Mid-Ebb	Cloudy	Moderate	5:46	0.6	M	0.3	2			7.42		6.13		13.17		65.9		6.21		20.2		24	

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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	17/12/2022	Mid-Flood	Fine	Moderate	15:25	0.9	M	0.45	1	0.084	99	7.78	7.75	2.43	2.42	18.05	18.07	68.4	68.3	6.72	6.71	22.3	22.5	25	24
M1	17/12/2022	Mid-Flood	Fine	Moderate	15:25	0.9	M	0.45	2			7.71		2.41		18.09		68.1		6.70		22.6		22	
M2	17/12/2022	Mid-Flood	Fine	Moderate	15:10	0.8	M	0.4	1	0.096	225	7.99	7.93	1.87	1.94	17.89	17.91	59.4	59.1	6.01	5.98	21.7	21.8	6	6
M2	17/12/2022	Mid-Flood	Fine	Moderate	15:10	0.8	M	0.4	2			7.87		2.01		17.92		58.7		5.94		21.9		6	
M3	17/12/2022	Mid-Flood	Cloudy	Moderate	15:03	0.4	M	0.2	1	0.281	90	7.67	7.68	6.11	6.12	16.35	16.36	62.1	62.5	4.44	4.47	25.2	25.0	8	8
M3	17/12/2022	Mid-Flood	Cloudy	Moderate	15:03	0.4	M	0.2	2			7.69		6.12		16.36		62.8		4.49		24.9		7	
M1	17/12/2022	Mid-Ebb	Fine	Moderate	7:23	1.1	M	0.55	1	0.059	136	7.66	7.78	0.98	0.97	15.29	15.37	69.3	69.2	6.23	6.22	17.5	17.5	9	9
M1	17/12/2022	Mid-Ebb	Fine	Moderate	7:23	1.1	M	0.55	2			7.89		0.96		15.44		69.1		6.21		17.6		9	
M2	17/12/2022	Mid-Ebb	Fine	Moderate	7:40	0.9	M	0.45	1	0.079	98	7.86	7.88	0.87	0.89	15.01	15.03	68.5	68.6	6.12	6.15	17.1	17.1	8	8
M2	17/12/2022	Mid-Ebb	Fine	Moderate	7:40	0.9	M	0.45	2			7.89		0.90		15.04		68.7		6.17		17.1		7	
M3	17/12/2022	Mid-Ebb	Cloudy	Moderate	7:25	0.4	M	0.2	1	0.29	264	7.36	7.37	4.38	4.38	14.07	14.08	55.8	55.6	4.04	4.03	30.2	30.2	15	16
M3	17/12/2022	Mid-Ebb	Cloudy	Moderate	7:25	0.4	M	0.2	2			7.38		4.37		14.08		55.3		4.01		30.1		16	

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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	20/12/2022	Mid-Flood	Fine	Smooth	5:49	2	M	1	1	0.296	236	7.71	7.72	9.16	9.15	12.63	12.64	50.6	50.8	4.61	4.62	14.8	14.8	23	22
M1	20/12/2022	Mid-Flood	Fine	Smooth	5:49	2	M	1	2			7.73		9.14		12.64		50.9		4.63		14.7		21	
M2	20/12/2022	Mid-Flood	Fine	Smooth	6:04	1	M	0.5	1	0.276	296	7.83	7.83	8.62	8.62	12.95	12.95	45.8	46.1	4.21	4.24	16.7	16.3	17	18
M2	20/12/2022	Mid-Flood	Fine	Smooth	6:04	1	M	0.5	2			7.82		8.62		12.95		46.4		4.26		16.0		18	
M3	20/12/2022	Mid-Flood	Fine	Smooth	5:46	0.4	M	0.2	1	0.256	87	7.88	7.87	7.61	7.62	13.18	13.19	48.5	48.1	4.48	4.46	19.1	18.9	31	31
M3	20/12/2022	Mid-Flood	Fine	Smooth	5:46	0.4	M	0.2	2			7.86		7.62		13.19		47.7		4.43		18.8		31	
M1	20/12/2022	Mid-Ebb	Fine	Smooth	11:36	2	M	1	1	0.289	220	7.36	7.36	7.07	7.07	16.29	16.30	63.4	63.1	5.89	5.87	12.8	12.5	13	14
M1	20/12/2022	Mid-Ebb	Fine	Smooth	11:36	2	M	1	2			7.35		7.06		16.31		62.8		5.85		12.3		15	
M2	20/12/2022	Mid-Ebb	Fine	Smooth	11:21	1	M	0.5	1	0.268	251	7.29	7.29	6.26	6.25	16.05	16.06	61.5	61.3	5.69	5.68	12.0	11.5	17	17
M2	20/12/2022	Mid-Ebb	Fine	Smooth	11:21	1	M	0.5	2			7.28		6.24		16.06		61.1		5.66		11.1		17	
M3	20/12/2022	Mid-Ebb	Fine	Smooth	11:17	0.4	M	0.2	1	0.244	274	7.32	7.33	5.17	5.18	17.73	17.74	58.4	58.7	5.33	5.35	20.7	21.0	21	22
M3	20/12/2022	Mid-Ebb	Fine	Smooth	11:17	0.4	M	0.2	2			7.33		5.18		17.75		58.9		5.36		21.3		22	

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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	22/12/2022	Mid-Flood	Fine	Smooth	7:49	2	M	1	1	0.304	229	7.91	7.92	8.94	8.95	12.79	12.79	65.3	64.9	5.97	5.94	26.9	26.6	25	27
M1	22/12/2022	Mid-Flood	Fine	Smooth	7:49	2	M	1	2			7.93		8.95		12.78		64.4		5.91		26.2		28	
M2	22/12/2022	Mid-Flood	Fine	Smooth	8:08	1	M	0.5	1	0.287	310	7.82	7.82	8.43	8.43	13.21	13.22	63.4	63.7	5.87	5.89	20.2	20.6	32	32
M2	22/12/2022	Mid-Flood	Fine	Smooth	8:08	1	M	0.5	2			7.81		8.42		13.22		63.9		5.90		20.9		32	
M3	22/12/2022	Mid-Flood	Fine	Smooth	7:53	0.2	M	0.1	1	0.277	91	7.87	7.88	8.28	8.27	12.12	12.13	61.8	61.5	5.77	5.75	17.4	17.6	24	25
M3	22/12/2022	Mid-Flood	Fine	Smooth	7:53	0.2	M	0.1	2			7.89		8.26		12.14		61.1		5.72		17.8		25	
M1	22/12/2022	Mid-Ebb	Fine	Smooth	13:24	2.2	M	1.1	1	0.294	203	7.54	7.54	6.83	6.84	19.84	19.85	76.6	76.4	7.22	7.21	20.1	19.8	28	27
M1	22/12/2022	Mid-Ebb	Fine	Smooth	13:24	2.2	M	1.1	2			7.54		6.84		19.86		76.1		7.19		19.6		25	
M2	22/12/2022	Mid-Ebb	Fine	Smooth	13:06	1.2	M	0.6	1	0.266	262	7.47	7.48	6.69	6.69	19.02	19.03	74.8	74.7	7.02	7.02	18.8	18.8	21	21
M2	22/12/2022	Mid-Ebb	Fine	Smooth	13:06	1.2	M	0.6	2			7.49		6.68		19.03		74.5		7.01		18.9		21	
M3	22/12/2022	Mid-Ebb	Fine	Smooth	13:08	0.4	M	0.2	1	0.248	268	7.40	7.41	6.41	6.42	19.37	19.38	73.9	73.7	6.91	6.90	21.9	22.1	32	31
M3	22/12/2022	Mid-Ebb	Fine	Smooth	13:08	0.4	M	0.2	2			7.41		6.42		19.38		73.5		6.88		22.4		29	

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.
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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	24/12/2022	Mid-Flood	Fine	Smooth	9:46	2	M	1	1	0.371	238	7.69	7.69	8.85	8.85	16.58	16.59	59.6	59.5	5.48	5.47	26.0	25.5	35	34
M1	24/12/2022	Mid-Flood	Fine	Smooth	9:46	2	M	1	2			7.69		8.84		16.59		59.3		5.46		25.1		33	
M2	24/12/2022	Mid-Flood	Fine	Smooth	10:04	1	M	0.5	1	0.342	294	7.65	7.66	8.67	8.68	17.02	17.03	61.8	61.6	5.71	5.70	24.3	24.1	32	31
M2	24/12/2022	Mid-Flood	Fine	Smooth	10:04	1	M	0.5	2			7.66		8.69		17.04		61.3		5.68		23.8		29	
M3	24/12/2022	Mid-Flood	Fine	Smooth	9:36	0.2	M	0.1	1	0.331	81	7.63	7.63	8.56	8.57	16.11	16.12	54.1	53.8	4.95	4.93	31.3	31.0	43	43
M3	24/12/2022	Mid-Flood	Fine	Smooth	9:36	0.2	M	0.1	2			7.62		8.58		16.13		53.4		4.91		30.8		42	
M1	24/12/2022	Mid-Ebb	Fine	Smooth	14:53	2.2	M	1.1	1	0.31	214	7.44	7.43	7.85	7.86	20.96	20.96	77.3	77.1	7.13	7.12	29.4	29.5	23	24
M1	24/12/2022	Mid-Ebb	Fine	Smooth	14:53	2.2	M	1.1	2			7.42		7.86		20.96		76.9		7.11		29.6		25	
M2	24/12/2022	Mid-Ebb	Fine	Smooth	14:34	1.2	M	0.6	1	0.294	251	7.31	7.31	7.52	7.53	20.48	20.49	72.5	72.1	6.71	6.69	22.5	22.1	29	29
M2	24/12/2022	Mid-Ebb	Fine	Smooth	14:34	1.2	M	0.6	2			7.31		7.53		20.49		71.7		6.66		21.8		28	
M3	24/12/2022	Mid-Ebb	Fine	Smooth	14:29	0.4	M	0.2	1	0.27	274	7.25	7.26	6.98	6.97	20.22	20.23	75.6	75.4	6.97	6.96	35.8	35.9	31	31
M3	24/12/2022	Mid-Ebb	Fine	Smooth	14:29	0.4	M	0.2	2			7.26		6.96		20.24		75.2		6.95		36.0		30	

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	27/12/2022	Mid-Flood	Fine	Moderate	12:04	1.1	M	0.55	1	0.235	75	8.44	8.44	9.30	9.29	18.54	18.49	67.9	67.8	6.02	6.02	15.1	15.1	21	21
M1	27/12/2022	Mid-Flood	Fine	Moderate	12:04	1.1	M	0.55	2			8.43		9.27		18.44		67.7		6.01		15.0		20	
M2	27/12/2022	Mid-Flood	Fine	Moderate	12:30	0.9	M	0.45	1	0.125	98	8.32	8.32	9.22	9.22	18.59	18.58	70.4	70.4	6.31	6.30	15.0	15.0	18	19
M2	27/12/2022	Mid-Flood	Fine	Moderate	12:30	0.9	M	0.45	2			8.31		9.21		18.57		70.3		6.29		15.0		19	
M3	27/12/2022	Mid-Flood	Fine	Calm	11:59	0.2	M	0.1	1	0.323	90	7.38	7.38	9.09	9.10	18.09	18.10	71.2	70.8	6.35	6.32	22.3	22.6	24	23
M3	27/12/2022	Mid-Flood	Fine	Calm	11:59	0.2	M	0.1	2			7.37		9.10		18.11		70.3		6.29		22.9		22	
M1	27/12/2022	Mid-Ebb	Fine	Moderate	17:40	0.9	M	0.45	1	0.086	342	7.61	7.62	9.92	9.93	18.54	18.57	70.2	70.4	6.37	6.36	15.2	15.3	23	24
M1	27/12/2022	Mid-Ebb	Fine	Moderate	17:40	0.9	M	0.45	2			7.62		9.94		18.59		70.6		6.34		15.3		24	
M2	27/12/2022	Mid-Ebb	Fine	Moderate	17:11	0.7	M	0.35	1	0.063	175	7.53	7.53	9.41	9.42	18.31	18.33	74.0	74.2	6.50	6.52	15.0	15.0	20	20
M2	27/12/2022	Mid-Ebb	Fine	Moderate	17:11	0.7	M	0.35	2			7.52		9.42		18.34		74.3		6.54		15.0		19	
M3	27/12/2022	Mid-Ebb	Fine	Calm	16:58	0.4	M	0.2	1	0.276	262	7.12	7.13	7.57	7.57	21.23	21.24	66.4	66.2	5.88	5.87	16.9	16.6	24	24
M3	27/12/2022	Mid-Ebb	Fine	Calm	16:58	0.4	M	0.2	2			7.14		7.56		21.24		65.9		5.85		16.3		23	

