

Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210608_M1_SS																																				
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1																																				
Date:	2021/06/08																																				
Time: (hh:mm)	(Ebb Tide) M1: <u>13:00</u> M2: M3:																																				
Action level / Limit level: (For Flood Tide)		DO (mg/L)		Turbidity (NTU)		SS (mg/L)																															
		AL	LL	AL	LL	AL	LL																														
	M1	2.25	1.91	48.4	50.4	59	68																														
	M2	1.88	1.79	43.0	52.4	81	112																														
	M3	3.28	3.14	74.3	78.0	104	167																														
Measured level of exceeded parameter: (fill in / circle as appropriate)	M1	DO (AL / LL) : _____		M3	DO (AL / LL) : _____																																
		NTU (AL / LL) : _____			NTU (AL / LL) : _____																																
		SS (AL / LL) : <u>87</u>			SS (AL / LL) : _____																																
	M2	DO (AL / LL) : _____																																			
		NTU (AL / LL) : _____																																			
		SS (AL / LL) : _____																																			
Action taken / to be taken: (tick / circle / fill in as appropriate)	Inspection : <input checked="" type="checkbox"/> ER / IEC / Contractor is/are informed. <input checked="" type="checkbox"/> Monitoring equipment & monitoring data are checked and confirmed without problem. <input type="checkbox"/> In-situ measurement is repeated. <input type="checkbox"/> Other _____																																				
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Possible reason for action or Limit level Non-compliance: (tick / fill in as appropriate)																																					

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Date:	2021/06/08			
Conclusion:	<input checked="" type="checkbox"/>	DO	Turbidity	SS
	Due to change or/and influences of ambient condition in the vicinity, not Project related			M1
Mitigation Measures:	<input type="checkbox"/>			
	Due to influences of construction activities under this project in the vicinity, considered to be Project related			
Mitigation Measures:	The following mitigation measures have been taken: 1. Channels, earth bunds or sand bag barriers were provided on site to properly direct stormwater to silt removal facilities; 2. The surfaces of construction site areas near the drainages were paved; 3. Manholes were adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and; 4. Channels and manholes were maintained and the deposited silt and grit were removed after rainstorm to prevent overflows and localised flooding.			
Remarks: (tick / fill in as appropriate)	<input type="checkbox"/> Repeat in-situ measurement was done.			
	M1	DO : _____ NTU : _____	M3	DO : _____ NTU : _____
	M2	DO : _____ NTU : _____		
Attachment	<input checked="" type="checkbox"/> No major observation of upstream area was found Annex A – Location of Water Quality Monitoring Stations Annex B – Water Quality Monitoring Results Annex C – Photo of Investigation			

Note: The box is checked to represent the statement is applicable, and vice versa.

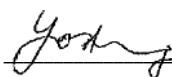
Prepared by: Toby Wan

Signature: 

Date (dd/mm/yyyy): 22/6/2021

Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 22/6/2021

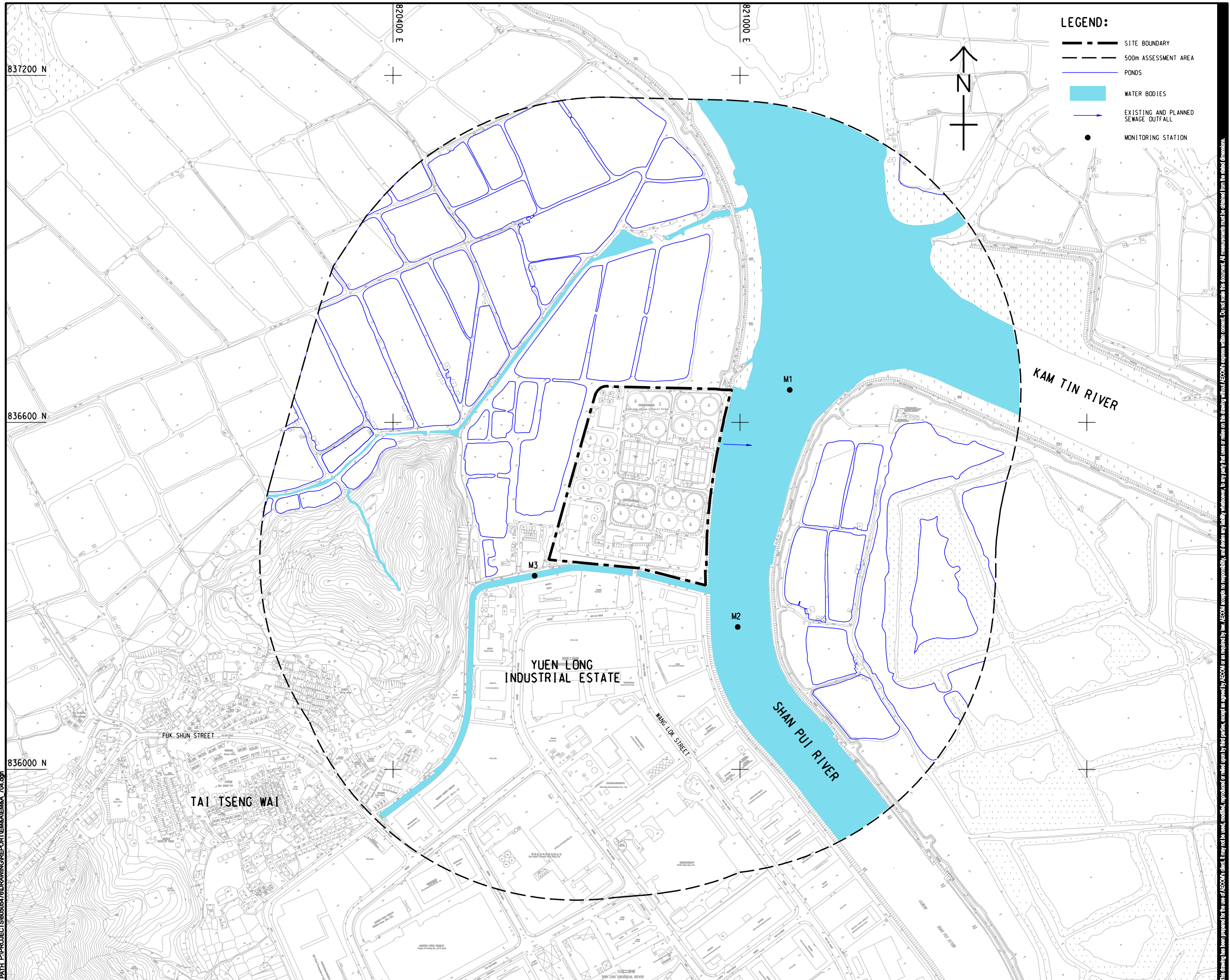
Notes:

- Abbreviation:
- DO – Dissolved Oxygen
- NTU - Turbidity
- SS – Suspended Solids
- AL – Action Level
- LL – Limit Level
- ER – Engineer's Representative
- IEC – Independent Checker



Annex A – Location of Water Quality Monitoring Stations

ISO A1 594mm x 841mm
Approved:
Checked:
Designer:
Project Management Initials:



- LEGEND:**
- SITE BOUNDARY
 - 500m ASSESSMENT AREA
 - PONDS
 - WATER BODIES
 - EXISTING AND PLANNED SEWAGE OUTFALL
 - MONITORING STATION

CLIENT
渠務署
Drainage Services Department

SHEET TITLE
LOCATIONS OF WATER QUALITY MONITORING STATIONS FOR CONSTRUCTION PHASE

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Annex B – Water Quality Monitoring Results

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

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	8/6/2021	Mid-Flood	Fine	Calm	06:13	1.2	M	0.6	1	0.026	113	7.99	7.99	3.20	3.20	30.11	30.12	116.3	116.2	8.60	8.60	37.6	37.6	33	32
M1	8/6/2021	Mid-Flood	Fine	Calm	06:13	1.2	M	0.6	2			7.98	7.99	3.19	3.20	30.12	30.12	116.0	116.2	8.59	8.60	37.6	37.6	30	32
M2	8/6/2021	Mid-Flood	Fine	Calm	06:33	0.9	M	0.45	1	0.028	105	7.73	7.74	1.91	1.92	30.63	30.64	107.0	107.1	7.94	7.94	36.8	37.0	37	38
M2	8/6/2021	Mid-Flood	Fine	Calm	06:33	0.9	M	0.45	2			7.74	7.74	1.92	1.92	30.64	30.64	107.1	107.1	7.93	7.94	37.1	37.0	39	38
M3	8/6/2021	Mid-Flood	Fine	Calm	06:20	0.8	M	0.4	1	0.107	280	7.33	7.33	2.61	2.61	29.20	29.25	69.3	68.4	5.23	5.12	56.2	57.9	87	85
M3	8/6/2021	Mid-Flood	Fine	Calm	06:20	0.8	M	0.4	2			7.33	7.33	2.61	2.61	29.30	29.25	67.4	68.4	5.01	5.12	59.6	57.9	82	85
M1	8/6/2021	Mid-Ebb	Fine	Calm	13:00	1	M	0.5	1	0.019	72	7.70	7.70	2.38	2.38	30.93	30.94	103.1	103.3	7.59	7.61	41.0	41.1	83	87
M1	8/6/2021	Mid-Ebb	Fine	Calm	13:00	1	M	0.5	2			7.69	7.70	2.37	2.38	30.94	30.94	103.4	103.3	7.63	7.61	41.2	41.1	90	87
M2	8/6/2021	Mid-Ebb	Fine	Calm	12:41	0.8	M	0.4	1	0.02	58	8.05	8.05	2.00	2.00	32.01	32.02	124.5	123.6	9.26	9.22	39.3	39.2	59	58
M2	8/6/2021	Mid-Ebb	Fine	Calm	12:41	0.8	M	0.4	2			8.04	8.05	1.99	2.00	32.02	32.02	122.7	123.6	9.17	9.22	39.1	39.2	56	58
M3	8/6/2021	Mid-Ebb	Fine	Calm	12:58	0.5	M	0.25	1	0.085	90	7.53	7.54	2.44	2.44	31.50	31.40	115.1	115.9	8.46	8.48	25.0	25.0	35	33
M3	8/6/2021	Mid-Ebb	Fine	Calm	12:58	0.5	M	0.25	2			7.54	7.54	2.44	2.44	31.30	31.40	116.6	115.9	8.49	8.48	25.0	25.0	31	33

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.
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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1	2.25	1.91	48.4	50.4	59	68
M2	1.88	1.79	45.1	52.4	81	112
M3	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	2.25	1.91	48.4	50.4	59	68
M2	1.88	1.79	43.0	52.4	81	112
M3	3.28	3.14	74.3	78.0	104	167

Annex C – Photo of investigation

Date of investigation: 08 June 2021 (**Ebb Tide**)

Monitoring Station: M1



Annex D – Site Inspection



Date of site inspection: 8 June 2021
Gullies were banded by sand bags to prevent surface runoff.



Date of site inspection: 8 June 2021
The surrounding of the construction site areas were covered by impermeable sheeting to prevent surface runoff.

Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210610_M1_SS																																				
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1																																				
Date:	2021/06/10																																				
Time: (hh:mm)	(Ebb Tide) M1: <u>14:04</u> M2: M3:																																				
Action level / Limit level: (For Flood Tide)		DO (mg/L)		Turbidity (NTU)		SS (mg/L)																															
		AL	LL	AL	LL	AL	LL																														
	M1	2.25	1.91	48.4	50.4	70	76																														
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Measured level of exceeded parameter: (fill in / circle as appropriate)	M1	DO (AL / LL) : _____		M3	DO (AL / LL) : _____																																
		NTU (AL / LL) : _____			NTU (AL / LL) : _____																																
		SS (AL / LL) : <u>73</u>			SS (AL / LL) : _____																																
	M2	DO (AL / LL) : _____																																			
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Incident Report on Action/ Limit Level Exceedance

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	M1	DO : _____ NTU : _____	M3	DO : _____ NTU : _____
	M2	DO : _____ NTU : _____		
Attachment	<input checked="" type="checkbox"/> No major observation of upstream area was found Annex A – Location of Water Quality Monitoring Stations Annex B – Water Quality Monitoring Results Annex C – Photo of Investigation			

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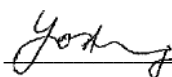
Prepared by: Toby Wan

Signature: 

