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

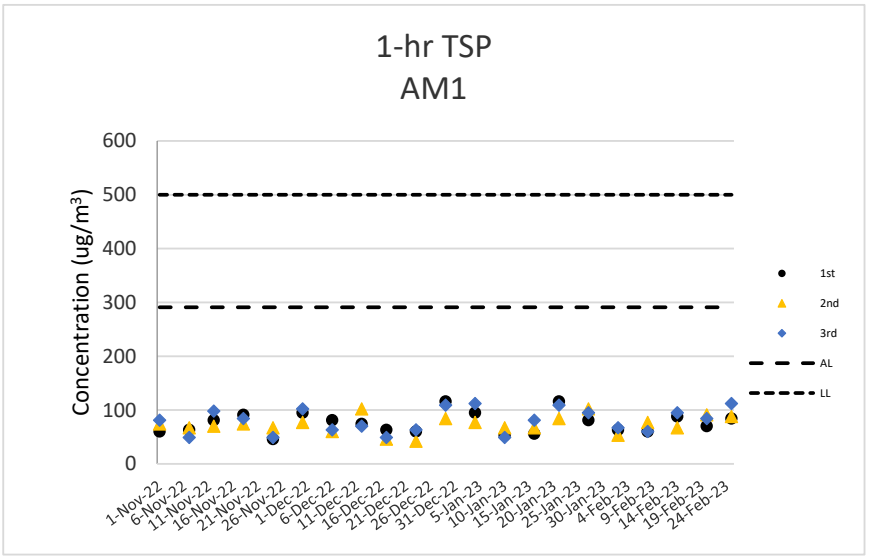
AM1 - Topfine Machinery (China) Co. Ltd.

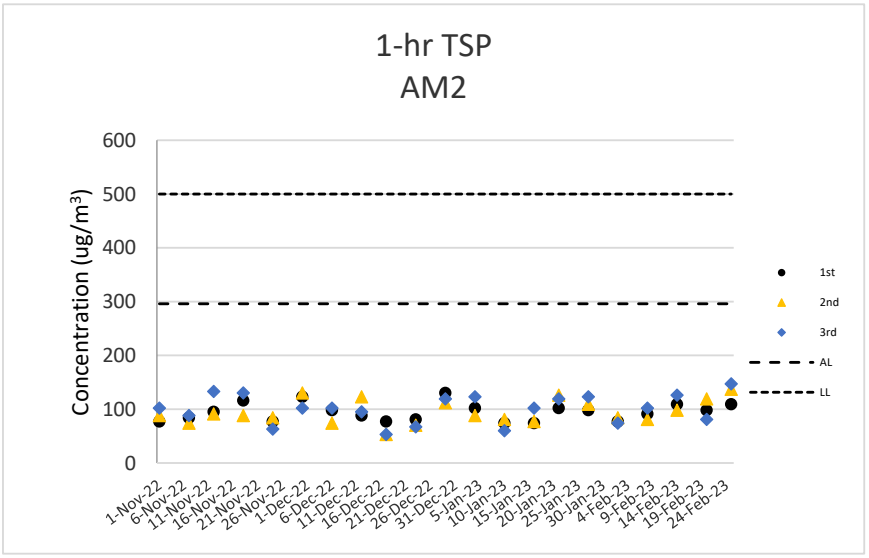
Date	Weather Condition	Start Time	1-hour TSP (µg/m³) 1st Measurement	2nd Measurement	3rd Measurement	Action Level (ug/m^3)	Limit Level (ug/m^3)
2-Feb-23	Fine	8:37	63	53	67	291	500
8-Feb-23	Fine	8:30	60	77	60		
14-Feb-23	Cloudy	8:37	88	67	95		
20-Feb-23	Cloudy	8:38	70	91	84		
25-Feb-23	Fine	8:48	84	88	112		
		Min	53				
		Max	112				
		Average	77				

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)
2-Feb-23	Fine	8:48	77	84	74	296	500
8-Feb-23	Fine	8:39	91	81	102		
14-Feb-23	Cloudy	8:49	109	98	126		
20-Feb-23	Cloudy	8:48	98	119	81		
25-Feb-23	Fine	8:59	109	137	147		
		Min	74				
		Max	147				
		Average	102				

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)
2-Feb-23	10:26	53	55	51	0.1	Fine	75
8-Feb-23	10:06	54	56	51	0.1	Fine	75
14-Feb-23	10:23	55	58	52	0.3	Cloudy	75
20-Feb-23	13:08	56	58	52	0.1	Cloudy	75
	Max	56					
	Min	53					

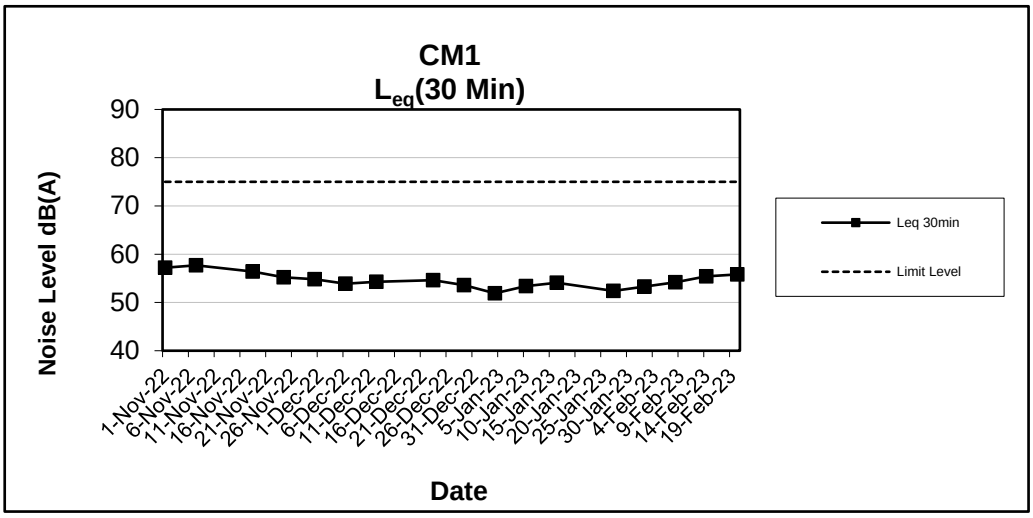
CM2 - Squatter house to the west of YLSTW

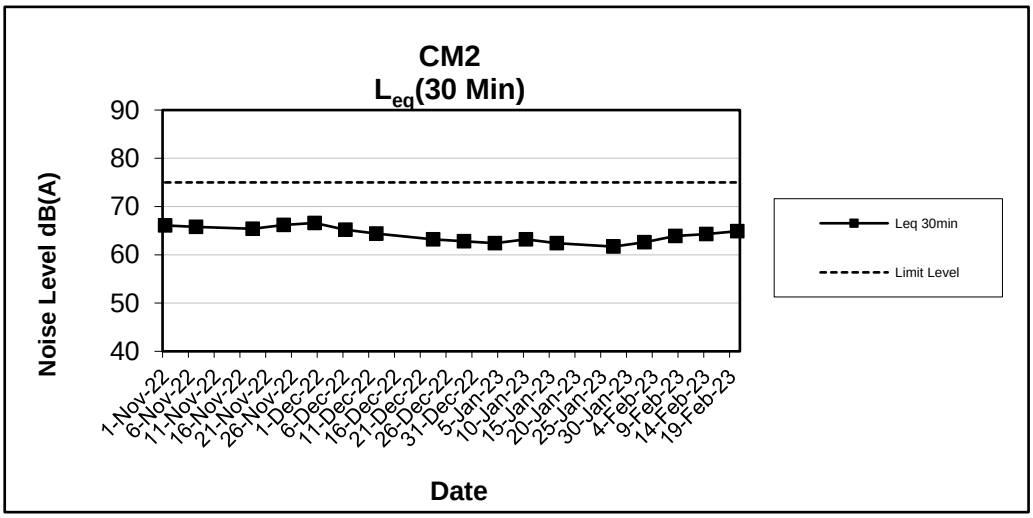
Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
2-Feb-23	8:55	63	65	56	0.1	Fine	75
8-Feb-23	8:46	64	67	57	0.2	Fine	75
14-Feb-23	8:55	64	67	57	0.3	Cloudy	75
20-Feb-23	8:56	65	68	58	0.3	Cloudy	75
	Max	65					
	Min	63					

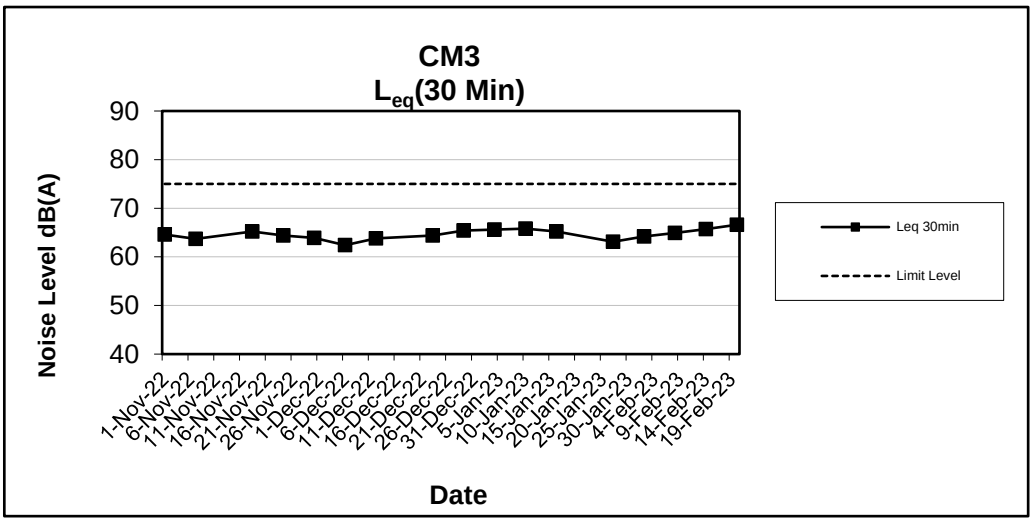
CM3 - Squatter house to the east of YLSTW

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)
2-Feb-23	13:32	64	67	57	0.2	Fine	75
8-Feb-23	11:27	65	67	58	0.3	Fine	75
14-Feb-23	14:13	66	69	58	0.4	Cloudy	75
20-Feb-23	10:34	67	70	58	0.2	Cloudy	75
	Max	67					
	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	2/2/2023	Mid-Flood	Fine	Moderate	16:50	1	M	0.5	1	0.071	58	7.72	7.73	11.04	11.03	19.18	19.19	51.3	51.4	4.26	4.27	18.5	18.4	23	24
M1	2/2/2023	Mid-Flood	Fine	Moderate	16:50	1	M	0.5	2			7.73		11.01		19.19		51.4		4.27		18.4		25	
M2	2/2/2023	Mid-Flood	Fine	Moderate	16:33	0.8	M	0.4	1	0.083	154	7.69	7.69	11.14	11.16	19.63	19.64	49.1	49.2	4.17	4.18	19.3	19.2	23	24
M2	2/2/2023	Mid-Flood	Fine	Moderate	16:33	0.8	M	0.4	2			7.68		11.18		19.64		49.2		4.18		19.2		25	
M3	2/2/2023	Mid-Flood	Fine	Calm	16:32	0.6	M	0.3	1	0.258	93	7.54	7.55	7.78	7.79	23.89	23.90	54.1	54.4	4.64	4.66	23.8	24.4	38	36
M3	2/2/2023	Mid-Flood	Fine	Calm	16:32	0.6	M	0.3	2			7.55		7.79		23.91		54.6		4.67		25.0		34	
M1	2/2/2023	Mid-Ebb	Fine	Moderate	12:18	1.2	M	0.6	1	0.053	72	7.39	7.37	11.84	11.83	19.30	19.31	54.7	54.7	4.21	4.21	17.6	17.6	16	17
M1	2/2/2023	Mid-Ebb	Fine	Moderate	12:18	1.2	M	0.6	2			7.34		11.82		19.31		54.6		4.20		17.6		17	
M2	2/2/2023	Mid-Ebb	Fine	Moderate	12:33	1	M	0.5	1	0.083	206	7.21	7.23	11.44	11.45	19.16	19.15	60.3	60.3	4.53	4.53	18.2	18.2	15	16
M2	2/2/2023	Mid-Ebb	Fine	Moderate	12:33	1	M	0.5	2			7.24		11.46		19.14		60.2		4.52		18.1		17	
M3	2/2/2023	Mid-Ebb	Fine	Calm	12:06	0.4	M	0.2	1	0.213	270	7.28	7.27	3.94	3.94	20.01	20.02	60.8	60.6	5.73	5.71	16.6	16.4	13	14
M3	2/2/2023	Mid-Ebb	Fine	Calm	12:06	0.4	M	0.2	2			7.26		3.93		20.03		60.3		5.68		16.1		14	

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	4/2/2023	Mid-Flood	Fine	Moderate	8:24	1	M	0.5	1	0.048	77	7.42	7.43	11.86	11.85	21.29	21.27	71.4	71.5	5.91	5.93	19.6	19.6	35	36
M1	4/2/2023	Mid-Flood	Fine	Moderate	8:24	1	M	0.5	2			7.43		11.84		21.24		71.6		5.94		19.6		36	
M2	4/2/2023	Mid-Flood	Fine	Moderate	8:39	0.9	M	0.45	1	0.058	205	7.32	7.32	11.23	11.24	21.04	21.03	74.5	74.7	6.02	6.03	19.4	19.4	35	34
M2	4/2/2023	Mid-Flood	Fine	Moderate	8:39	0.9	M	0.45	2			7.31		11.24		21.02		74.8		6.04		19.4		32	
M3	4/2/2023	Mid-Flood	Cloudy	Smooth	8:31	0.2	M	0.1	1	0.302	84	7.66	7.67	6.41	6.42	18.97	18.98	56.6	56.3	5.43	5.41	25.4	25.7	34	32
M3	4/2/2023	Mid-Flood	Cloudy	Smooth	8:31	0.2	M	0.1	2			7.67		6.42		18.98		55.9		5.39		26.0		30	
M1	4/2/2023	Mid-Ebb	Fine	Moderate	13:27	0.9	M	0.45	1	0.072	149	7.84	7.83	12.41	12.42	20.24	20.26	67.1	67.2	5.64	5.63	23.6	23.6	29	30
M1	4/2/2023	Mid-Ebb	Fine	Moderate	13:27	0.9	M	0.45	2			7.81		12.42		20.28		67.2		5.62		23.6		31	
M2	4/2/2023	Mid-Ebb	Fine	Moderate	13:11	0.8	M	0.4	1	0.083	125	7.91	7.92	12.20	12.22	20.98	20.96	69.4	69.5	5.72	5.73	23.4	23.4	28	29
M2	4/2/2023	Mid-Ebb	Fine	Moderate	13:11	0.8	M	0.4	2			7.93		12.23		20.94		69.6		5.74		23.4		30	
M3	4/2/2023	Mid-Ebb	Cloudy	Smooth	13:10	0.4	M	0.2	1	0.246	274	7.49	7.49	3.89	3.88	20.76	20.77	62.7	62.3	5.74	5.72	36.2	35.9	34	35
M3	4/2/2023	Mid-Ebb	Cloudy	Smooth	13:10	0.4	M	0.2	2			7.48		3.87		20.77		61.9		5.69		35.6		36	