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	29/12/2022	Mid-Flood	Fine	Smooth	13:59	2	M	1	1	0.345	282	7.76	7.77	9.01	9.02	19.79	19.77	85.5	85.7	7.78	7.80	18.5	18.8	12	11
M1	29/12/2022	Mid-Flood	Fine	Smooth	13:59	2	M	1	2			7.77		9.03		19.74		85.9		7.81		19.1		10	
M2	29/12/2022	Mid-Flood	Fine	Smooth	13:42	1.2	M	0.6	1	0.331	310	7.64	7.64	8.86	8.86	18.83	18.82	82.7	82.5	7.39	7.38	17.6	17.4	13	13
M2	29/12/2022	Mid-Flood	Fine	Smooth	13:42	1.2	M	0.6	2			7.63		8.85		18.81		82.2		7.36		17.2		12	
M3	29/12/2022	Mid-Flood	Fine	Moderate	13:52	0.7	M	0.35	1	0.046	352	7.52	7.53	11.77	11.78	18.49	18.49	94.0	93.9	8.42	8.41	23.3	23.3	11	11
M3	29/12/2022	Mid-Flood	Fine	Moderate	13:52	0.7	M	0.35	2			7.53		11.78		18.48		93.8		8.39		23.2		10	
M1	29/12/2022	Mid-Ebb	Fine	Smooth	6:03	2.2	M	1.1	1	0.378	231	7.55	7.56	7.72	7.73	14.53	14.53	67.8	67.4	5.98	5.95	16.4	16.9	10	10
M1	29/12/2022	Mid-Ebb	Fine	Smooth	6:03	2.2	M	1.1	2			7.57		7.73		14.52		66.9		5.92		17.5		10	
M2	29/12/2022	Mid-Ebb	Fine	Smooth	6:22	1.2	M	0.6	1	0.351	266	7.46	7.46	7.45	7.45	14.72	14.73	64.1	63.7	5.73	5.71	15.3	15.6	12	12
M2	29/12/2022	Mid-Ebb	Fine	Smooth	6:22	1.2	M	0.6	2			7.46		7.44		14.74		63.3		5.68		15.9		11	
M3	29/12/2022	Mid-Ebb	Fine	Moderate	6:10	0.9	M	0.45	1	0.063	97	7.44	7.45	11.61	11.62	19.10	19.15	81.3	81.4	7.20	7.22	18.3	18.3	16	16
M3	29/12/2022	Mid-Ebb	Fine	Moderate	6:10	0.9	M	0.45	2			7.45		11.62		19.20		81.4		7.24		18.3		16	

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	31/12/2022	Mid-Flood	Fine	Smooth	15:28	2.2	M	1.1	1	0.352	293	7.79	7.78	9.16	9.17	19.82	19.82	81.8	81.6	7.62	7.61	16.2	16.6	14	13
M1	31/12/2022	Mid-Flood	Fine	Smooth	15:28	2.2	M	1.1	2			7.77		9.17		19.81		81.4		7.60		17.0		12	
M2	31/12/2022	Mid-Flood	Fine	Smooth	15:12	1.2	M	0.6	1	0.336	328	7.91	7.92	8.98	8.98	19.33	19.34	83.1	82.9	7.72	7.71	14.2	14.3	13	13
M2	31/12/2022	Mid-Flood	Fine	Smooth	15:12	1.2	M	0.6	2			7.92		8.97		19.35		82.6		7.69		14.4		12	
M3	31/12/2022	Mid-Flood	Fine	Smooth	15:14	0.4	M	0.2	1	0.319	87	7.84	7.84	8.65	8.64	18.73	18.74	80.2	80.6	7.53	7.55	31.7	31.4	26	25
M3	31/12/2022	Mid-Flood	Fine	Smooth	15:14	0.4	M	0.2	2			7.84		8.63		18.74		80.9		7.57		31.1		23	
M1	31/12/2022	Mid-Ebb	Fine	Smooth	7:46	2.2	M	1.1	1	0.339	216	7.31	7.32	6.94	6.95	12.37	12.37	64.6	64.2	6.46	6.44	19.3	19.5	22	21
M1	31/12/2022	Mid-Ebb	Fine	Smooth	7:46	2.2	M	1.1	2			7.33		6.95		12.36		63.8		6.41		19.7		20	
M2	31/12/2022	Mid-Ebb	Fine	Smooth	8:03	1.2	M	0.6	1	0.324	254	7.29	7.29	6.54	6.55	12.91	12.92	66.9	67.2	6.59	6.61	22.3	21.9	17	18
M2	31/12/2022	Mid-Ebb	Fine	Smooth	8:03	1.2	M	0.6	2			7.28		6.56		12.93		67.4		6.62		21.4		18	
M3	31/12/2022	Mid-Ebb	Fine	Smooth	7:43	0.4	M	0.2	1	0.3	257	7.42	7.43	6.48	6.49	12.79	12.80	69.7	69.3	6.78	6.76	23.6	23.7	11	12
M3	31/12/2022	Mid-Ebb	Fine	Smooth	7:43	0.4	M	0.2	2			7.44		6.49		12.81		68.9		6.73		23.8		12	

Remark

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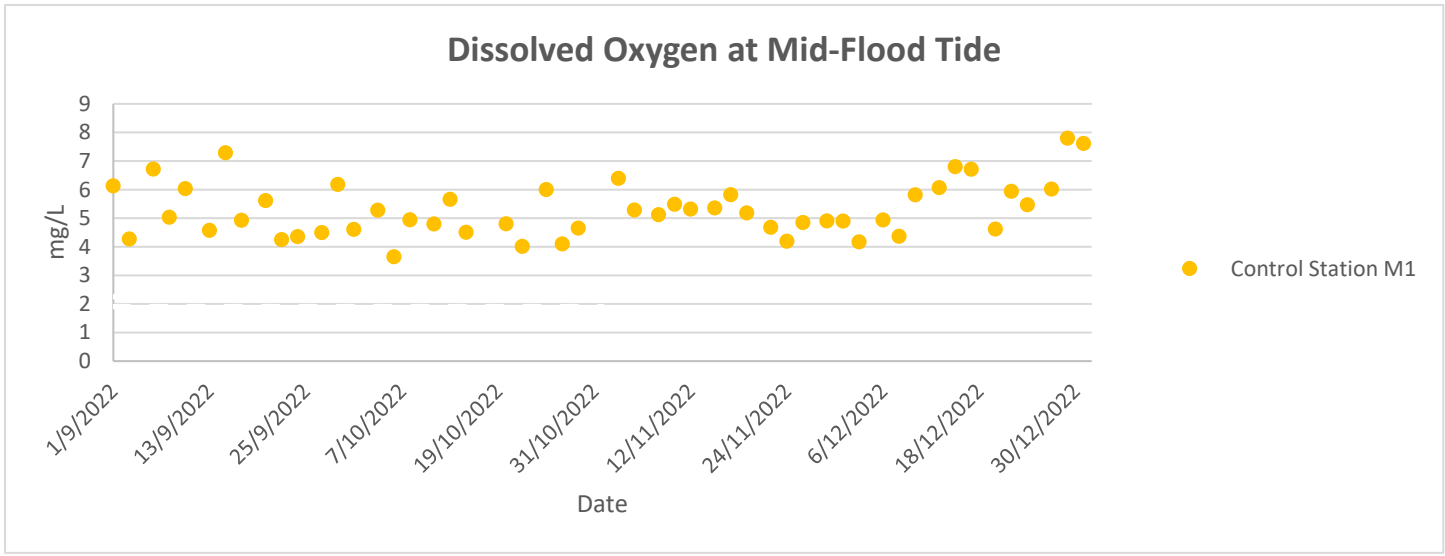
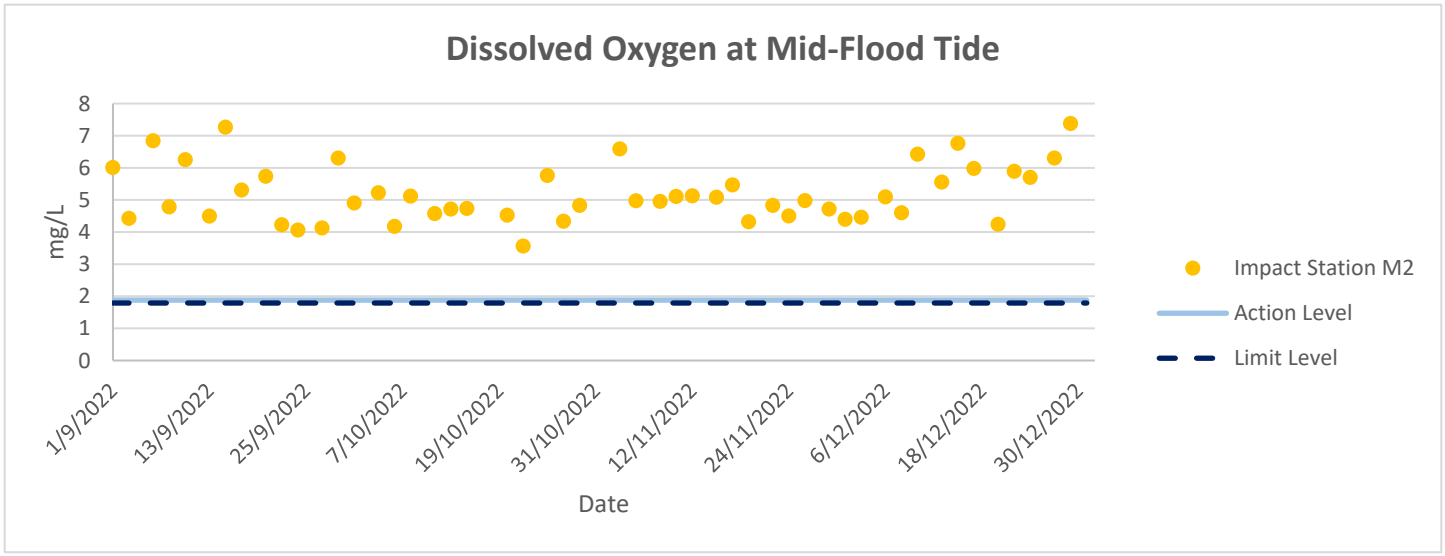
For Flood Tide

