

Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210522_M1_SS																																				
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1																																				
Date:	2021/05/22																																				
Time: (hh:mm)	(Ebb Tide) M1: 10:47 (Impact Station) M2: M3:																																				
Action level / Limit level: (For Ebb Tide)		DO (mg/L)		Turbidity (NTU)		SS (mg/L)																															
		AL	LL	AL	LL	AL	LL																														
	M1	2.25	1.91	49.4	53.6	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>62</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 _____																																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">DO</th> <th style="width: 15%; text-align: center;">Turbidity</th> <th style="width: 15%; text-align: center;">SS</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;">Finding / Evidences</td> </tr> <tr> <td><input type="checkbox"/> Upstream Control Station exceeded AL/LL</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Station was polluted by the inflow of other construction site</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Station was polluted by the inflow of residential discharge</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Station was polluted by the inflow of surface runoff from rainstorm and storm water drainage</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> No construction activities were carried out in the vicinity of station</td> <td></td> <td></td> <td style="text-align: center;">M1</td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							DO	Turbidity	SS	Finding / Evidences				<input type="checkbox"/> Upstream Control Station exceeded AL/LL				<input type="checkbox"/> Station was polluted by the inflow of other construction site				<input type="checkbox"/> Station was polluted by the inflow of residential discharge				<input type="checkbox"/> Station was polluted by the inflow of surface runoff from rainstorm and storm water drainage				<input checked="" type="checkbox"/> No construction activities were carried out in the vicinity of station			M1	<input type="checkbox"/> Other _____		
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Possible reason for action or Limit level Non-compliance: (tick / fill in as appropriate)																																					

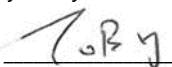
Notification of Water Quality Monitoring Exceedance

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Reference No.:	IR20210522_M1_SS			
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1			
Date:	2021/05/22			
Conclusion:		DO	Turbidity	SS
	<input checked="" type="checkbox"/> Due to change or/and influences of ambient condition in the vicinity, not Project related			M1
	<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 checked="" 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 Annex D – Site Inspection			

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

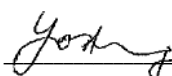
Prepared by: Toby Wan

Signature: 

Date (dd/mm/yyyy): 28/5/2021

Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 28/5/2021

Notes:

- Abbreviation:

DO – Dissolved Oxygen

NTU - Turbidity

SS – Suspended Solids

AL – Action Level

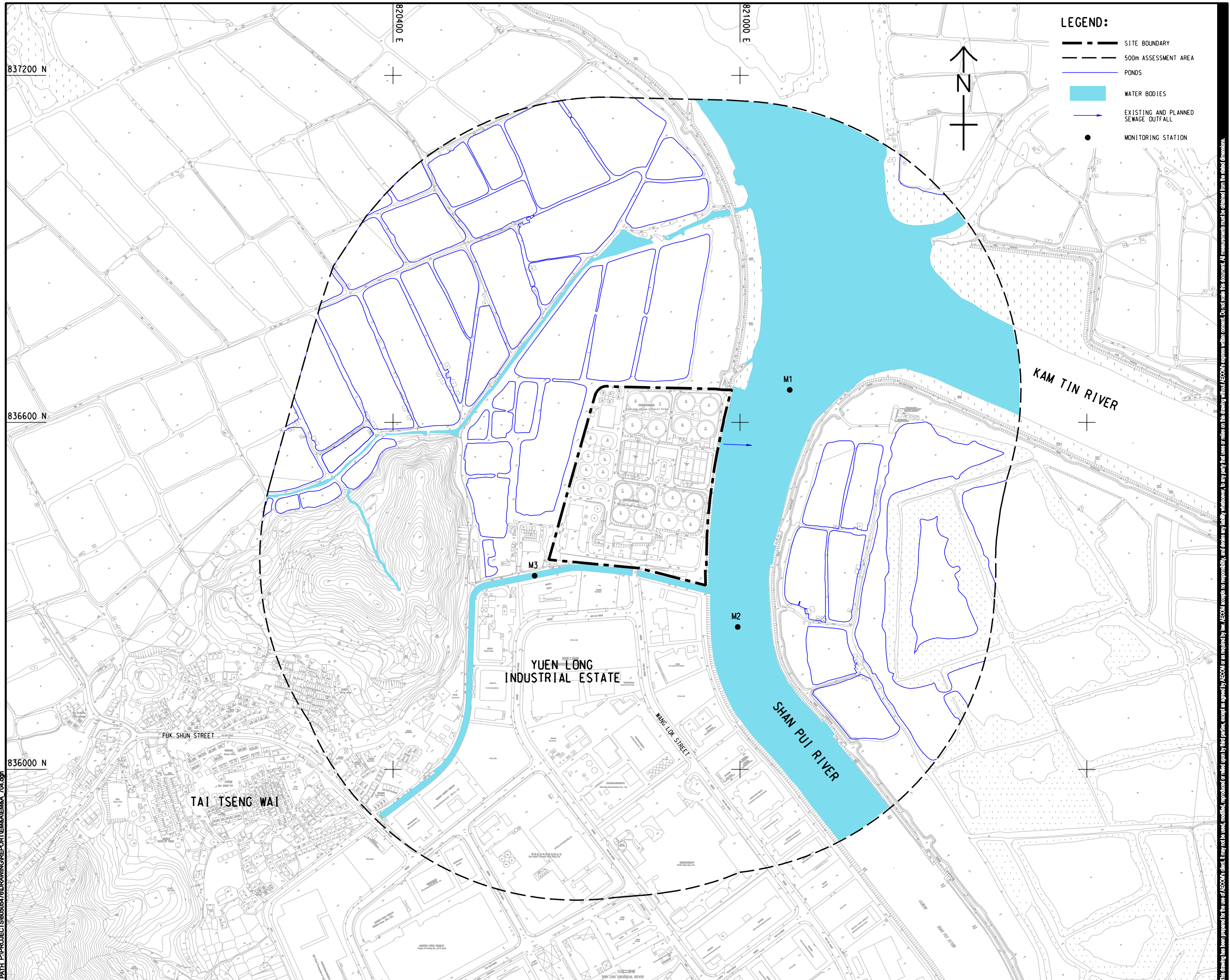
LL – Limit Level

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.
M1	22/5/2021	Mid-Flood	Fine	Calm	16:38	1	M	0.5	1	0.029	145	7.45	7.45	3.15	3.15	31.99	32.01	67.5	67.5	5.00	5.00	47.6	46	48	
M1	22/5/2021	Mid-Flood	Fine	Calm	16:38	1	M	0.5	2			7.45	7.45	3.15	3.15	32.02	32.01	67.4	67.5	5.00	5.00	45.6	46.6	49	48
M2	22/5/2021	Mid-Flood	Fine	Calm	16:20	0.9	M	0.45	1	0.036	165	7.46	7.46	3.03	3.03	32.18	32.20	84.2	84.2	5.63	5.63	44.0	73	74	
M2	22/5/2021	Mid-Flood	Fine	Calm	16:20	0.9	M	0.45	2			7.46	7.46	3.03	3.03	32.22	32.20	84.1	84.2	5.63	5.63	45.1	44.6	75	74
M3	22/5/2021	Mid-Flood	Fine	Calm	16:18	0.5	M	0.25	1	0.049	82	7.44	7.44	3.22	3.22	33.04	33.04	96.1	96.1	6.79	6.79	54.3	53.8	67	66
M3	22/5/2021	Mid-Flood	Fine	Calm	16:18	0.5	M	0.25	2			7.43	7.43	3.22	3.22	33.04	33.04	96.0	96.1	6.78	6.79	53.3	53.8	64	66
M1	22/5/2021	Mid-Ebb	Fine	Calm	10:47	0.9	M	0.45	1	0.029	287	7.52	7.52	3.21	3.21	32.07	32.07	88.0	88.7	6.35	6.38	45.5	44.7	63	62
M1	22/5/2021	Mid-Ebb	Fine	Calm	10:47	0.9	M	0.45	2			7.52	7.52	3.20	3.21	32.07	32.07	89.4	88.7	6.41	6.38	44.0	44.7	61	62
M2	22/5/2021	Mid-Ebb	Fine	Calm	11:02	0.8	M	0.4	1	0.082	269	7.48	7.48	3.17	3.17	32.11	32.23	76.6	76.8	5.52	5.53	46.0	45.8	54	57
M2	22/5/2021	Mid-Ebb	Fine	Calm	11:02	0.8	M	0.4	2			7.48	7.48	3.17	3.17	32.34	32.23	76.9	76.8	5.54	5.53	45.5	45.8	59	57
M3	22/5/2021	Mid-Ebb	Fine	Calm	10:43	0.2	M	0.1	1	0.029	258	7.25	7.26	2.44	2.44	30.76	30.77	78.1	78.0	5.76	5.76	36.8	36.7	33	32
M3	22/5/2021	Mid-Ebb	Fine	Calm	10:43	0.2	M	0.1	2			7.26	7.26	2.44	2.44	30.77	30.77	77.9	78.0	5.75	5.76	36.5	36.7	30	32

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	55.9	60.6	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	49.4	53.6	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: 22 May 2021 (**Ebb Tide**)
Monitoring Station: M1



Annex D – Site Inspection



Date of site inspection: 25 May 2021
Gullies were banded by sand bags to prevent surface runoff.



Date of site inspection: 25 May 2021
The surrounding of gullies near the construction site areas were temporarily sealed.



