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

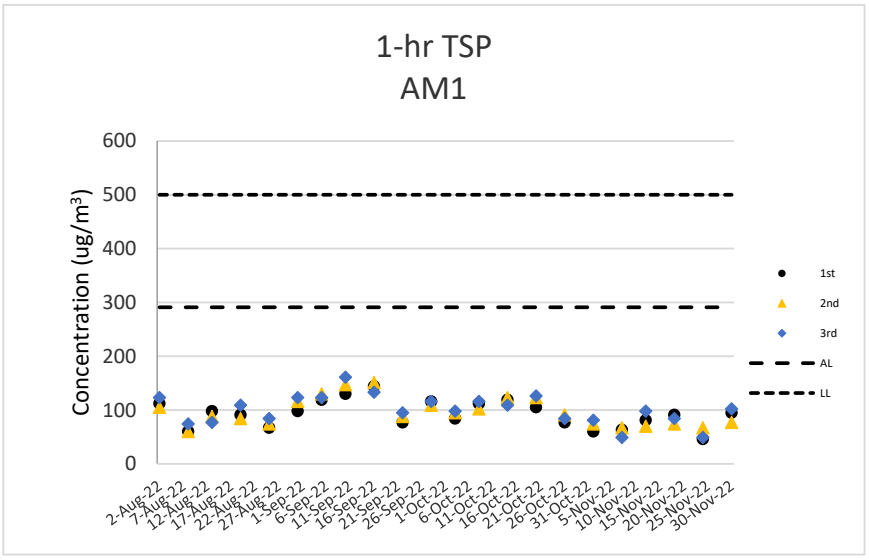
AM1 - Topfine Machinery (China) Co. Ltd.

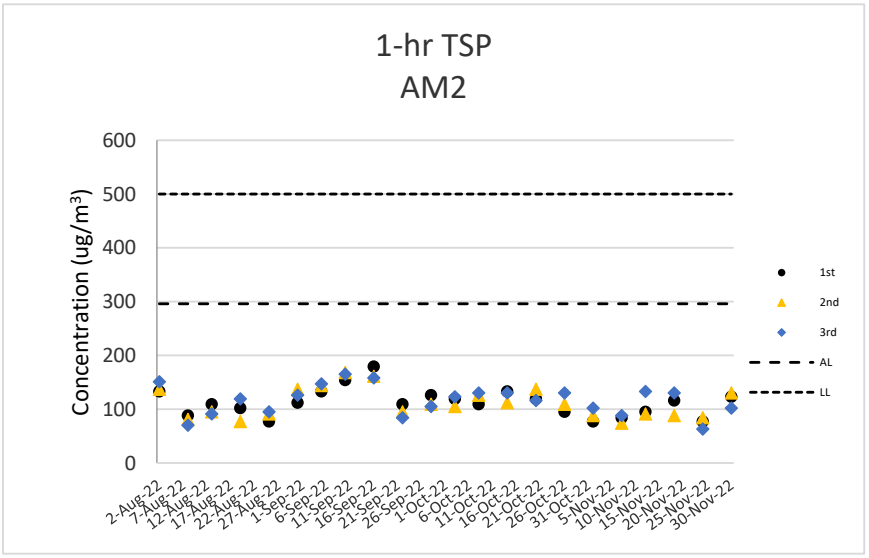
Date	Weather Condition	Start Time	1-hour TSP (µg/m³) 1st Measurement	2nd Measurement	3rd Measurement	Action Level (ug/m^3)	Limit Level (ug/m^3)
1-Nov-22	Cloudy	8:32	60	74	81	291	500
7-Nov-22	Cloudy	8:30	63	67	49		
12-Nov-22	Cloudy	8:39	81	70	98		
18-Nov-22	Fine	8:32	91	74	84		
24-Nov-22	Cloudy	8:31	46	67	49		
30-Nov-22	Cloudy	8:33	95	77	102		
		Min	46				
		Max	102				
		Average	74				

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)
1-Nov-22	Cloudy	8:43	77	88	102	296	500
7-Nov-22	Cloudy	8:42	84	74	88		
12-Nov-22	Cloudy	8:53	95	91	133		
18-Nov-22	Fine	8:41	116	88	130		
24-Nov-22	Cloudy	9:00	77	84	63		
30-Nov-22	Cloudy	8:44	123	130	102		
		Min	63				
		Max	133				
		Average	97				

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)
1-Nov-22	10:07	57	61	52	0.3	Cloudy	75
7-Nov-22	10:03	58	62	51	0.1	Cloudy	75
18-Nov-22	10:03	56	59	51	0.2	Fine	75
24-Nov-22	10:28	55	58	51	0.1	Cloudy	75
30-Nov-22	10:07	55	57	50	0.2	Cloudy	75
	Max	58					
	Min	55					

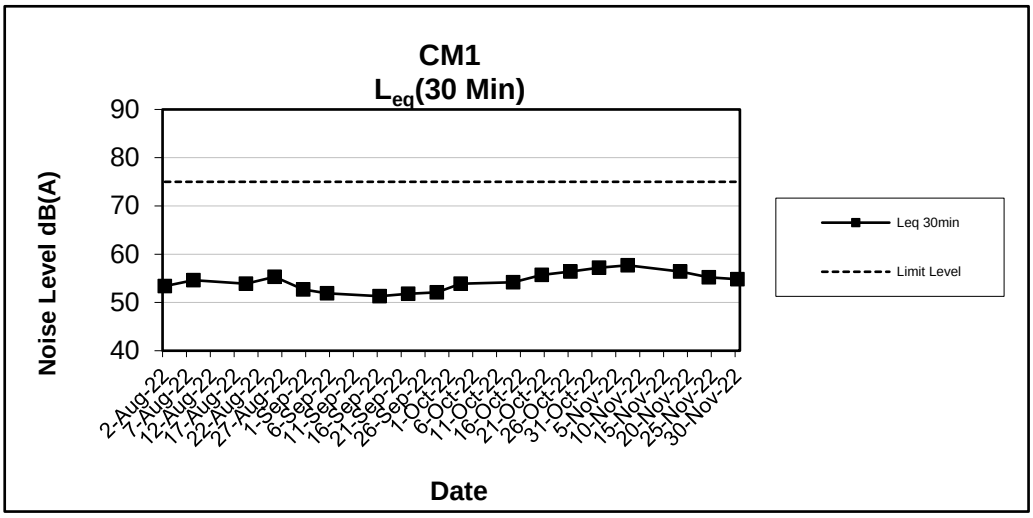
CM2 - Squatter house to the west of YLSTW

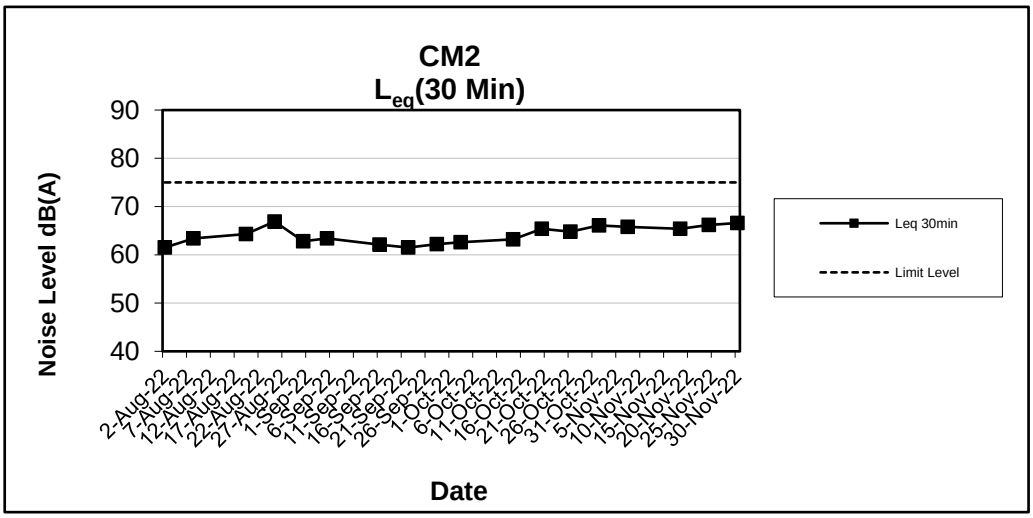
Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
1-Nov-22	8:49	66	69	58	0.4	Cloudy	75
7-Nov-22	8:47	66	69	58	0.3	Cloudy	75
18-Nov-22	8:46	65	69	57	0.3	Fine	75
24-Nov-22	9:06	66	70	58	0.3	Cloudy	75
30-Nov-22	8:50	67	70	58	0.3	Cloudy	75
	Max	67					
	Min	65					

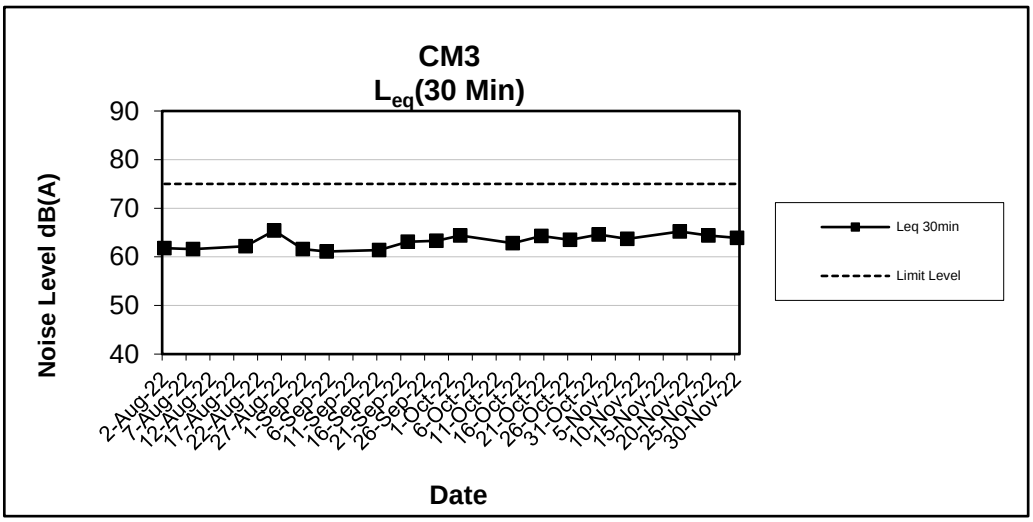
CM3 - Squatter house to the east of YLSTW

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)
1-Nov-22	11:28	65	68	58	0.4	Cloudy	75
7-Nov-22	11:22	64	67	57	0.2	Cloudy	75
18-Nov-22	11:22	65	69	58	0.2	Fine	75
24-Nov-22	13:01	64	68	57	0.2	Cloudy	75
30-Nov-22	11:27	64	67	57	0.3	Cloudy	75
	Max	65					
	Min	64					

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	3/11/2022	Mid-Flood	Fine	Moderate	17:23	1	M	0.5	1	0.123	344	7.84	7.84	4.27	4.27	22.37	22.38	74.1	74.0	6.40	6.39	22.5	22.5	26	28
M1	3/11/2022	Mid-Flood	Fine	Moderate	17:23	1	M	0.5	2			7.83		4.26		22.38		73.9		6.38		22.5		30	
M2	3/11/2022	Mid-Flood	Fine	Moderate	17:08	0.9	M	0.45	1	0.105	309	7.92	7.93	3.59	3.59	21.82	21.83	76.6	76.5	6.59	6.59	22.0	22.1	32	34
M2	3/11/2022	Mid-Flood	Fine	Moderate	17:08	0.9	M	0.45	2			7.93		3.58		21.83		76.4		6.58		22.1		35	
M3	3/11/2022	Mid-Flood	Cloudy	Smooth	17:01	0.6	M	0.3	1	0.325	78	7.73	7.72	7.84	7.85	23.27	23.27	67.1	66.7	5.69	5.66	35.2	35.7	42	43
M3	3/11/2022	Mid-Flood	Cloudy	Smooth	17:01	0.6	M	0.3	2			7.71		7.85		23.26		66.3		5.63		36.1		44	
M1	3/11/2022	Mid-Ebb	Fine	Moderate	9:12	0.9	M	0.45	1	0.046	92	7.80	7.81	7.34	7.35	22.22	22.23	54.6	54.9	4.72	4.77	27.7	27.7	37	37
M1	3/11/2022	Mid-Ebb	Fine	Moderate	9:12	0.9	M	0.45	2			7.81		7.35		22.24		55.2		4.81		27.7		37	
M2	3/11/2022	Mid-Ebb	Fine	Moderate	9:36	0.8	M	0.4	1	0.084	114	7.90	7.91	7.64	7.65	22.37	22.38	55.8	56.0	4.83	4.85	26.4	26.5	32	32
M2	3/11/2022	Mid-Ebb	Fine	Moderate	9:36	0.8	M	0.4	2			7.91		7.65		22.39		56.1		4.87		26.5		31	
M3	3/11/2022	Mid-Ebb	Cloudy	Smooth	9:13	0.8	M	0.4	1	0.317	260	7.42	7.43	5.37	5.37	20.17	20.18	45.1	45.5	3.73	3.76	40.0	39.6	37	39
M3	3/11/2022	Mid-Ebb	Cloudy	Smooth	9:13	0.8	M	0.4	2			7.44		5.36		20.18		45.8		3.78		39.2		41	

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	5/11/2022	Mid-Flood	Fine	Moderate	18:31	1.3	M	0.65	1	0.077	247	7.82	7.83	5.44	5.46	22.07	22.06	63.4	63.6	5.28	5.29	10.1	10.1	12	12
M1	5/11/2022	Mid-Flood	Fine	Moderate	18:31	1.3	M	0.65	2			7.83		5.47		22.04		63.8		5.29		10.1		12	
M2	5/11/2022	Mid-Flood	Fine	Moderate	18:13	1.1	M	0.55	1	0.084	209	7.64	7.64	5.39	5.37	22.19	22.24	59.1	59.4	4.93	4.97	10.2	10.2	19	18
M2	5/11/2022	Mid-Flood	Fine	Moderate	18:13	1.1	M	0.55	2			7.63		5.34		22.28		59.7		5.01		10.2		17	
M3	5/11/2022	Mid-Flood	Cloudy	Smooth	18:13	0.8	M	0.4	1	0.351	84	7.76	7.75	8.01	8.02	22.83	22.83	54.1	54.5	4.54	4.57	12.6	12.8	15	16
M3	5/11/2022	Mid-Flood	Cloudy	Smooth	18:13	0.8	M	0.4	2			7.74		8.02		22.82		54.8		4.59		13.0		16	
M1	5/11/2022	Mid-Ebb	Fine	Moderate	11:28	1.1	M	0.55	1	0.081	20	7.66	7.65	6.67	6.68	22.39	22.27	45.7	46.0	4.62	4.64	10.7	10.7	13	14
M1	5/11/2022	Mid-Ebb	Fine	Moderate	11:28	1.1	M	0.55	2			7.64		6.69		22.14		46.2		4.65		10.7		14	
M2	5/11/2022	Mid-Ebb	Fine	Moderate	11:42	0.9	M	0.45	1	0.063	88	7.59	7.59	6.92	6.93	21.94	21.97	50.3	50.2	4.92	4.91	10.4	10.4	13	12
M2	5/11/2022	Mid-Ebb	Fine	Moderate	11:42	0.9	M	0.45	2			7.58		6.94		21.99		50.1		4.89		10.4		11	
M3	5/11/2022	Mid-Ebb	Cloudy	Smooth	11:22	0.6	M	0.3	1	0.332	274	7.48	7.49	3.94	3.95	20.43	20.44	67.8	67.5	5.79	5.77	21.6	21.2	28	28
M3	5/11/2022	Mid-Ebb	Cloudy	Smooth	11:22	0.6	M	0.3	2			7.49		3.96		20.44		67.1		5.75		20.9		27	