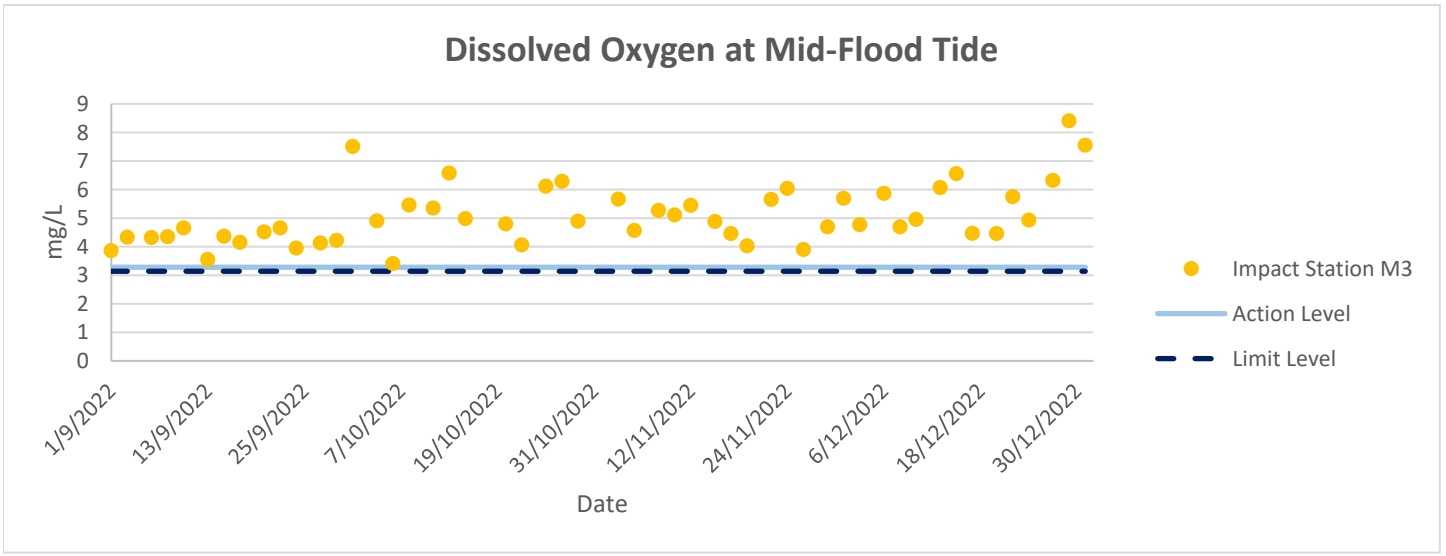
Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

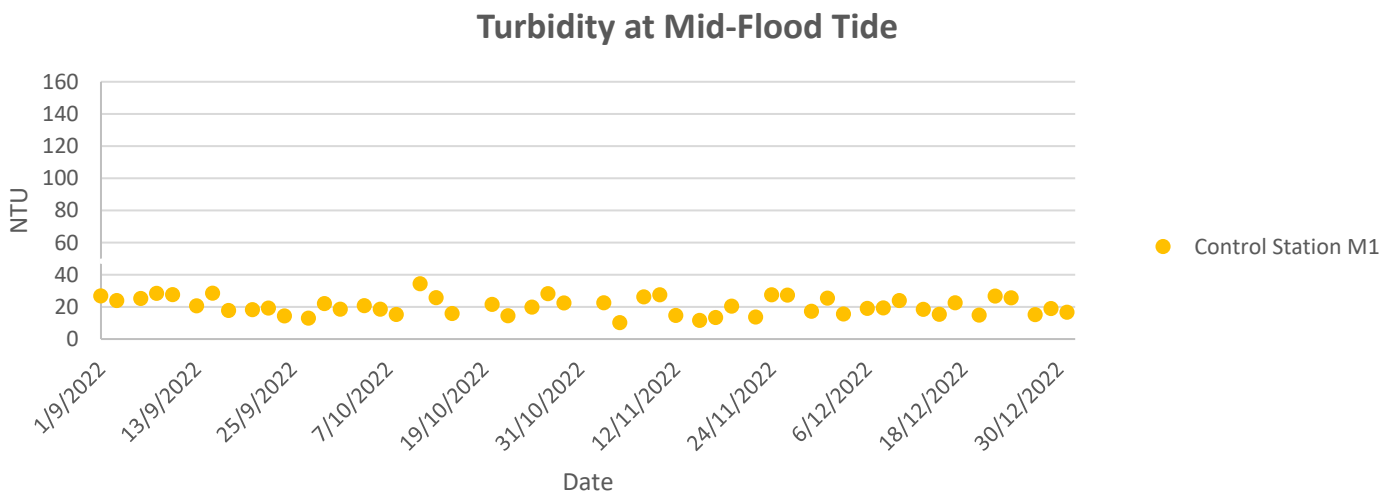
Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