Date (dd/mm/yyyy): 22/6/2021

Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 22/6/2021

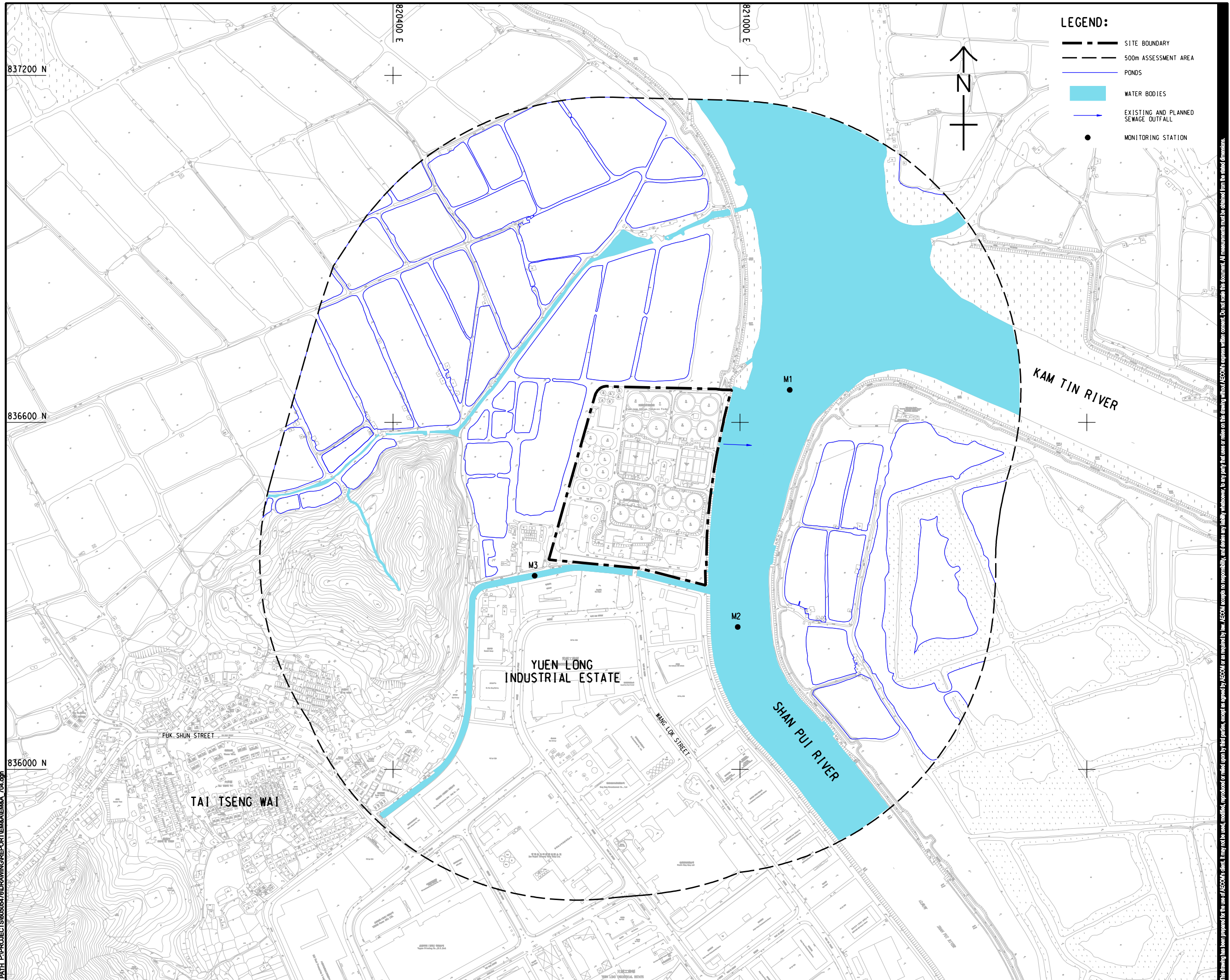
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- SS – Suspended Solids
- AL – Action Level
- LL – Limit Level
- ER – Engineer's Representative
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Annex A – Location of Water Quality Monitoring Stations

ISO A1 594mm x 841mm
Approved:
Checked:
Designer:
Project Management Initials:



- LEGEND:**
- SITE BOUNDARY
 - ... 500m ASSESSMENT AREA
 - PONDS
 - WATER BODIES
 - EXISTING AND PLANNED SEWAGE OUTFALL
 - MONITORING STATION

CLIENT
渠務署
Drainage Services Department

SHEET TITLE
LOCATIONS OF WATER QUALITY MONITORING STATIONS FOR CONSTRUCTION PHASE

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Annex B – Water Quality Monitoring Results

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

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	10/6/2021	Mid-Flood	Fine	Moderate	07:07	1.1	M	0.55	1	0.021	144	7.88	7.85	5.87	5.88	29.85	29.87	131.2	131.5	9.64	9.65	24.2	24.3	56	58
M1	10/6/2021	Mid-Flood	Fine	Moderate	07:07	1.1	M	0.55	2			7.81	7.85	5.88	5.88	29.88	29.87	131.7	131.5	9.66	9.65	24.4	24.3	59	58
M2	10/6/2021	Mid-Flood	Fine	Moderate	07:20	0.9	M	0.45	1	0.029	81	7.74	7.75	3.49	3.49	29.99	30.00	94.5	94.6	6.99	6.99	33.1	33.1	39	42
M2	10/6/2021	Mid-Flood	Fine	Moderate	07:20	0.9	M	0.45	2			7.75	7.75	3.48	3.49	30.00	30.00	94.6	94.6	6.98	6.99	33.1	33.1	45	42
M3	10/6/2021	Mid-Flood	Fine	Calm	07:25	1	M	0.5	1	0.101	268	7.21	7.22	3.38	3.38	29.40	29.40	54.2	53.6	4.06	4.01	63.0	63.3	90	90
M3	10/6/2021	Mid-Flood	Fine	Calm	07:25	1	M	0.5	2			7.22	7.22	3.38	3.38	29.40	29.40	52.9	53.6	3.96	4.01	63.5	63.3	89	90
M1	10/6/2021	Mid-Ebb	Fine	Moderate	14:04	0.9	M	0.45	1	0.042	156	7.54	7.59	3.65	3.65	30.41	30.41	82.4	82.7	6.06	6.12	44.9	44.9	76	73
M1	10/6/2021	Mid-Ebb	Fine	Moderate	14:04	0.9	M	0.45	2			7.63	7.59	3.64	3.65	30.40	30.41	82.9	82.7	6.17	6.12	44.9	44.9	70	73
M2	10/6/2021	Mid-Ebb	Fine	Moderate	13:50	0.7	M	0.35	1	0.037	217	7.44	7.45	3.58	3.59	30.29	30.30	66.8	66.8	4.92	4.91	42.9	42.8	77	77
M2	10/6/2021	Mid-Ebb	Fine	Moderate	13:50	0.7	M	0.35	2			7.46	7.45	3.59	3.59	30.30	30.30	66.7	66.8	4.90	4.91	42.6	42.8	76	77
M3	10/6/2021	Mid-Ebb	Fine	Calm	14:00	0.3	M	0.15	1	0.108	86	7.15	7.16	2.19	2.20	29.30	29.30	59.7	59.2	4.52	4.47	26.7	27.2	41	40
M3	10/6/2021	Mid-Ebb	Fine	Calm	14:00	0.3	M	0.15	2			7.16	7.16	2.20	2.20	29.30	29.30	58.6	59.2	4.41	4.47	27.6	27.2	39	40