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	7/2/2023	Mid-Flood	Fine	Moderate	9:59	1.2	M	0.6	1	0.065	124	7.78	7.79	9.55	9.56	20.24	20.27	83.8	83.8	7.17	7.17	30.1	30.2	42	41
M1	7/2/2023	Mid-Flood	Fine	Moderate	9:59	1.2	M	0.6	2			7.79		9.56		20.29		83.7		7.16		30.3		40	
M2	7/2/2023	Mid-Flood	Fine	Moderate	10:16	1	M	0.5	1	0.096	106	7.64	7.63	9.64	9.63	20.57	20.58	80.2	80.3	7.01	7.02	30.5	30.5	39	40
M2	7/2/2023	Mid-Flood	Fine	Moderate	10:16	1	M	0.5	2			7.62		9.61		20.58		80.4		7.03		30.5		41	
M3	7/2/2023	Mid-Flood	Fine	Calm	9:46	0.2	M	0.1	1	0.284	93	7.74	7.74	8.52	8.53	20.14	20.15	57.4	57.1	4.85	4.84	30.1	30.2	31	32
M3	7/2/2023	Mid-Flood	Fine	Calm	9:46	0.2	M	0.1	2			7.73		8.53		20.16		56.8		4.82		30.3		32	
M1	7/2/2023	Mid-Ebb	Fine	Moderate	15:02	1	M	0.5	1	0.074	88	7.92	7.93	9.14	9.15	20.91	20.92	93.3	93.4	7.61	7.62	26.1	26.2	37	36
M1	7/2/2023	Mid-Ebb	Fine	Moderate	15:02	1	M	0.5	2			7.93		9.15		20.92		93.4		7.63		26.2		35	
M2	7/2/2023	Mid-Ebb	Fine	Moderate	14:47	0.8	M	0.4	1	0.095	97	7.89	7.88	9.08	9.06	20.28	20.28	92.4	92.3	7.57	7.56	26.1	26.1	32	32
M2	7/2/2023	Mid-Ebb	Fine	Moderate	14:47	0.8	M	0.4	2			7.87		9.04		20.27		92.1		7.54		26.0		32	
M3	7/2/2023	Mid-Ebb	Fine	Calm	14:51	0.4	M	0.2	1	0.236	261	7.31	7.32	6.29	6.30	24.63	24.64	62.1	62.5	5.13	5.16	35.0	35.3	36	37
M3	7/2/2023	Mid-Ebb	Fine	Calm	14:51	0.4	M	0.2	2			7.32		6.31		24.64		62.9		5.18		35.6		38	

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	9/2/2023	Mid-Flood	Fine	Smooth	10:30	2.2	M	1.1	1	0.383	232	7.60	7.60	11.06	11.05	20.75	20.76	47.4	47.7	4.01	4.03	17.3	17.7	38	38
M1	9/2/2023	Mid-Flood	Fine	Smooth	10:30	2.2	M	1.1	2			7.59		11.04		20.77		47.9		4.04		18.2		37	
M2	9/2/2023	Mid-Flood	Fine	Smooth	10:45	1.2	M	0.6	1	0.37	298	7.64	7.64	10.32	10.33	21.01	21.02	54.7	54.3	4.59	4.57	15.3	15.5	36	37
M2	9/2/2023	Mid-Flood	Fine	Smooth	10:45	1.2	M	0.6	2			7.63		10.33		21.02		53.9		4.54		15.7		37	
M3	9/2/2023	Mid-Flood	Fine	Moderate	10:39	1.1	M	0.55	1	0.071	148	7.46	7.44	8.74	8.73	19.26	19.35	69.4	69.6	5.58	5.59	30.5	30.5	17	17
M3	9/2/2023	Mid-Flood	Fine	Moderate	10:39	1.1	M	0.55	2			7.41		8.72		19.44		69.7		5.59		30.5		16	
M1	9/2/2023	Mid-Ebb	Fine	Smooth	16:16	2.2	M	1.1	1	0.344	208	7.76	7.76	9.16	9.17	24.64	24.64	70.6	70.4	5.88	5.87	27.5	27.7	26	27
M1	9/2/2023	Mid-Ebb	Fine	Smooth	16:16	2.2	M	1.1	2			7.75		9.17		24.63		70.1		5.85		28.0		27	
M2	9/2/2023	Mid-Ebb	Fine	Smooth	16:01	1.2	M	0.6	1	0.316	254	7.81	7.82	8.86	8.87	24.87	24.88	63.6	63.4	5.31	5.30	24.0	24.2	24	24
M2	9/2/2023	Mid-Ebb	Fine	Smooth	16:01	1.2	M	0.6	2			7.82		8.88		24.88		63.2		5.29		24.4		24	
M3	9/2/2023	Mid-Ebb	Fine	Moderate	16:08	0.9	M	0.45	1	0.133	98	7.84	7.83	7.32	7.32	20.30	20.34	68.8	68.6	5.43	5.42	32.7	32.7	28	29
M3	9/2/2023	Mid-Ebb	Fine	Moderate	16:08	0.9	M	0.45	2			7.82		7.31		20.37		68.4		5.41		32.7		30	

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	11/2/2023	Mid-Flood	Fine	Moderate	11:04	1.2	M	0.6	1	0.065	147	6.47	6.48	6.85	6.85	21.64	21.63	64.9	64.7	5.25	5.23	23.1	23.1	40	41
M1	11/2/2023	Mid-Flood	Fine	Moderate	11:04	1.2	M	0.6	2			6.49		6.84		21.61		64.4		5.21		23.1		41	
M2	11/2/2023	Mid-Flood	Fine	Moderate	11:23	0.9	M	0.45	1	0.093	265	6.84	6.83	6.79	6.77	21.17	21.16	62.3	62.2	5.14	5.13	21.3	21.2	40	39
M2	11/2/2023	Mid-Flood	Fine	Moderate	11:23	0.9	M	0.45	2			6.81		6.74		21.14		62.1		5.12		21.2		38	
M3	11/2/2023	Mid-Flood	Fine	Calm	11:11	0.2	M	0.1	1	0.292	81	7.62	7.62	6.19	6.18	22.43	22.44	64.9	65.2	5.46	5.47	33.9	33.8	41	39
M3	11/2/2023	Mid-Flood	Fine	Calm	11:11	0.2	M	0.1	2			7.61		6.17		22.44		65.4		5.48		33.7		36	
M1	11/2/2023	Mid-Ebb	Fine	Moderate	17:24	1	M	0.5	1	0.094	348	7.58	7.59	7.34	7.33	21.86	21.84	64.8	64.5	4.82	4.79	23.5	23.4	29	29
M1	11/2/2023	Mid-Ebb	Fine	Moderate	17:24	1	M	0.5	2			7.59		7.32		21.82		64.2		4.76		23.4		29	
M2	11/2/2023	Mid-Ebb	Fine	Moderate	17:10	0.8	M	0.4	1	0.073	324	7.32	7.33	7.01	7.08	21.74	21.76	51.3	51.3	4.33	4.32	20.6	20.7	24	26
M2	11/2/2023	Mid-Ebb	Fine	Moderate	17:10	0.8	M	0.4	2			7.34		7.14		21.78		51.2		4.31		20.7		27	
M3	11/2/2023	Mid-Ebb	Fine	Calm	17:06	0.4	M	0.2	1	0.279	256	7.47	7.48	5.13	5.14	26.01	26.02	56.2	56.3	4.88	4.89	25.7	26.1	34	33
M3	11/2/2023	Mid-Ebb	Fine	Calm	17:06	0.4	M	0.2	2			7.49		5.14		26.02		56.4		4.89		26.6		31	

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	14/2/2023	Mid-Flood	Fine	Moderate	13:04	1.3	M	0.65	1	0.137	90	7.54	7.54	7.21	7.22	21.59	21.59	51.4	51.6	4.32	4.36	28.4	28.4	21	22
M1	14/2/2023	Mid-Flood	Fine	Moderate	13:04	1.3	M	0.65	2			7.53		7.22		21.58		51.7		4.39		28.4		22	
M2	14/2/2023	Mid-Flood	Fine	Moderate	12:46	1	M	0.5	1	0.123	76	7.59	7.59	6.49	6.49	21.49	21.47	52.0	52.2	4.43	4.46	27.5	27.5	35	36
M2	14/2/2023	Mid-Flood	Fine	Moderate	12:46	1	M	0.5	2			7.58		6.48		21.44		52.4		4.49		27.5		37	
M3	14/2/2023	Mid-Flood	Cloudy	Moderate	12:53	0.6	M	0.3	1	0.299	90	7.52	7.53	6.84	6.83	22.83	22.83	68.9	68.7	5.84	5.83	35.9	36.2	27	27
M3	14/2/2023	Mid-Flood	Cloudy	Moderate	12:53	0.6	M	0.3	2			7.54		6.82		22.82		68.4		5.81		36.5		27	
M1	14/2/2023	Mid-Ebb	Fine	Moderate	6:40	1	M	0.5	1	0.067	93	7.36	7.35	7.27	7.27	22.49	22.48	50.8	50.5	3.77	3.76	21.2	21.2	35	35
M1	14/2/2023	Mid-Ebb	Fine	Moderate	6:40	1	M	0.5	2			7.34		7.26		22.46		50.2		3.74		21.2		35	
M2	14/2/2023	Mid-Ebb	Fine	Moderate	6:55	0.9	M	0.45	1	0.076	145	7.21	7.23	7.58	7.57	22.21	22.23	54.7	54.7	3.92	3.91	20.9	20.9	24	25
M2	14/2/2023	Mid-Ebb	Fine	Moderate	6:55	0.9	M	0.45	2			7.24		7.56		22.24		54.6		3.90		20.9		25	
M3	14/2/2023	Mid-Ebb	Cloudy	Moderate	6:36	0.4	M	0.2	1	0.254	265	7.35	7.36	5.22	5.22	17.59	17.59	62.1	61.9	5.28	5.27	24.9	25.0	35	34
M3	14/2/2023	Mid-Ebb	Cloudy	Moderate	6:36	0.4	M	0.2	2			7.36		5.22		17.58		61.6		5.26		25.0		32	

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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	16/2/2023	Mid-Flood	Cloudy	Moderate	5:58	2	M	1	1	0.343	239	7.64	7.65	9.26	9.25	15.23	15.24	51.6	51.4	4.55	4.54	24.6	24.9	23	24
M1	16/2/2023	Mid-Flood	Cloudy	Moderate	5:58	2	M	1	2			7.66		9.24		15.25		51.1		4.52		25.3		24	
M2	16/2/2023	Mid-Flood	Cloudy	Moderate	6:13	1	M	0.5	1	0.314	311	7.61	7.61	8.14	8.15	15.66	15.67	47.8	48.1	4.14	4.16	22.7	22.5	22	22
M2	16/2/2023	Mid-Flood	Cloudy	Moderate	6:13	1	M	0.5	2			7.61		8.16		15.67		48.4		4.17		22.4		22	
M3	16/2/2023	Mid-Flood	Cloudy	Moderate	5:58	0.2	M	0.1	1	0.27	94	7.57	7.57	7.03	7.04	15.89	15.89	45.6	46.0	4.09	4.11	29.3	29.0	30	31
M3	16/2/2023	Mid-Flood	Cloudy	Moderate	5:58	0.2	M	0.1	2			7.56		7.04		15.88		46.4		4.13		28.8		31	
M1	16/2/2023	Mid-Ebb	Cloudy	Moderate	11:34	2.2	M	1.1	1	0.274	199	7.51	7.52	6.83	6.84	21.43	21.44	63.3	62.9	5.67	5.65	26.7	26.8	31	30
M1	16/2/2023	Mid-Ebb	Cloudy	Moderate	11:34	2.2	M	1.1	2			7.52		6.84		21.44		62.5		5.62		27.0		28	
M2	16/2/2023	Mid-Ebb	Cloudy	Moderate	11:15	1.2	M	0.6	1	0.247	242	7.48	7.48	6.75	6.76	20.97	20.98	57.5	57.3	5.16	5.15	20.0	20.3	24	25
M2	16/2/2023	Mid-Ebb	Cloudy	Moderate	11:15	1.2	M	0.6	2			7.47		6.77		20.98		57.1		5.14		20.6		25	
M3	16/2/2023	Mid-Ebb	Cloudy	Moderate	11:14	0.4	M	0.2	1	0.207	267	7.41	7.42	6.12	6.12	20.81	20.82	53.7	53.5	4.73	4.71	31.5	31.8	31	33
M3	16/2/2023	Mid-Ebb	Cloudy	Moderate	11:14	0.4	M	0.2	2			7.43		6.11		20.82		53.2		4.69		32.1		35	