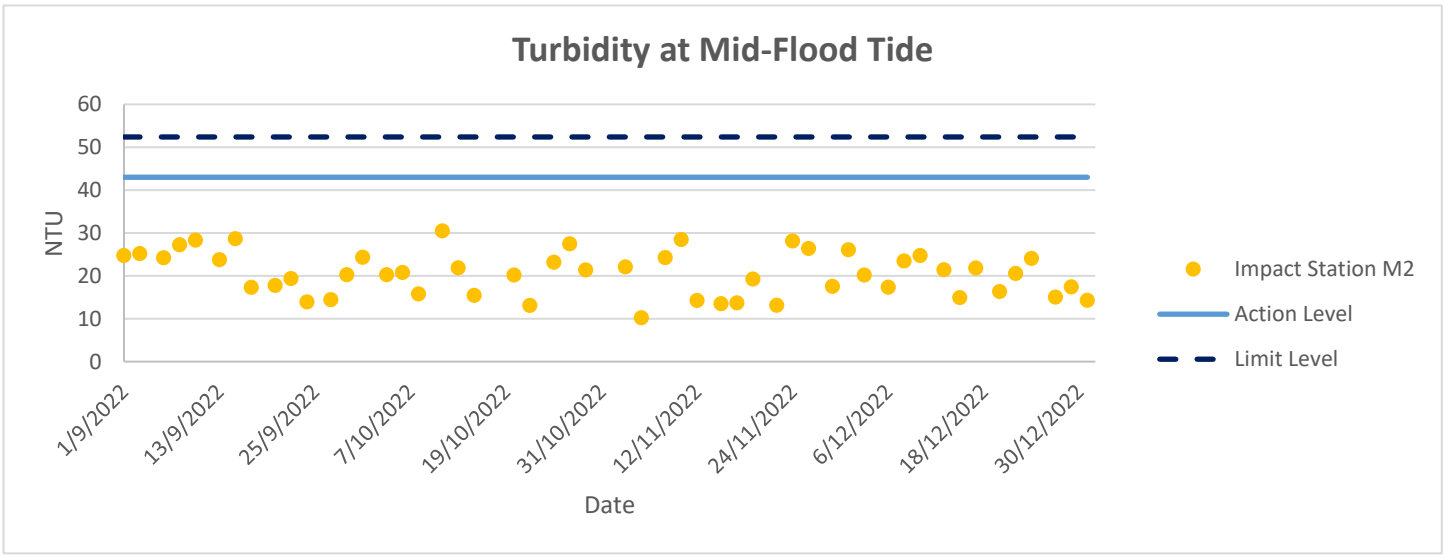


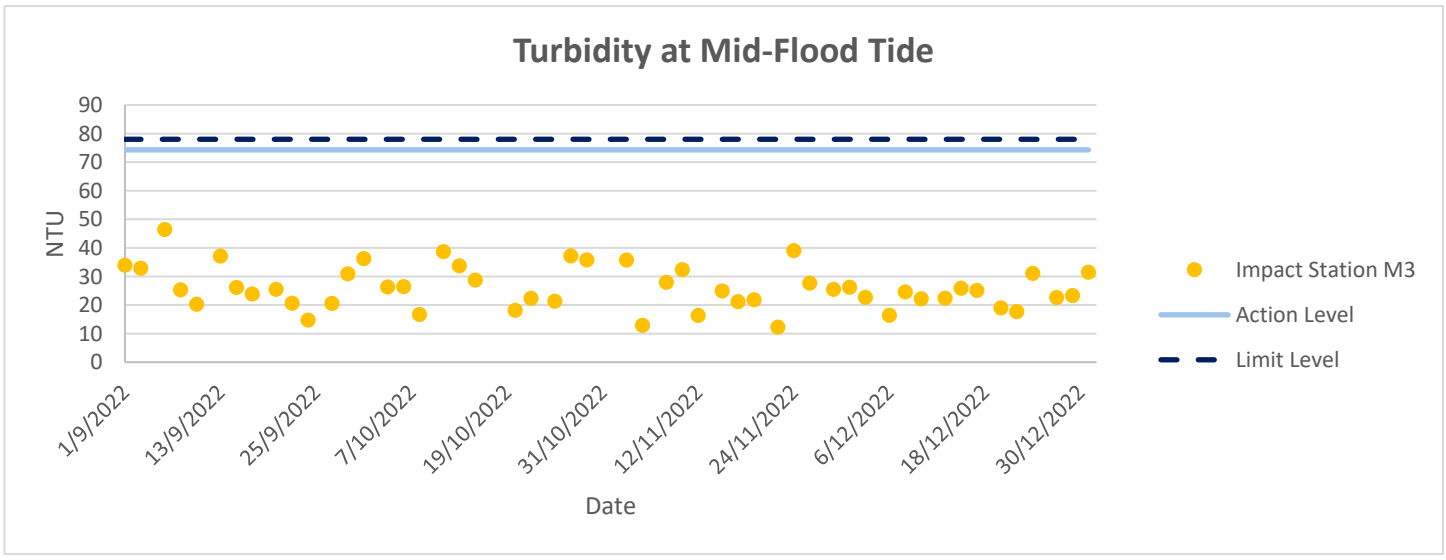




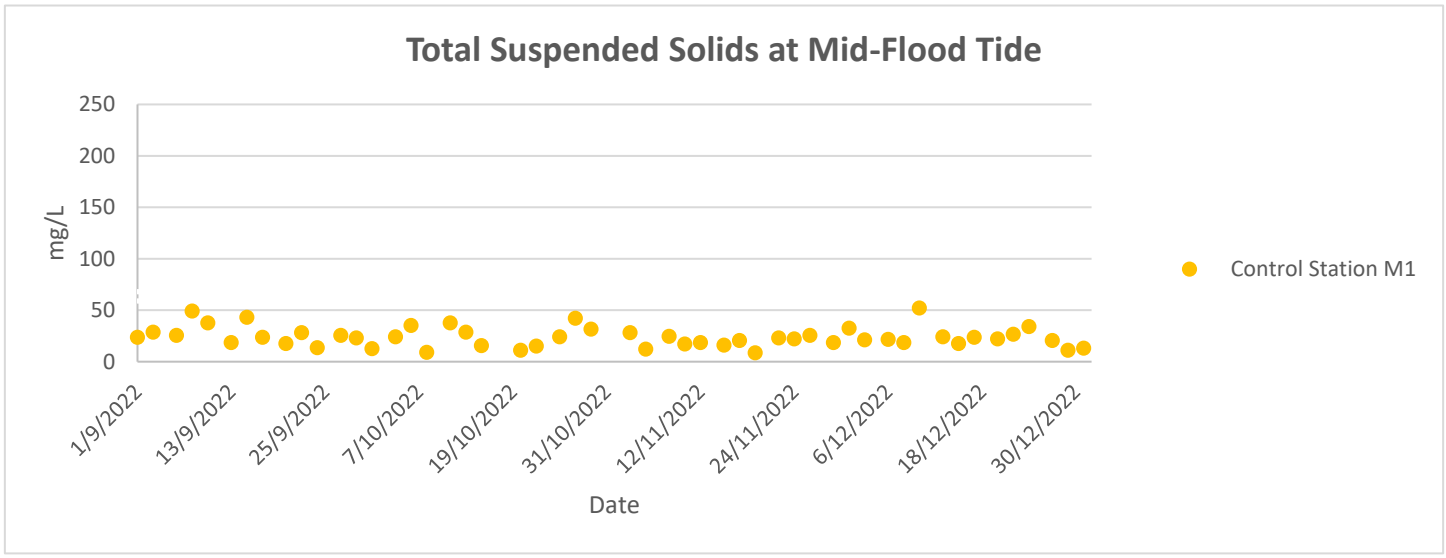
Water Quality Monitoring Results

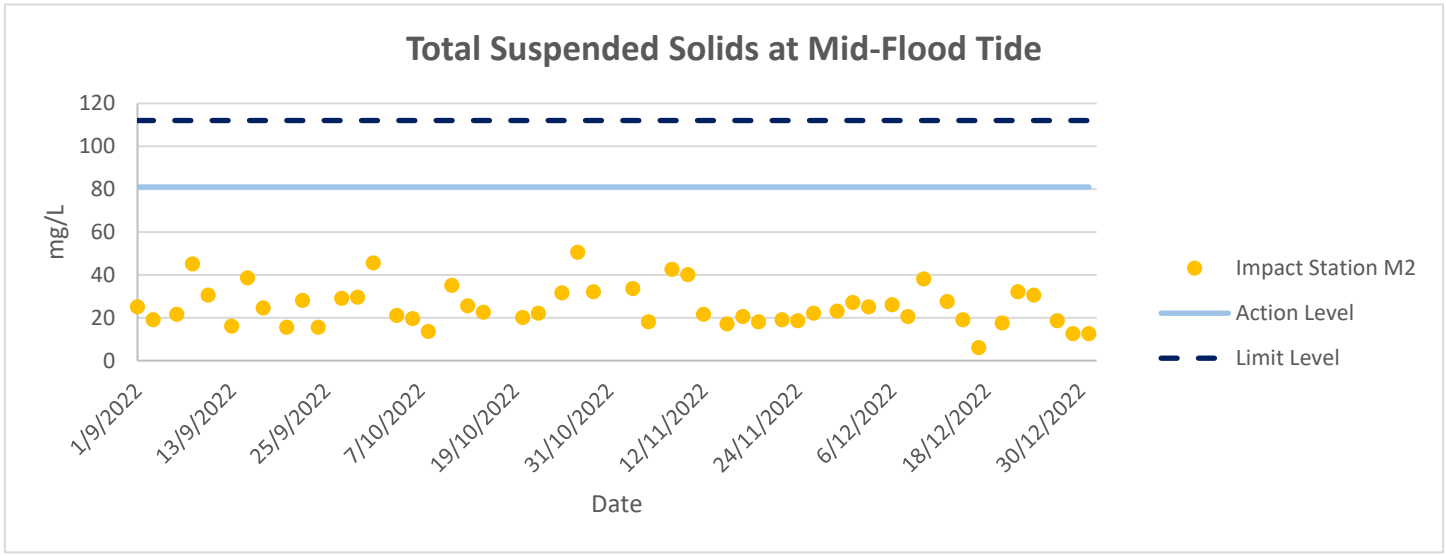


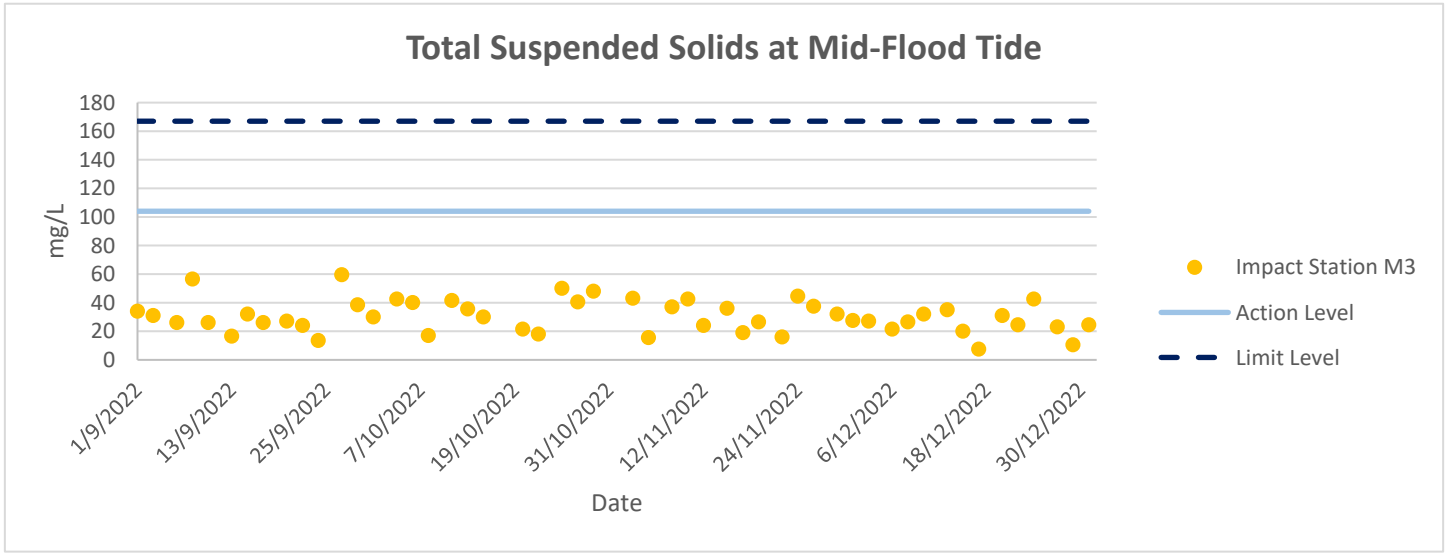




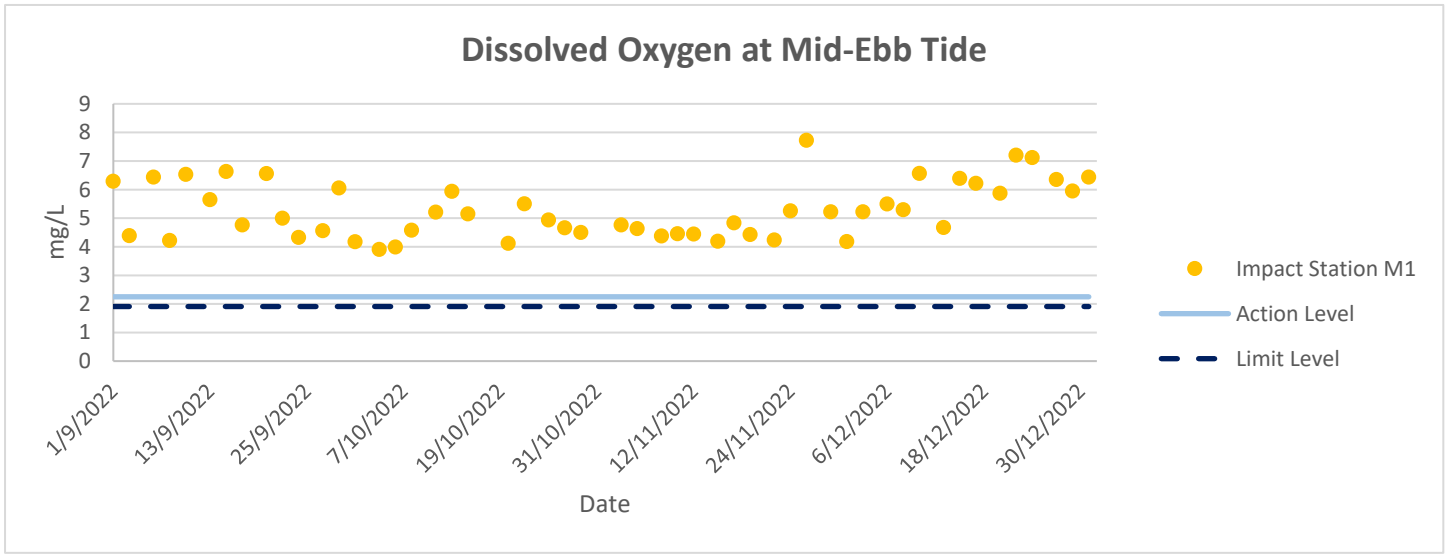
Water Quality Monitoring Results

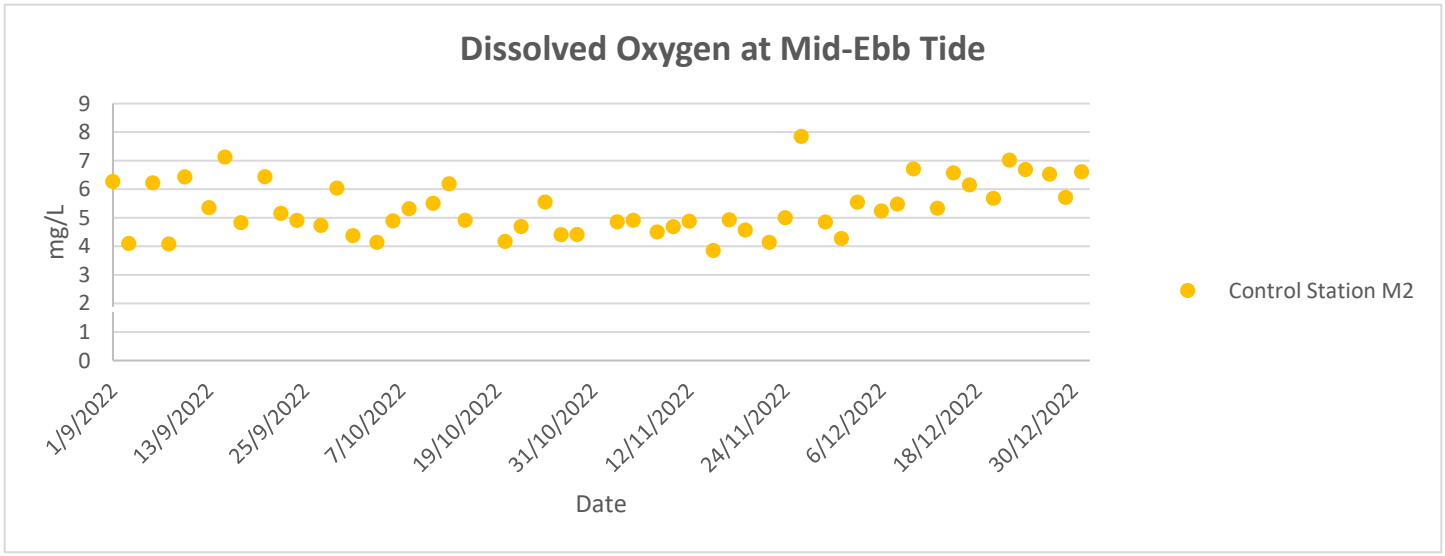


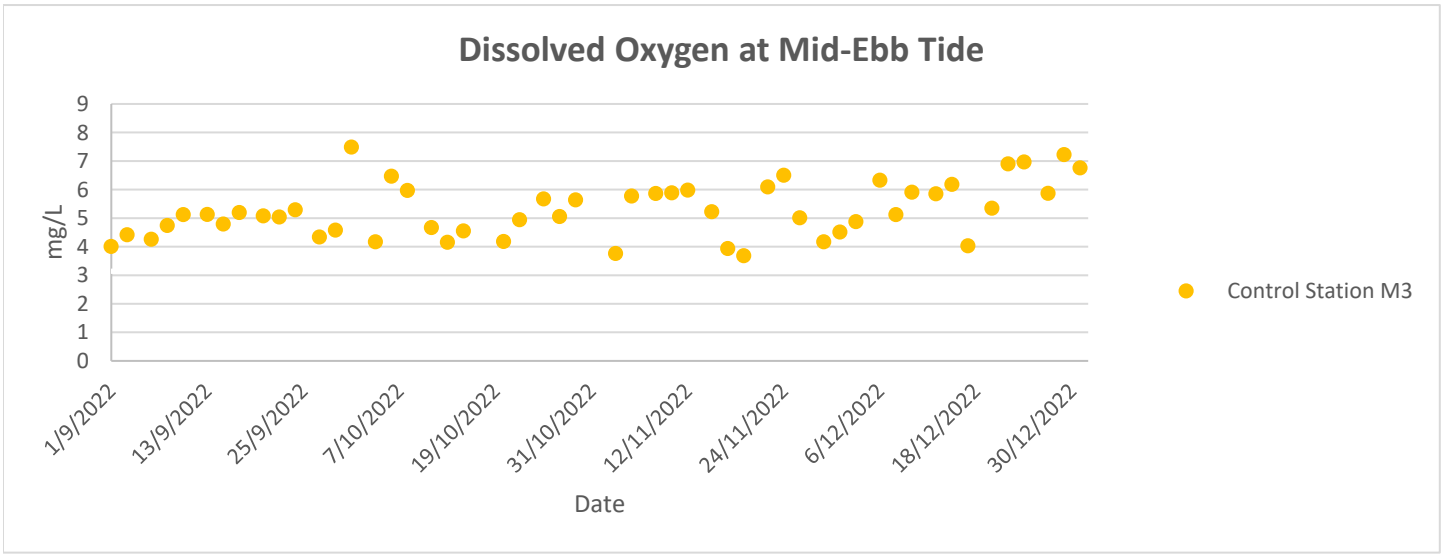




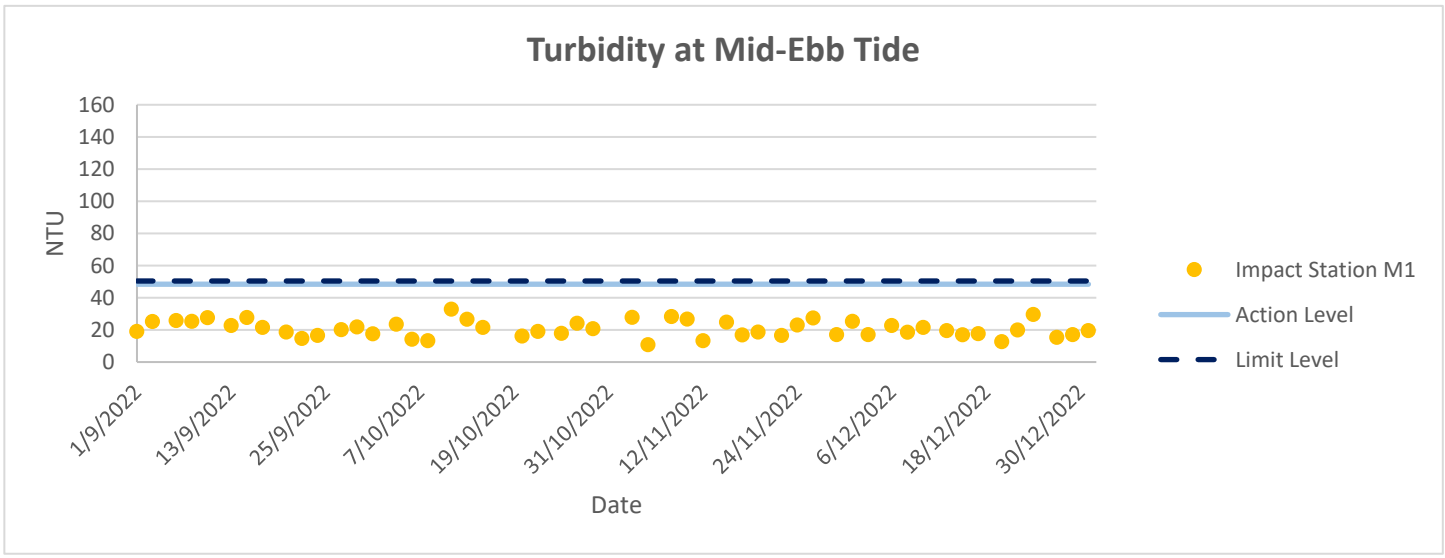
Water Quality Monitoring Results

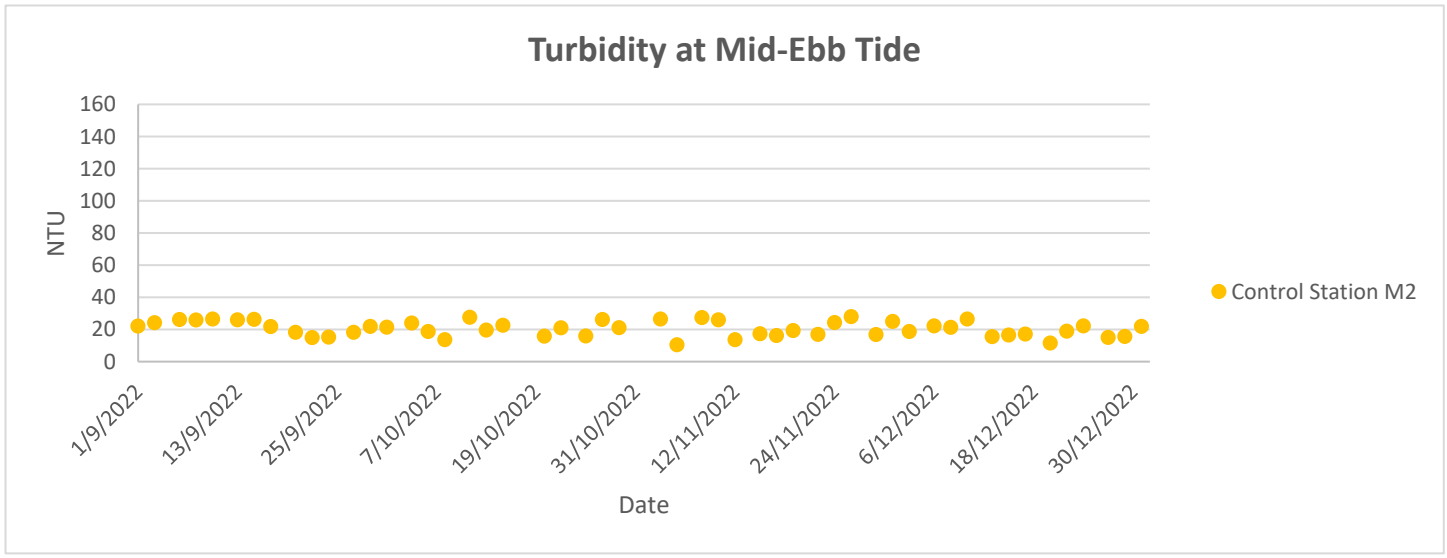


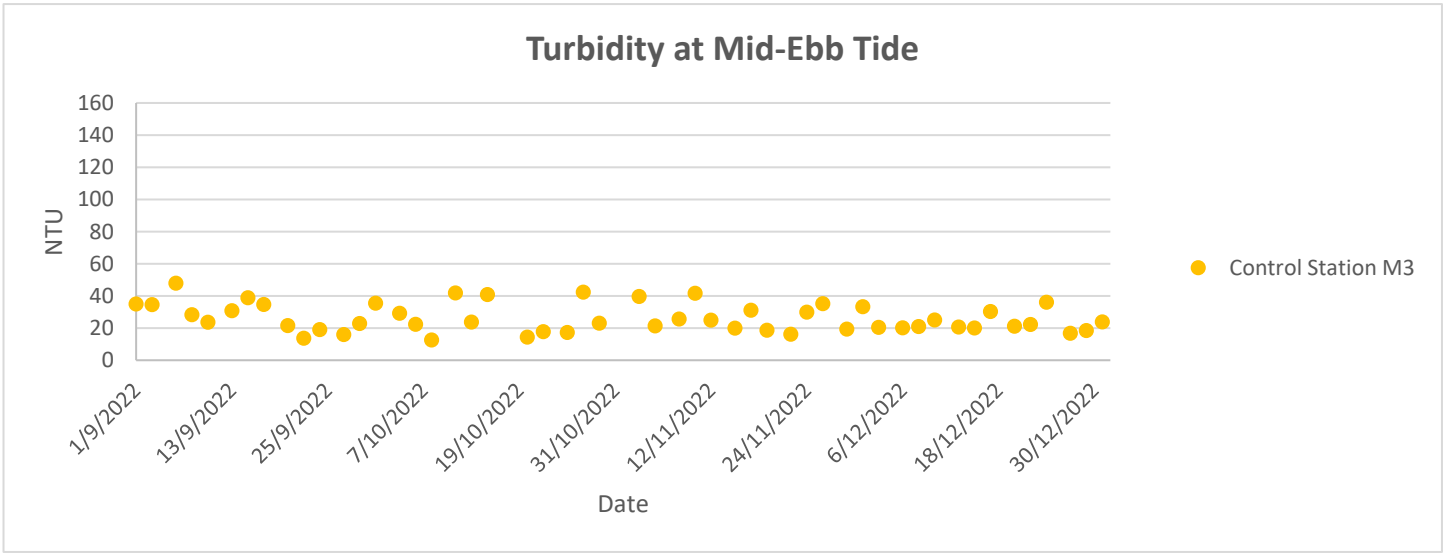




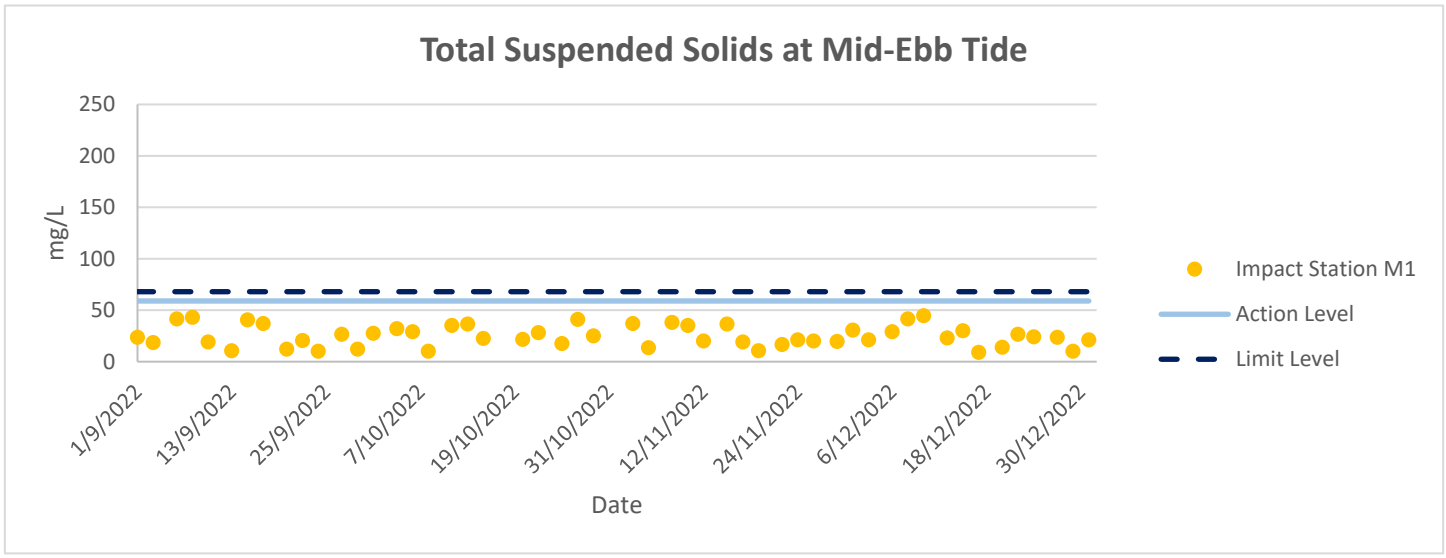
Water Quality Monitoring Results

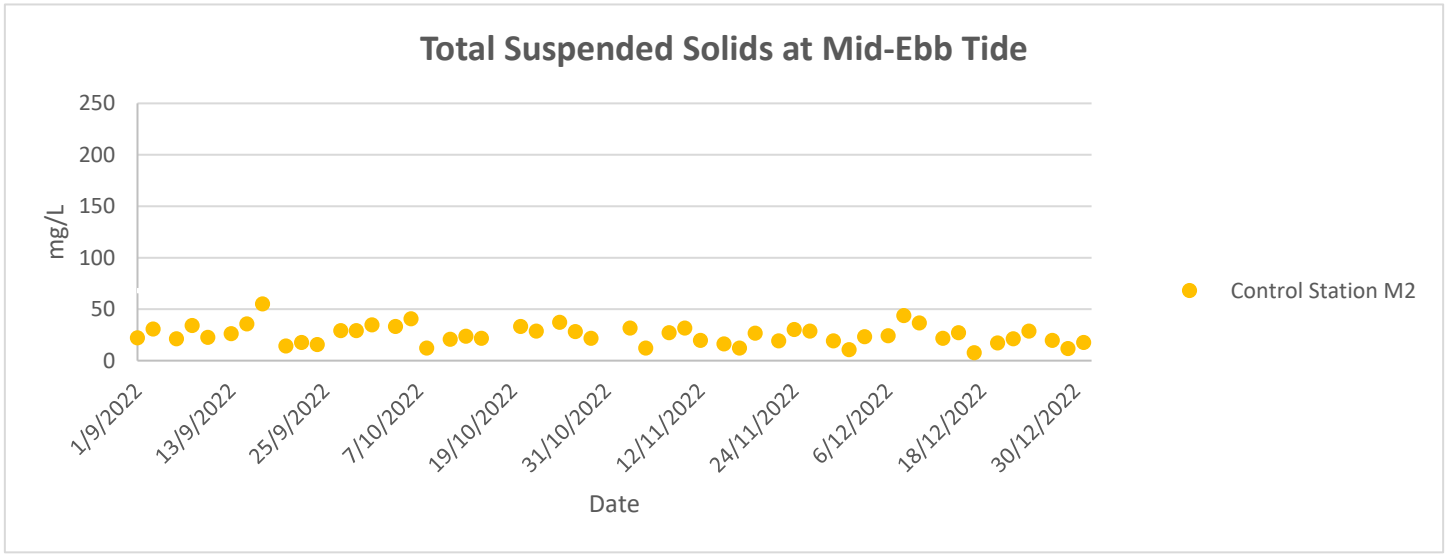


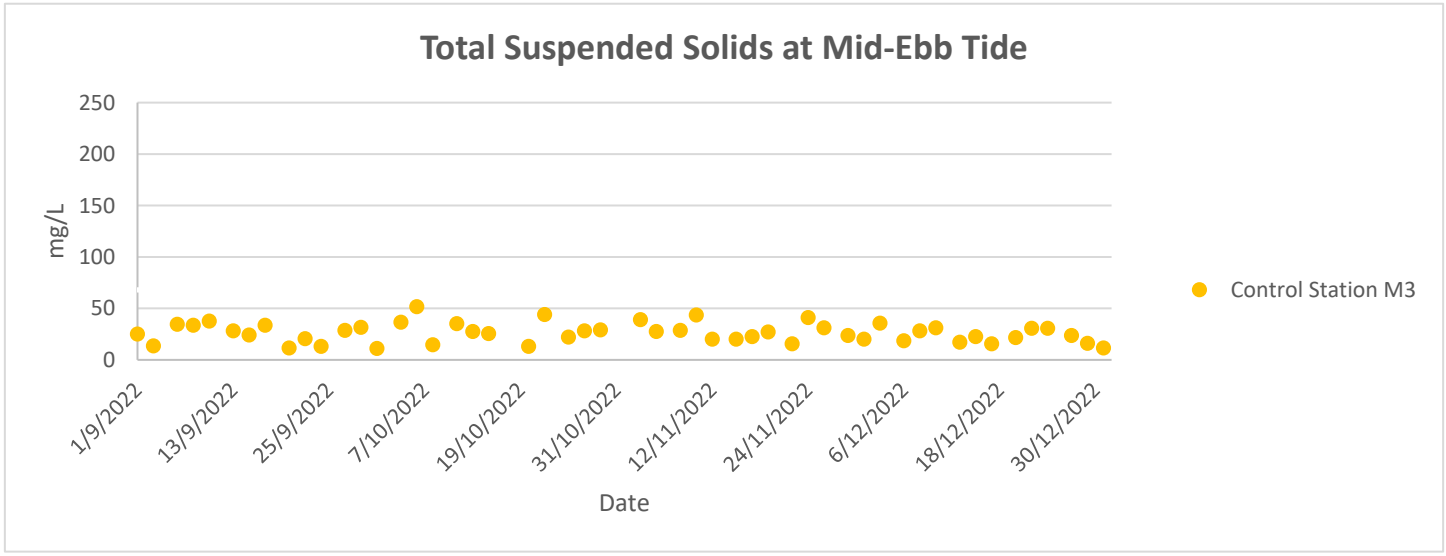




Water Quality Monitoring Results







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 (14 and 15 December 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
14/12/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Transect	FLW	Plantation-FLW	Crested Myna	*Acridotheres cristatellus*	33	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Eurasian Tree Sparrow	*Passer montanus*	24	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	9	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	5	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	White-breasted Waterhen	*Amaurornis phoenicurus*	1	Common	R	-	-	-	LC	LC	N	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	4	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Great Egret	*Ardea alba*	18	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Black Kite	*Milvus migrans*	1	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Grey Heron	*Ardea cinerea*	2	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Chinese Bulbul	*Pycnonotus sinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Common Moorhen	*Gallinula chloropus*	4	Common	R	-	-	-	LC	LC	N	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Common Tailorbird	*Orthotomus sutorius*	1	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	6	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	10	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Northern Shoveler	*Anas clypeata*	4	Abundant	WV	RC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	5	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	4	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Great Egret	*Ardea alba*	13	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y