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
M1	2.25	1.91	48.4	50.4	59	68
M2	1.88	1.79	43.0	52.4	81	112
M3	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	2.25	1.91	48.4	50.4	70	76
M2	1.88	1.79	43.0	52.4	81	112
M3	3.28	3.14	74.3	78.0	104	167

Annex C – Photo of investigation

Date of investigation: 10 June 2021 (Ebb Tide)

Monitoring Station: M1



Annex D – Site Inspection



Date of site inspection: 16 June 2021

Gullies were bunded by sand bags to prevent surface runoff.



Date of site inspection: 16 June 2021

The surrounding of gullies near the construction site areas were temporarily sealed.

Notification of Ecological Monitoring of Birds Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR202106_Species Diversity_Rev2			
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1			
Survey Date:	15/06/2021 (Daytime survey) and 18/06/2021 (Nighttime survey)			
Action level / Limit level: (For Avifauna Communities)	Method	Parameters	Action Level	Limit Level
	Transect	Abundance of all avifauna species (including but not limited to overwintering waterbirds) in the community	Significant decline ^{1,2} in any of these parameters during the current monitoring month relative to the corresponding month during the baseline survey	Significant decline in any of these parameters for three consecutive months
		Species diversity of all avifauna species (including but not limited to overwintering waterbirds) in the community		
		Abundance of species with conservation importance only		
		Species diversity of species with conservation importance only		
	Point Count	Abundance of all avifauna species (including but not limited to overwintering waterbirds) in the community		
		Species diversity of all avifauna species (including but not limited to overwintering waterbirds) in the community		
		Abundance of species with conservation importance only		
Species diversity of species with conservation importance only				
Measured significant decline in abundance and/or species diversity (fill in as appropriate)	Transect	Abundance of all avifauna species (including but not limited to overwintering waterbirds) in the community	<input type="checkbox"/>	<input type="checkbox"/>
		Species diversity of all avifauna species (including but not limited to overwintering waterbirds) in the community	<input type="checkbox"/>	<input type="checkbox"/>
		Abundance of species with conservation importance only	<input type="checkbox"/>	<input type="checkbox"/>
		Species diversity of species with conservation importance only	<input type="checkbox"/>	<input type="checkbox"/>
	Point Count	Abundance of all avifauna species (including but not limited to overwintering waterbirds) in the community	<input type="checkbox"/>	<input type="checkbox"/>
		Species diversity of all avifauna species (including but not limited to overwintering waterbirds) in the community	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Abundance of species with conservation importance only	<input type="checkbox"/>	<input type="checkbox"/>
		Species diversity of species with conservation importance only	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Action taken / to be taken ³ : (tick / circle / fill in as appropriate)	Responses: <input checked="" type="checkbox"/> Informed IEC, ER, and Contractor. <input checked="" type="checkbox"/> Reviewed monitoring data. <input checked="" type="checkbox"/> Investigated possible causes of decline and identified possible source (s) of impact. Recorded in notification. <input checked="" type="checkbox"/> Check Contractor's working methods.			

	<input type="checkbox"/> Other
Possible reason/s ⁴ for action or limit level Non-compliance: (tick / fill in as appropriate)	Findings / Evidences <input type="checkbox"/> Construction noise disturbance <input type="checkbox"/> Vibration disturbance from potential percussive piling works <input type="checkbox"/> Construction lighting/glare disturbance <input type="checkbox"/> Increased human activities <input type="checkbox"/> Construction dust disturbance <input checked="" type="checkbox"/> Others: The lower diversity during this period with respect to the baseline data could be due to the current dominance of Chinese Pond Heron in the community. The current dominance of this species was due to its concurrent breeding period. This dominant species could have decreased the performance of co-occurring species (Gilbert et al. 2009) ⁵ and forced them to utilize other areas outside the survey area, thus, made the area less diverse. Furthermore, low diversity index usually results from high dominance in the community as these are inversely related (Shaukat et al., 1978) ⁶ .
Observations	<input checked="" type="checkbox"/> Noise levels (47.5 to 65.9 dB(A)) recorded from the different point count locations during the ecological bird monitoring are mostly low. The generally low noise levels are unlikely to cause significant impact to birds as behavioral response of some kind are more likely to occur at above 65.5 dB(A) (Wright et al. 2010) ⁷ . Only two stations, SP/NSW3 with 65.9 dB(A) and SP/NSW2 with 65.7 dB(A), have readings slightly above 65.5. dB(A). These stations are located across the Shan Pui River, relatively far from the construction works area; and are close to the roadsides with low to moderate traffic. During the monitoring period passing vehicles, barking dogs, and noisy insects were noted. <input checked="" type="checkbox"/> Environmental site audits indicated that the recommended environmental protection measures/mitigation measures to mitigate ecological impacts have been implemented. <input checked="" type="checkbox"/> Increase in abundance of all avifauna species (including but not limited to overwintering waterbirds) in the community was observed for <u>Transect/Point Count</u> survey. <input checked="" type="checkbox"/> Increase in species diversity of all avifauna species (including but not limited to overwintering waterbirds) in the community was observed for <u>Transect/Point Count</u> survey. <input checked="" type="checkbox"/> Increase in abundance of species with conservation importance only was observed for <u>Transect/Point Count</u> survey. <input checked="" type="checkbox"/> Increase in number and dominance of Chinese Pond Heron due to breeding activities
Conclusion	<input checked="" type="checkbox"/> Due to influences of external factors/ other threats, not Project related <input type="checkbox"/> Due to influences of construction activities under this project in the vicinity, considered to be Project related
Mitigation measures	<input checked="" type="checkbox"/> Avoidance of recognized site of conservation importance <input checked="" type="checkbox"/> Restriction of construction hours <input checked="" type="checkbox"/> Minimizing construction noise disturbance impacts through the use of noise barriers <input checked="" type="checkbox"/> Establishment of bird curtain
Attachment	Annex A – Ecological Monitoring of Birds Transect Routes and Point Count Locations Annex B – Ecological Monitoring of Birds Results the Different Transect Routes and Point Count Locations (June 2021) Annex C – Shannon Diversity Index Values in the Different Transect Routes and Point Count Locations (June 2021) Annex D – Hutcheson T-test Analyses (June 2021) Annex E – Abundance Tables Annex F – Noise Monitoring Results in Point Count Locations during the Ecological Monitoring of Birds (June 2021) Annex G – Site Photos showing no project-related disturbance during the Ecological Monitoring of Birds (June 2021)
Notes: 1. Significant decline in abundance determined using two-tailed t-test, $\alpha = 0.05$ 2. Significant decline in species diversity determined using the Hutcheson t-test, two-tailed 3. In accordance with Table 4.2 “Responses to Alert and Action Level for Avifauna Communities” of the Baseline Bird Survey Report 4. With reference to Table 8.34 “Summary of Potential Impacts and Mitigation Measures Requirements of the Construction of the Project” of the approved EIA Report	