Remark

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For Flood Tide

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

For Ebb Tide

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

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

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	18/2/2023	Mid-Flood	Fine	Calm	7:57	2	M	1	1	0.392	259	7.61	7.61	9.58	9.57	19.66	19.67	50.1	50.3	4.28	4.29	26.8	27.1	30	31
M1	18/2/2023	Mid-Flood	Fine	Calm	7:57	2	M	1	2			7.61		9.56		19.67		50.5		4.30		27.5		31	
M2	18/2/2023	Mid-Flood	Fine	Calm	8:15	1	M	0.5	1	0.356	298	7.73	7.74	9.21	9.21	20.21	20.22	47.1	46.9	4.06	4.04	23.5	23.1	20	20
M2	18/2/2023	Mid-Flood	Fine	Calm	8:15	1	M	0.5	2			7.74		9.20		20.22		46.6		4.02		22.6		20	
M3	18/2/2023	Mid-Flood	Fine	Calm	7:52	0.2	M	0.1	1	0.319	89	7.55	7.56	8.31	8.32	19.52	19.53	44.6	45.0	3.75	3.77	30.8	30.1	25	24
M3	18/2/2023	Mid-Flood	Fine	Calm	7:52	0.2	M	0.1	2			7.57		8.32		19.53		45.4		3.79		29.4		23	
M1	18/2/2023	Mid-Ebb	Fine	Calm	13:13	2.2	M	1.1	1	0.326	211	7.51	7.52	8.77	8.76	24.19	24.19	59.8	59.6	5.05	5.04	19.3	19.6	23	22
M1	18/2/2023	Mid-Ebb	Fine	Calm	13:13	2.2	M	1.1	2			7.52		8.75		24.18		59.3		5.02		19.8		20	
M2	18/2/2023	Mid-Ebb	Fine	Calm	12:54	1.2	M	0.6	1	0.308	243	7.59	7.59	8.61	8.62	23.62	23.63	55.9	56.3	4.75	4.77	20.3	20.2	24	24
M2	18/2/2023	Mid-Ebb	Fine	Calm	12:54	1.2	M	0.6	2			7.58		8.62		23.63		56.6		4.79		20.1		24	
M3	18/2/2023	Mid-Ebb	Fine	Calm	12:54	0.6	M	0.3	1	0.282	276	7.66	7.66	6.53	6.54	24.05	24.06	61.8	62.0	5.21	5.22	26.6	26.4	24	24
M3	18/2/2023	Mid-Ebb	Fine	Calm	12:54	0.6	M	0.3	2			7.66		6.54		24.07		62.2		5.23		26.2		23	

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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	21/2/2023	Mid-Flood	Fine	Smooth	9:33	2	M	1	1	0.39	274	7.73	7.72	11.13	11.14	20.09	20.10	54.2	54.6	4.53	4.55	28.4	27.9	37	36
M1	21/2/2023	Mid-Flood	Fine	Smooth	9:33	2	M	1	2			7.71		11.14		20.11		54.9		4.57		27.5		35	
M2	21/2/2023	Mid-Flood	Fine	Smooth	9:51	1.2	M	0.6	1	0.361	315	7.89	7.89	10.63	10.64	20.94	20.95	51.5	51.9	4.32	4.34	25.3	25.0	22	22
M2	21/2/2023	Mid-Flood	Fine	Smooth	9:51	1.2	M	0.6	2			7.89		10.65		20.95		52.2		4.35		24.7		21	
M3	21/2/2023	Mid-Flood	Fine	Smooth	9:39	0.2	M	0.1	1	0.344	98	7.85	7.85	9.68	9.68	20.22	20.23	48.1	48.4	4.01	4.03	38.8	39.1	33	33
M3	21/2/2023	Mid-Flood	Fine	Smooth	9:39	0.2	M	0.1	2			7.84		9.67		20.23		48.7		4.04		39.3		33	
M1	21/2/2023	Mid-Ebb	Fine	Smooth	15:28	2.2	M	1.1	1	0.348	199	7.59	7.59	8.09	8.09	23.74	23.75	74.9	75.2	6.19	6.21	24.1	23.8	23	25
M1	21/2/2023	Mid-Ebb	Fine	Smooth	15:28	2.2	M	1.1	2			7.58		8.08		23.75		75.5		6.23		23.4		26	
M2	21/2/2023	Mid-Ebb	Fine	Smooth	15:10	1.2	M	0.6	1	0.334	251	7.76	7.76	8.21	8.22	23.58	23.59	72.9	73.1	6.05	6.06	21.7	21.4	23	24
M2	21/2/2023	Mid-Ebb	Fine	Smooth	15:10	1.2	M	0.6	2			7.75		8.22		23.59		73.3		6.07		21.2		24	
M3	21/2/2023	Mid-Ebb	Fine	Smooth	15:03	0.4	M	0.2	1	0.313	267	7.66	7.65	7.16	7.16	23.91	23.92	71.7	71.3	5.93	5.91	35.3	35.5	45	44
M3	21/2/2023	Mid-Ebb	Fine	Smooth	15:03	0.4	M	0.2	2			7.64		7.16		23.92		70.9		5.88		35.7		42	

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For Flood Tide

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

For Ebb Tide

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

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

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	23/2/2023	Mid-Flood	Fine	Moderate	10:29	1.2	M	0.6	1	0.073	134	7.94	7.93	9.76	9.75	19.48	19.49	95.9	95.7	8.33	8.31	24.8	24.9	21	21
M1	23/2/2023	Mid-Flood	Fine	Moderate	10:29	1.2	M	0.6	2			7.92		9.74		19.49		95.4		8.29		24.9		20	
M2	23/2/2023	Mid-Flood	Fine	Moderate	10:58	0.9	M	0.45	1	0.068	77	7.87	7.85	9.64	9.65	19.04	19.05	94.1	94.2	8.27	8.28	25.8	25.8	39	38
M2	23/2/2023	Mid-Flood	Fine	Moderate	10:58	0.9	M	0.45	2			7.82		9.66		19.06		94.2		8.28		25.8		36	
M3	23/2/2023	Mid-Flood	Fine	Smooth	10:26	0.4	M	0.2	1	0.36	91	7.54	7.54	7.65	7.66	19.45	19.46	76.9	76.6	6.79	6.78	33.8	33.9	40	38
M3	23/2/2023	Mid-Flood	Fine	Smooth	10:26	0.4	M	0.2	2			7.54		7.66		19.46		76.3		6.76		34.0		35	
M1	23/2/2023	Mid-Ebb	Fine	Moderate	16:49	1	M	0.5	1	0.106	65	8.13	8.14	9.73	9.72	19.14	19.13	90.8	90.8	7.84	7.83	22.8	22.8	45	45
M1	23/2/2023	Mid-Ebb	Fine	Moderate	16:49	1	M	0.5	2			8.14		9.71		19.12		90.7		7.82		22.8		44	
M2	23/2/2023	Mid-Ebb	Fine	Moderate	16:28	0.7	M	0.35	1	0.129	87	8.06	8.05	9.66	9.64	19.63	19.65	95.5	95.5	8.27	8.27	23.8	23.8	23	22
M2	23/2/2023	Mid-Ebb	Fine	Moderate	16:28	0.7	M	0.35	2			8.04		9.61		19.66		95.4		8.26		23.8		21	
M3	23/2/2023	Mid-Ebb	Fine	Smooth	16:14	0.6	M	0.3	1	0.346	277	7.41	7.42	6.54	6.54	22.87	22.88	80.1	80.3	7.09	7.11	28.7	29.0	34	35
M3	23/2/2023	Mid-Ebb	Fine	Smooth	16:14	0.6	M	0.3	2			7.43		6.53		22.89		80.5		7.12		29.3		35	

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	25/2/2023	Mid-Flood	Fine	Calm	11:06	2.2	M	1.1	1	0.303	259	7.61	7.62	9.14	9.15	19.16	19.16	70.7	70.5	5.86	5.85	28.6	29.1	28	32
M1	25/2/2023	Mid-Flood	Fine	Calm	11:06	2.2	M	1.1	2			7.63		9.15		19.15		70.3		5.84		29.7		36	
M2	25/2/2023	Mid-Flood	Fine	Calm	11:23	1.2	M	0.6	1	0.286	303	7.58	7.59	8.73	8.73	19.83	19.84	75.8	75.7	6.21	6.20	22.8	22.9	25	22
M2	25/2/2023	Mid-Flood	Fine	Calm	11:23	1.2	M	0.6	2			7.59		8.72		19.84		75.5		6.19		23.0		19	
M3	25/2/2023	Mid-Flood	Fine	Calm	10:59	0.4	M	0.2	1	0.266	81	7.50	7.51	8.07	8.07	19.31	19.32	73.4	73.0	6.11	6.09	36.4	36.8	30	28
M3	25/2/2023	Mid-Flood	Fine	Calm	10:59	0.4	M	0.2	2			7.51		8.06		19.33		72.5		6.06		37.1		26	
M1	25/2/2023	Mid-Ebb	Fine	Calm	17:33	2.2	M	1.1	1	0.316	227	7.45	7.45	7.81	7.81	22.71	22.72	87.8	87.7	7.36	7.35	26.4	26.8	26	21
M1	25/2/2023	Mid-Ebb	Fine	Calm	17:33	2.2	M	1.1	2			7.44		7.80		22.73		87.5		7.34		27.2		16	
M2	25/2/2023	Mid-Ebb	Fine	Calm	17:17	1.2	M	0.6	1	0.293	236	7.47	7.48	7.26	7.26	22.55	22.55	85.9	85.6	7.24	7.22	24.5	24.2	20	26
M2	25/2/2023	Mid-Ebb	Fine	Calm	17:17	1.2	M	0.6	2			7.48		7.25		22.54		85.2		7.19		24.0		32	
M3	25/2/2023	Mid-Ebb	Fine	Calm	17:19	0.4	M	0.2	1	0.258	268	7.34	7.35	6.38	6.38	22.87	22.87	82.8	83.1	7.09	7.12	27.3	27.6	30	28
M3	25/2/2023	Mid-Ebb	Fine	Calm	17:19	0.4	M	0.2	2			7.36		6.37		22.86		83.4		7.14		27.9		26	

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	28/2/2023	Mid-Flood	Fine	Smooth	7:27	2.2	M	1.1	1	0.228	251	7.81	7.82	10.05	10.05	15.89	15.90	53.7	53.5	4.67	4.66	18.4	18.0	18	18
M1	28/2/2023	Mid-Flood	Fine	Smooth	7:27	2.2	M	1.1	2			7.83		10.04		15.91		53.3		4.65		17.7		17	
M2	28/2/2023	Mid-Flood	Fine	Smooth	7:48	1.2	M	0.6	1	0.213	290	7.75	7.75	9.53	9.54	16.33	16.34	48.6	48.3	4.22	4.20	14.2	14.6	12	12
M2	28/2/2023	Mid-Flood	Fine	Smooth	7:48	1.2	M	0.6	2			7.74		9.54		16.34		47.9		4.18		14.9		12	
M3	28/2/2023	Mid-Flood	Fine	Moderate	7:18	1.1	M	0.55	1	0.066	93	7.55	7.55	9.26	9.25	19.66	19.66	49.0	48.9	4.24	4.23	25.1	25.2	29	28
M3	28/2/2023	Mid-Flood	Fine	Moderate	7:18	1.1	M	0.55	2			7.54		9.24		19.66		48.7		4.21		25.2		27	
M1	28/2/2023	Mid-Ebb	Fine	Smooth	20:40	2.4	M	1.2	1	0.318	204	7.68	7.67	8.94	8.94	19.38	19.38	63.4	63.8	5.49	5.51	20.3	20.6	21	22
M1	28/2/2023	Mid-Ebb	Fine	Smooth	20:40	2.4	M	1.2	2			7.66		8.93		19.37		64.1		5.53		20.9		23	
M2	28/2/2023	Mid-Ebb	Fine	Smooth	20:19	1.2	M	0.6	1	0.33	242	7.59	7.59	8.21	8.22	19.56	19.56	61.2	60.9	5.35	5.33	18.8	19.0	15	15
M2	28/2/2023	Mid-Ebb	Fine	Smooth	20:19	1.2	M	0.6	2			7.59		8.23		19.56		60.6		5.31		19.1		15	
M3	28/2/2023	Mid-Ebb	Fine	Moderate	20:39	0.9	M	0.45	1	0.073	134	7.53	7.53	8.38	8.36	20.19	20.19	56.2	56.3	4.87	4.87	21.7	21.8	25	26
M3	28/2/2023	Mid-Ebb	Fine	Moderate	20:39	0.9	M	0.45	2			7.52		8.34		20.18		56.4		4.86		21.8		26	