14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Grey Heron	*Ardea cinerea*	2	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	9	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	White Wagtail	*Motacilla alba*	6	Common	PM,WV	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Black-collared Starling	*Gracupica nigricollis*	3	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Black-winged Stilt	*Himantopus himantopus*	1	Common	PM	RC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	3	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Eurasian Wigeon	*Anas penelope*	1	Common	WV	RC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	34	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Great Egret	*Ardea alba*	3	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Little Egret	*Egretta garzetta*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Black-collared Starling	*Gracupica nigricollis*	4	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	5	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Great Egret	*Ardea alba*	32	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Grey Heron	*Ardea cinerea*	34	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Black Kite	*Milvus migrans*	2	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Eurasian Collared Dove	*Streptopelia decaocto*	2	Common	-	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Transect	NSW	Plantation-NSW	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Transect	NSW	Plantation-NSW	White Wagtail	*Motacilla alba*	7	Common	PM,WV	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Black-collared Starling	*Gracupica nigricollis*	2	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Crested Myna	*Acridotheres cristatellus*	5	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Daurian Redstart	*Phoenicurus auroreus*	9	Common	WV	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Great Cormorant	*Phalacrocorax carbo*	57	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Oriental Magpie Robin	*Copsychus saularis*	1	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Pied Kingfisher	*Ceryle rudis*	1	Uncommon	R	-	-	-	LC	LC	N	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N

14/12/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	White Wagtail	*Motacilla alba*	3	Common	PM,WV	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Chinese Bulbul	*Pycnonotus sinensis*	7	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Common Tailorbird	*Orthotomus sutorius*	3	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Japanese White-eye	*Zosterops japonicus*	1	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Little Grebe	*Tachybaptus ruficollis*	1	Common	R	LC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Masked Laughingthrush	*Garrulax