5. Benjamin, G., Turkington, R. and Diane S. Srivastava, D.S. 2009. Dominant Species and Diversity: Linking Relative Abundance to Controls of Species Establishment. Am. Nat. 174: 850–862.
6. Shaukat, S.S, Khairi. M.A and Khan M.A. 1978. The relationship amongst dominance, diversity and community maturity in a desert vegetation. Pak. J. Bot. 10(2):183-196
7. Wright, M.D., Goodman, P. and Cameron, T. 2010. Exploring behavioural responses of shorebirds to impulsive noise. Wildfowl. 60:150-167

The box is checked to represent the statement is applicable, and vice versa

Abbreviation: ER – Engineer’s Representative, IEC – Independent Checker

Prepared by: Fenelyn Nabuab

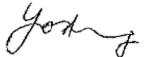
Designation: Ecologist

Signature: 

Date (dd/mm/yyyy): 13/07/2021

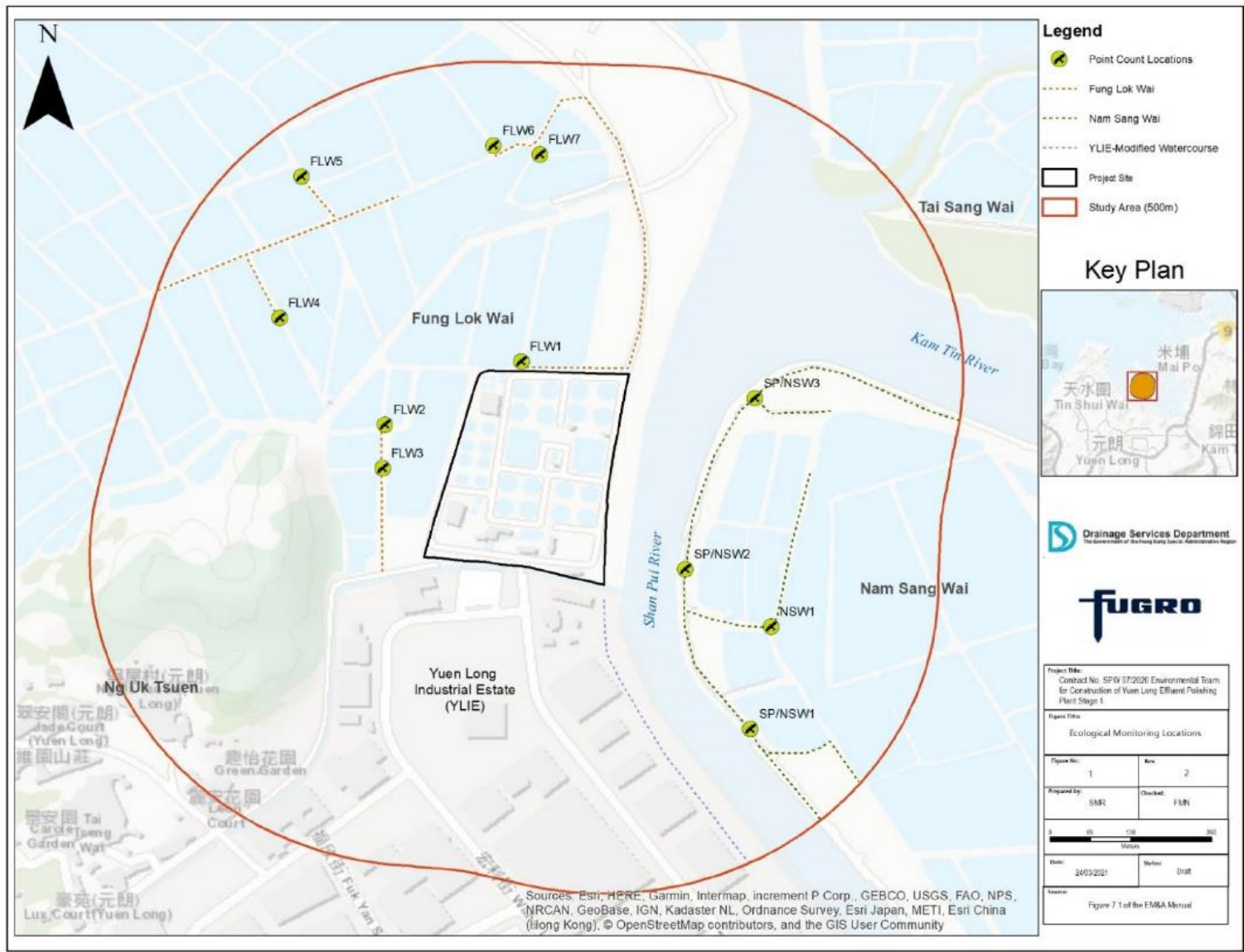
Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 13/07/2021

Annex A – Ecological Monitoring of Birds Transect Routes and Point Count Locations



Annex B – Ecological Monitoring of Birds Results the Different Transect Routes and Point Count Locations
(June 2021)