Remark

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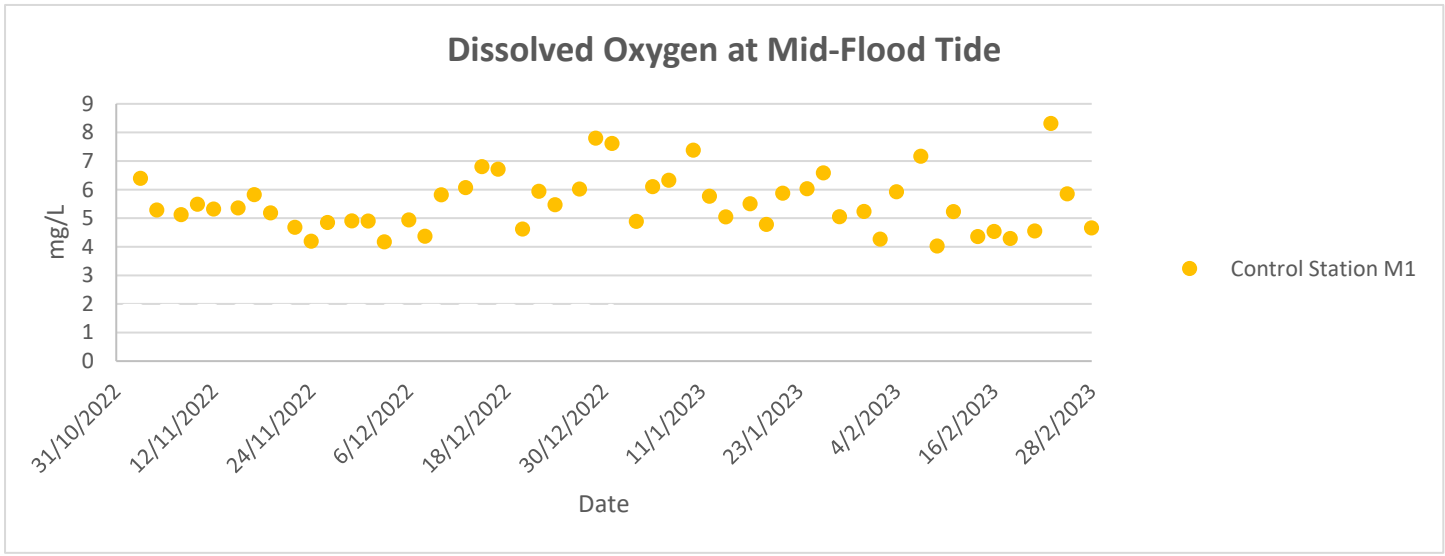
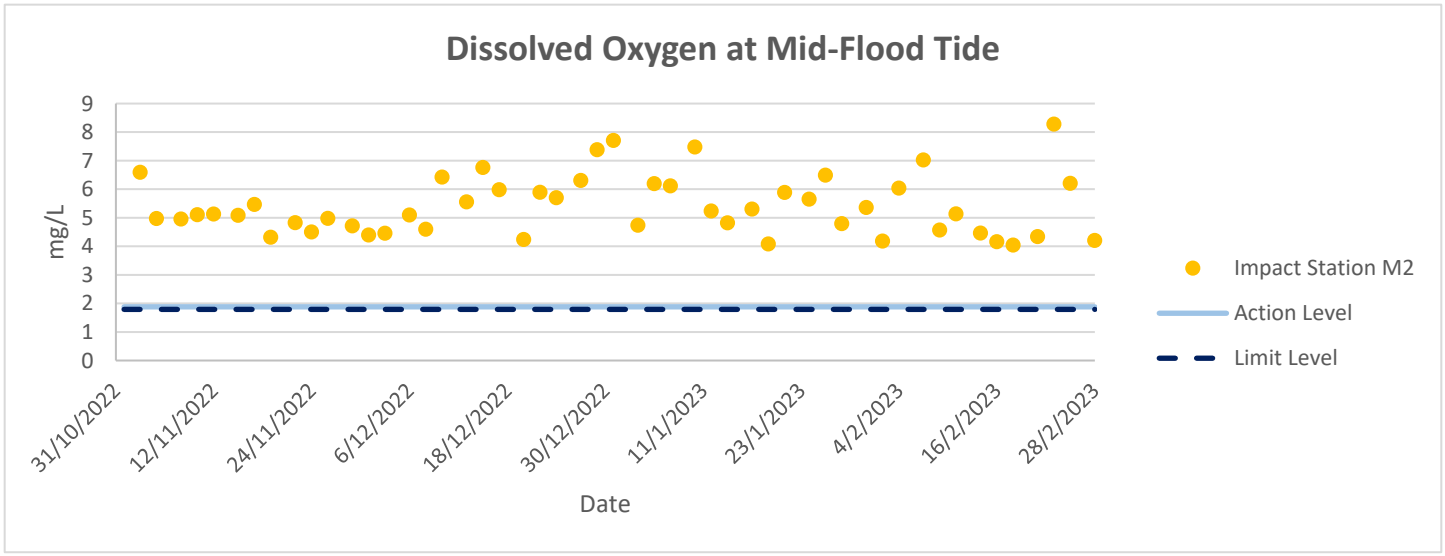
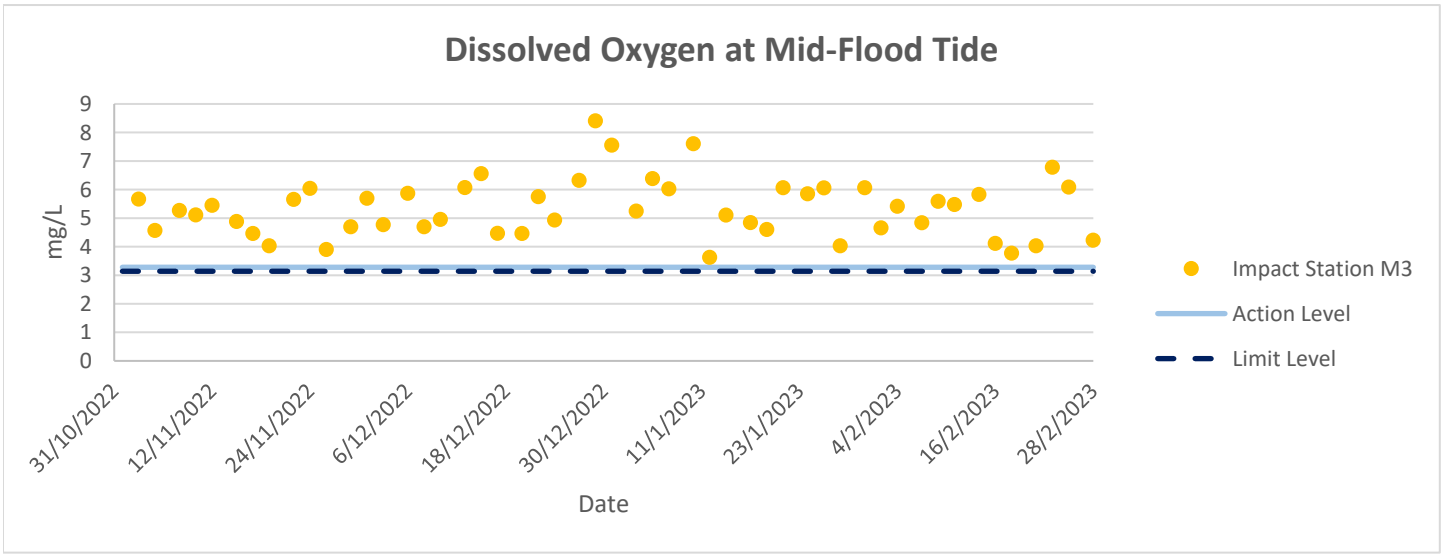
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

For Ebb Tide

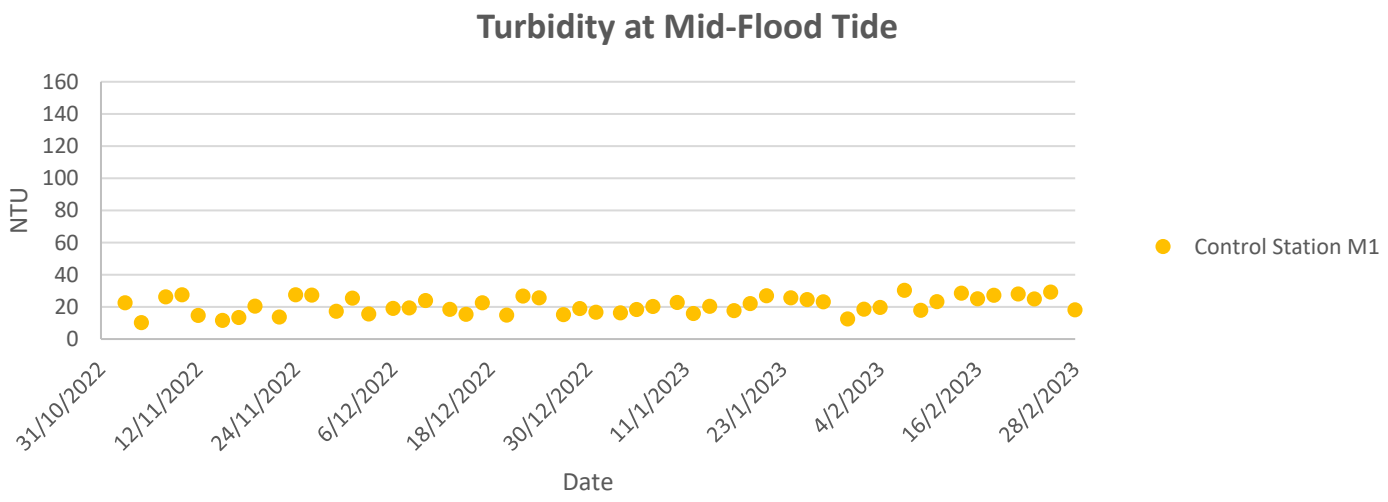
Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