perspicillatus*	3	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Red-whiskered Bulbul	*Pycnonotus jocosus*	7	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	White Wagtail	*Motacilla alba*	6	Common	PM,WV	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Black-winged Stilt	*Himantopus himantopus*	3	Common	PM	RC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	3	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Masked Laughingthrush	*Garrulax perspicillatus*	2	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Oriental Magpie Robin	*Copsychus saularis*	1	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	White Wagtail	*Motacilla alba*	3	Common	PM,WV	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Black Drongo	*Dicrurus macrocercus*	1	Common	SV	-	-		LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Black-faced Spoonbill	*Platalea minor*	4	Common	WV	PGC	Class II	EN	EN	EN	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Black-winged Stilt	*Himantopus himantopus*	2	Common	PM	RC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Chinese Bulbul	*Pycnonotus sinensis*	8	Abundant	R	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Common Snipe	*Gallinago gallinago*	4	Common	PM,WV	-	-	-	LC	LC	N	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Eurasian Wigeon	*Anas penelope*	9	Common	WV	RC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	7	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Great Egret	*Ardea alba*	6	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Grey Heron	*Ardea cinerea*	4	Common	WV	PRC	-	-	LC	LC	Y	Y

14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Little Grebe	*Tachybaptus ruficollis*	24	Common	R	LC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Marsh Sandpiper	*Tringa stagnatilis*	5	Common	PM,WV	RC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Northern Shoveler	*Anas clypeata*	16	Abundant	WV	RC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
14/12/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	4	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Grey Heron	*Ardea cinerea*	2	Common	WV	PRC	-	-	LC	LC	Y	Y
14/12/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Little Egret	*Egretta garzetta*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
15/12/2022	Night time	Dry Season	NSW	Transect	NSW	Pond-NSW	Great Cormorant	*Phalacrocorax carbo*	17	Common	WV	PRC	-	-	LC	LC	Y	Y
15/12/2022	Night time	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Grey Heron	*Ardea cinerea*	3	Common	WV	PRC	-	-	LC	LC	Y	Y
15/12/2022	Night time	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y