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	8/11/2022	Mid-Flood	Fine	Moderate	19:37	1	M	0.5	1	0.049	198	7.82	7.83	4.06	4.07	21.94	21.93	58.7	58.7	5.13	5.12	26.1	26.1	25	25
M1	8/11/2022	Mid-Flood	Fine	Moderate	19:37	1	M	0.5	2			7.83		4.07		21.92		58.6		5.11		26.0		24	
M2	8/11/2022	Mid-Flood	Fine	Moderate	19:19	1.2	M	0.6	1	0.084	142	7.77	7.73	3.73	3.74	22.06	22.08	56.1	56.4	4.93	4.95	24.3	24.2	43	43
M2	8/11/2022	Mid-Flood	Fine	Moderate	19:19	1.2	M	0.6	2			7.69		3.74		22.09		56.7		4.97		24.2		42	
M3	8/11/2022	Mid-Flood	Cloudy	Calm	19:13	0.8	M	0.4	1	0.319	83	7.91	7.92	5.16	5.17	22.17	22.16	61.8	62.4	5.22	5.27	27.5	27.9	37	37
M3	8/11/2022	Mid-Flood	Cloudy	Calm	19:13	0.8	M	0.4	2			7.92		5.17		22.15		62.9		5.31		28.3		37	
M1	8/11/2022	Mid-Ebb	Fine	Moderate	13:25	1	M	0.5	1	0.073	93	7.65	7.66	4.12	4.13	22.81	22.83	49.2	49.3	4.37	4.38	28.2	28.2	37	38
M1	8/11/2022	Mid-Ebb	Fine	Moderate	13:25	1	M	0.5	2			7.66		4.14		22.84		49.4		4.39		28.2		39	
M2	8/11/2022	Mid-Ebb	Fine	Moderate	13:43	0.9	M	0.45	1	0.129	313	7.61	7.62	4.92	4.93	22.94	22.95	53.7	53.6	4.51	4.50	27.3	27.3	27	27
M2	8/11/2022	Mid-Ebb	Fine	Moderate	13:43	0.9	M	0.45	2			7.62		4.93		22.96		53.4		4.48		27.3		27	
M3	8/11/2022	Mid-Ebb	Cloudy	Calm	13:28	0.6	M	0.3	1	0.303	266	7.65	7.65	3.29	3.28	22.91	22.92	69.1	68.7	5.89	5.86	25.9	25.5	28	29
M3	8/11/2022	Mid-Ebb	Cloudy	Calm	13:28	0.6	M	0.3	2			7.64		3.27		22.92		68.2		5.83		25.1		29	

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	10/11/2022	Mid-Flood	Fine	Moderate	20:03	1.3	M	0.65	1	0.086	96	7.82	7.83	5.37	5.37	25.12	25.13	63.4	63.7	5.48	5.49	27.4	27.4	17	17
M1	10/11/2022	Mid-Flood	Fine	Moderate	20:03	1.3	M	0.65	2			7.83		5.36		25.14		63.9		5.49		27.4		17	
M2	10/11/2022	Mid-Flood	Fine	Moderate	19:45	1	M	0.5	1	0.106	75	7.78	7.79	5.29	5.29	24.11	24.14	58.7	58.7	5.11	5.11	28.5	28.5	39	40
M2	10/11/2022	Mid-Flood	Fine	Moderate	19:45	1	M	0.5	2			7.79		5.28		24.17		58.6		5.10		28.4		41	
M3	10/11/2022	Mid-Flood	Fine	Calm	19:46	0.8	M	0.4	1	0.341	95	7.90	7.89	5.35	5.36	26.04	26.05	63.8	64.1	5.09	5.11	33.0	32.3	41	43
M3	10/11/2022	Mid-Flood	Fine	Calm	19:46	0.8	M	0.4	2			7.88		5.37		26.05		64.4		5.13		31.7		44	
M1	10/11/2022	Mid-Ebb	Fine	Moderate	14:35	0.9	M	0.45	1	0.063	175	7.92	7.93	4.49	4.49	23.94	23.93	50.8	50.8	4.46	4.46	26.6	26.6	34	35
M1	10/11/2022	Mid-Ebb	Fine	Moderate	14:35	0.9	M	0.45	2			7.93		4.48		23.92		50.7		4.45		26.6		36	
M2	10/11/2022	Mid-Ebb	Fine	Moderate	14:51	0.8	M	0.4	1	0.086	98	7.84	7.85	4.81	4.82	24.56	24.57	54.2	54.5	4.67	4.68	25.9	25.9	33	32
M2	10/11/2022	Mid-Ebb	Fine	Moderate	14:51	0.8	M	0.4	2			7.86		4.82		24.57		54.8		4.69		25.9		30	
M3	10/11/2022	Mid-Ebb	Fine	Calm	14:37	0.6	M	0.3	1	0.302	262	7.56	7.57	2.89	2.89	27.54	27.55	73.2	72.8	5.91	5.88	41.8	41.5	43	44
M3	10/11/2022	Mid-Ebb	Fine	Calm	14:37	0.6	M	0.3	2			7.57		2.88		27.56		72.4		5.85		41.3		44	

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	12/11/2022	Mid-Flood	Fine	Moderate	20:54	1.3	M	0.65	1	0.056	99	7.23	7.24	4.34	4.33	24.11	24.14	68.4	68.7	5.30	5.32	14.6	14.6	18	19
M1	12/11/2022	Mid-Flood	Fine	Moderate	20:54	1.3	M	0.65	2			7.24		4.31		24.16		68.9		5.34		14.6		19	
M2	12/11/2022	Mid-Flood	Fine	Moderate	20:37	1	M	0.5	1	0.07	73	7.46	7.45	4.11	4.13	24.73	24.79	67.2	67.3	5.11	5.13	14.2	14.2	21	22
M2	12/11/2022	Mid-Flood	Fine	Moderate	20:37	1	M	0.5	2			7.44		4.14		24.85		67.4		5.14		14.3		22	
M3	12/11/2022	Mid-Flood	Cloudy	Calm	20:28	1	M	0.5	1	0.347	92	7.94	7.94	5.27	5.27	25.31	25.31	67.8	67.6	5.46	5.45	16.6	16.3	24	24
M3	12/11/2022	Mid-Flood	Cloudy	Calm	20:28	1	M	0.5	2			7.93		5.26		25.31		67.3		5.43		16.1		24	
M1	12/11/2022	Mid-Ebb	Fine	Moderate	15:51	1.2	M	0.6	1	0.092	164	7.83	7.84	4.53	4.55	25.24	25.24	56.7	56.8	4.43	4.45	13.2	13.2	21	20
M1	12/11/2022	Mid-Ebb	Fine	Moderate	15:51	1.2	M	0.6	2			7.84		4.57		25.23		56.8		4.46		13.2		19	
M2	12/11/2022	Mid-Ebb	Fine	Moderate	16:20	0.9	M	0.45	1	0.123	98	7.74	7.75	5.11	5.12	25.97	25.98	60.1	60.2	4.86	4.88	13.6	13.6	19	20
M2	12/11/2022	Mid-Ebb	Fine	Moderate	16:20	0.9	M	0.45	2			7.76		5.13		25.99		60.3		4.89		13.6		20	
M3	12/11/2022	Mid-Ebb	Cloudy	Calm	15:42	0.6	M	0.3	1	0.321	276	7.63	7.63	2.94	2.93	26.86	26.87	73.6	73.4	5.99	5.98	25.3	24.8	19	20
M3	12/11/2022	Mid-Ebb	Cloudy	Calm	15:42	0.6	M	0.3	2			7.62		2.92		26.87		73.2		5.96		24.4		21	

Remark

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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	15/11/2022	Mid-Flood	Cloudy	Smooth	13:37	2	M	1	1	0.324	274	7.75	7.76	8.22	8.23	27.31	27.32	67.1	67.5	5.33	5.36	11.2	11.5	16	16
M1	15/11/2022	Mid-Flood	Cloudy	Smooth	13:37	2	M	1	2			7.77		8.23		27.33		67.8		5.38		11.8		16	
M2	15/11/2022	Mid-Flood	Cloudy	Smooth	14:03	1	M	0.5	1	0.297	315	7.86	7.86	7.29	7.29	27.93	27.94	64.3	63.9	5.11	5.08	13.1	13.5	18	17
M2	15/11/2022	Mid-Flood	Cloudy	Smooth	14:03	1	M	0.5	2			7.85		7.28		27.94		63.4		5.05		13.9		16	
M3	15/11/2022	Mid-Flood	Fine	Moderate	13:30	1.2	M	0.6	1	0.063	78	7.57	7.56	6.70	6.71	26.29	26.29	56.1	56.0	4.92	4.88	24.9	24.9	36	36
M3	15/11/2022	Mid-Flood	Fine	Moderate	13:30	1.2	M	0.6	2			7.54		6.71		26.28		55.8		4.84		24.9		36	
M1	15/11/2022	Mid-Ebb	Cloudy	Smooth	18:18	2.2	M	1.1	1	0.21	193	7.57	7.57	6.94	6.94	26.37	26.36	52.9	52.6	4.21	4.19	25.2	24.7	35	37
M1	15/11/2022	Mid-Ebb	Cloudy	Smooth	18:18	2.2	M	1.1	2			7.57		6.93		26.35		52.2		4.17		24.3		38	
M2	15/11/2022	Mid-Ebb	Cloudy	Smooth	17:49	1.2	M	0.6	1	0.183	226	7.68	7.69	6.76	6.75	26.84	26.83	48.1	48.4	3.83	3.85	17.5	17.3	15	16
M2	15/11/2022	Mid-Ebb	Cloudy	Smooth	17:49	1.2	M	0.6	2			7.69		6.74		26.82		48.6		3.86		17.1		17	
M3	15/11/2022	Mid-Ebb	Fine	Moderate	17:40	0.9	M	0.45	1	0.054	99	7.62	7.63	6.21	6.22	26.15	26.15	60.2	60.3	5.21	5.22	19.9	19.9	20	20
M3	15/11/2022	Mid-Ebb	Fine	Moderate	17:40	0.9	M	0.45	2			7.64		6.22		26.14		60.4		5.23		19.8		20	

Remark

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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	17/11/2022	Mid-Flood	Fine	Moderate	16:14	1	M	0.5	1	0.08	324	7.54	7.53	8.01	8.02	26.13	26.14	69.3	69.3	5.83	5.82	13.3	13.3	19	21
M1	17/11/2022	Mid-Flood	Fine	Moderate	16:14	1	M	0.5	2			7.52		8.03		26.14		69.2		5.81		13.3		22	
M2	17/11/2022	Mid-Flood	Fine	Moderate	15:55	0.8	M	0.4	1	0.046	72	7.74	7.74	8.09	8.09	26.92	26.93	64.2	64.4	5.43	5.46	13.6	13.7	21	21
M2	17/11/2022	Mid-Flood	Fine	Moderate	15:55	0.8	M	0.4	2			7.73		8.08		26.94		64.6		5.49		13.7		20	
M3	17/11/2022	Mid-Flood	Fine	Calm	15:48	0.4	M	0.2	1	0.299	85	7.94	7.95	8.04	8.05	27.05	27.06	57.5	58.0	4.43	4.46	21.6	21.1	19	19
M3	17/11/2022	Mid-Flood	Fine	Calm	15:48	0.4	M	0.2	2			7.95		8.06		27.06		58.4		4.49		20.7		19	
M1	17/11/2022	Mid-Ebb	Fine	Moderate	7:10	1.1	M	0.55	1	0.086	92	7.71	7.72	8.90	8.91	26.56	26.55	58.7	58.8	4.81	4.84	16.7	16.8	20	19
M1	17/11/2022	Mid-Ebb	Fine	Moderate	7:10	1.1	M	0.55	2			7.73		8.92		26.54		58.9		4.86		16.8		18	
M2	17/11/2022	Mid-Ebb	Fine	Moderate	7:33	0.9	M	0.45	1	0.075	186	7.74	7.75	8.74	8.74	26.32	26.32	60.8	60.8	4.92	4.93	16.1	16.2	12	12
M2	17/11/2022	Mid-Ebb	Fine	Moderate	7:33	0.9	M	0.45	2			7.75		8.73		26.31		60.7		4.93		16.3		12	
M3	17/11/2022	Mid-Ebb	Fine	Calm	7:09	0.6	M	0.3	1	0.33	274	7.69	7.68	6.26	6.26	23.19	23.18	51.7	51.4	3.95	3.93	30.5	31.0	21	23
M3	17/11/2022	Mid-Ebb	Fine	Calm	7:09	0.6	M	0.3	2			7.67		6.25		23.17		51.1		3.91		31.6		24	