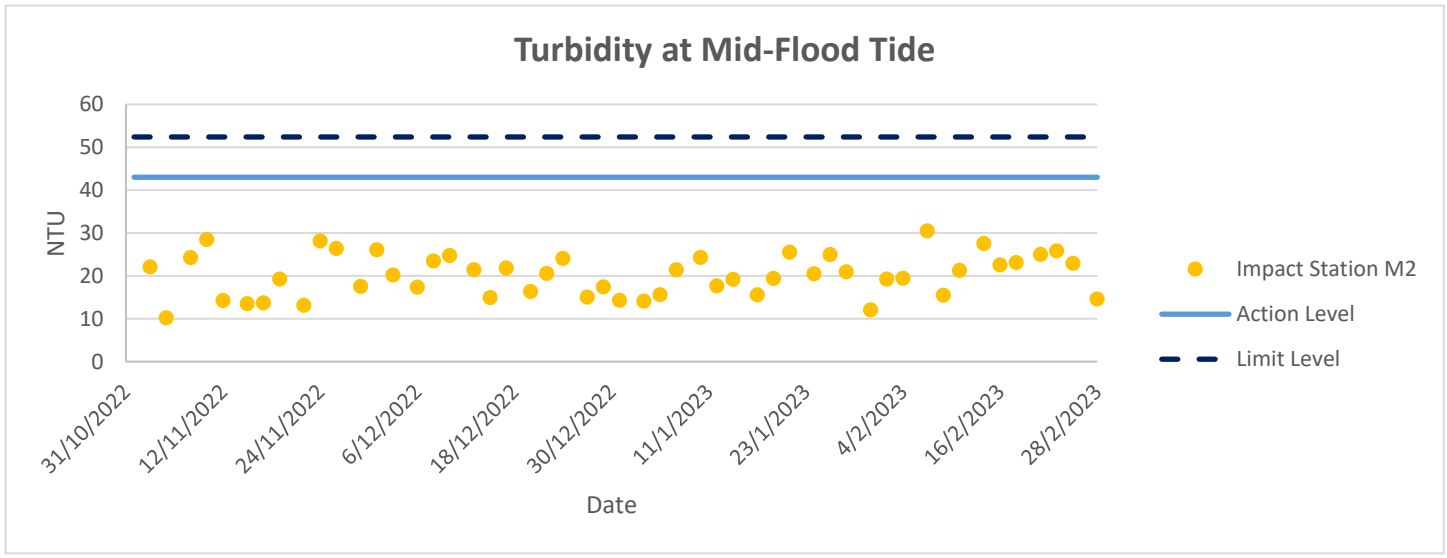


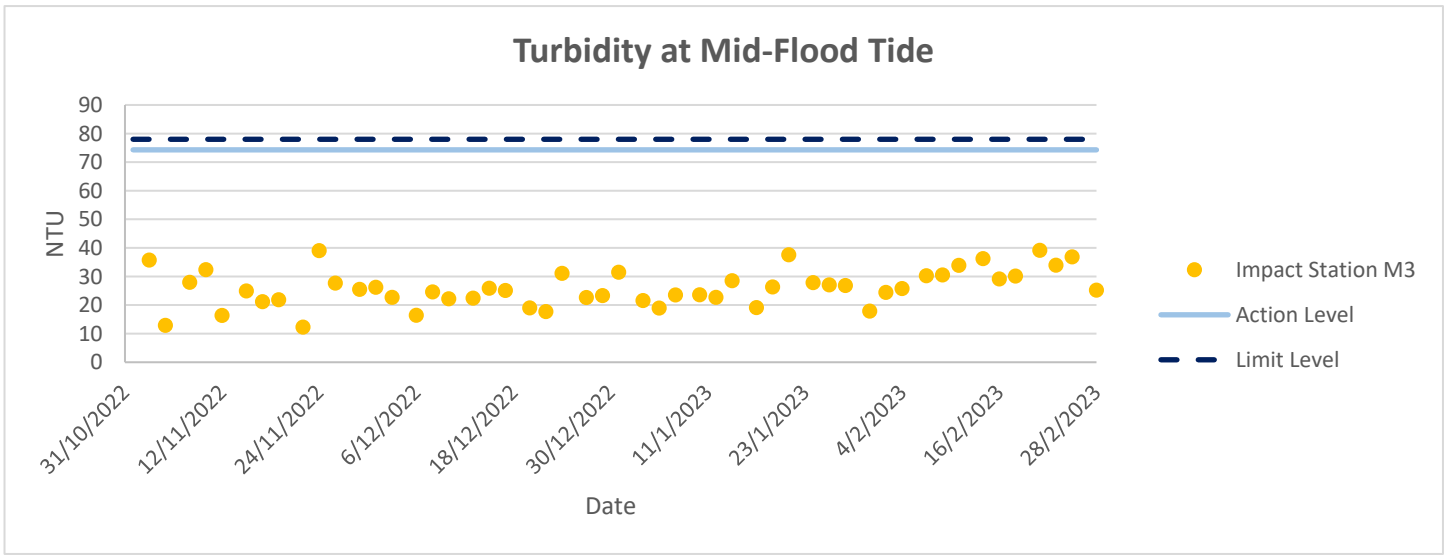




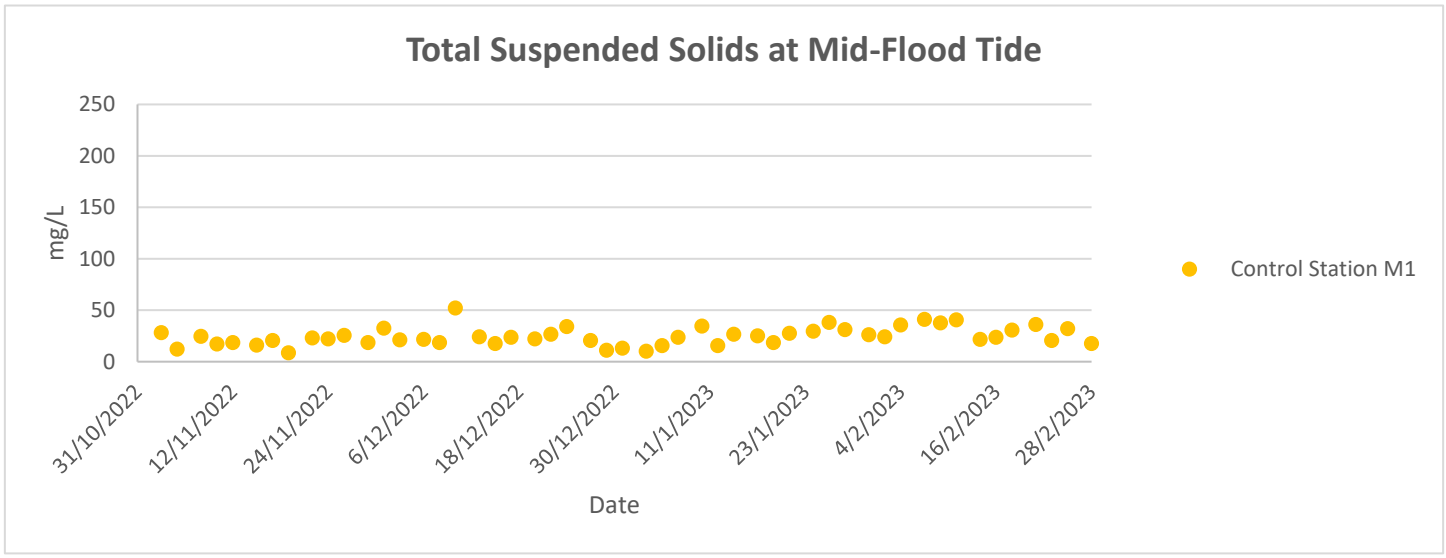
Water Quality Monitoring Results

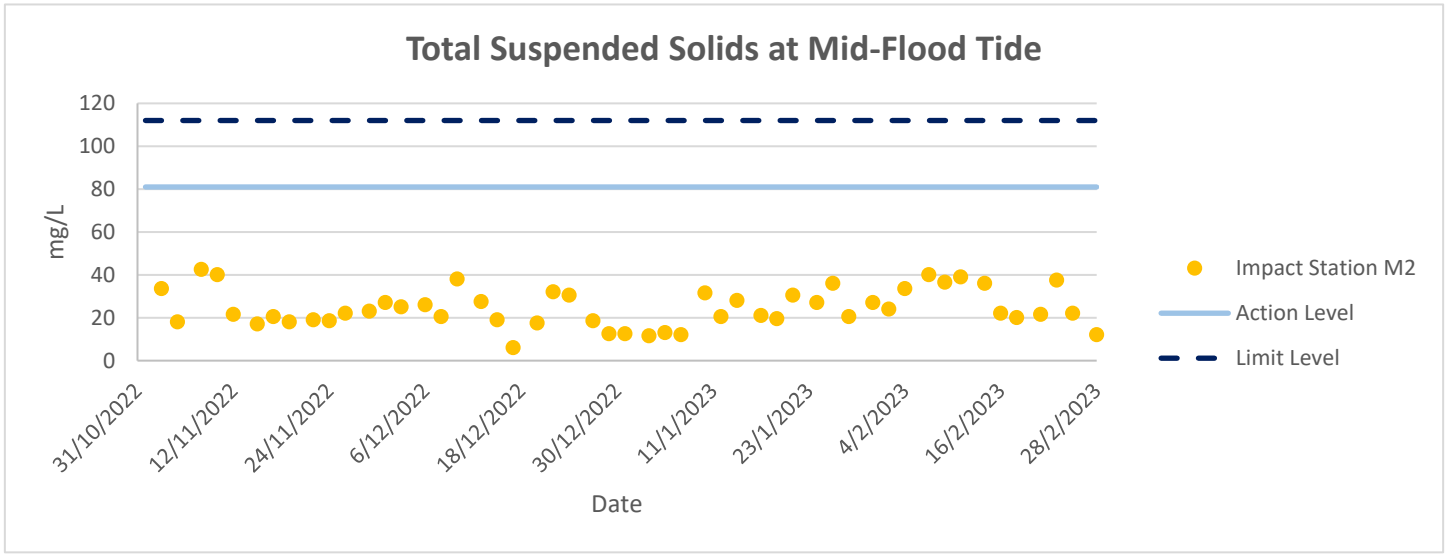


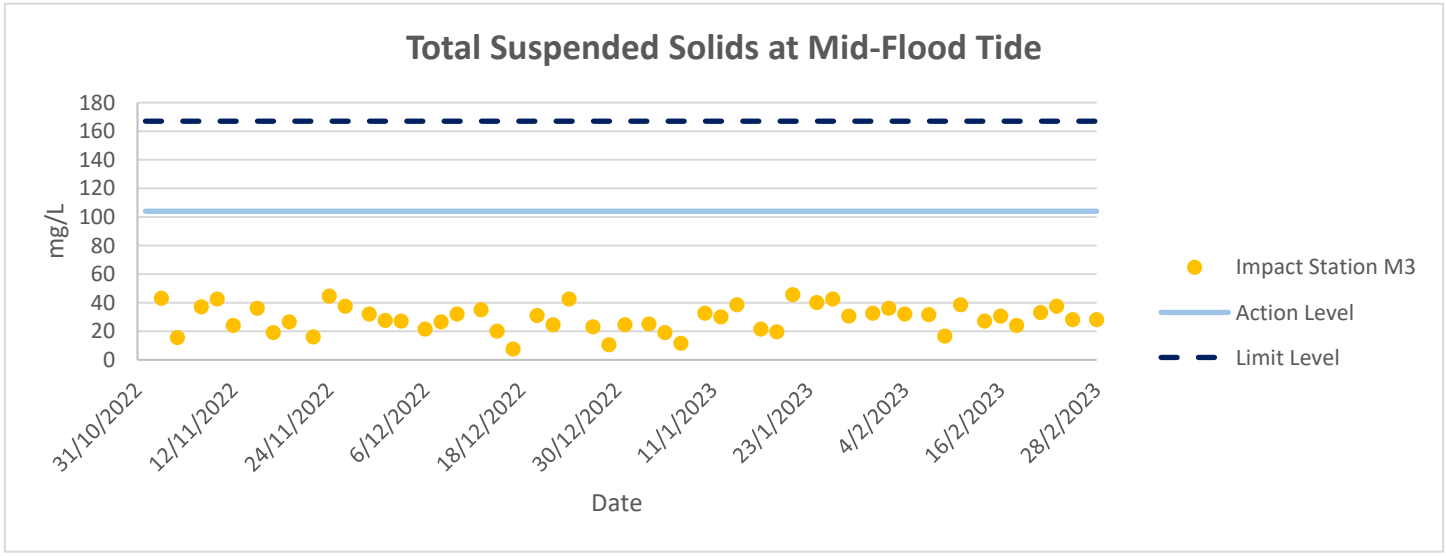




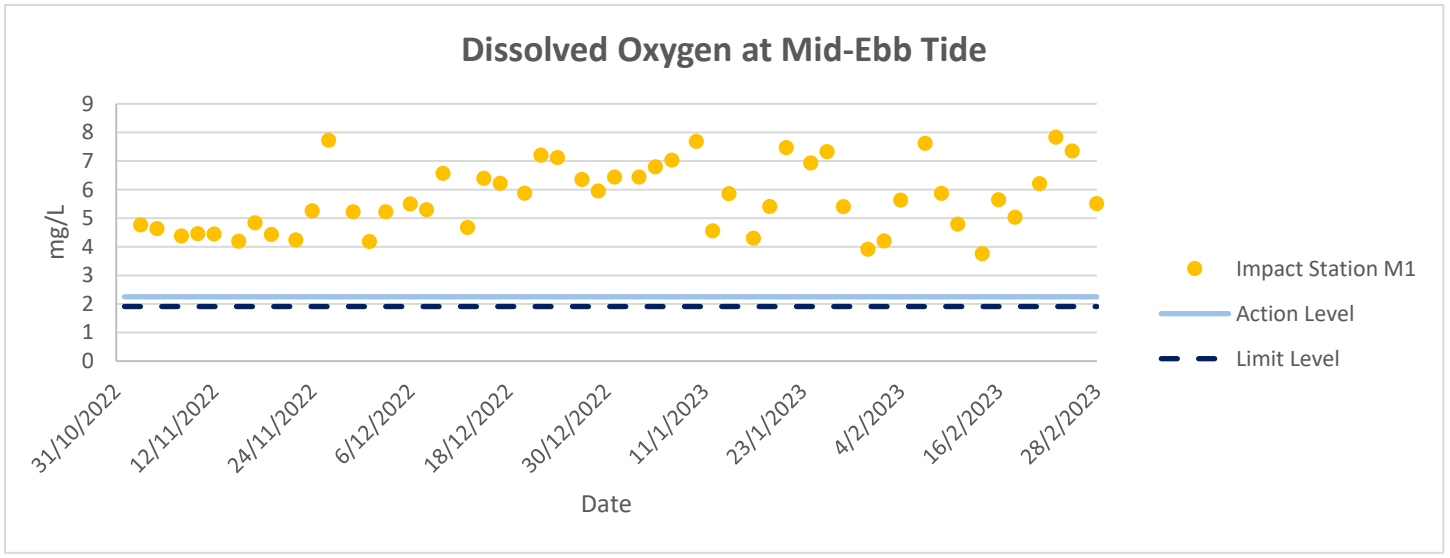
Water Quality Monitoring Results

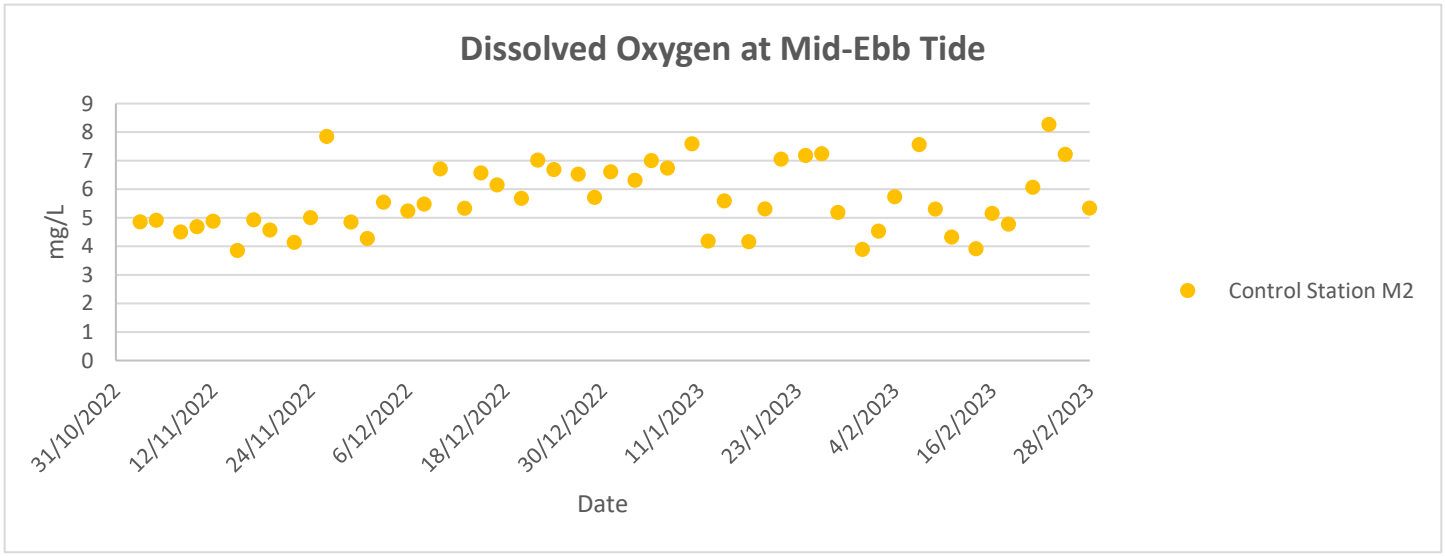


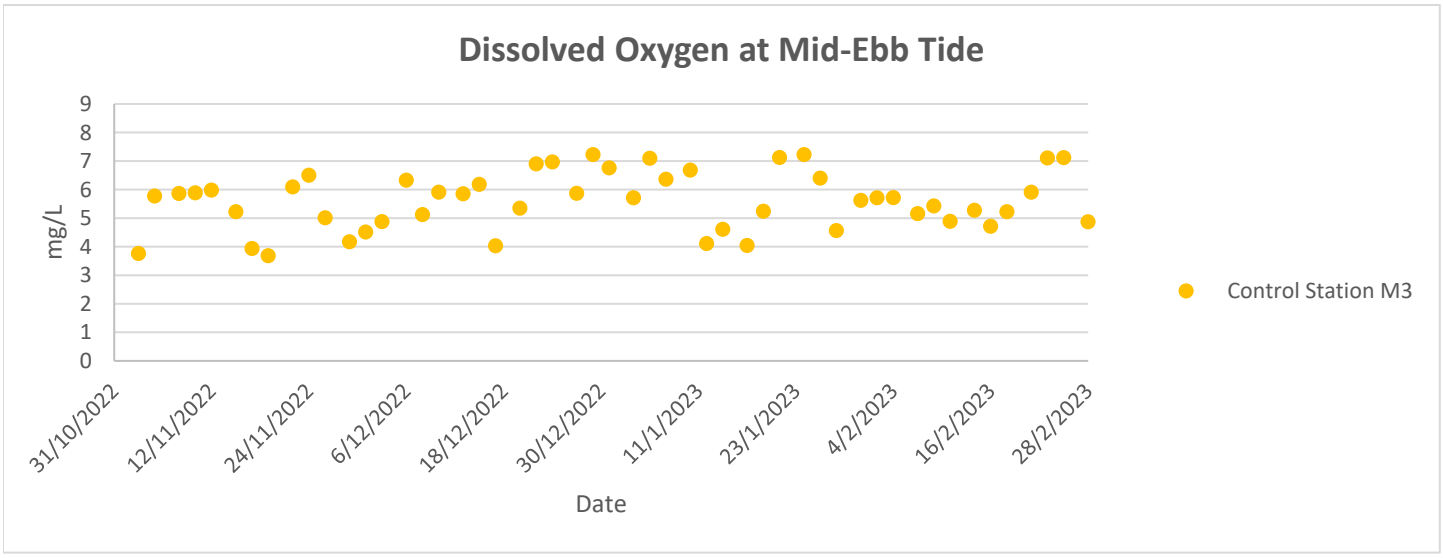




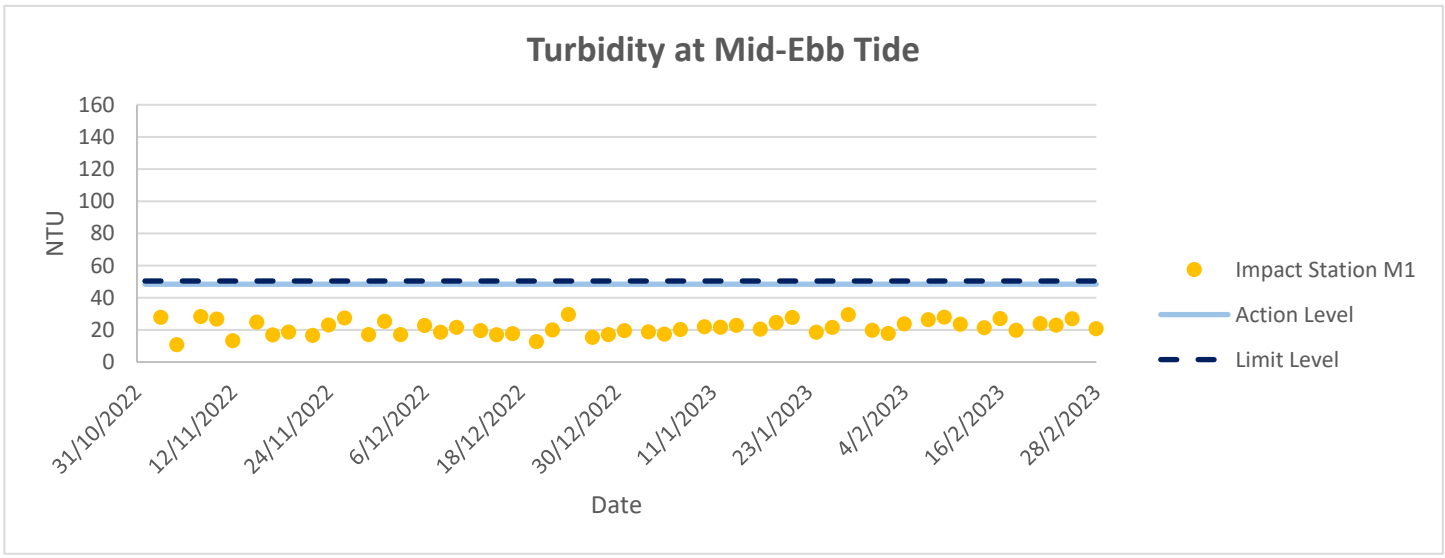
Water Quality Monitoring Results