Date (dd/mm/yyyy)	Daytime/Night time	Season	Area	Transect/Point Count	Point Count (Location)/Transect Impact	Common Name	Scientific Name	Abundance	Habitat	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	Remarks
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Azure-winged Magpie	<i>Cyanopica cyanus</i>	10	Developed Area (Chinese Banyan Trees)	Introduced	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Chinese Pond Heron	<i>Ardeola bacchus</i>	38	Developed Area (Chinese Banyan Trees)	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Plain Prinia	<i>Prinia inornata</i>	2	Grassland-FLW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Yellow-bellied Prinia	<i>Prinia flaviventris</i>	2	Grassland-FLW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Black Kite	<i>Milvus migrans</i>	1	In-flight	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Transect	YLIE-CW	Little Egret	<i>Egretta garzetta</i>	1	Modified Watercourse	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Transect	YLIE-CW	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	1	Modified Watercourse	Common	R	-	-	-	LC	LC	N	Y	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Great Egret	<i>Ardea alba</i>	2	Modified Watercourse	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Barn Swallow	<i>Hirundo rustica</i>	7	Modified Watercourse	Abundant	PM,SV	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Little Egret	<i>Egretta garzetta</i>	5	Modified Watercourse	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Great Egret	<i>Ardea alba</i>	1	Modified Watercourse	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	White Wagtail	<i>Motacilla alba</i>	1	Modified Watercourse	Common	PM,WV	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Chinese Pond Heron	<i>Ardeola bacchus</i>	1	Modified Watercourse	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	White Wagtail	<i>Motacilla alba</i>	3	Modified Watercourse	Common	PM,WV	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Azure-winged Magpie	<i>Cyanopica cyanus</i>	5	Plantation-FLW	Introduced	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Black-collared Starling	<i>Gracupica nigricollis</i>	5	Plantation-FLW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Chinese Bulbul	<i>Pycnonotus sinensis</i>	5	Plantation-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Crested Myna	<i>Acridotheres cristatellus</i>	2	Plantation-NSW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Masked Laughingthrush	<i>Garrulax perspicillatus</i>	11	Plantation-NSW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Point Count	SP/NSW1	Masked Laughingthrush	<i>Garrulax perspicillatus</i>	4	Plantation-NSW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	4	Plantation-NSW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Point Count	SP/NSW1	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	1	Plantation-NSW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Spotted Dove	<i>Spilopelia chinensis</i>	2	Plantation-NSW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW1	Azure-winged Magpie	<i>Cyanopica cyanus</i>	6	Pond-FLW	Introduced	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Barn Swallow	<i>Hirundo rustica</i>	6	Pond-FLW	Abundant	PM,SV	-	-	-	LC	LC	N	N	

15/06/2021	Daytime	Wet	FLW	Point Count	FLW1	Barn Swallow	<i>Hirundo rustica</i>	2	Pond-FLW	Abundant	PM,SV	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW4	Barn Swallow	<i>Hirundo rustica</i>	2	Pond-FLW	Abundant	PM,SV	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW6	Barn Swallow	<i>Hirundo rustica</i>	5	Pond-FLW	Abundant	PM,SV	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW7	Barn Swallow	<i>Hirundo rustica</i>	6	Pond-FLW	Abundant	PM,SV	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Black Kite	<i>Milvus migrans</i>	1	Pond-FLW	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW3	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	1	Pond-FLW	Common	R,WV	-	-	-	LC	LC	N	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW2	Chinese Bulbul	<i>Pycnonotus sinensis</i>	2	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW1	Chinese Pond Heron	<i>Ardeola bacchus</i>	20	Pond-FLW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW4	Chinese Pond Heron	<i>Ardeola bacchus</i>	1	Pond-FLW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW6	Chinese Pond Heron	<i>Ardeola bacchus</i>	12	Pond-FLW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW7	Chinese Pond Heron	<i>Ardeola bacchus</i>	11	Pond-FLW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW3	Crested Myna	<i>Acridotheres cristatellus</i>	2	Pond-FLW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW5	Crested Myna	<i>Acridotheres cristatellus</i>	1	Pond-FLW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW7	Crested Myna	<i>Acridotheres cristatellus</i>	2	Pond-FLW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Eurasian Tree Sparrow	<i>Passer montanus</i>	9	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW5	Eurasian Tree Sparrow	<i>Passer montanus</i>	4	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW7	Eurasian Tree Sparrow	<i>Passer montanus</i>	3	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Great Egret	<i>Ardea alba</i>	1	Pond-FLW	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW5	Great Egret	<i>Ardea alba</i>	2	Pond-FLW	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW6	Great Egret	<i>Ardea alba</i>	3	Pond-FLW	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW7	Little Egret	<i>Egretta garzetta</i>	3	Pond-FLW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW4	Little Grebe	<i>Tachybaptus ruficollis</i>	1	Pond-FLW	Common	R	LC	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW5	Little Grebe	<i>Tachybaptus ruficollis</i>	1	Pond-FLW	Common	R	LC	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW6	Little Grebe	<i>Tachybaptus ruficollis</i>	1	Pond-FLW	Common	R	LC	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW5	Masked Laughingthrush	<i>Garrulax perspicillatus</i>	5	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW4	Plain Prinia	<i>Prinia inornata</i>	1	Pond-FLW	Common	R	-	-	-	LC	LC	N	N	