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	19/11/2022	Mid-Flood	Fine	Moderate	17:08	1	M	0.5	1	0.058	333	7.83	7.84	8.59	8.58	26.23	26.26	68.3	68.4	5.17	5.19	20.4	20.3	8	9
M1	19/11/2022	Mid-Flood	Fine	Moderate	17:08	1	M	0.5	2			7.84		8.56		26.28		68.4		5.20		20.3		9	
M2	19/11/2022	Mid-Flood	Fine	Moderate	16:49	0.9	M	0.45	1	0.033	304	7.93	7.94	8.41	8.42	27.13	27.14	50.2	50.5	4.29	4.32	19.2	19.3	17	18
M2	19/11/2022	Mid-Flood	Fine	Moderate	16:49	0.9	M	0.45	2			7.94		8.43		27.14		50.8		4.34		19.3		19	
M3	19/11/2022	Mid-Flood	Cloudy	Calm	16:54	0.6	M	0.3	1	0.353	77	7.94	7.94	8.94	8.95	28.83	28.84	53.5	53.7	4.01	4.03	21.3	21.8	28	27
M3	19/11/2022	Mid-Flood	Cloudy	Calm	16:54	0.6	M	0.3	2			7.93		8.96		28.84		53.9		4.04		22.3		25	
M1	19/11/2022	Mid-Ebb	Fine	Moderate	10:04	0.8	M	0.4	1	0.046	91	7.81	7.85	8.88	8.89	26.45	26.47	57.8	57.8	4.42	4.43	18.5	18.5	11	11
M1	19/11/2022	Mid-Ebb	Fine	Moderate	10:04	0.8	M	0.4	2			7.88		8.89		26.48		57.7		4.44		18.5		10	
M2	19/11/2022	Mid-Ebb	Fine	Moderate	10:20	0.7	M	0.35	1	0.077	143	7.74	7.74	8.71	8.72	26.97	26.96	62.8	62.6	4.59	4.57	19.2	19.2	25	27
M2	19/11/2022	Mid-Ebb	Fine	Moderate	10:20	0.7	M	0.35	2			7.73		8.73		26.94		62.4		4.54		19.2		28	
M3	19/11/2022	Mid-Ebb	Cloudy	Calm	9:58	0.4	M	0.2	1	0.333	267	7.68	7.69	6.88	6.88	25.97	25.98	48.4	48.8	3.65	3.68	18.4	18.6	28	27
M3	19/11/2022	Mid-Ebb	Cloudy	Calm	9:58	0.4	M	0.2	2			7.69		6.87		25.98		49.2		3.71		18.8		26	

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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	22/11/2022	Mid-Flood	Fine	Moderate	6:43	1.2	M	0.6	1	0.083	93	7.13	7.13	10.64	10.65	25.44	25.38	60.1	60.2	4.67	4.68	13.6	13.6	23	23
M1	22/11/2022	Mid-Flood	Fine	Moderate	6:43	1.2	M	0.6	2			7.12		10.66		25.32		60.3		4.69		13.6		23	
M2	22/11/2022	Mid-Flood	Fine	Moderate	7:03	1	M	0.5	1	0.054	264	7.27	7.27	10.84	10.86	25.11	25.14	63.2	63.2	4.82	4.83	13.1	13.1	20	19
M2	22/11/2022	Mid-Flood	Fine	Moderate	7:03	1	M	0.5	2			7.26		10.88		25.17		63.1		4.83		13.1		18	
M3	22/11/2022	Mid-Flood	Cloudy	Calm	6:47	0.6	M	0.3	1	0.285	79	7.51	7.52	10.15	10.14	21.68	21.69	73.1	73.4	5.63	5.65	12.0	12.2	16	16
M3	22/11/2022	Mid-Flood	Cloudy	Calm	6:47	0.6	M	0.3	2			7.52		10.13		21.69		73.7		5.67		12.4		16	
M1	22/11/2022	Mid-Ebb	Fine	Moderate	12:52	0.9	M	0.45	1	0.07	54	7.29	7.29	9.54	9.56	25.39	25.38	50.1	50.4	4.23	4.24	16.4	16.4	15	17
M1	22/11/2022	Mid-Ebb	Fine	Moderate	12:52	0.9	M	0.45	2			7.28		9.58		25.37		50.6		4.24		16.4		18	
M2	22/11/2022	Mid-Ebb	Fine	Moderate	12:34	0.8	M	0.4	1	0.074	77	7.34	7.33	9.79	9.78	25.07	25.06	49.2	49.3	4.11	4.14	16.8	16.9	18	19
M2	22/11/2022	Mid-Ebb	Fine	Moderate	12:34	0.8	M	0.4	2			7.32		9.77		25.05		49.3		4.16		16.9		20	
M3	22/11/2022	Mid-Ebb	Cloudy	Calm	12:31	0.6	M	0.3	1	0.261	263	7.34	7.35	8.91	8.91	25.26	25.27	78.5	78.1	6.13	6.09	15.6	16.1	16	16
M3	22/11/2022	Mid-Ebb	Cloudy	Calm	12:31	0.6	M	0.3	2			7.36		8.91		25.27		77.6		6.05		16.5		15	

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	24/11/2022	Mid-Flood	Fine	Moderate	8:47	1.1	M	0.55	1	0.085	13	7.14	7.16	8.62	8.64	24.33	24.31	52.6	52.4	4.20	4.19	27.4	27.4	24	22
M1	24/11/2022	Mid-Flood	Fine	Moderate	8:47	1.1	M	0.55	2			7.17		8.66		24.29		52.1		4.18		27.4		20	
M2	24/11/2022	Mid-Flood	Fine	Moderate	9:03	0.9	M	0.45	1	0.049	83	7.34	7.33	8.44	8.43	24.01	24.02	60.8	60.7	4.51	4.50	28.1	28.1	18	19
M2	24/11/2022	Mid-Flood	Fine	Moderate	9:03	0.9	M	0.45	2			7.32		8.41		24.03		60.6		4.48		28.1		19	
M3	24/11/2022	Mid-Flood	Cloudy	Smooth	8:42	0.6	M	0.3	1	0.344	85	7.53	7.54	8.39	8.40	22.04	22.05	75.7	75.5	6.05	6.04	38.6	39.0	44	45
M3	24/11/2022	Mid-Flood	Cloudy	Smooth	8:42	0.6	M	0.3	2			7.54		8.41		22.05		75.2		6.03		39.3		45	
M1	24/11/2022	Mid-Ebb	Fine	Moderate	14:21	0.9	M	0.45	1	0.104	99	7.51	7.52	7.09	7.07	25.09	25.10	70.1	70.3	5.23	5.26	22.9	23.0	20	21
M1	24/11/2022	Mid-Ebb	Fine	Moderate	14:21	0.9	M	0.45	2			7.52		7.04		25.11		70.4		5.28		23.0		22	
M2	24/11/2022	Mid-Ebb	Fine	Moderate	14:03	0.7	M	0.35	1	0.068	73	7.55	7.57	7.06	7.05	24.08	24.09	67.2	67.3	4.98	5.00	24.2	24.3	31	30
M2	24/11/2022	Mid-Ebb	Fine	Moderate	14:03	0.7	M	0.35	2			7.58		7.04		24.09		67.4		5.01		24.3		29	
M3	24/11/2022	Mid-Ebb	Cloudy	Smooth	14:05	0.6	M	0.3	1	0.304	256	7.37	7.36	5.91	5.92	23.12	23.12	80.9	80.6	6.52	6.50	30.1	29.8	43	41
M3	24/11/2022	Mid-Ebb	Cloudy	Smooth	14:05	0.6	M	0.3	2			7.35		5.92		23.11		80.3		6.48		29.4		39	

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	26/11/2022	Mid-Flood	Fine	Moderate	10:27	1.2	M	0.6	1	0.063	92	7.57	7.56	7.86	7.85	23.49	23.45	51.1	50.9	4.86	4.85	27.1	27.2	25	26
M1	26/11/2022	Mid-Flood	Fine	Moderate	10:27	1.2	M	0.6	2			7.54		7.84		23.41		50.7		4.84		27.2		26	
M2	26/11/2022	Mid-Flood	Fine	Moderate	10:42	0.9	M	0.45	1	0.075	34	7.44	7.43	7.92	7.93	24.11	24.12	53.8	53.9	4.97	4.98	26.4	26.4	21	22
M2	26/11/2022	Mid-Flood	Fine	Moderate	10:42	0.9	M	0.45	2			7.41		7.93		24.12		53.9		4.98		26.4		23	
M3	26/11/2022	Mid-Flood	Cloudy	Calm	10:25	0.4	M	0.2	1	0.324	92	7.43	7.44	7.91	7.92	23.71	23.72	48.1	48.5	3.87	3.90	27.7	27.6	36	38
M3	26/11/2022	Mid-Flood	Cloudy	Calm	10:25	0.4	M	0.2	2			7.44		7.92		23.73		48.9		3.93		27.5		39	
M1	26/11/2022	Mid-Ebb	Fine	Moderate	15:49	1	M	0.5	1	0.056	87	8.22	8.23	4.63	4.62	24.11	24.15	91.3	91.4	7.72	7.73	27.3	27.3	19	20
M1	26/11/2022	Mid-Ebb	Fine	Moderate	15:49	1	M	0.5	2			8.23		4.61		24.18		91.4		7.73		27.2		21	
M2	26/11/2022	Mid-Ebb	Fine	Moderate	15:25	0.8	M	0.4	1	0.045	265	8.32	8.36	4.78	4.78	23.66	23.65	96.1	96.3	7.83	7.85	27.9	27.9	28	29
M2	26/11/2022	Mid-Ebb	Fine	Moderate	15:25	0.8	M	0.4	2			8.39		4.77		23.64		96.4		7.86		27.9		29	
M3	26/11/2022	Mid-Ebb	Cloudy	Calm	15:27	0.6	M	0.3	1	0.283	259	7.21	7.22	4.12	4.13	25.01	25.02	59.5	59.7	4.99	5.01	35.7	35.1	34	31
M3	26/11/2022	Mid-Ebb	Cloudy	Calm	15:27	0.6	M	0.3	2			7.23		4.14		25.02		59.8		5.02		34.5		28	

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	29/11/2022	Mid-Flood	Fine	Moderate	13:28	1.3	M	0.65	1	0.063	98	7.70	7.76	7.36	7.35	26.22	26.22	64.5	64.5	4.91	4.91	17.1	17.1	20	19
M1	29/11/2022	Mid-Flood	Fine	Moderate	13:28	1.3	M	0.65	2			7.81		7.33		26.21		64.4		4.90		17.1		17	
M2	29/11/2022	Mid-Flood	Fine	Moderate	13:48	1.1	M	0.55	1	0.039	134	7.82	7.83	7.44	7.47	26.01	26.02	58.4	58.4	4.72	4.71	17.5	17.5	22	23
M2	29/11/2022	Mid-Flood	Fine	Moderate	13:48	1.1	M	0.55	2			7.83		7.49		26.03		58.3		4.70		17.5		24	
M3	29/11/2022	Mid-Flood	Fine	Calm	13:26	0.4	M	0.2	1	0.352	79	7.59	7.60	8.36	8.37	28.88	28.89	58.3	57.9	4.72	4.70	25.9	25.4	31	32
M3	29/11/2022	Mid-Flood	Fine	Calm	13:26	0.4	M	0.2	2			7.61		8.38		28.89		57.5		4.67		24.9		33	
M1	29/11/2022	Mid-Ebb	Fine	Moderate	18:30	1.1	M	0.55	1	0.053	265	7.84	7.84	6.74	6.73	26.58	26.58	68.4	68.4	5.23	5.22	17.0	17.0	20	20
M1	29/11/2022	Mid-Ebb	Fine	Moderate	18:30	1.1	M	0.55	2			7.83		6.72		26.57		68.3		5.21		17.0		19	
M2	29/11/2022	Mid-Ebb	Fine	Moderate	18:11	0.9	M	0.45	1	0.038	91	7.91	7.92	6.85	6.86	26.44	26.44	59.2	59.3	4.84	4.85	16.7	16.7	18	19
M2	29/11/2022	Mid-Ebb	Fine	Moderate	18:11	0.9	M	0.45	2			7.92		6.87		26.44		59.3		4.85		16.7		20	
M3	29/11/2022	Mid-Ebb	Fine	Calm	18:13	0.8	M	0.4	1	0.284	272	7.31	7.32	6.65	6.65	28.31	28.32	53.8	54.2	4.14	4.17	19.7	19.2	24	24
M3	29/11/2022	Mid-Ebb	Fine	Calm	18:13	0.8	M	0.4	2			7.32		6.64		28.32		54.5		4.19		18.7		23	