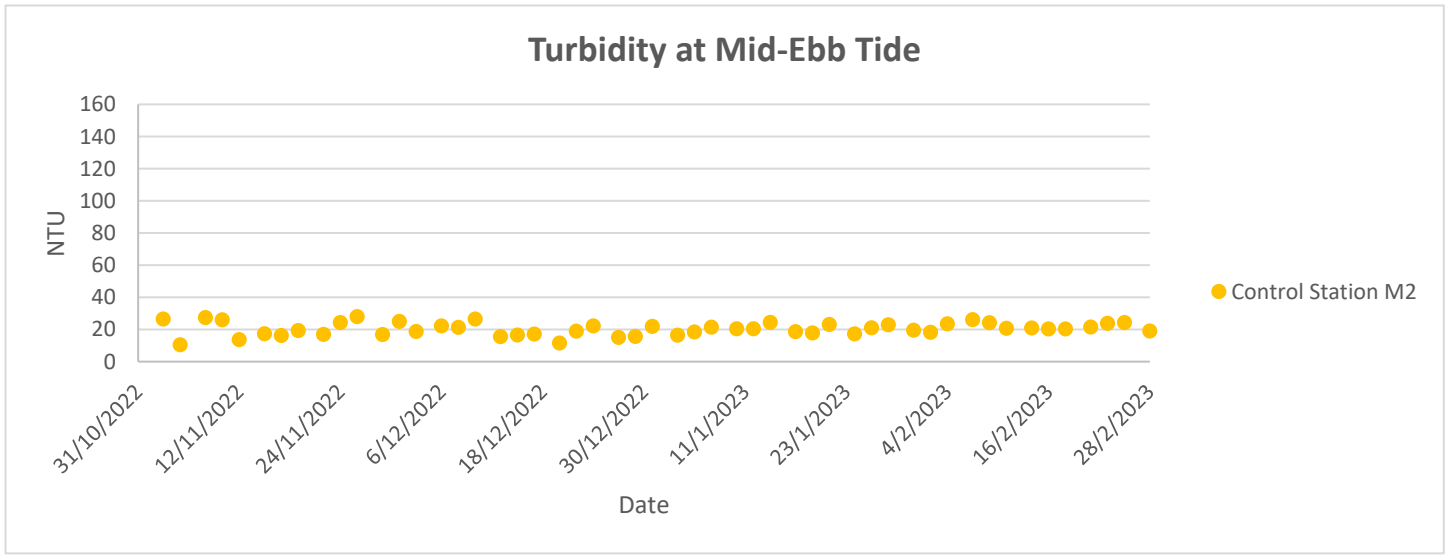


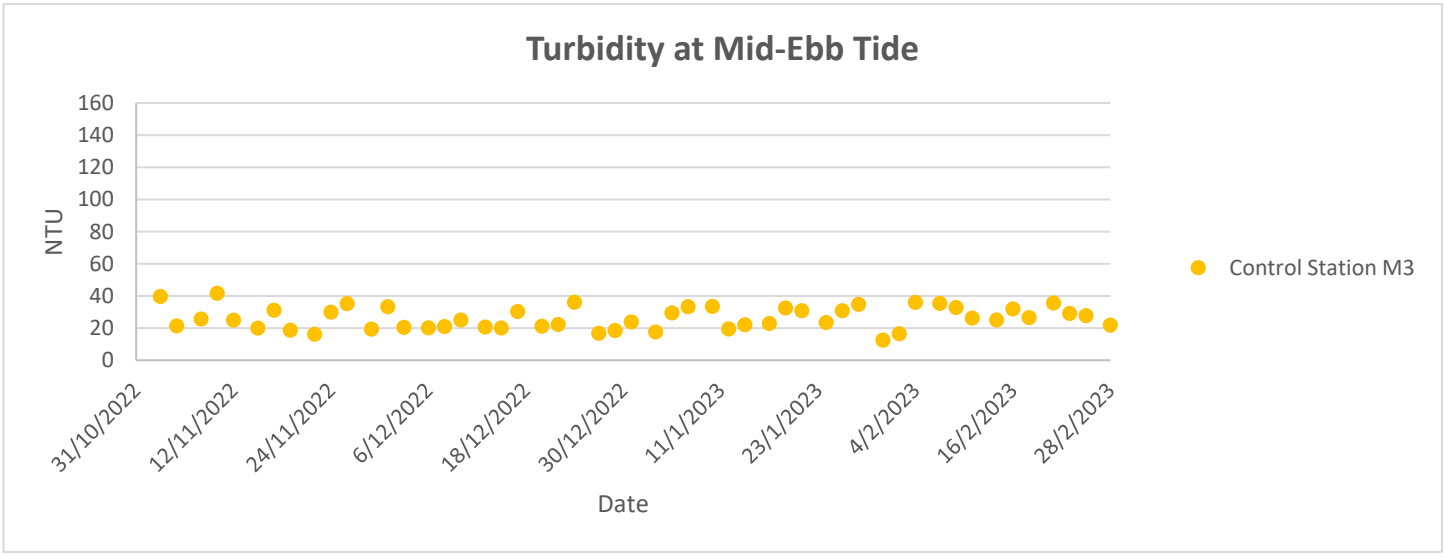




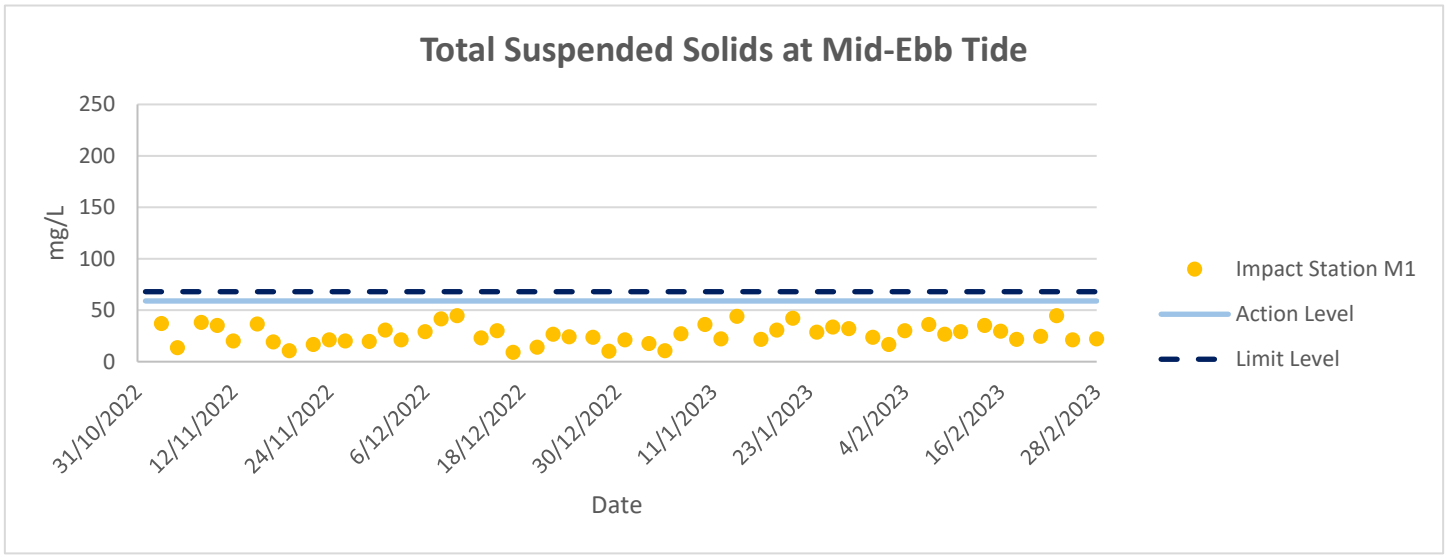
Water Quality Monitoring Results

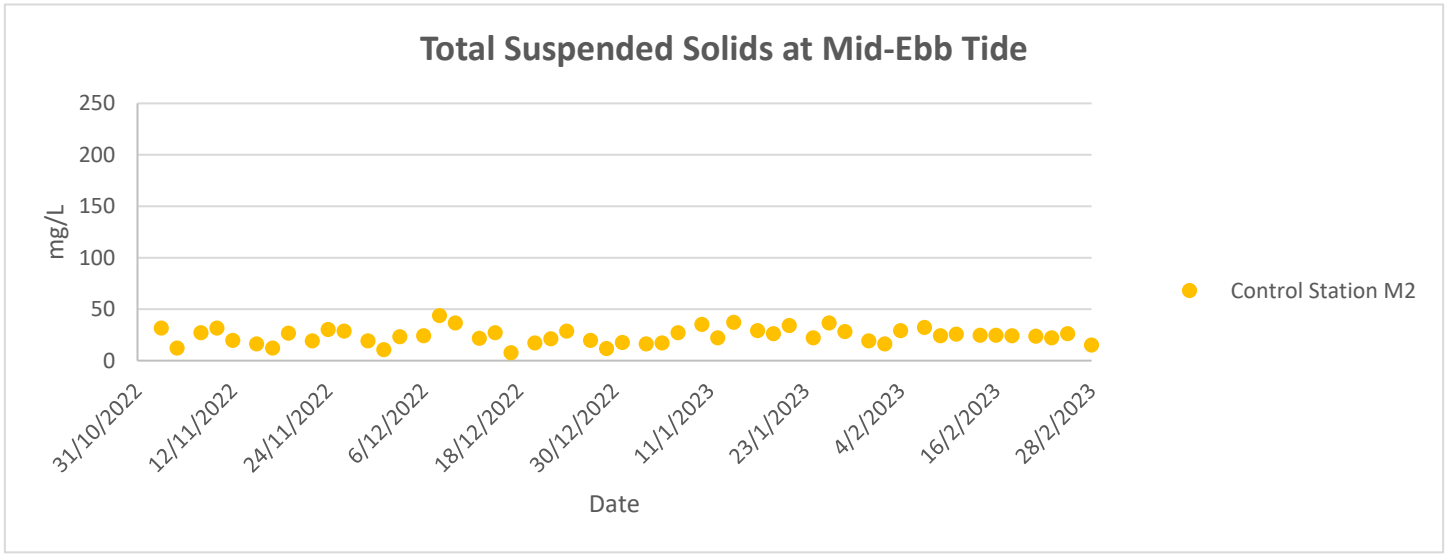


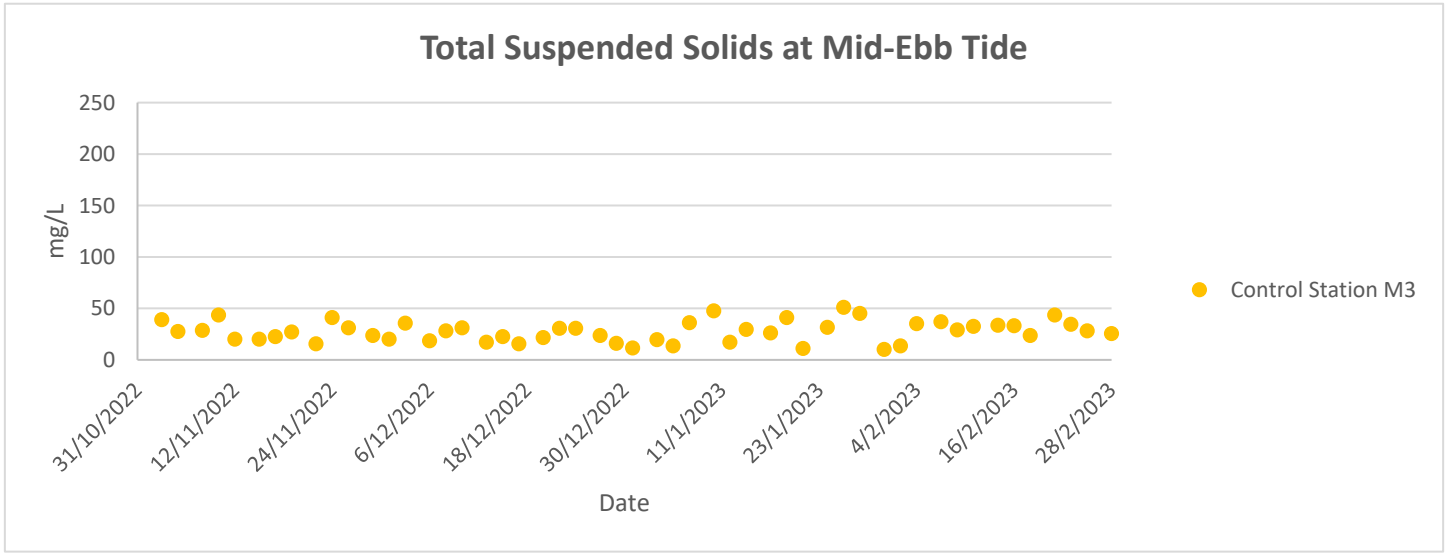




Water Quality Monitoring Results







Water Quality Monitoring Results

Ecology Monitoring Results

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

Appendix F.1 Ecological Bird Monitoring Result (13 and 16 February 2023)