15/06/2021	Daytime	Wet	FLW	Transect	FLW	Spotted Dove	<i>Spilopelia chinensis</i>	3	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	Spotted Dove	<i>Spilopelia chinensis</i>	5	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW1	Spotted Dove	<i>Spilopelia chinensis</i>	3	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW3	Spotted Dove	<i>Spilopelia chinensis</i>	2	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW4	Spotted Dove	<i>Spilopelia chinensis</i>	1	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW5	Spotted Dove	<i>Spilopelia chinensis</i>	6	Pond-FLW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Transect	FLW	White Wagtail	<i>Motacilla alba</i>	2	Pond-FLW	Common	PM,WV	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW5	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	2	Pond-FLW	Common	R	-	-	-	LC	LC	N	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW4	Yellow-bellied Prinia	<i>Prinia flaviventris</i>	2	Pond-FLW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW7	Black-collared Starling	<i>Gracupica nigricollis</i>	1	Pond-NSW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Black-collared Starling	<i>Gracupica nigricollis</i>	1	Pond-NSW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Point Count	NSW1	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	1	Pond-NSW	Common	R,WV	-	-	-	LC	LC	N	Y	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	Chinese Pond Heron	<i>Ardeola bacchus</i>	2	Pond-NSW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	NSW	Point Count	NSW1	Eurasian Tree Sparrow	<i>Passer montanus</i>	5	Pond-NSW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Point Count	NSW1	Eurasian Tree Sparrow	<i>Passer montanus</i>	3	Pond-NSW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Point Count	SP/NSW1	Little Egret	<i>Egretta garzetta</i>	1	Pond-NSW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	NSW	Point Count	NSW1	Oriental Magpie Robin	<i>Copsychus saularis</i>	4	Pond-NSW	Abundant	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Transect	NSW	White-shouldered Starling	<i>Sturnia sinensis</i>	2	Pond-NSW	Common	PM	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Point Count	NSW1	Chinese Pond Heron	<i>Ardeola bacchus</i>	1	Reedbed	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
15/06/2021	Daytime	Wet	FLW	Point Count	FLW4	Plain Prinia	<i>Prinia inornata</i>	1	Pond-FLW	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Point Count	NSW1	Plain Prinia	<i>Prinia inornata</i>	2	Reedbed	Common	R	-	-	-	LC	LC	N	N	
15/06/2021	Daytime	Wet	NSW	Point Count	NSW1	Yellow-bellied Prinia	<i>Prinia flaviventris</i>	1	Reedbed	Common	R	-	-	-	LC	LC	N	N	
18/06/2021	Nighttime	Wet	FLW	Point Count	FLW1	Chinese Pond Heron	<i>Ardeola bacchus</i>	40	Developed Area (Chinese Banyan Trees)	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	Probably roosting
18/06/2021	Nighttime	Wet	FLW	Point Count	FLW1	Little Egret	<i>Egretta garzetta</i>	6	Developed Area (Chinese Banyan Trees)	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	Probably roosting
18/06/2021	Nighttime	Wet	NSW	Point Count	SP/NSW1	Chinese Pond Heron	<i>Ardeola bacchus</i>	1	In-flight	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
18/06/2021	Nighttime	Wet	NSW	Point Count	SP/NSW2	Little Egret	<i>Egretta garzetta</i>	2	In-flight	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
18/06/2021	Nighttime	Wet	NSW	Transect	NSW	Chinese Pond Heron	<i>Ardeola bacchus</i>	2	Mangrove	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	

18/06/2021	Nighttime	Wet	NSW	Point Count	NSW1	Chinese Pond Heron	<i>Ardeola bacchus</i>	1	Pond-NSW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	
18/06/2021	Nighttime	Wet	NSW	Point Count	SP/NSW2	Chinese Pond Heron	<i>Ardeola bacchus</i>	1	Pond-NSW	Common	R	PRC (RC)	-	-	LC	LC	Y	Y	

Notes:

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

Annex C – Shannon Diversity Index Values in the Different Transect Routes and Point Count Locations
(June 2021)

Annex C.1. Shannon Diversity Index Values of All Avifauna Species in the Different Transect Routes and Point Count Locations

Shannon Diversity Index Value of all Avifauna Species				
Point Count Method				
EIA Report ID	EM&A Manual ID	Jun-17	Jun-21	Remarks
P1	FLW1	1.04	0.81	-
P2	FLW2	0.64	0	-
P3	FLW3	1.28	1.05	-
P4	FLW4	2.20	1.74	-
P5	FLW5	2.39	1.75	-
P6	FLW6	0.87	1.08	+
P7	FLW7	1.89	1.52	-
P9	SP/NSW3	1.09	**	-
P10	SP/NSW2	1.17	0.64	-
P11	NSW1	1.85	1.50	-
P12	SP/NSW1	1.49	1.15	-
Transect Walk Method				
EIA Report ID	EM&A Manual ID	Jun-17	Jun-21	Remarks
Fung Lok Wai	FLW	1.99	1.92	-
Nam Sang Wai	NSW	0.69	2.26	+
YLIE-CW	YLIE-CW	**	0.69	+

Note:

** no species recorded

Annex C.2. Shannon Diversity Index Values of Avifauna Species with Conservation Importance in the Different Transect Routes and Point Count Locations

Shannon Diversity Index Value of Species with Conservation Importance				
Point Count Method				
EIA Report ID	EM&A Manual ID	Jun-17	Jun-21	Remarks
P1	FLW1	0.69	0.30	-
P2	FLW2	**	**	=
P3	FLW3	**	**	=
P4	FLW4	0.64	0.69	+
P5	FLW5	0.95	0.64	-
P6	FLW6	0.50	0.70	+

Shannon Diversity Index Value of Species with Conservation Importance				
P7	FLW7	0	0.52	+
P9	SP/NSW3	0.68	**	-
P10	SP/NSW2	0.95	0.64	-
P11	NSW1	0	0	=
P12	SP/NSW1	1.01	0.69	-
Transect Walk Method				
EIA Report ID	EM&A Manual ID	Jun-17	Jun-21	Remarks
Fung Lok Wai	FLW	1.04	0.69	-
Nam Sang Wai	NSW	**	0.23	+
YLIE-CW	YLIE-CW	**	0	+

Note:

** no species recorded

Annex D – Summary of Hutcheson T-test Analyses (June 2021)

Hutcheson T-test formula:

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

Annex D.1 Species Diversity of All Avifauna Species – Point Count Method

Months	June 2017	June 2021
Total	121	189
H	3.93844	2.9908
S ² _H	0.006478	0.011048
t	7.15822	
df	309	
Crit	1.967671	
p	5.99E-12	
CI	0.160975	0.210214

Annex D.2 Species Diversity of Avifauna Species with Conservation Importance – Point Count Method

Months	June 2017	June 2021
Total	45	108
H	2.6933	1.68808
S ² _H	0.015166	0.018167
t	5.50581	
df	136	
Crit	1.977561	
p	1.77E-07	
CI	0.246303	0.269572

Annex E – Abundance Tables

Annex E.1 Baseline (June 2017) consolidated abundance data of all avifauna species for point count method