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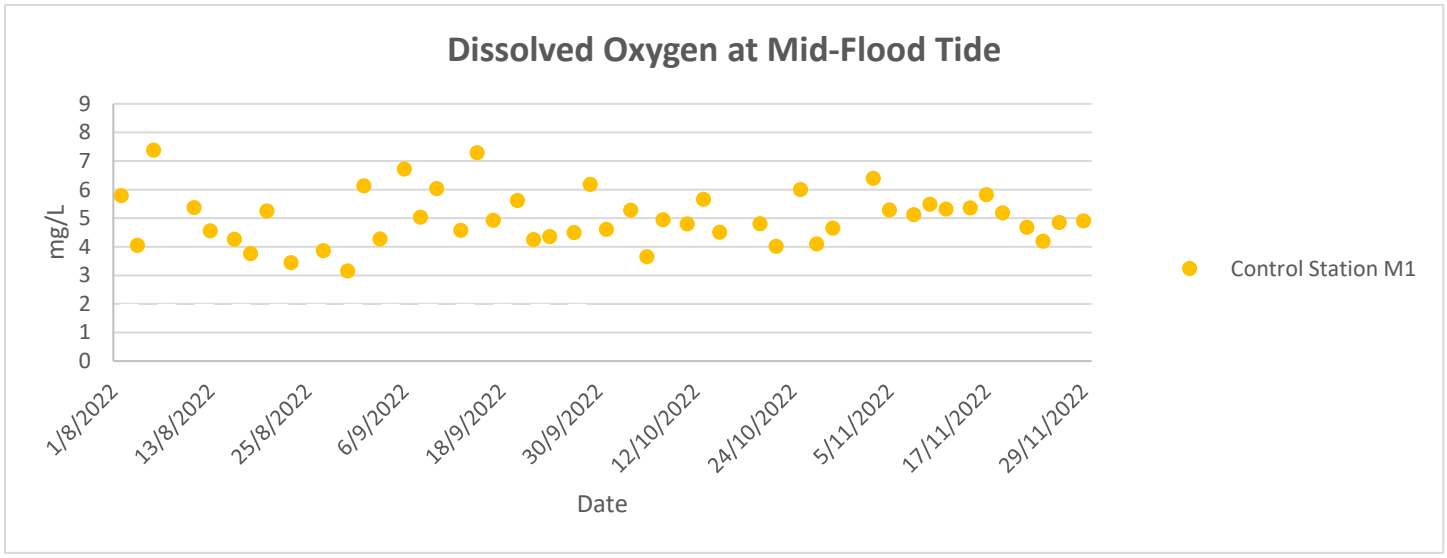
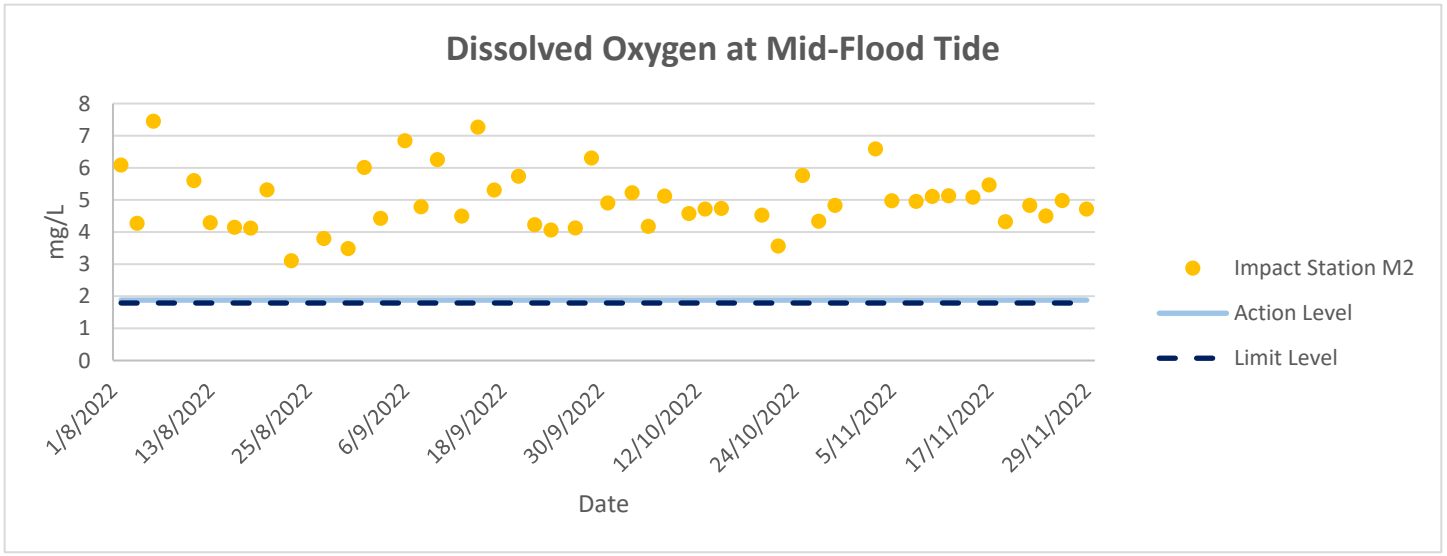
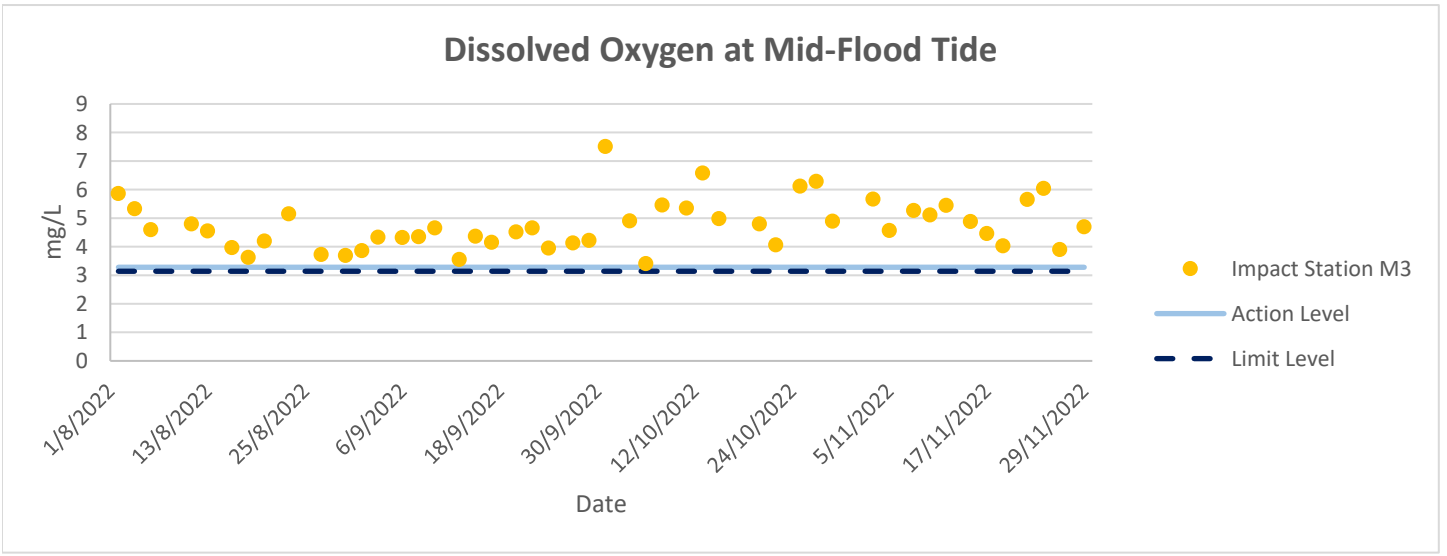
For Ebb Tide

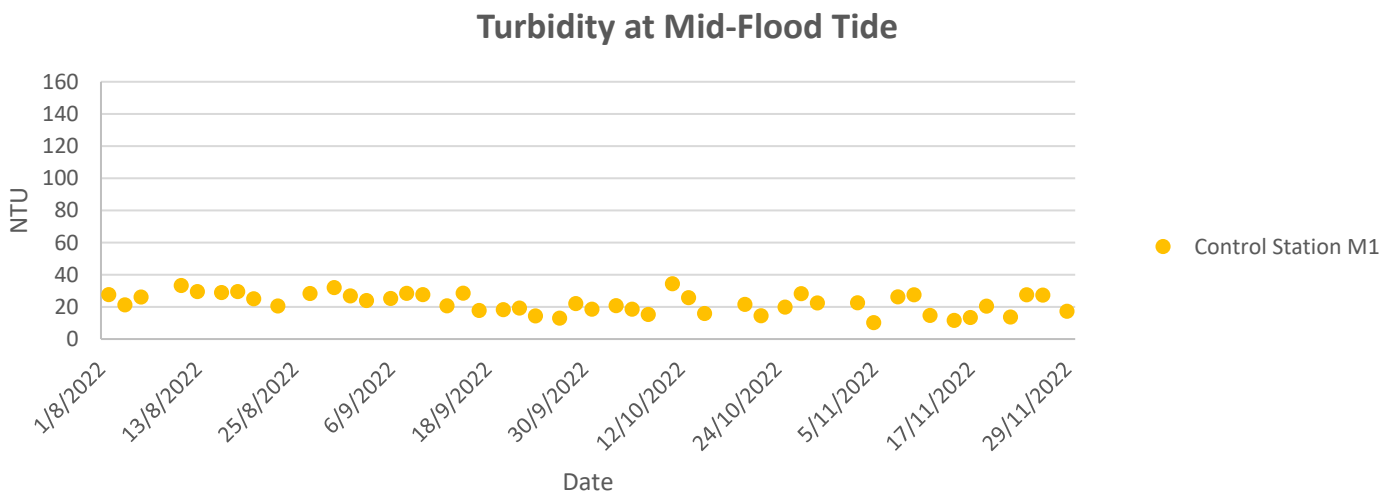
Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