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
13/02/2023	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	6	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Eurasian Tree Sparrow	*Passer montanus*	3	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Transect	FLW	In flight	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Chinese Bulbul	*Pycnonotus sinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Transect	FLW	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	1	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Red-whiskered Bulbul	*Pycnonotus jocosus*	2	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW1	Pond-FLW	Chinese Bulbul	*Pycnonotus sinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Masked Laughingthrush	*Garrulax perspicillatus*	1	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Black Kite	*Milvus migrans*	1	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW2	Pond-FLW	Japanese White-eye	*Zosterops japonicus*	1	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	1	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW3	Pond-FLW	Black Kite	*Milvus migrans*	2	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Common Moorhen	*Gallinula chloropus*	1	Common	R	-	-	-	LC	LC	N	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Black Kite	*Milvus migrans*	1	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	5	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW4	Pond-FLW	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Common Kingfisher	*Alcedo atthis*	1	Common	PM,WV	-	-	-	LC	LC	N	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	White-breasted Waterhen	*Amaurornis phoenicurus*	2	Common	R	-	-	-	LC	LC	N	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Great Egret	*Ardea alba*	15	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Black-headed Gull	*Chroicocephalus ridibundus*	30	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Black-winged Stilt	*Himantopus himantopus*	3	Common	PM	RC	-	-	LC	LC	Y	Y

13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Great Cormorant	*Phalacrocorax carbo*	11	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW5	Pond-FLW	Spotted Dove	*Spilopelia chinensis*	1	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	White Wagtail	*Motacilla alba*	2	Common	PM,WV	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Red-whiskered Bulbul	*Pycnonotus jocosus*	2	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW6	Pond-FLW	Little Grebe	*Tachybaptus ruficollis*	2	Common	R	LC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Crested Myna	*Acridotheres cristatellus*	3	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
16/02/2023	Nighttime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	Oriental Magpie Robin	*Copsychus saularis*	1	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	FLW	Point Count	FLW7	Pond-FLW	White Wagtail	*Motacilla alba*	2	Common	PM,WV	-	-	-	LC	LC	N	N
16/02/2023	Nighttime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Great Egret	*Ardea alba*	2	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Greater Coucal	*Centropus sinensis*	1	Common	R	-	Class II	Vulnerable	LC	LC	Y	N
13/02/2023	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Black-headed Gull	*Chroicocephalus ridibundus*	3	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Asian Koel	*Eudynamys scolopaceus*	1	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	White Wagtail	*Motacilla alba*	2	Common	PM,WV	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	12	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Transect	NSW	Modified Watercourse	Chinese Bulbul	*Pycnonotus sinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Chinese Pond Heron	*Ardeola bacchus*	4	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Black Kite	*Milvus migrans*	1	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Great Cormorant	*Phalacrocorax carbo*	56	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	NSW1	Pond-NSW	Daurian Redstart	*Phoenicurus auroreus*	2	Common	WV	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Black-headed Gull	*Chroicocephalus ridibundus*	50	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Common Moorhen	*Gallinula chloropus*	6	Common	R	-	-	-	LC	LC	N	Y

13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Black-winged Stilt	*Himantopus himantopus*	7	Common	PM	RC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW1	In flight	Great Cormorant	*Phalacrocorax carbo*	1200	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Pied Avocet	*Recurvirostra avosetta*	2	Abundant	WV	RC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW1	Modified Watercourse	Marsh Sandpiper	*Tringa stagnatilis*	4	Common	PM,WV	RC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Greater Coucal	*Centropus sinensis*	1	Common	R	-	Class II	Vulnerable	LC	LC	Y	N
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Black-headed Gull	*Chroicocephalus ridibundus*	4	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	4	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Red-whiskered Bulbul	*Pycnonotus jocosus*	2	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW2	Modified Watercourse	Chinese Bulbul	*Pycnonotus sinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	White-breasted Waterhen	*Amaurornis phoenicurus*	4	Common	R	-	-	-	LC	LC	N	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Grey Heron	*Ardea cinerea*	6	Common	WV	PRC	-	-	LC	LC	Y	Y
16/02/2023	Nighttime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Grey Heron	*Ardea cinerea*	2	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Black-headed Gull	*Chroicocephalus ridibundus*	27	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Common Moorhen	*Gallinula chloropus*	6	Common	R	-	-	-	LC	LC	N	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Black-winged Stilt	*Himantopus himantopus*	9	Common	PM	RC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Mangrove	Great Cormorant	*Phalacrocorax carbo*	8	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	NSW	Point Count	SP/NSW3	Modified Watercourse	Marsh Sandpiper	*Tringa stagnatilis*	7	Common	PM,WV	RC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Great Egret	*Ardea alba*	2	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Grey Heron	*Ardea cinerea*	4	Common	WV	PRC	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Chinese Pond Heron	*Ardeola bacchus*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
13/02/2023	Daytime	Dry Season	YLIE	Transect	YLIE-CW	Modified Watercourse	Great Cormorant	*Phalacrocorax carbo*	6	Common	WV	PRC	-	-	LC	LC	Y	Y
16/02/2023	Nighttime	Dry Season	YLIE	Transect	YLIE-CW	Mangrove	Great Cormorant	*Phalacrocorax carbo*	9	Common	WV	PRC	-	-	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 (13 and 16 February 2023)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Acridotheres cristatellus	8	0.005219	-5.25554	-0.02743	0.144139
Alcedo atthis	1	0.000652	-7.33498	-0.00478	0.035096
Amaurornis phoenicurus	6	0.003914	-5.54322	-0.0217	0.120263
Ardea alba	17	0.011089	-4.50177	-0.04992	0.224736
Ardea cinerea	15	0.009785	-4.62693	-0.04527	0.209476
Ardeola bacchus	6	0.003914	-5.54322	-0.0217	0.120263
Centropus sinensis	1	0.000652	-7.33498	-0.00478	0.035096
Chroicocephalus ridibundus	111	0.072407	-2.62545	-0.1901	0.499102
Copsychus saularis	1	0.000652	-7.33498	-0.00478	0.035096
Egretta garzetta	2	0.001305	-6.64183	-0.00867	0.057552
Gallinula chloropus	13	0.00848	-4.77003	-0.04045	0.19295
Garrulax perspicillatus	1	0.000652	-7.33498	-0.00478	0.035096
Himantopus himantopus	19	0.012394	-4.39054	-0.05442	0.238917
Milvus migrans	5	0.003262	-5.72554	-0.01867	0.106921
Motacilla alba	6	0.003914	-5.54322	-0.0217	0.120263
Phalacrocorax carbo	1285	0.838226	-0.17647	-0.14792	0.026103
Phoenicurus auroreus	2	0.001305	-6.64183	-0.00867	0.057552
Prinia inornata	7	0.004566	-5.38907	-0.02461	0.132612
Pycnonotus jocosus	6	0.003914	-5.54322	-0.0217	0.120263
Pycnonotus sinensis	4	0.002609	-5.94869	-0.01552	0.092334
Recurvirostra avosetta	2	0.001305	-6.64183	-0.00867	0.057552
Spilopelia chinensis	1	0.000652	-7.33498	-0.00478	0.035096
Tachybaptus ruficollis	2	0.001305	-6.64183	-0.00867	0.057552
Tringa stagnatilis	11	0.007175	-4.93709	-0.03543	0.174901
Zosterops japonicus	1	0.000652	-7.33498	-0.00478	0.035096
Total	**1533**	**1**	**-141.097**	**-0.79989**	**2.96403**
Richness	**25**				
SS	**2.96**				
SQ	**0.64**				
H	**0.8**				
S^2_H	**0.002**				

Appendix F.2.2 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Point Count Method) in All Habitats (13 and 16 February 2023)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Ardea alba	17	0.011518	-4.46388	-0.05141	0.229502
Ardea cinerea	15	0.010163	-4.58904	-0.04664	0.214017
Ardeola bacchus	6	0.004065	-5.50533	-0.02238	0.123206
Centropus sinensis	1	0.000678	-7.29709	-0.00494	0.036076
Chroicocephalus ridibundus	111	0.075203	-2.58756	-0.19459	0.503521
Egretta garzetta	2	0.001355	-6.60394	-0.00895	0.059095
Himantopus himantopus	19	0.012873	-4.35265	-0.05603	0.243879
Milvus migrans	5	0.003388	-5.68765	-0.01927	0.109585
Phalacrocorax carbo	1285	0.870596	-0.13858	-0.12064	0.016719

Recurvirostra avosetta	2	0.001355	-6.60394	-0.00895	0.059095
Tachybaptus ruficollis	2	0.001355	-6.60394	-0.00895	0.059095
Tringa stagnatilis	11	0.007453	-4.8992	-0.03651	0.178878
Total	**1476**	**1**	**-59.3328**	**-0.57926**	**1.832667**
Richness	**12**				
SS	**1.83**				
SQ	**0.34**				
H	**0.58**				
S^2_H	**0.001**				

Appendix F.2.3 Ecological Bird Monitoring Diversity (All avifauna species in Transect Walk Method) in All Habitats (13 and 16 February 2023)

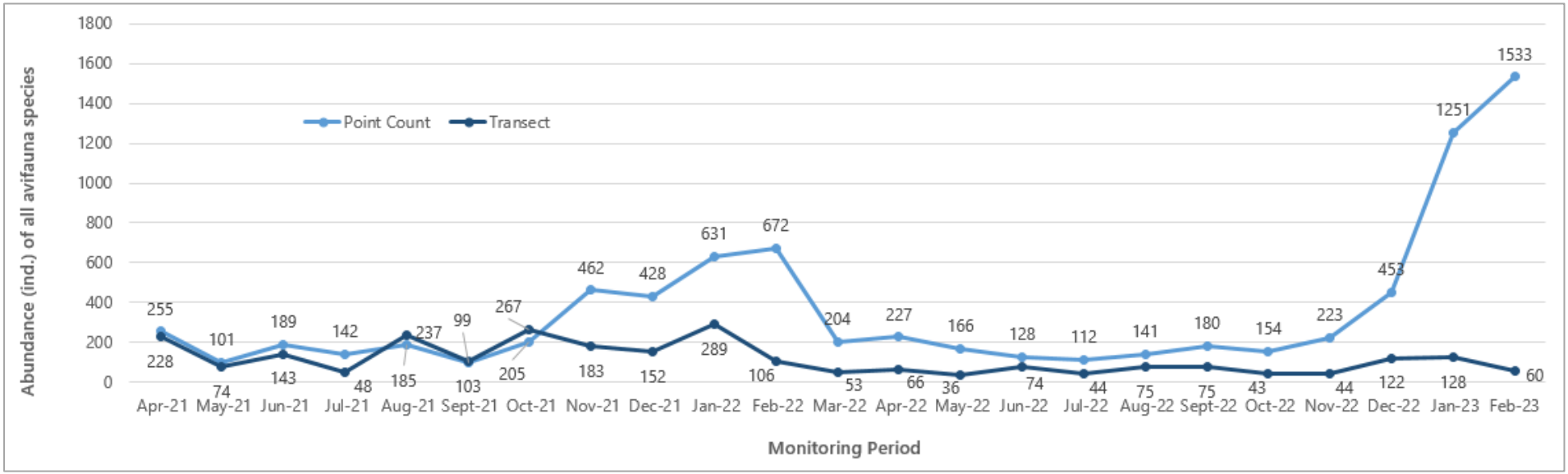
Scientific Name	Count	P	Ln(P)	P*Ln(P)	P*Ln(P)^2
Acridotheres cristatellus	6	0.1	-2.30259	-0.23026	0.53019
Ardea alba	4	0.066667	-2.70805	-0.18054	0.488902
Ardea cinerea	4	0.066667	-2.70805	-0.18054	0.488902
Ardeola bacchus	2	0.033333	-3.4012	-0.11337	0.385605
Centropus sinensis	1	0.016667	-4.09434	-0.06824	0.279394
Chroicocephalus ridibundus	3	0.05	-2.99573	-0.14979	0.448721
Eudynamys scolopaceus	1	0.016667	-4.09434	-0.06824	0.279394
Motacilla alba	2	0.033333	-3.4012	-0.11337	0.385605
Passer montanus	3	0.05	-2.99573	-0.14979	0.448721
Phalacrocorax carbo	27	0.45	-0.79851	-0.35933	0.286927
Prinia inornata	2	0.033333	-3.4012	-0.11337	0.385605
Pycnonotus sinensis	4	0.066667	-2.70805	-0.18054	0.488902
Spilopelia chinensis	1	0.016667	-4.09434	-0.06824	0.279394
Total	**60**	**1**	**-39.7033**	**-1.97561**	**5.176262**
Richness	**13**				
SS	**5.18**				
SQ	**3.90**				
H	**1.98**				
S^2_H	**0.02**				

Appendix F.2.4 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Transect Walk Method) in All Habitats (13 and 16 February 2023)