Scientific Name	Abundance
<i>Acridotheres cristatellus</i>	3
<i>Alcedo atthis</i>	1
<i>Amaurornis phoenicurus</i>	2
<i>Ardea alba</i>	7
<i>Ardeola bacchus</i>	11
<i>Bubulcus coromandus</i>	2
<i>Caprimulgus affinis</i>	1
<i>Copsychus saularis</i>	2
<i>Dicrurus macrocercus</i>	4
<i>Egretta garzetta</i>	18
<i>Gracupica nigricollis</i>	1
<i>Hirundo rustica</i>	4
<i>Lanius schach</i>	3
<i>Milvus migrans</i>	2
<i>Motacilla alba</i>	2
<i>Nycticorax nycticorax</i>	2
<i>Parus cinereus</i>	1
<i>Passer montanus</i>	4
<i>Prinia flaviventris</i>	15
<i>Prinia inornata</i>	3
<i>Pycnonotus sinensis</i>	7
<i>Spilopelia chinensis</i>	12
<i>Streptopelia decaocto</i>	3
<i>Sturnia sinensis</i>	4
<i>Tachybaptus ruficollis</i>	7
Grand Total	121

Annex E.2 Impact monitoring (June 2021) consolidated abundance data of all avifauna species for point count method

Scientific Name	Abundance
<i>Acridotheres cristatellus</i>	5
<i>Amaurornis phoenicurus</i>	2
<i>Ardea alba</i>	5
<i>Ardeola bacchus</i>	88
<i>Copsychus saularis</i>	4
<i>Cyanopica cyanus</i>	6

Scientific Name	Abundance
<i>Egretta garzetta</i>	12
<i>Garrulax perspicillatus</i>	9
<i>Gracupica nigricollis</i>	1
<i>Hirundo rustica</i>	15
<i>Nycticorax nycticorax</i>	2
<i>Passer montanus</i>	15
<i>Prinia flaviventris</i>	3
<i>Prinia inornata</i>	4
<i>Pycnonotus jocosus</i>	1
<i>Pycnonotus sinensis</i>	2
<i>Spilopelia chinensis</i>	12
<i>Tachybaptus ruficollis</i>	3
Grand Total	189

Annex E.3 Baseline (June 2017) consolidated abundance data of conservation important avifauna species for point count method

Scientific Name	Abundance
<i>Ardea alba</i>	7
<i>Ardeola bacchus</i>	11
<i>Egretta garzetta</i>	18
<i>Milvus migrans</i>	2
<i>Tachybaptus ruficollis</i>	7
Grand Total	45

Annex E.4 Impact monitoring (June 2021) consolidated abundance data of conservation important avifauna species for point count method

Scientific Name	Abundance
<i>Ardea alba</i>	5
<i>Ardeola bacchus</i>	88
<i>Egretta garzetta</i>	12
<i>Tachybaptus ruficollis</i>	3
Grand Total	108

Annex E.5 Baseline (June 2017) consolidated abundance data of all avifauna species for transect walk method

Scientific Name	Abundance
<i>Acridotheres cristatellus</i>	1

Scientific Name	Abundance
<i>Amaurornis phoenicurus</i>	2
<i>Ardea alba</i>	20
<i>Ardeola bacchus</i>	10
<i>Bubulcus coromandus</i>	1
<i>Cyanopica cyanus</i>	10
<i>Dicrurus macrocercus</i>	1
<i>Egretta garzetta</i>	10
<i>Garrulax perspicillatus</i>	1
<i>Gracupica nigricollis</i>	6
<i>Prinia flaviventris</i>	2
<i>Pycnonotus jocosus</i>	1
<i>Spilopelia chinensis</i>	4
Grand Total	69

Annex E.6 Impact monitoring (June 2021) consolidated abundance data of all avifauna species for transect walk method

Scientific Name	Abundance
<i>Acridotheres cristatellus</i>	2
<i>Amaurornis phoenicurus</i>	1
<i>Ardea alba</i>	4
<i>Ardeola bacchus</i>	43
<i>Cyanopica cyanus</i>	15
<i>Egretta garzetta</i>	6
<i>Garrulax perspicillatus</i>	11
<i>Gracupica nigricollis</i>	6
<i>Hirundo rustica</i>	13
<i>Milvus migrans</i>	2
<i>Motacilla alba</i>	6
<i>Passer montanus</i>	9
<i>Prinia flaviventris</i>	2
<i>Prinia inornata</i>	2
<i>Pycnonotus jocosus</i>	4
<i>Pycnonotus sinensis</i>	5
<i>Spilopelia chinensis</i>	10
<i>Sturnia sinensis</i>	2
Grand Total	143

Annex E.7 Baseline (June 2017) consolidated abundance data of conservation important avifauna species for transect walk method

Scientific Name	Abundance
<i>Ardea alba</i>	20
<i>Ardeola bacchus</i>	10
<i>Egretta garzetta</i>	10
Grand Total	40

Annex E.8 Impact monitoring (June 2021) consolidated abundance data of conservation important avifauna species for transect walk method

Scientific Name	Abundance
<i>Ardea alba</i>	4
<i>Ardeola bacchus</i>	43
<i>Egretta garzetta</i>	6
<i>Milvus migrans</i>	2
Grand Total	55

Annex F – Noise Monitoring Results in Point Count Locations during the Ecological Monitoring of Birds
(June 2021)

Frequency and Period	Location	Daytime (15/06/2021)		Night time (18/06/2021)	
		Start Time	L _{Aeq} (30 min) dB(A)	Start Time	L _{Aeq} (30 min) dB(A)
Monthly in concurrence with the ecological monitoring of birds	FLW1	0940	47.8	2110	48.9
	FLW2	0930	53	2120	49.3
	FLW3	0930	57.4	2120	51.1
	FLW4	1015	52	2001	51.3
	FLW5	1015	57.1	2046	56.4
	FLW6	1004	47.5	2055	48.9
	FLW7	1004	52.4	2055	51.2
	SP/NSW3	0740	65.9 ¹	1917	57.3
	SP/NSW2	0740	50.6	1925	65.7 ¹
	NSW1	0810	55	1925	52.9
	SP/NSW1	0745	51.6	1917	62
Note:					
1. Close to the roadsides with low to moderate traffic. Passing vehicles, barking dogs, and noisy insects were noted during the monitoring period.					

Annex G – Site Photos showing no project-related disturbance during the Ecological Monitoring of Birds
(June 2021)



Annex F.1. Active Pond at Fung Lok Wai, north of the Project Site



Annex F.2. Active Pond at Fung Lok Wai, west of the Project Site



Annex F.3. Mangrove habitat and modified watercourse east of the Project Site



Annex F.4. Active Pond at Nam Sang Wai, far east of the Project Site