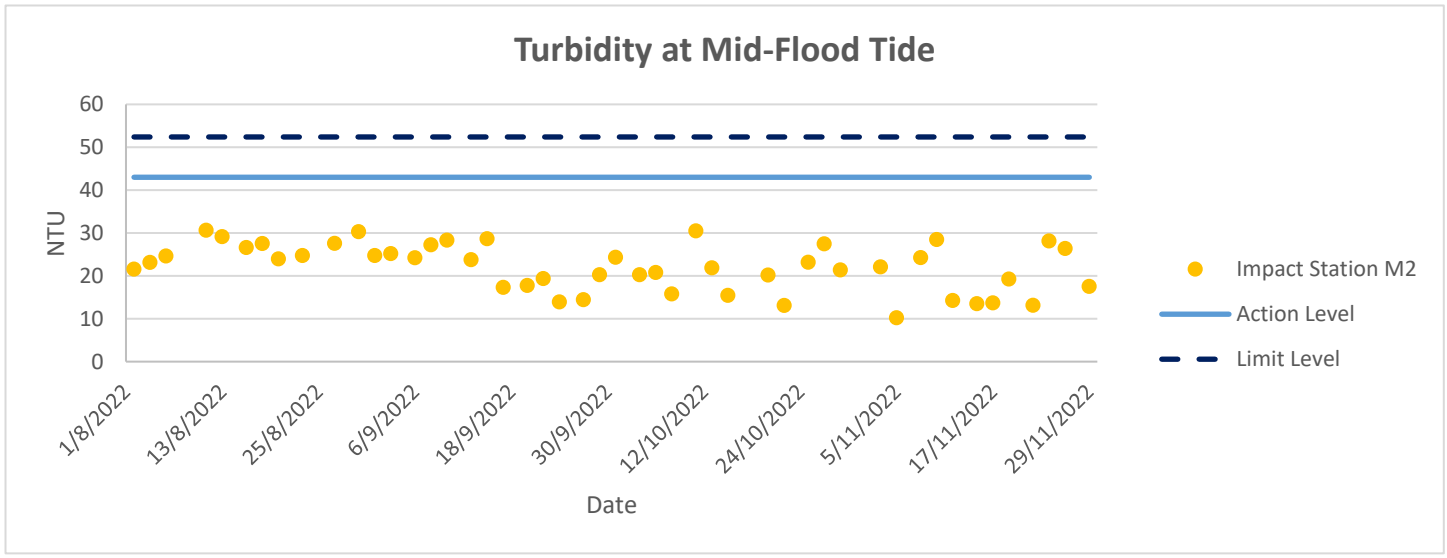


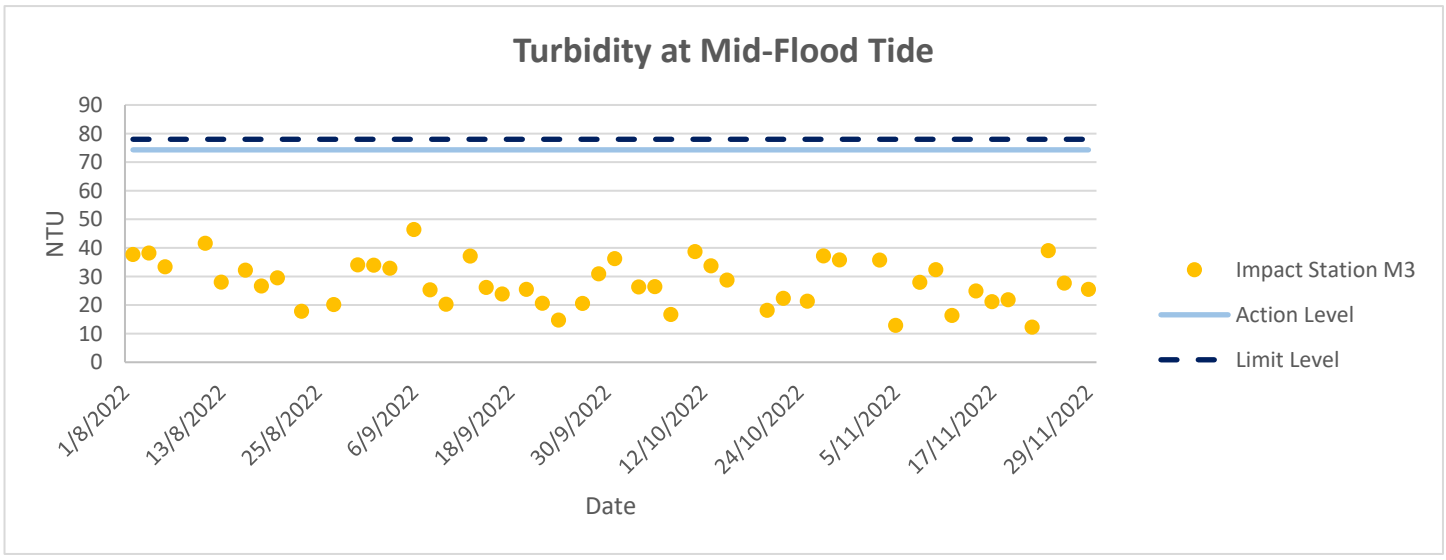




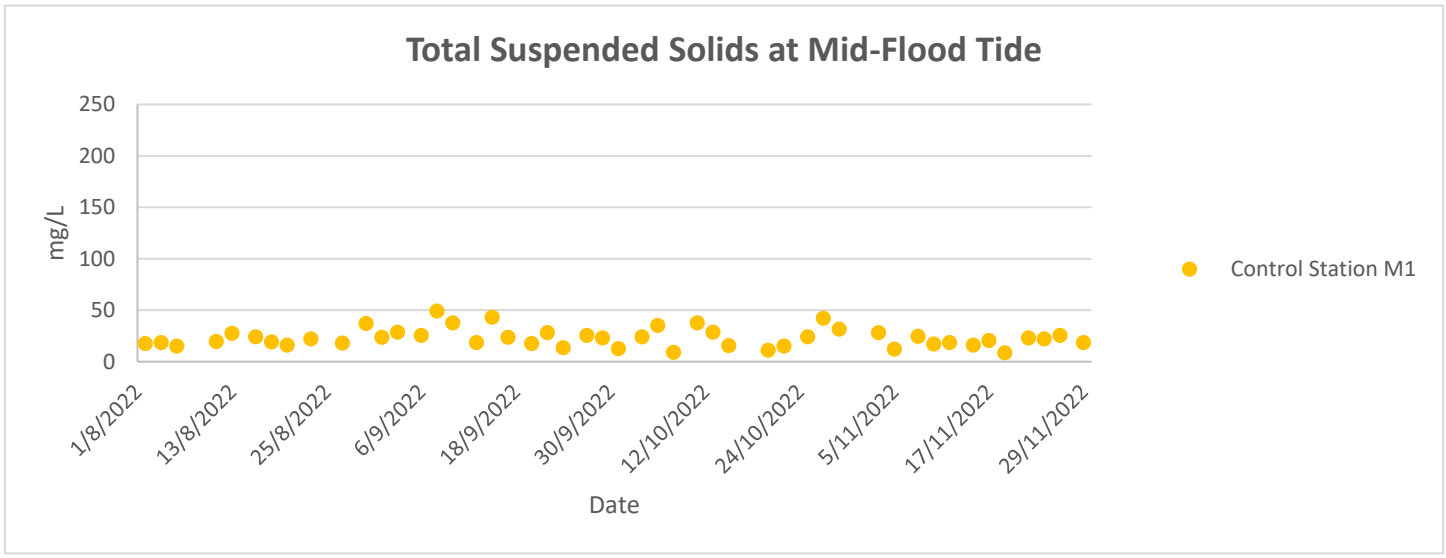
Water Quality Monitoring Results

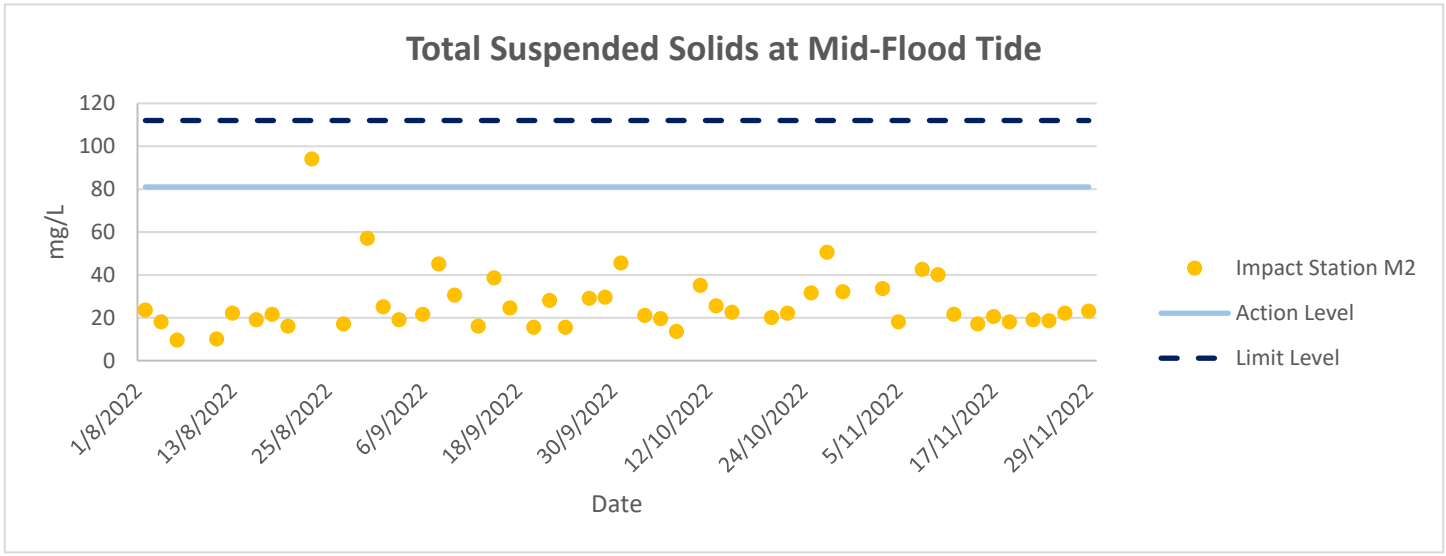


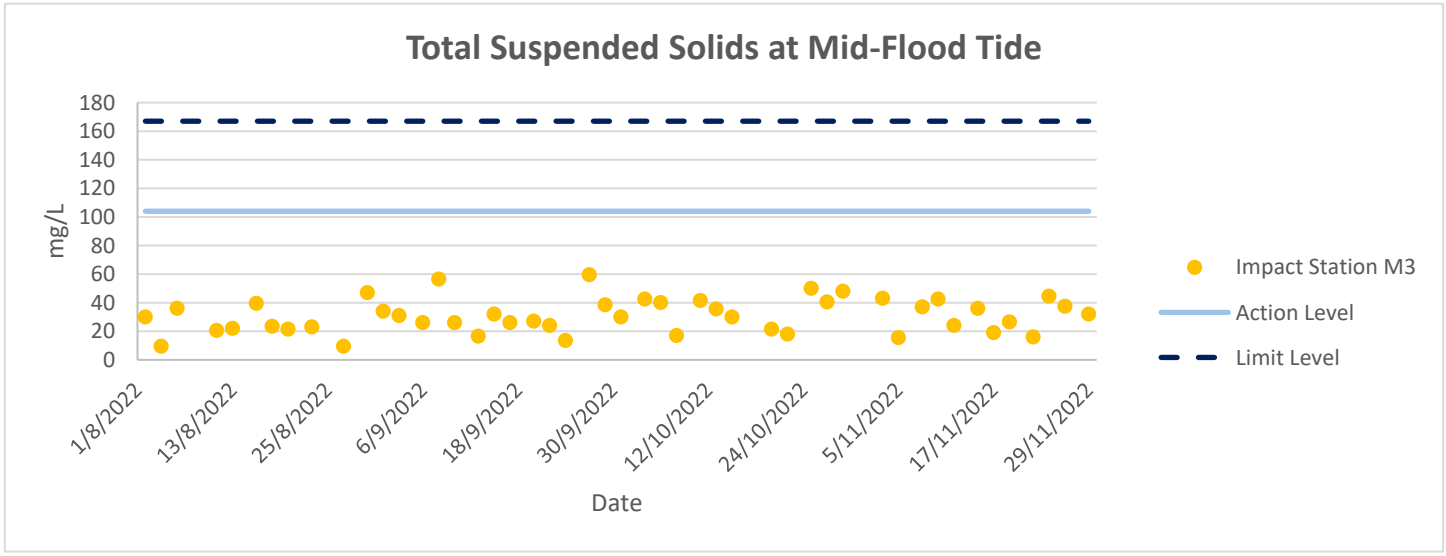




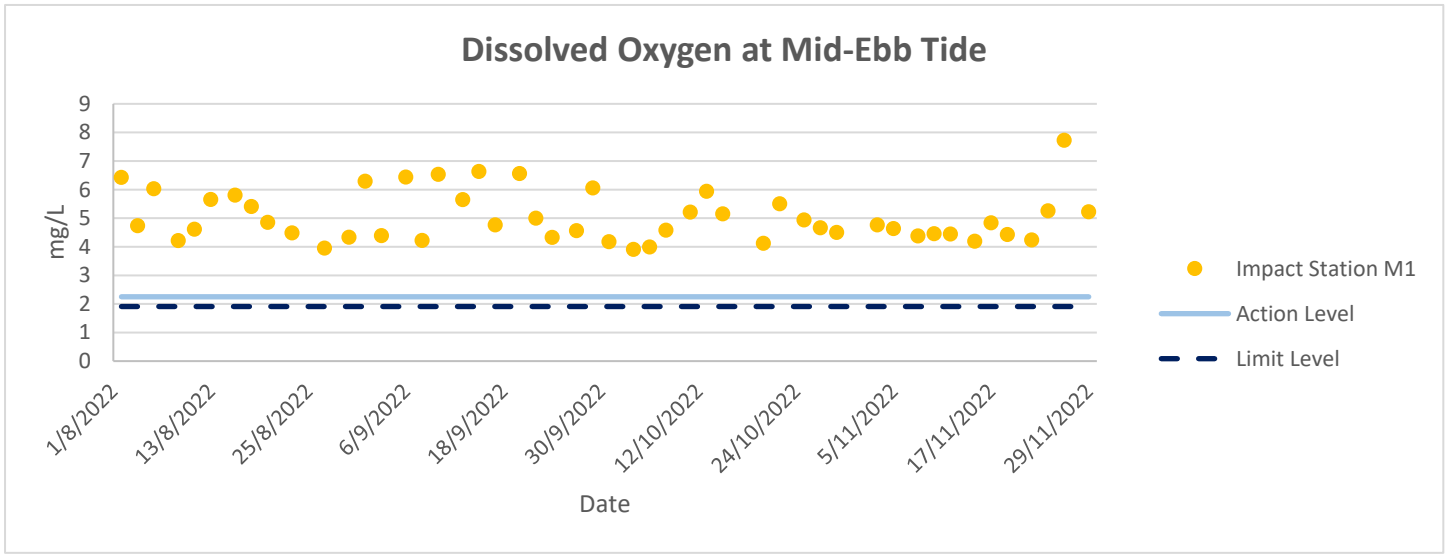
Water Quality Monitoring Results

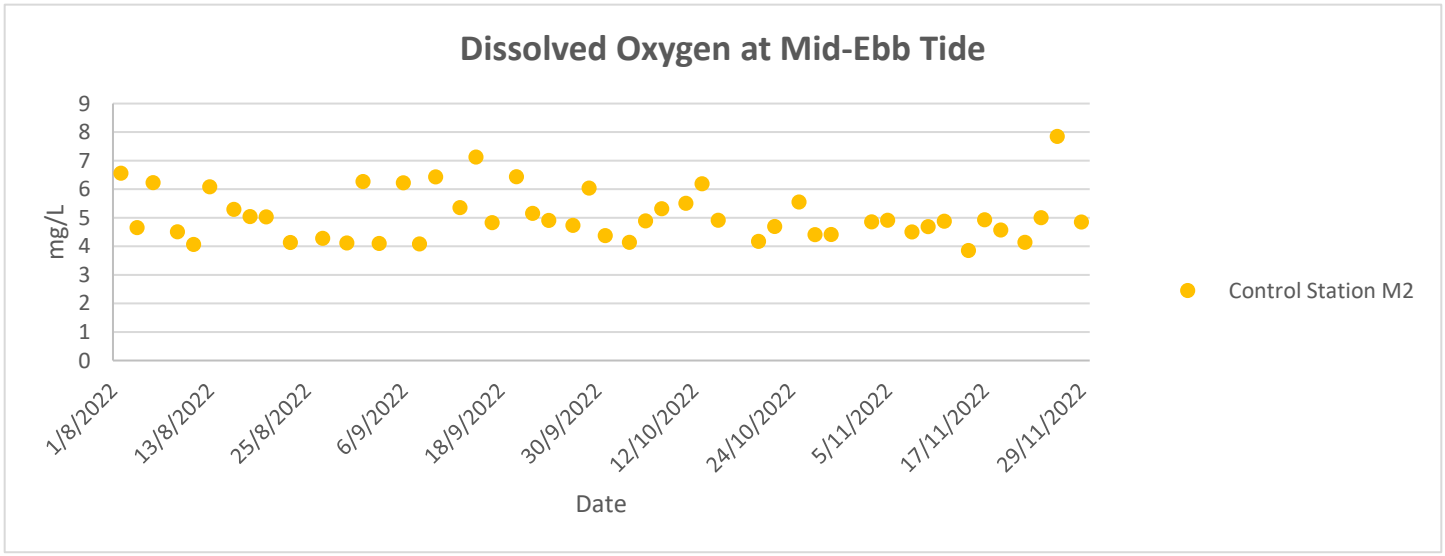


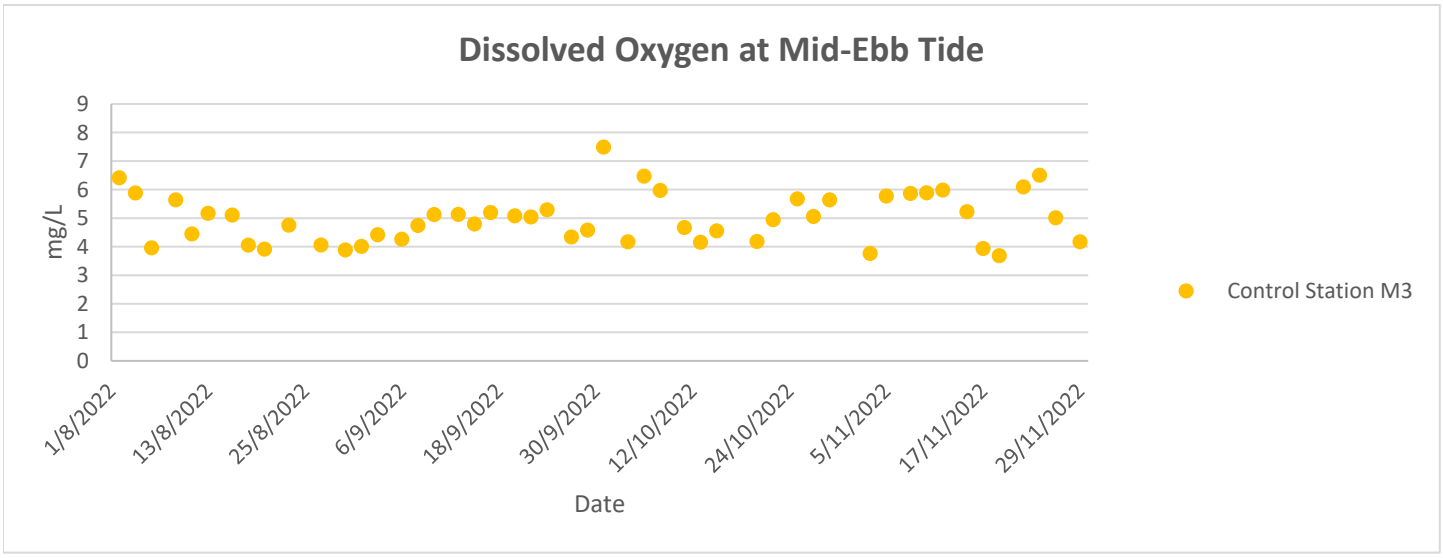




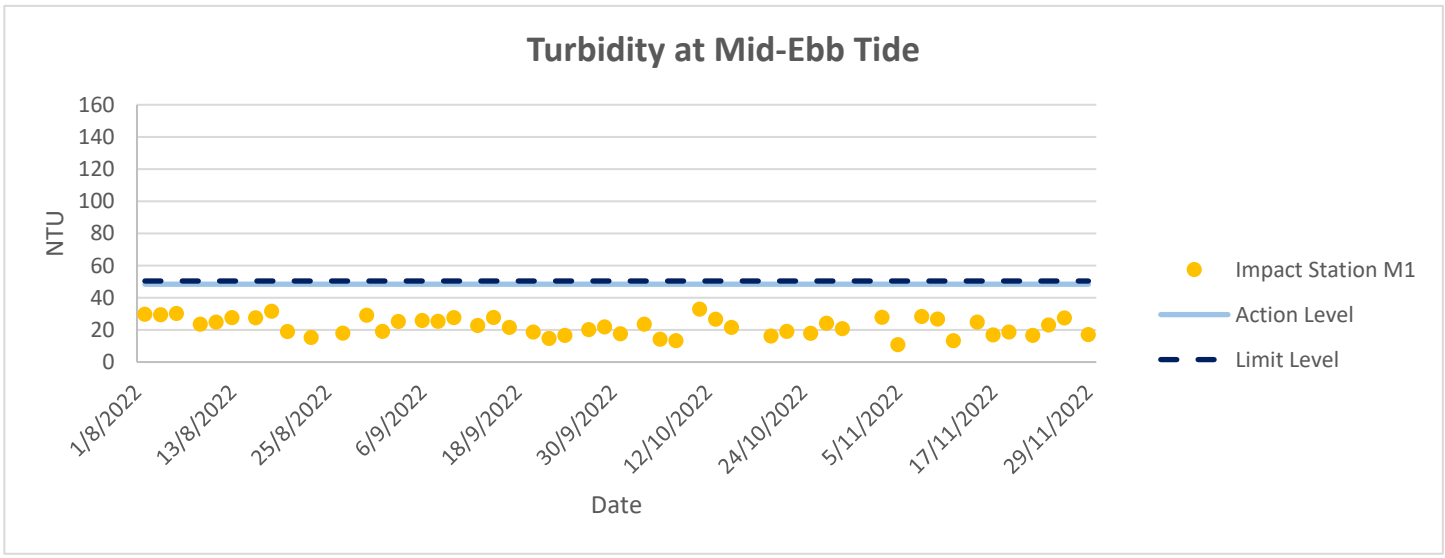
Water Quality Monitoring Results

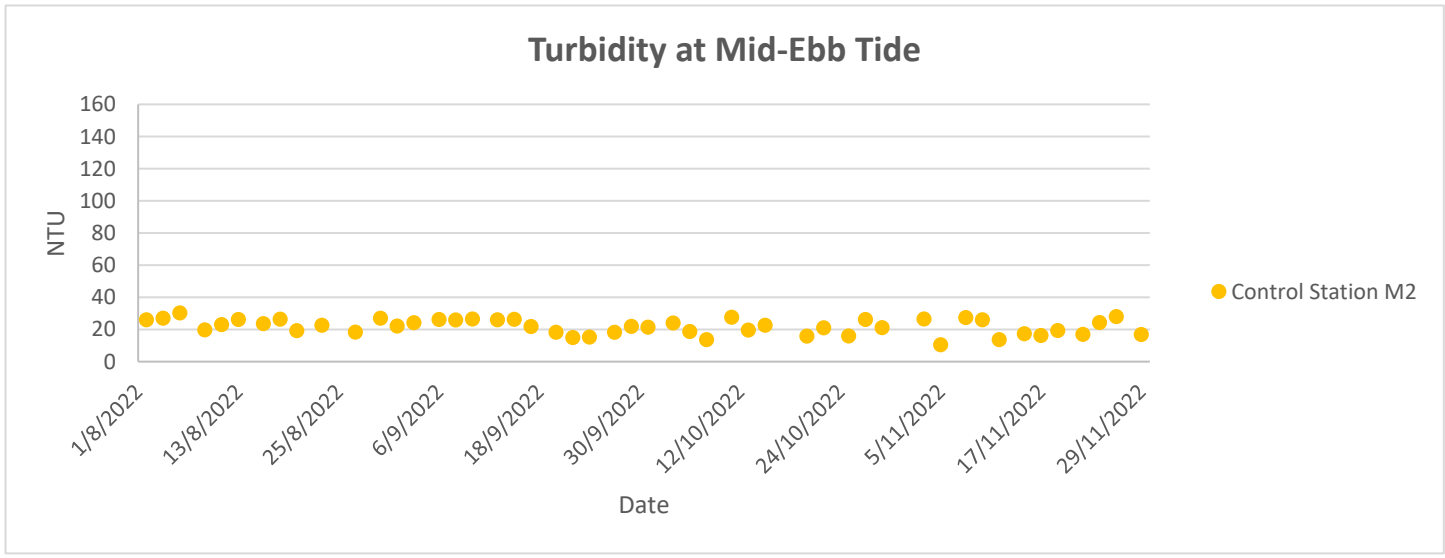


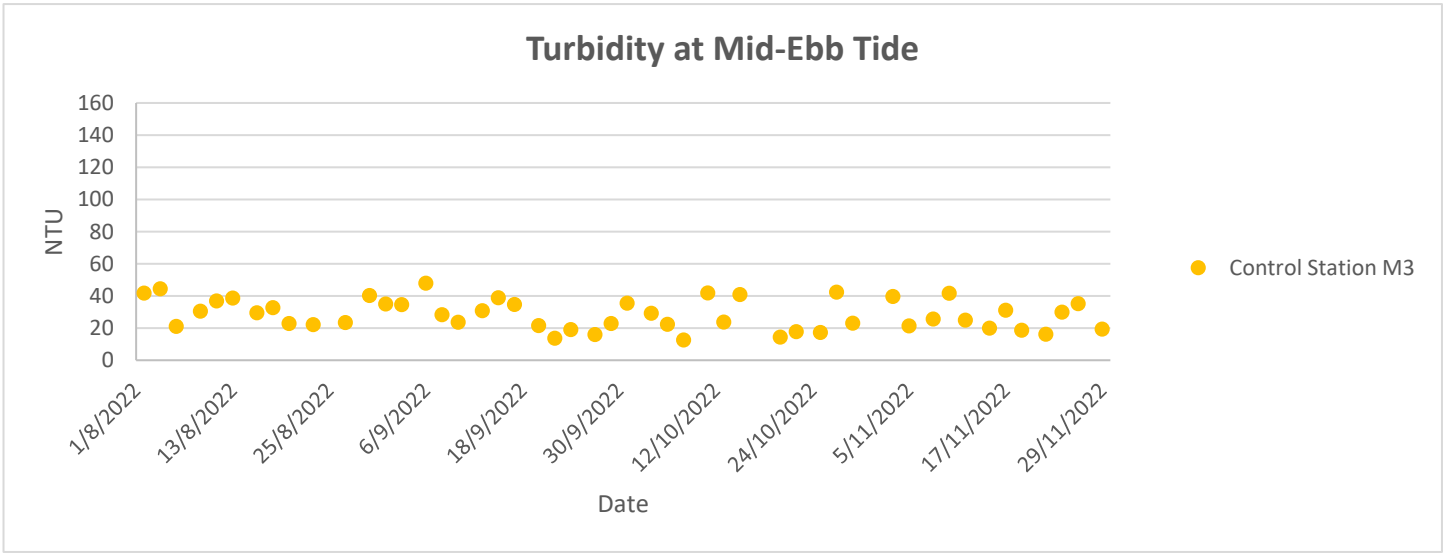




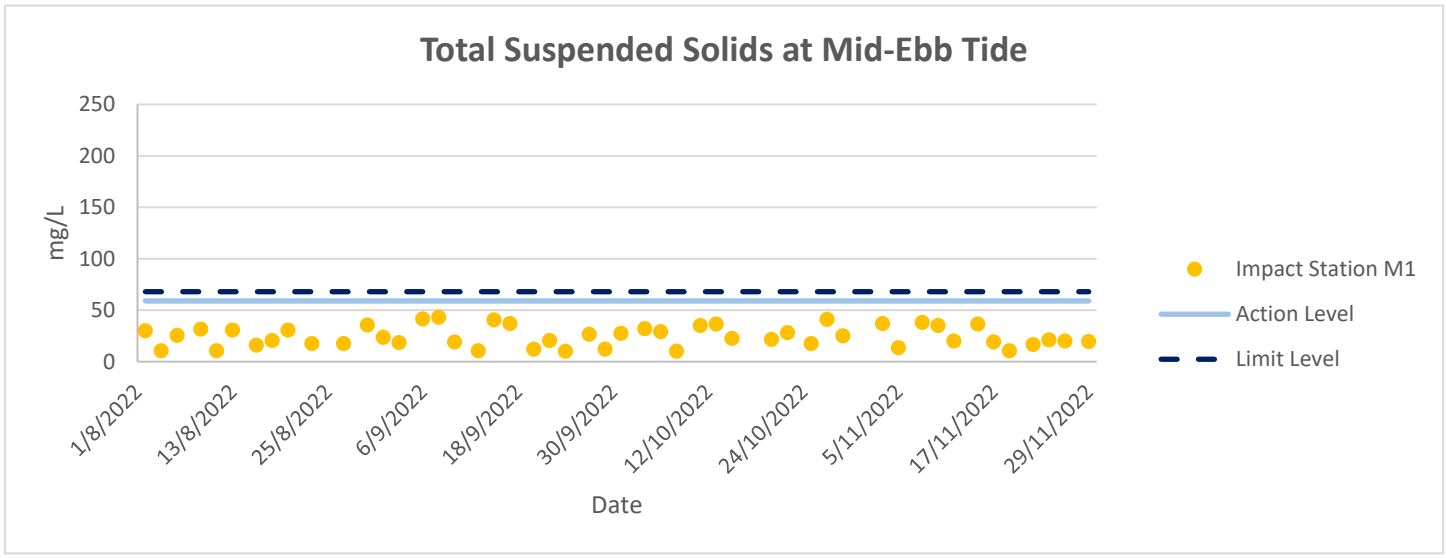
Water Quality Monitoring Results

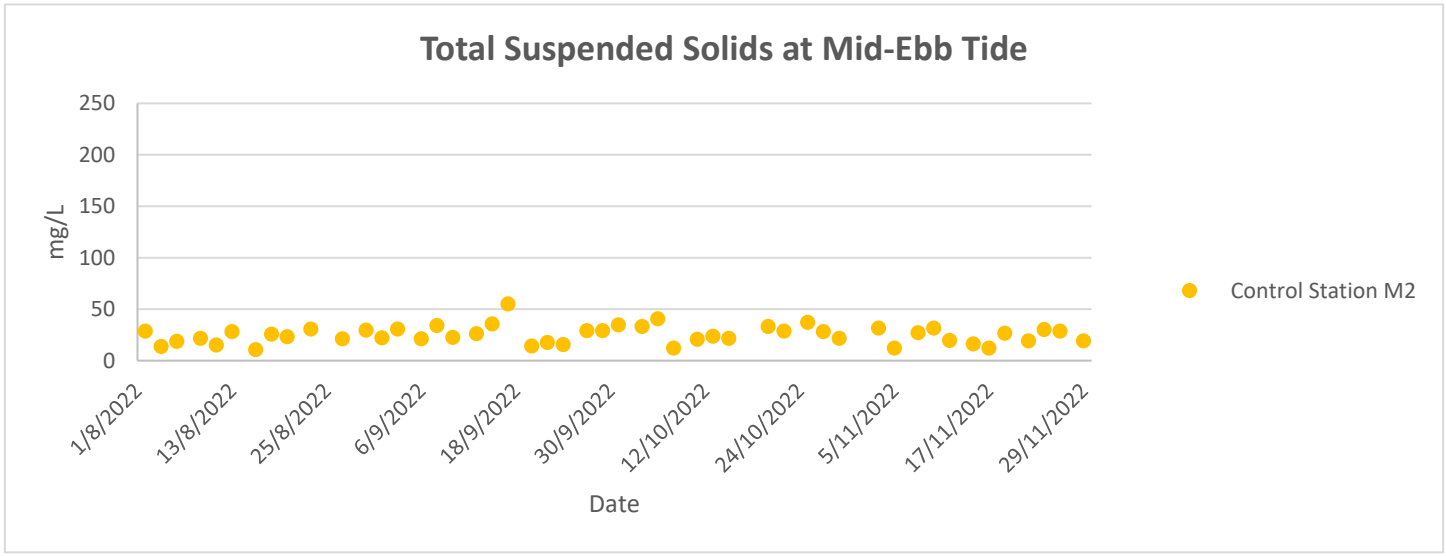


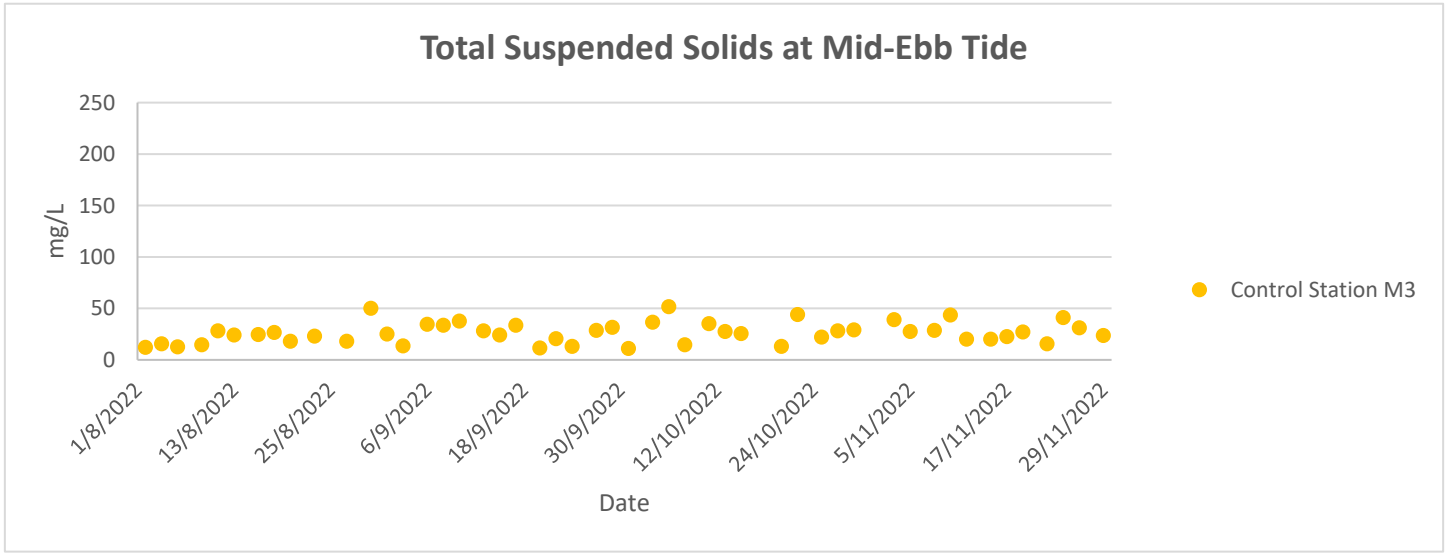




Water Quality Monitoring Results







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 (10 November 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
10/11/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Black-collared Starling	*Gracupica nigricollis*	2	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Black-faced Bunting	*Emberiza spodocephala*	3	Common	PM,WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Transect	FLW	Plantation-FLW	Common Tailorbird	*Orthotomus sutorius*	2	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Eastern Yellow Wagtail	*Motacilla tschutschensis*	1	Common	PM,WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Transect	FLW	Plantation-FLW	Masked Laughingthrush	*Garrulax perspicillatus*	2	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	3	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	3	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	2	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	FLW1	Pond-FLW	Plain Prinia	*Prinia inornata*	3	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Eurasian Collared Dove	*Streptopelia decaocto*	3	Common	-	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	1	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	3	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Eurasian Collared Dove	*Streptopelia decaocto*	1	Common	-	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Plain Prinia	*Prinia inornata*	3	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Red-whiskered Bulbul	*Pycnonotus jocosus*	1	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Common Tailorbird	*Orthotomus sutorius*	3	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Daurian Redstart	*Phoenicurus auroreus*	1	Common	WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Eurasian Collared Dove	*Streptopelia decaocto*	2	Common	-	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	4	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Little Grebe	*Tachybaptus ruficollis*	2	Common	R	LC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Oriental Magpie Robin	*Copsychus saularis*	2	Abundant	R	-	-	-	LC	LC	N	N