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 (14 and 15 December 2022)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Acridotheres cristatellus	23	0.050773	-2.9804	-0.15132	0.451002
Anas clypeata	20	0.04415	-3.12016	-0.13776	0.429819
Anas penelope	10	0.022075	-3.81331	-0.08418	0.321
Ardea alba	75	0.165563	-1.7984	-0.29775	0.535473
Ardea cinerea	48	0.10596	-2.24469	-0.23785	0.533895
Ardeola bacchus	8	0.01766	-4.03645	-0.07128	0.287734
Ceryle rudis	1	0.002208	-6.11589	-0.0135	0.08257
Copsychus saularis	2	0.004415	-5.42274	-0.02394	0.129829
Dicrurus macrocercus	1	0.002208	-6.11589	-0.0135	0.08257
Egretta garzetta	5	0.011038	-4.50645	-0.04974	0.224152
Gallinago gallinago	4	0.00883	-4.7296	-0.04176	0.19752
Gallinula chloropus	4	0.00883	-4.7296	-0.04176	0.19752
Garrulax perspicillatus	5	0.011038	-4.50645	-0.04974	0.224152
Gracupica nigricollis	9	0.019868	-3.91867	-0.07785	0.305085
Himantopus himantopus	6	0.013245	-4.32413	-0.05727	0.247657
Milvus migrans	1	0.002208	-6.11589	-0.0135	0.08257
Motacilla alba	20	0.04415	-3.12016	-0.13776	0.429819
Orthotomus sutorius	4	0.00883	-4.7296	-0.04176	0.19752
Phalacrocorax carbo	123	0.271523	-1.30371	-0.35399	0.461495
Phoenicurus auroreus	9	0.019868	-3.91867	-0.07785	0.305085
Platalea minor	4	0.00883	-4.7296	-0.04176	0.19752
Prinia inornata	3	0.006623	-5.01728	-0.03323	0.166709
Pycnonotus jocosus	7	0.015453	-4.16998	-0.06444	0.2687
Pycnonotus sinensis	17	0.037528	-3.28268	-0.12319	0.404397
Spilopelia chinensis	13	0.028698	-3.55094	-0.1019	0.361853
Tachybaptus ruficollis	25	0.055188	-2.89702	-0.15988	0.463173
Tringa stagnatilis	5	0.011038	-4.50645	-0.04974	0.224152
Zosterops japonicus	1	0.002208	-6.11589	-0.0135	0.08257
Total	**453**	**1**	**-115.821**	**-2.56172**	**7.895539**
Richness	**28**				
SS	**7.895539**				
SQ	**6.562384**				
H	**2.56172**				
S^2_H	**0.003009**				

Appendix F.2.2 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Point Count Method) in All Habitats (14 and 15 December 2022)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Anas clypeata	20	0.060606	-2.80336	-0.1699	0.476293
Anas penelope	10	0.030303	-3.49651	-0.10595	0.370472
Ardea alba	75	0.227273	-1.4816	-0.33673	0.498898
Ardea cinerea	48	0.145455	-1.92789	-0.28042	0.540621
Ardeola bacchus	8	0.024242	-3.71965	-0.09017	0.335413
Egretta garzetta	5	0.015152	-4.18965	-0.06348	0.265958

Himantopus himantopus	6	0.018182	-4.00733	-0.07286	0.291977
Milvus migrans	1	0.00303	-5.79909	-0.01757	0.101908
Phalacrocorax carbo	123	0.372727	-0.98691	-0.36785	0.363032
Platalea minor	4	0.012121	-4.4128	-0.05349	0.236034
Tachybaptus ruficollis	25	0.075758	-2.58022	-0.19547	0.504357
Tringa stagnatilis	5	0.015152	-4.18965	-0.06348	0.265958
Total	**330**	**1**	**-39.5947**	**-1.81738**	**4.250919**
Richness	**12**				
SS	**4.250919**				
SQ	**3.302861**				
H	**1.81738**				
S^2_H	**0.002923**				

Appendix F.2.3 Ecological Bird Monitoring Diversity (All avifauna species in Transect Walk Method) in All Habitats (14 and 15 December 2022)

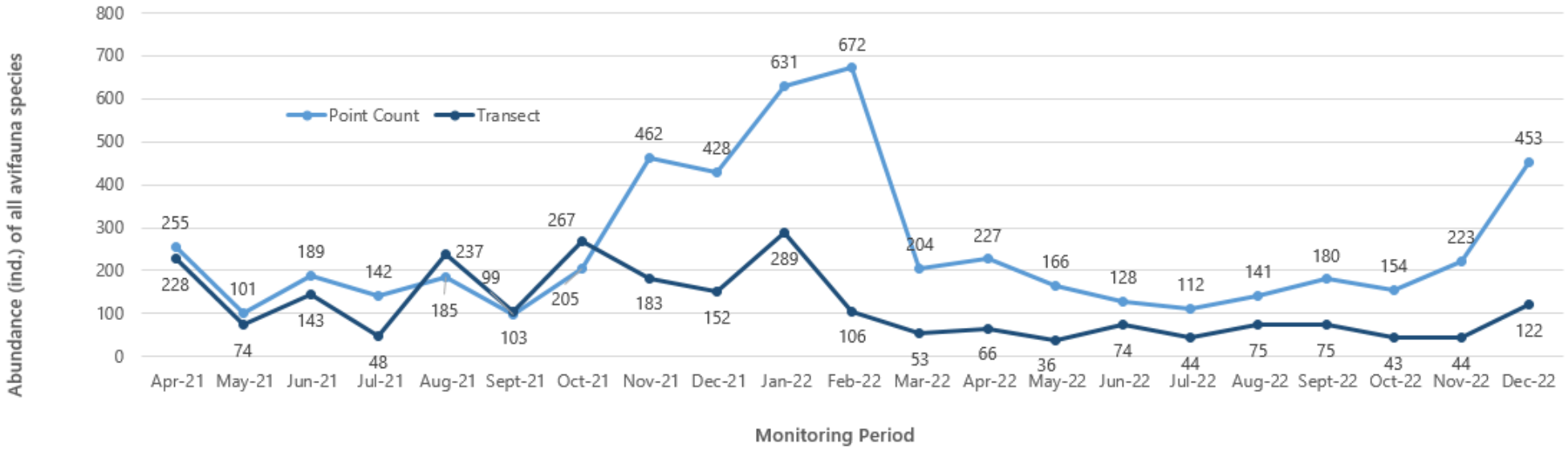
Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Acridotheres cristatellus	33	0.270492	-1.30751	-0.35367	0.46243
Amaurornis phoenicurus	1	0.008197	-4.80402	-0.03938	0.189169
Ardea alba	2	0.016393	-4.11087	-0.06739	0.277037
Ardea cinerea	2	0.016393	-4.11087	-0.06739	0.277037
Ardeola bacchus	8	0.065574	-2.72458	-0.17866	0.486776
Egretta garzetta	2	0.016393	-4.11087	-0.06739	0.277037
Milvus migrans	2	0.016393	-4.11087	-0.06739	0.277037
Motacilla alba	7	0.057377	-2.85811	-0.16399	0.468702
Passer montanus	24	0.196721	-1.62597	-0.31986	0.520086
Phalacrocorax carbo	31	0.254098	-1.37003	-0.34812	0.476941
Prinia inornata	1	0.008197	-4.80402	-0.03938	0.189169
Spilopelia chinensis	7	0.057377	-2.85811	-0.16399	0.468702
Streptopelia decaocto	2	0.016393	-4.11087	-0.06739	0.277037
Total	**122**	**1**	**-42.9067**	**-1.94401**	**4.647161**
Richness	**13**				
SS	**4.647161**				
SQ	**3.779173**				
H	**1.94401**				
S^2_H	**0.007518**				

Appendix F.2.4 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Transect Walk Method) in All Habitats (14 and 15 December 2022)

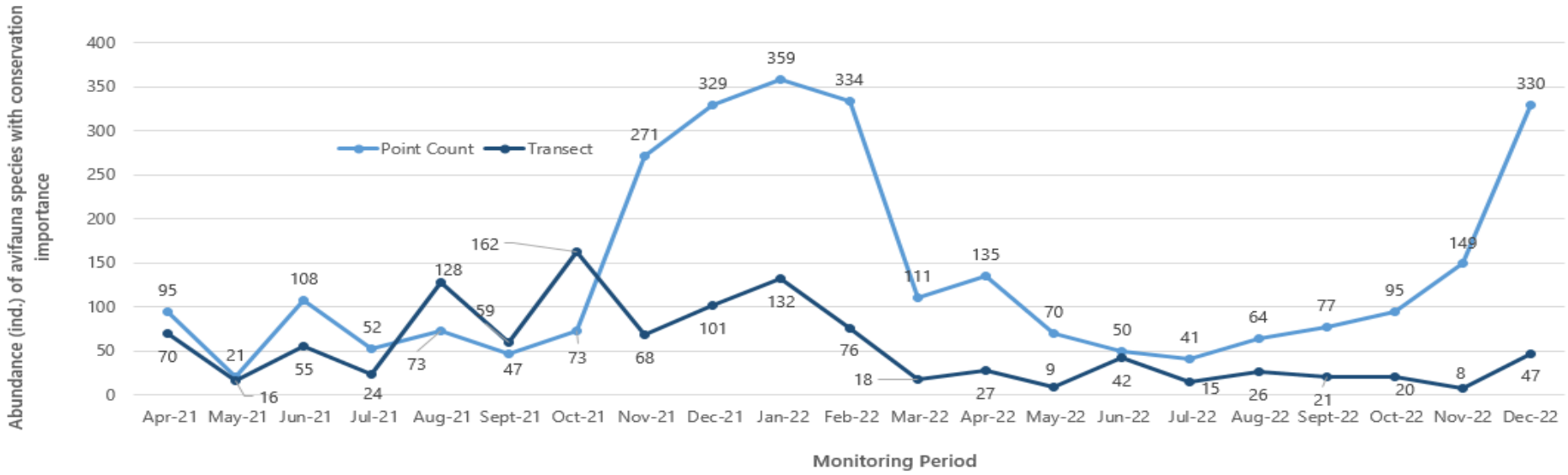
Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Ardea alba	2	0.042553	-3.157	-0.13434	0.424113
Ardea cinerea	2	0.042553	-3.157	-0.13434	0.424113
Ardeola bacchus	8	0.170213	-1.77071	-0.3014	0.533685
Egretta garzetta	2	0.042553	-3.157	-0.13434	0.424113
Milvus migrans	2	0.042553	-3.157	-0.13434	0.424113
Phalacrocorax carbo	31	0.659574	-0.41616	-0.27449	0.114231

Total	**47**	**1**	**-14.8149**	**-1.11325**	**2.344368**
Richness	**6**				
SS	**2.344368**				
SQ	**1.23932**				
H	**1.11325**				
S^2_H	**0.024643**				