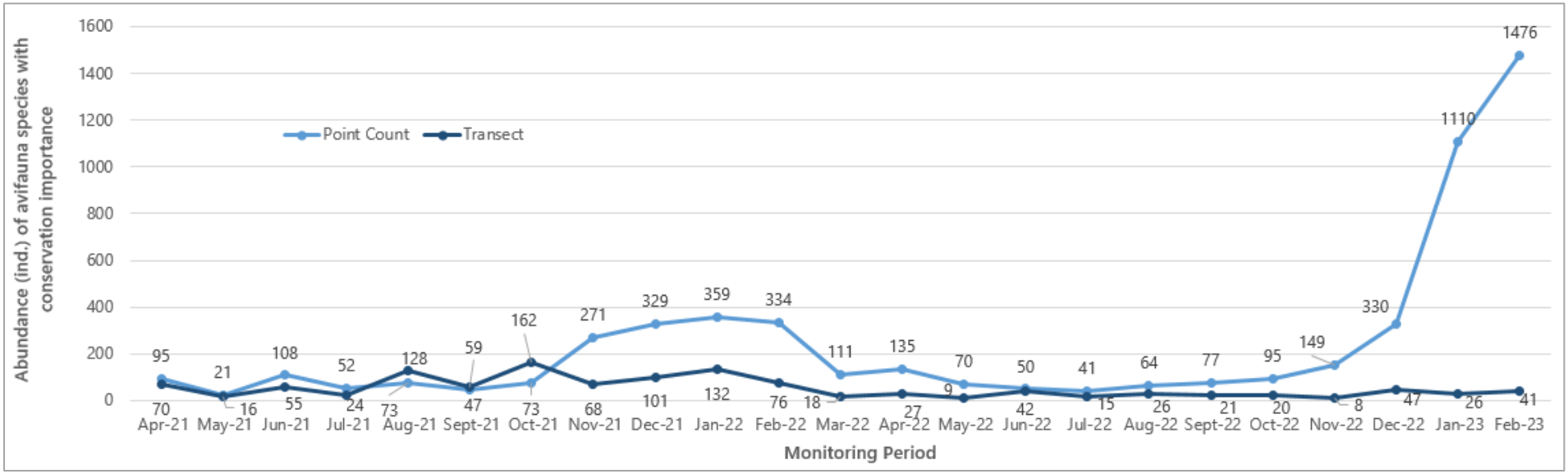
Scientific Name	Count	P	Ln(P)	P*Ln(P)	P*Ln(P)^2
Ardea alba	4	0.097561	-2.32728	-0.22705	0.528412
Ardea cinerea	4	0.097561	-2.32728	-0.22705	0.528412
Ardeola bacchus	2	0.04878	-3.02042	-0.14734	0.445023
Centropus sinensis	1	0.02439	-3.71357	-0.09057	0.336357
Chroicocephalus ridibundus	3	0.073171	-2.61496	-0.19134	0.500343
Phalacrocorax carbo	27	0.658537	-0.41774	-0.27509	0.114916
Total	**41**	**1**	**-14.4212**	**-1.15845**	**2.453462**
Richness	**6**				
SS	**2.45**				

SQ	**1.34**				
H	**1.16**				
S^2_H	**0.03**				

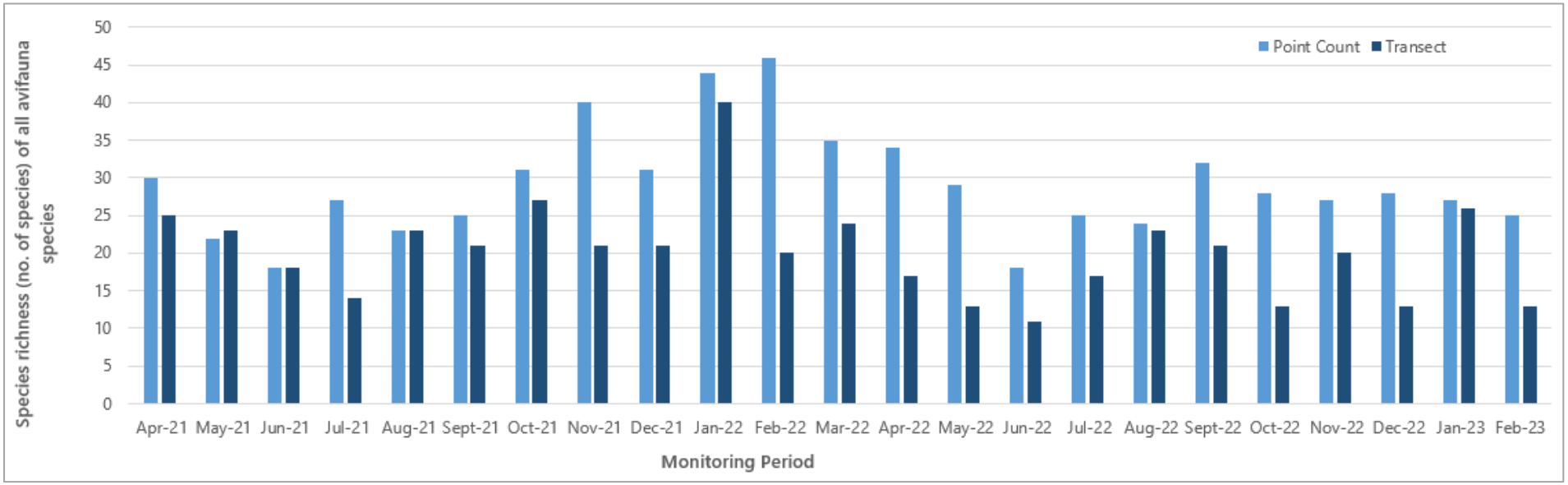
Appendix F.3.1 Abundance of all avifauna species throughout the monitoring period



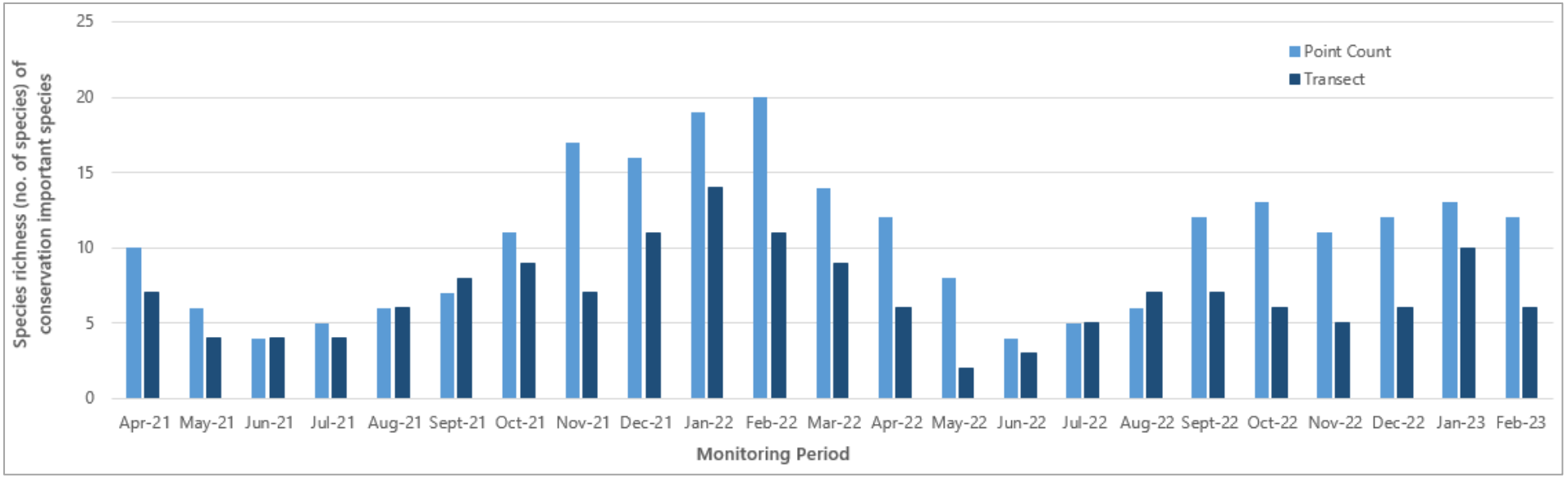
Appendix F.3.2 Abundance of avifauna species with conservation importance throughout the monitoring period



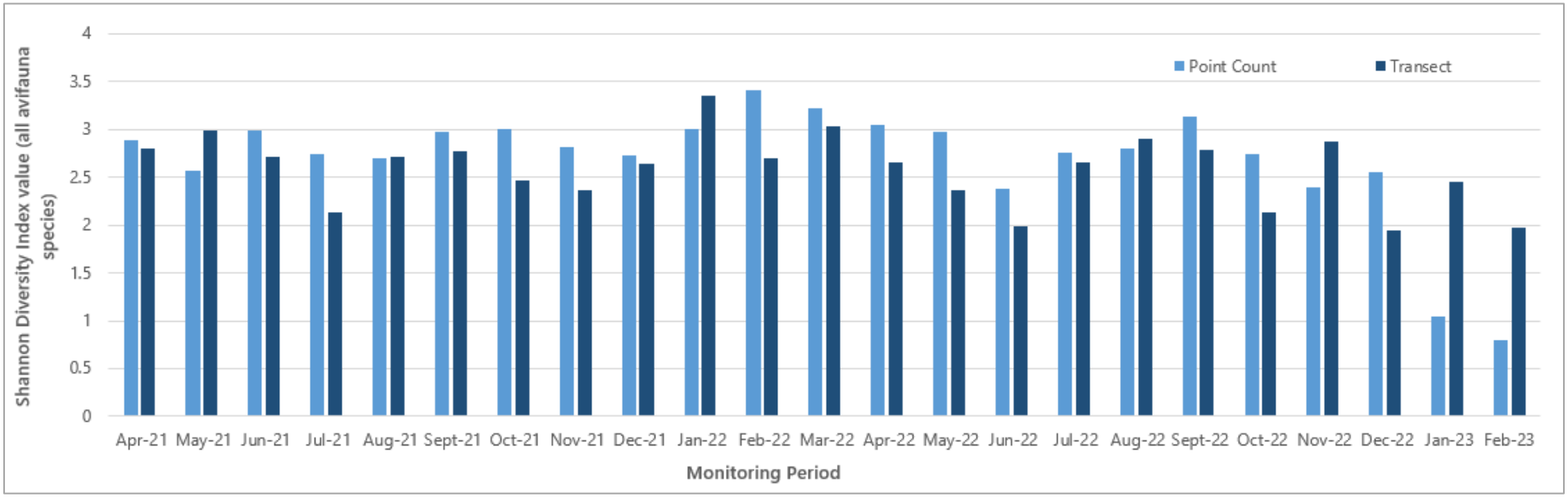
Appendix F.4.1 Species richness of all avifauna species throughout the monitoring period



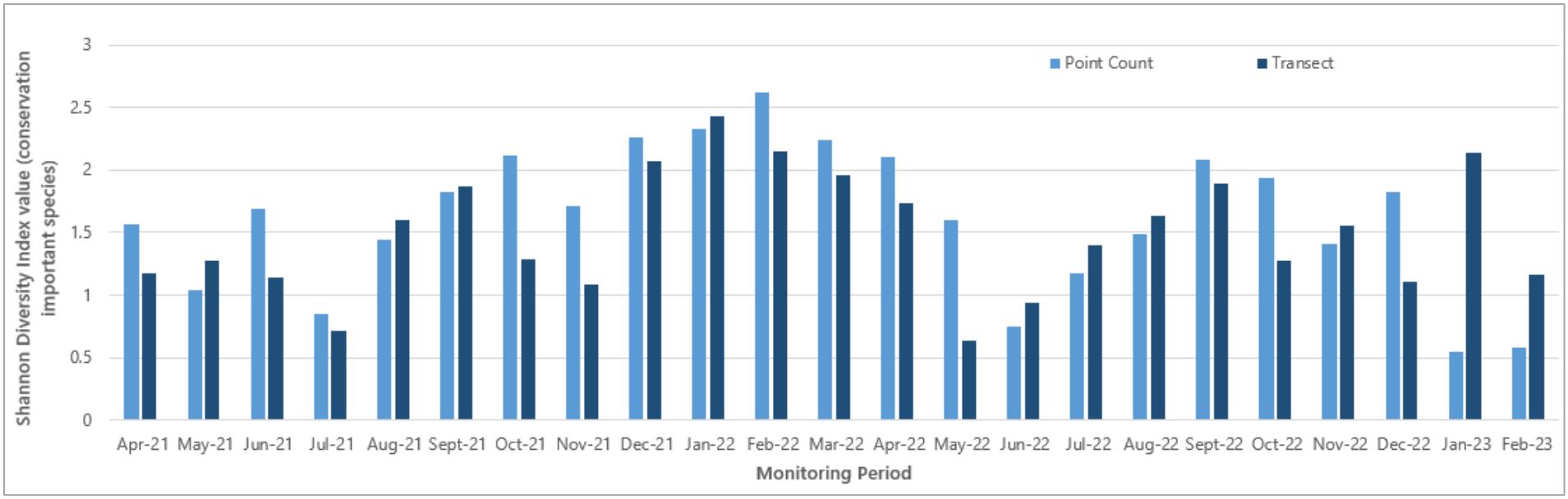
Appendix F.4.2 Species richness of avifauna species with conservation importance throughout the monitoring period



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. 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.6.1 Species diversity of all avifauna species – Point Count Method

Months	February 2017	February 2023
Total	642	1533
Richness	58	25
H	3.32	0.80
S^2_H	0.002	0.002
t	42.94	
df	1627.50	
Crit	1.96	
p	0.00	
CI	0.09	0.08

Appendix F.6.2 Species diversity of all avifauna species – Transect Walk Method

Months	February 2017	February 2023
Total	2	60
Richness	1	13
H	0.00	1.98
S^2_H	0.00	0.02
t	13.06	
df	60	
Crit	2	
p	3.44E-19	
CI	0	0.30

Appendix F.6.3 Species diversity of avifauna species with conservation importance – Point Count Method

Months	February 2017	February 2023
Total	447	1476
Richness	26	12
H	2.68	0.58
S^2_H	0.002	0.001
t	38.44	
df	951.51	
Crit	1.96	
p	0.00	
CI	0.09	0.06

Appendix F.6.4 Species diversity of avifauna species with conservation importance – Transect Walk Method

Months	February 2017	February 2023
Total	2	41
Richness	1	6
H	0.00	1.16
S^2_H	0.00	0.03
t	6.85	
df	41.00	
Crit	2.02	
p	0.00	
CI	0.00	0.34