10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Red-whiskered Bulbul	*Pycnonotus jocosus*	2	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	1	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Eurasian Wigeon	*Anas penelope*	1	Common	WV	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	3	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Little Egret	*Egretta garzetta*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Little Grebe	*Tachybaptus ruficollis*	1	Common	R	LC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Red-whiskered Bulbul	*Pycnonotus jocosus*	2	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Black-collared Starling	*Gracupica nigricollis*	2	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	10	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	White Wagtail	*Motacilla alba*	2	Common	PM,WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Cinereous Tit	*Parus cinereus*	1	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Daurian Redstart	*Phoenicurus auroreus*	1	Common	WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Dusky Warbler	*Phylloscopus fuscatus*	2	Common	PM,WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Eastern Yellow Wagtail	*Motacilla tschutschensis*	2	Common	PM,WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Transect	NSW	Plantation-NSW	Eurasian Tree Sparrow	*Passer montanus*	3	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Transect	NSW	Plantation-NSW	Masked Laughingthrush	*Garrulax perspicillatus*	3	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Red-whiskered Bulbul	*Pycnonotus jocosus*	4	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Spotted Dove	*Spilopelia chinensis*	1	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Daurian Redstart	*Phoenicurus auroreus*	1	Common	WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Great Cormorant	*Phalacrocorax carbo*	62	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Greater Coucal	*Centropus sinensis*	1	Common	R	-	Class II	Vulnerable	LC	LC	Y	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Plain Prinia	*Prinia inornata*	7	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Black-winged Stilt	*Himantopus himantopus*	2	Common	PM	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Eurasian Wigeon	*Anas penelope*	3	Common	WV	RC	-	-	LC	LC	Y	Y

10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Grey Heron	*Ardea cinerea*	2	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Little Egret	*Egretta garzetta*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Little Grebe	*Tachybaptus ruficollis*	1	Common	R	LC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Northern Shoveler	*Anas clypeata*	2	Abundant	WV	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Plain Prinia	*Prinia inornata*	3	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Black-winged Stilt	*Himantopus himantopus*	3	Common	PM	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Common Sandpiper	*Actitis hypoleucos*	2	Common	PM,WV	-	-	-	LC	LC	N	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Eastern Yellow Wagtail	*Motacilla tschutschensis*	1	Common	PM,WV	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Eurasian Collared Dove	*Streptopelia decaocto*	1	Common	-	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Eurasian Wigeon	*Anas penelope*	1	Common	WV	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	12	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Masked Laughingthrush	*Garrulax perspicillatus*	1	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Red-whiskered Bulbul	*Pycnonotus jocosus*	2	Abundant	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Black-winged Stilt	*Himantopus himantopus*	5	Common	PM	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Common Kingfisher	*Alcedo atthis*	1	Common	PM,WV	-	-	-	LC	LC	N	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Common Moorhen	*Gallinula chloropus*	3	Common	R	-	-	-	LC	LC	N	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Common Sandpiper	*Actitis hypoleucos*	1	Common	PM,WV	-	-	-	LC	LC	N	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Grey Heron	*Ardea cinerea*	3	Common	WV	PRC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Little Egret	*Egretta garzetta*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Little Grebe	*Tachybaptus ruficollis*	4	Common	R	LC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Marsh Sandpiper	*Tringa stagnatilis*	2	Common	PM,WV	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Northern Shoveler	*Anas clypeata*	2	Abundant	WV	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
10/11/2022	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	White-breasted Waterhen	*Amaurornis phoenicurus*	1	Common	R	-	-	-	LC	LC	N	Y

10/11/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Black-winged Stilt	*Himantopus himantopus*	2	Common	PM	RC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Common Kingfisher	*Alcedo atthis*	1	Common	PM,WV	-	-	-	LC	LC	N	Y
10/11/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Common Moorhen	*Gallinula chloropus*	2	Common	R	-	-	-	LC	LC	N	Y
10/11/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Eastern Cattle Egret	*Bubulcus coromandus*	2	Common	R.PM	-	-	-	LC	LC	N	Y
10/11/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Little Egret	*Egretta garzetta*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Little Grebe	*Tachybaptus ruficollis*	2	Common	R	LC	-	-	LC	LC	Y	Y
10/11/2022	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N

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 (10 November 2022)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Acridotheres cristatellus	10	0.044843	-3.10459	-0.13922	0.432218
Actitis hypoleucos	3	0.013453	-4.30856	-0.05796	0.249736
Alcedo atthis	1	0.004484	-5.40717	-0.02425	0.13111
Amaurornis phoenicurus	1	0.004484	-5.40717	-0.02425	0.13111
Anas clypeata	4	0.017937	-4.02088	-0.07212	0.289999
Anas penelope	5	0.008969	-4.71402	-0.04228	0.199301
Ardea alba	2	0.026906	-3.61541	-0.09728	0.351692
Ardea cinerea	6	0.022422	-3.79773	-0.08515	0.323381
Ardeola bacchus	5	0.004484	-5.40717	-0.02425	0.13111
Centropus sinensis	1	0.008969	-4.71402	-0.04228	0.199301
Copsychus saularis	2	0.044843	-3.10459	-0.13922	0.432218
Egretta garzetta	10	0.013453	-4.30856	-0.05796	0.249736
Gallinula chloropus	3	0.004484	-5.40717	-0.02425	0.13111
Garrulax perspicillatus	1	0.008969	-4.71402	-0.04228	0.199301
Gracupica nigricollis	2	0.044843	-3.10459	-0.13922	0.432218
Himantopus himantopus	10	0.017937	-4.02088	-0.07212	0.289999
Motacilla alba	4	0.004484	-5.40717	-0.02425	0.13111
Motacilla cinerea	1	0.013453	-4.30856	-0.05796	0.249736
Orthotomus sutorius	3	0.430493	-0.84282	-0.36283	0.305802
Phalacrocorax carbo	96	0.008969	-4.71402	-0.04228	0.199301
Phoenicurus auroreus	2	0.09417	-2.36265	-0.22249	0.52567
Prinia inornata	21	0.03139	-3.46126	-0.10865	0.376064
Pycnonotus jocosus	7	0.026906	-3.61541	-0.09728	0.351692
Spilopelia chinensis	6	0.03139	-3.46126	-0.10865	0.376064
Streptopelia decaocto	7	0.035874	-3.32773	-0.11938	0.397266
Tachybaptus ruficollis	8	0.035874	-3.32773	-0.11938	0.397266
Tringa stagnatilis	2	0.008969	-4.71402	-0.04228	0.199301
Total	**223**	**1.013453**	**-108.699**	**-2.3895**	**7.682808**
Richness	**27**				
SS	**7.682808**				
SQ	**5.70973**				
H	**2.3895**				
S^2_H	**0.009109**				

Appendix F.2.2 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Point Count Method) in All Habitats (10 November 2022)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Anas clypeata	5	0.012690	-4.366913	-0.055418	0.242004
Anas penelope	8	0.020305	-3.896909	-0.079125	0.308343
Ardea alba	14	0.035533	-3.337294	-0.118584	0.395750
Ardea cinerea	27	0.068528	-2.680514	-0.183690	0.492384
Ardeola bacchus	38	0.096447	-2.338765	-0.225566	0.527546
Centropus sinensis	2	0.005076	-5.283204	-0.026818	0.141687
Egretta garzetta	1	0.002538	-5.976351	-0.015168	0.090652

Himantopus himantopus	2	0.005076	-5.283204	-0.026818	0.141687
Phalacrocorax carbo	21	0.053299	-2.931828	-0.156265	0.458142
Tachybaptus ruficollis	1	0.002538	-5.976351	-0.015168	0.090652
Tringa stagnatilis	1	0.002538	-5.976351	-0.015168	0.090652
Total	**149**	**1**	-36.011225	-1.406447	3.770318
Richness	**11**				
SS	3.770318				
SQ	1.978094				
H	1.406447				
S^2_H	0.012254				

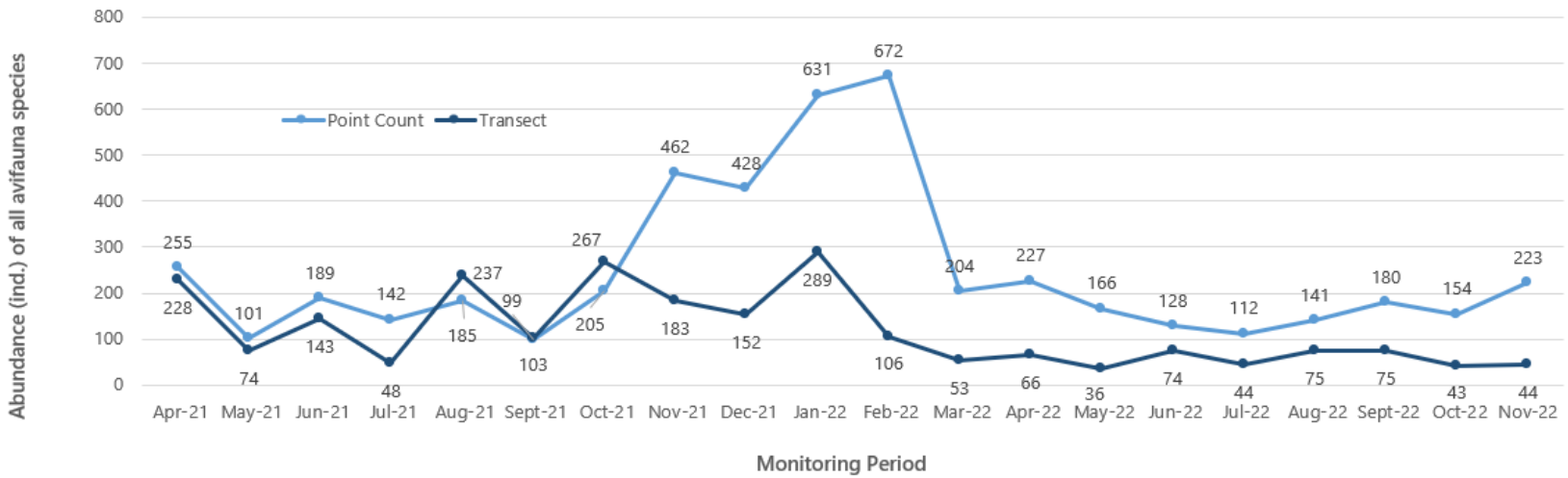
Appendix F.2.3 Ecological Bird Monitoring Diversity (All avifauna species in Transect Walk Method) in All Habitats (10 November 2022)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	P*Ln(P)^2
Alcedo atthis	1	0.021277	-3.850148	-0.081918	0.315397
Ardea alba	1	0.021277	-3.850148	-0.081918	0.315397
Ardea cinerea	1	0.021277	-3.850148	-0.081918	0.315397
Bubulcus coromandus	2	0.042553	-3.157000	-0.134340	0.424113
Egretta garzetta	2	0.042553	-3.157000	-0.134340	0.424113
Emberiza spodocephala	3	0.063830	-2.751535	-0.175630	0.483252
Gallinula chloropus	2	0.042553	-3.157000	-0.134340	0.424113
Garrulax perspicillatus	5	0.106383	-2.240710	-0.238373	0.534126
Gracupica nigricollis	2	0.042553	-3.157000	-0.134340	0.424113
Himantopus himantopus	2	0.042553	-3.157000	-0.134340	0.424113
Motacilla alba	1	0.021277	-3.850148	-0.081918	0.315397
Motacilla tschutschensis	3	0.063830	-2.751535	-0.175630	0.483252
Orthotomus sutorius	2	0.042553	-3.157000	-0.134340	0.424113
Parus cinereus	1	0.021277	-3.850148	-0.081918	0.315397
Passer montanus	3	0.063830	-2.751535	-0.175630	0.483252
Phoenicurus auroreus	1	0.021277	-3.850148	-0.081918	0.315397
Phylloscopus fuscatus	2	0.042553	-3.157000	-0.134340	0.424113
Pycnonotus jocosus	4	0.085106	-2.463853	-0.209690	0.516644
Spilopelia chinensis	4	0.085106	-2.463853	-0.209690	0.516644
Tachybaptus ruficollis	2	0.042553	-3.157000	-0.134340	0.424113
Total	**44**	**1**	**-62.460752**	**-2.872476**	**8.485253**
Richness	**20**				
SS	**8.485253**				
SQ	**8.251117**				
H	**2.87248**				
S^2_H	**0.010228**				