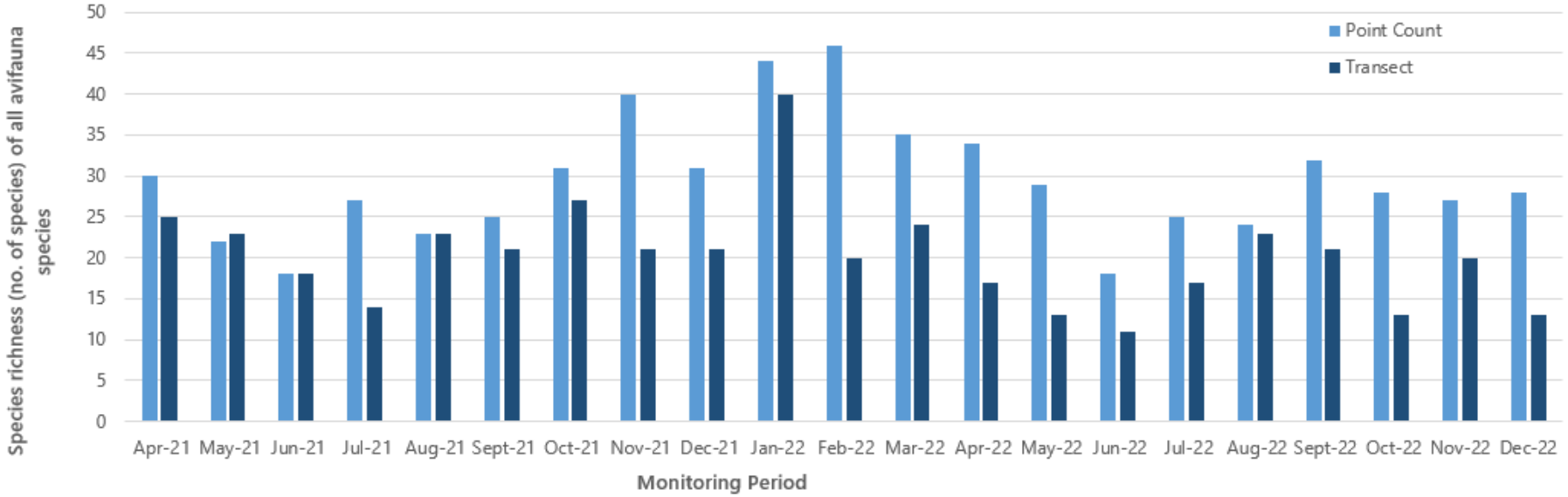
Appendix F.3.1 Abundance of all avifauna species throughout the monitoring period



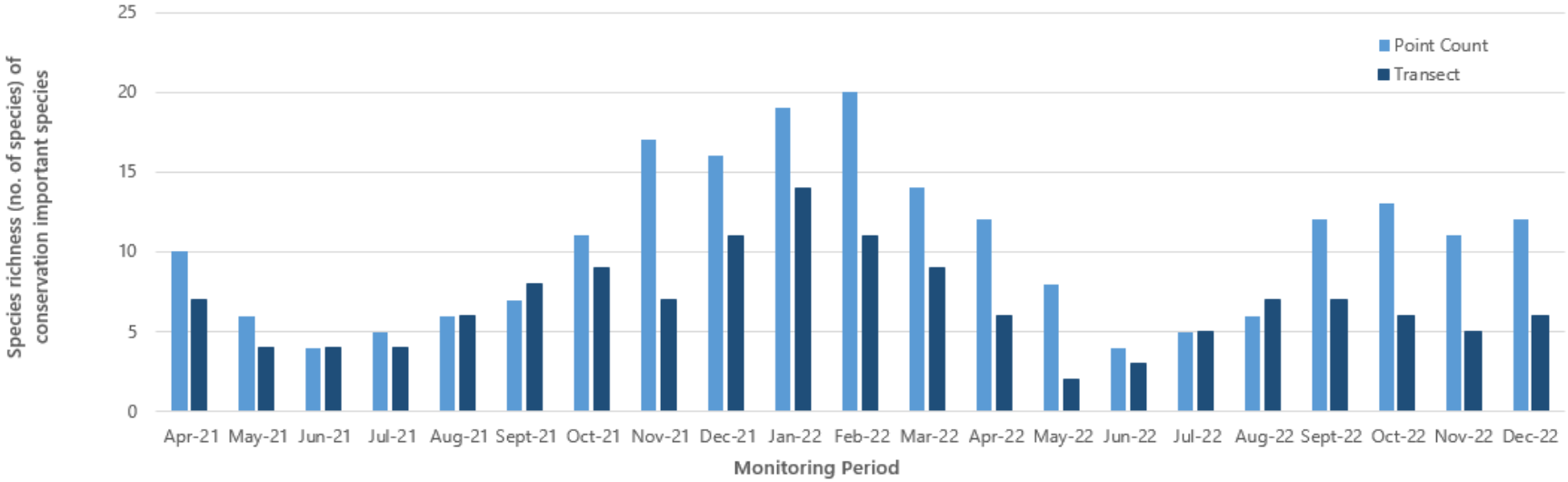
Appendix F.3.2 Abundance of avifauna species with conservation importance throughout the monitoring period



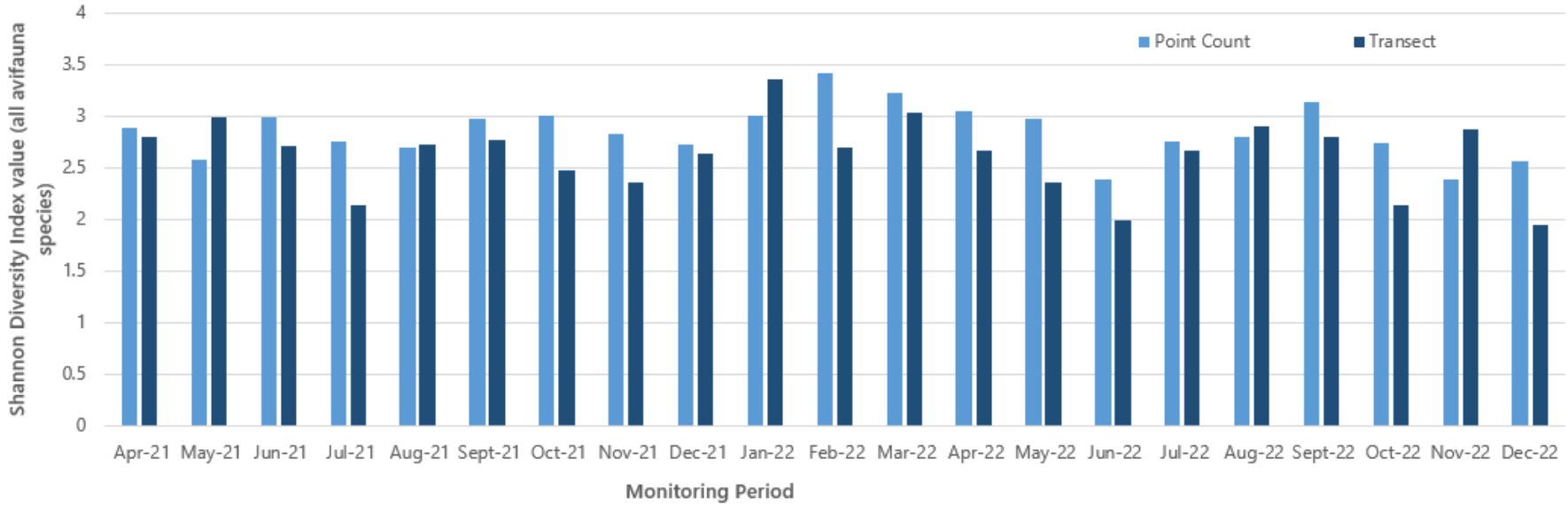
Appendix F.4.1 Species richness of all avifauna species throughout the monitoring period



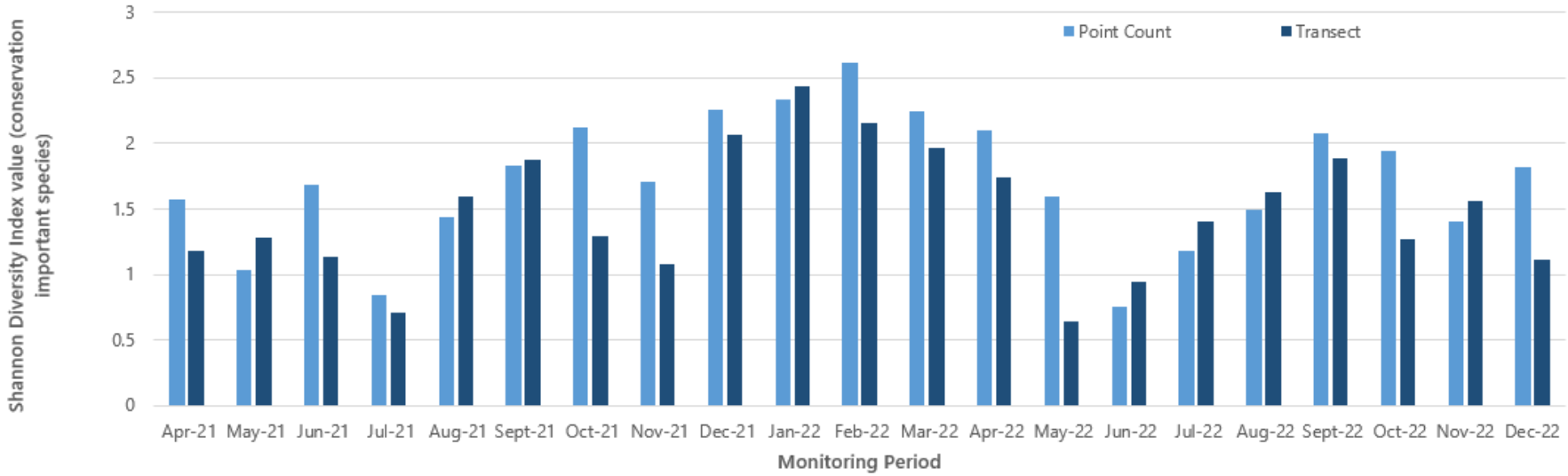
Appendix F.4.2 Species richness of avifauna species with conservation importance throughout the monitoring period



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	December 2016	December 2022
N	35	28
df	34	27
M	15.14	16.18
SS	36164.29	18708.11
S^2	1063.66	692.89
t-value	-0.14	
p-value	0.89	

Notes:
N: Number of samples/observations
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 all avifauna species – Transect Walk Method

Months	December 2016	December 2022
N	22	13
df	21	12
M	3.86	9.38
SS	356.59	1665.08
S^2	16.98	138.76
t-value	-2.02	
p-value	0.05	

Notes:
N: Number of samples/observations
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.6.3 Abundance of avifauna species with conservation importance – Point Count Method

Months	December 2016	December 2022
N	18	12
df	17	11
M	25.67	27.5
SS	31670	15275
S^2	1862.94	1388.64
t-value	-0.12	
p-value	0.91	

Notes:
N: Number of samples/observations
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.6.4 Abundance of avifauna species with conservation importance – Transect Walk Method

Months	December 2016	December 2022
N	5	6
df	4	5
M	3.2	7.83
SS	20.8	672.83
S^2	5.2	134.57
t-value	-0.87	
p-value	0.41	

Notes:
N: Number of samples/observations
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 all avifauna species – Point Count Method

Months	December 2016	December 2022
Total	530	453
Richness	35	28
H	2.46	2.56
S^2_H	0.003	0.003
t	1.29	
df	982.61	
Crit	1.96	
p	0.19	
CI	0.12	0.11

Appendix F.7.2 Species diversity of avifauna species with conservation importance – Point Count Method

Months	December 2016	December 2022
Total	462	330
Richness	18	12
H	2.04	1.82
S^2_H	0.003	0.003
t	2.95	
df	763.21	
Crit	1.96	
p	0.003	
CI	0.11	0.11

Appendix F.7.3 Species diversity of all avifauna species – Transect Walk Method

Months	December 2016	December 2022
Total	85	122
Richness	22	13
H	2.67	1.94
S^2_H	0.01	0.01
t	5.42	
df	184	
Crit	1.97	
p	1.89233910438154E-07	
CI	0.21	0.17

Appendix F.7.4 Species diversity of avifauna species with conservation importance – Transect Walk Method

Months	December 2016	December 2022
Total	16	47
Richness	5	6
H	1.39	1.11
S^2_H	0.03	0.02
t	1.21	
df	44	
Crit	2.02	
p	0.23	
CI	0.34	0.31