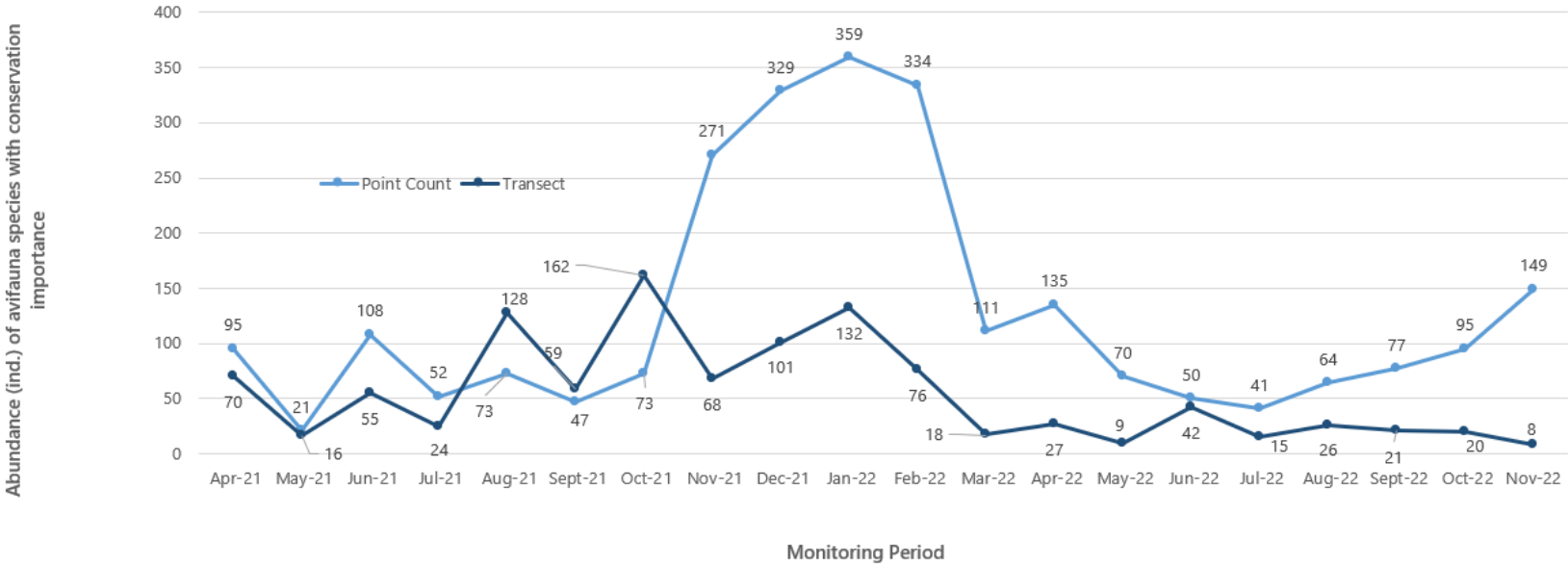
Appendix F.2.4 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Transect Walk Method) in All Habitats (10 November 2022)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Ardea alba	1	0.125	-2.079442	-0.259930	0.540510
Ardea cinerea	1	0.125	-2.079442	-0.259930	0.540510
Egretta garzetta	2	0.25	-1.386294	-0.346574	0.480453
Himantopus himantopus	2	0.25	-1.386294	-0.346574	0.480453
Tachybaptus ruficollis	2	0.25	-1.386294	-0.346574	0.480453
Total	**8**	**1**	**-8.317766**	**-1.559581**	**2.522378**
Richness	**5**				
SS	**2.522378**				
SQ	**2.432293**				
H	**1.559581**				
S^2_H	**0.042511**				

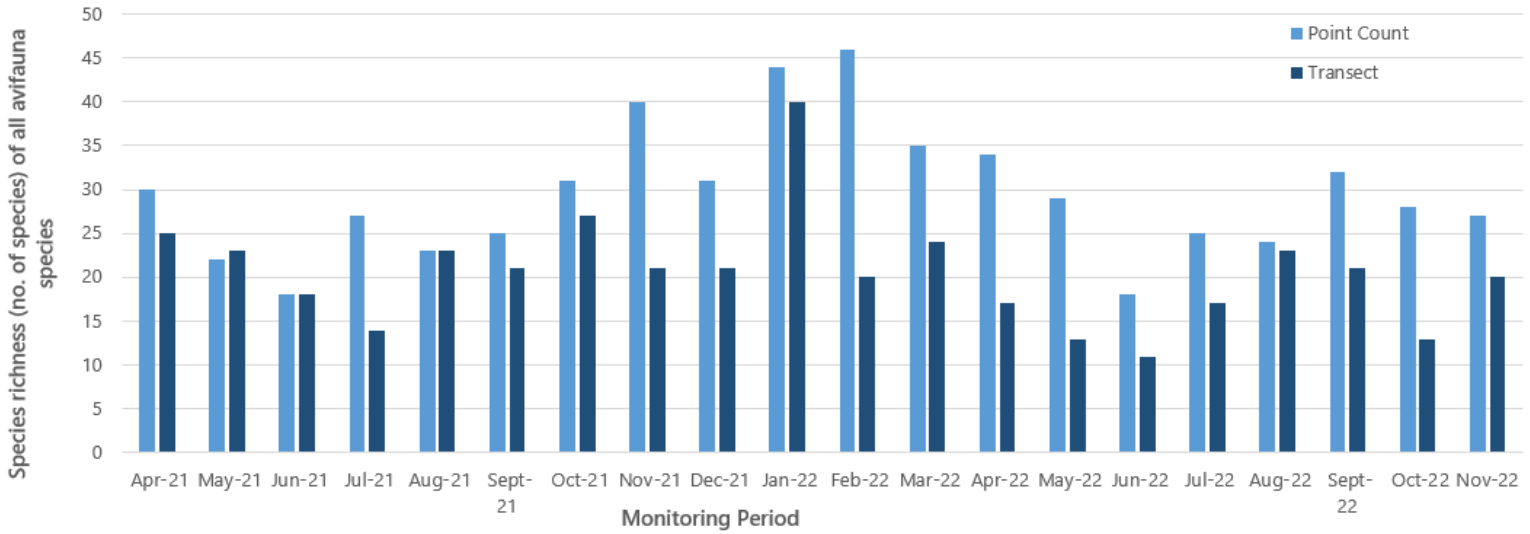
Appendix F.3.1 Abundance of all avifauna species throughout the monitoring period



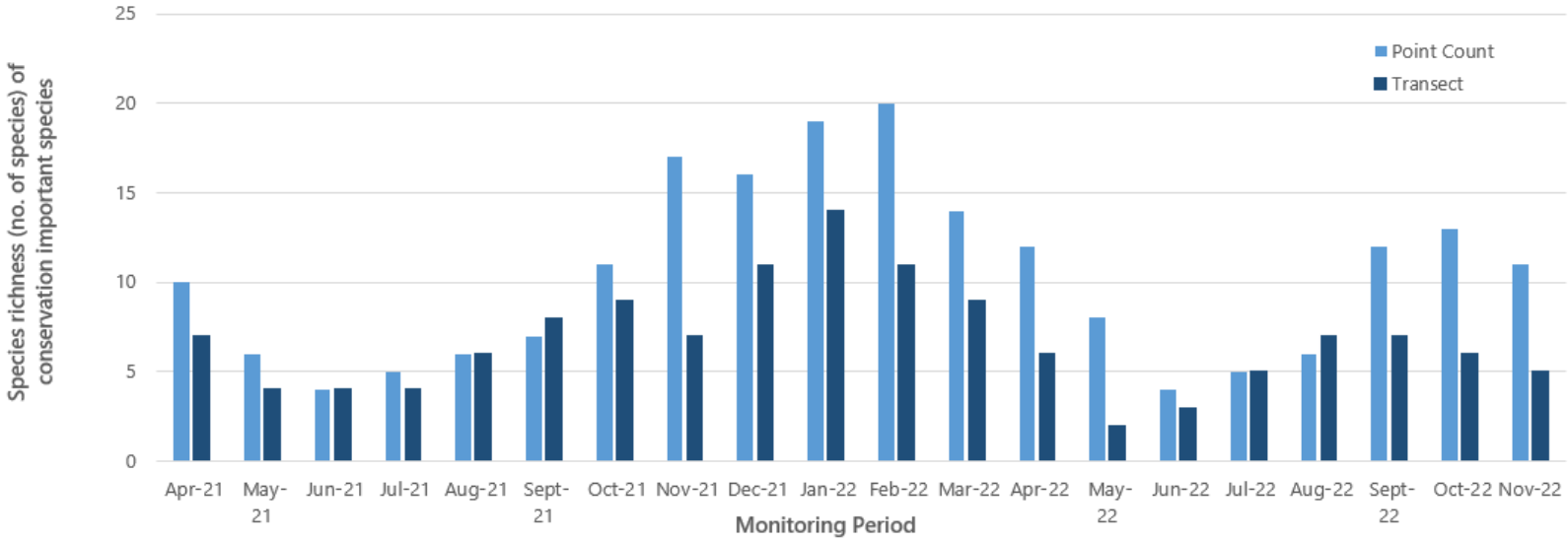
Appendix F.3.2 Abundance of avifauna species with conservation importance throughout the monitoring period



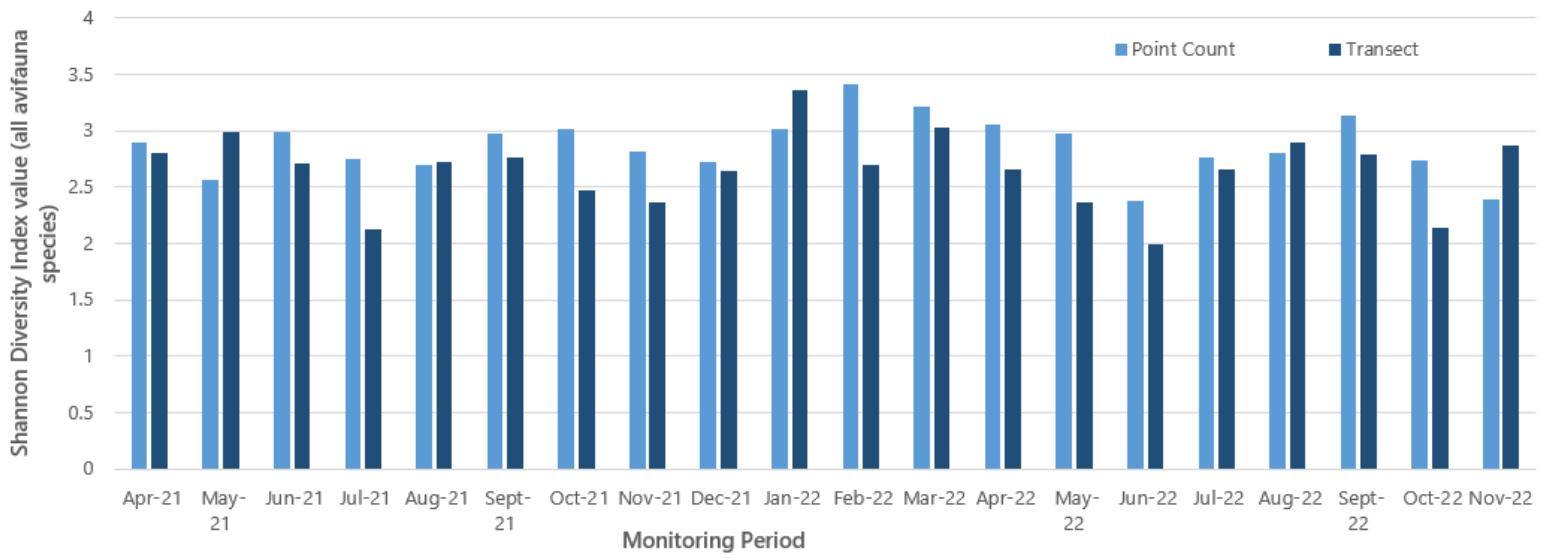
Appendix F.4.1 Species richness of all avifauna species throughout the monitoring period



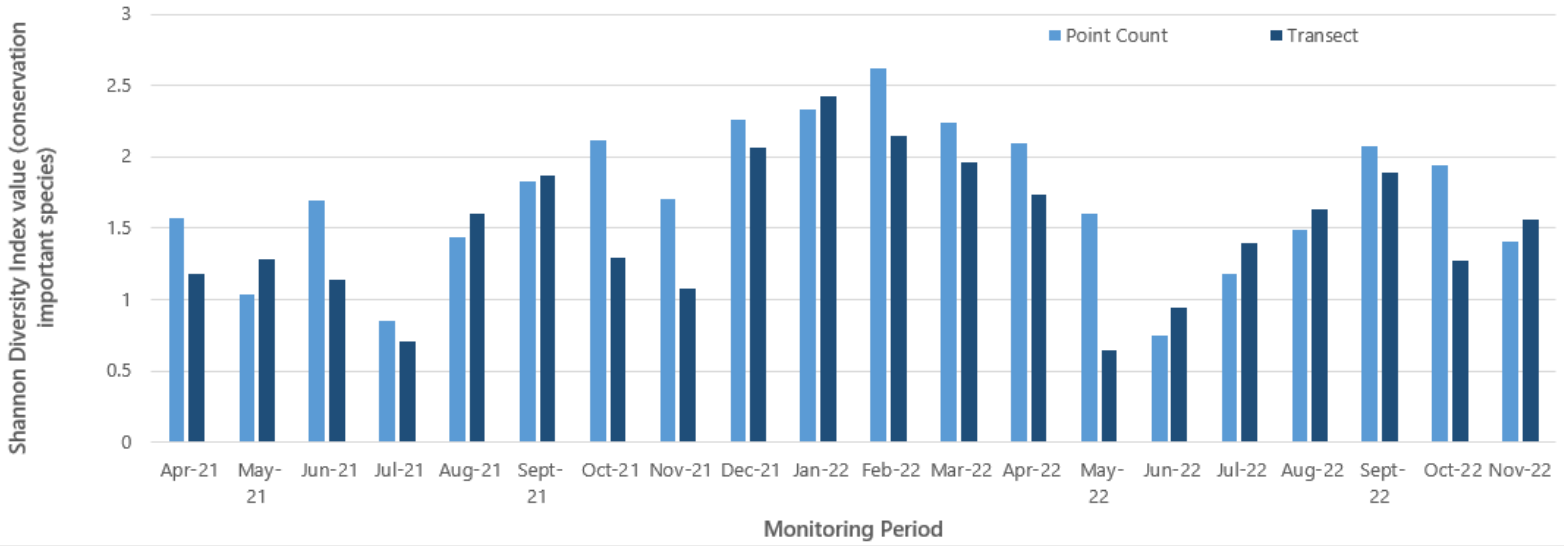
Appendix F.4.2 Species richness of avifauna species with conservation importance throughout the monitoring period



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	November 2016	November 2022
N	48	27
df	47	26
M	12.67	8.26
SS	41178.67	8483.19
S^2	876.14	326.28
t-value	0.702	
p-value	0.48	

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	November 2016	November 2022
N	20	20
df	19	19
M	6.25	2.2
SS	1559.75	25.2
S^2	82.09	1.33
t-value	1.98	
p-value	0.055	

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	November 2016	November 2022
N	20	11
df	19	10
M	19.7	13.55
SS	35942.2	7572.73
S^2	1891.69	757.27
t-value	0.42	
p-value	0.68	

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	November 2016	November 2022
N	7	5
df	6	4
M	8.43	1.6
SS	1191.71	1.2
S^2	198.62	0.3
t-value	1.07	
p-value	0.31	

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	November 2016	November 2022
Total	608	223
Richness	48	27
H	2.81	2.39
S^2_H	0.003	0.009
t	3.793	
df	401.582	
Crit	1.966	
p	0.000	
CI	0.117	0.191

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

Months	November 2016	November 2022
Total	394	149
Richness	20	11
H	1,91	1.41
S^2_H	0.005	0.012
t	3.857	
df	273.053	
Crit	1.969	
p	0.000	
CI	0.139	0.221