Date of site inspection: 25 May 2021

Manholes were maintained to remove the deposited silt after the rainstorm to prevent overflows.

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Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210525_M1_DO_NTU																																				
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1																																				
Date:	2021/05/25																																				
Time: (hh:mm)	(Ebb Tide) M1: 12:57 (Impact Station) M2: M3:																																				
Action level / Limit level: (For Ebb Tide)		DO (mg/L)		Turbidity (NTU)		SS (mg/L)																															
		AL	LL	AL	LL	AL	LL																														
	M1	2.25	1.91	73.7	79.8	59.0	68.0																														
	M2	1.88	1.79	43.0	52.4	81.0	112.0																														
	M3	3.28	3.14	74.3	78.0	104.0	167.0																														
Measured level of exceeded parameter: (fill in / circle as appropriate)	M1	DO (AL / LL) : <u>1.87</u>		M3	DO (AL / LL) : _____																																
		NTU (AL / LL) : <u>117.6</u>			NTU (AL / LL) : _____																																
		SS (AL / LL) : _____			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 checked="" type="checkbox"/> In-situ measurement is repeated. <input type="checkbox"/> Other _____																																				
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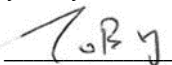
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Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210525_M1_DO_NTU			
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1			
Date:	2021/05/25			
Conclusion:		DO	Turbidity	SS
	<input checked="" type="checkbox"/> Due to change or/and influences of ambient condition in the vicinity, not Project related	M1	M1	
	<input type="checkbox"/> Due to influences of construction activities under this project in the vicinity, considered to be Project related			
Mitigation Measures:	<p>The following mitigation measures have been taken:</p> <ol style="list-style-type: none"> 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 checked="" type="checkbox"/> Repeat in-situ measurement was done.			
	M1	DO : <u>1.82</u> NTU : <u>112.7</u>	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 Annex D – Site Inspection			

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

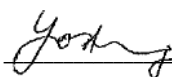
Prepared by: Toby Wan

Signature: 

Date (dd/mm/yyyy): 25/5/2021

Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 25/5/2021

Notes:

- Abbreviation:

DO – Dissolved Oxygen

NTU - Turbidity

SS – Suspended Solids

AL – Action Level

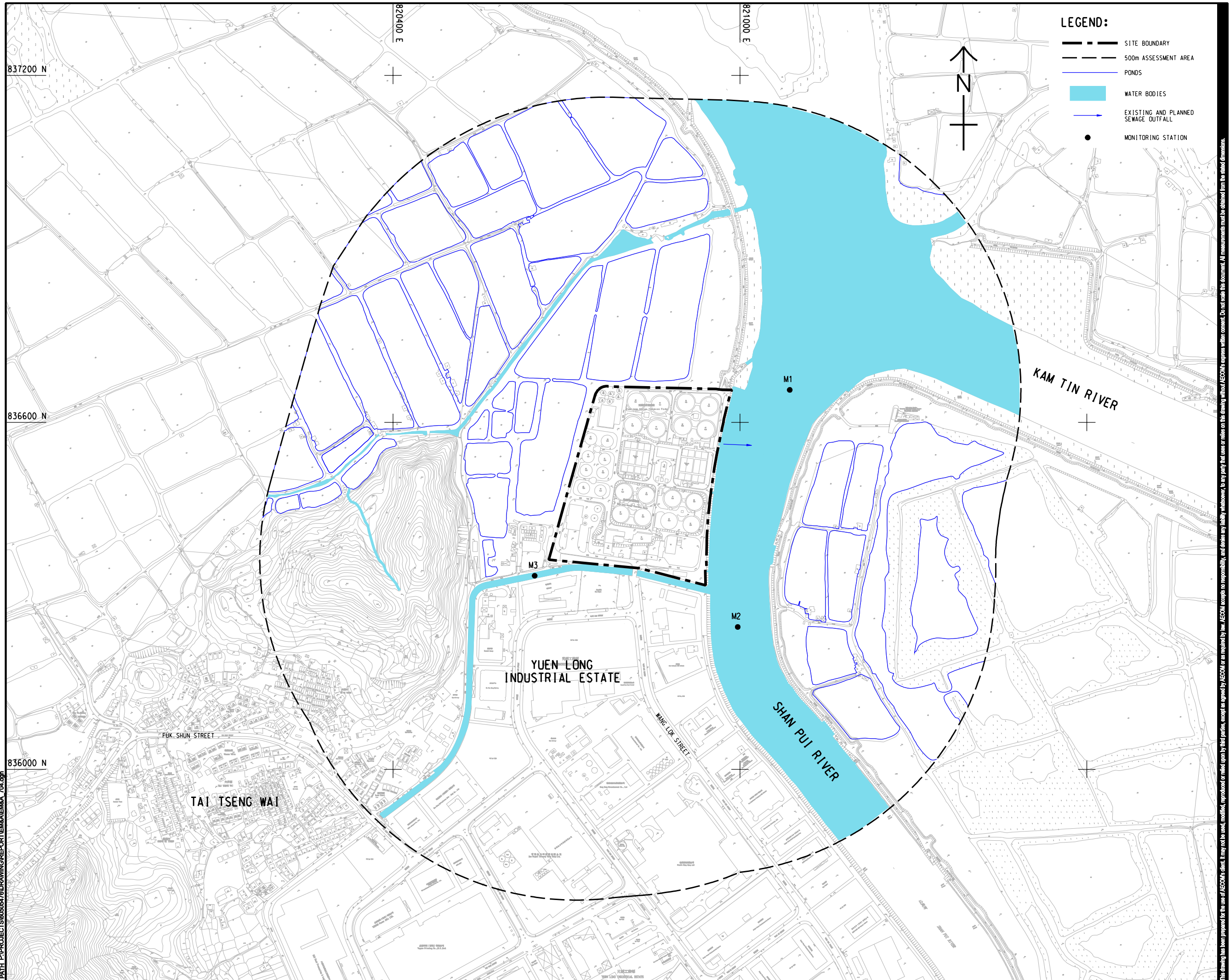
LL – Limit Level

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
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Drainage Services Department

SHEET TITLE
LOCATIONS OF WATER QUALITY MONITORING STATIONS FOR CONSTRUCTION PHASE

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12/18
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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													
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	25/5/2021	Mid-Flood	Rainy	Calm	06:30	1.1	M	0.55	1	0.119	195	7.20	7.21	2.82	2.83	30.08	30.09	41.2	41.1	3.04	3.04	42.4	42.4
M1	25/5/2021	Mid-Flood	Rainy	Calm	06:30	1.1	M	0.55	2			7.21		2.83		30.09		41.0		3.03		42.3	
M2	25/5/2021	Mid-Flood	Rainy	Calm	06:50	0.9	M	0.45	1	0.036	170	7.16	7.16	2.99	2.99	29.72	29.76	29.0	28.9	2.11	2.10	30.0	29.9
M2	25/5/2021	Mid-Flood	Rainy	Calm	06:50	0.9	M	0.45	2			7.16		2.99		29.79		28.8		2.09		29.8	
M3	25/5/2021	Mid-Flood	Rainy	Calm	07:00	0.8	M	0.4	1	0.083	74	7.39	7.39	0.26	0.25	27.00	27.10	85.5	85.8	6.80	6.83	92.1	89.8
M3	25/5/2021	Mid-Flood	Rainy	Calm	07:00	0.8	M	0.4	2			7.38		0.24		27.20		86.1		6.85		87.4	
M1	25/5/2021	Mid-Ebb	Rainy	Calm	12:57	1	M	0.5	1	0.069	266	7.13	7.13	2.84	2.84	30.21	30.23	25.6	25.5	1.87	1.87	115.7	117.6
M1	25/5/2021	Mid-Ebb	Rainy	Calm	12:57	1	M	0.5	2			7.13		2.84		30.25		25.4		1.86		119.4	
M2	25/5/2021	Mid-Ebb	Rainy	Calm	12:45	0.8	M	0.4	1	0.024	248	7.12	7.12	2.75	2.75	30.36	30.34	23.7	23.8	1.80	1.81	72.9	72.5
M2	25/5/2021	Mid-Ebb	Rainy	Calm	12:45	0.8	M	0.4	2			7.12		2.74		30.32		23.9		1.82		72.0	
M3	25/5/2021	Mid-Ebb	Rainy	Calm	12:48	0.4	M	0.2	1	0.133	252	7.16	7.16	0.28	0.28	27.50	27.45	71.0	71.3	5.60	5.62	48.0	50.4
M3	25/5/2021	Mid-Ebb	Rainy	Calm	12:48	0.4	M	0.2	2			7.16		0.28		27.40		71.6		5.64		52.7	

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. Limti 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. Limti 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	
	AL	LL	AL	LL
M1	2.25	1.91	48.4	50.4
M2	1.88	1.79	50.8	55.1
M3	3.28	3.14	74.3	78.0

For Ebb Tide

Monitoring Location	DO		NTU	
	AL	LL	AL	LL
M1	2.25	1.91	73.7	79.8
M2	1.88	1.79	43.0	52.4
M3	3.28	3.14	74.3	78.0

Annex C – Photo of investigation

Date of investigation: 25 May 2021 (**Ebb Tide**)
Monitoring Station: M1



Date of investigation: 25 May 2021 (**Ebb Tide**)

Monitoring Station: M2



Annex D – Site Inspection



Date of site inspection: 25 May 2021
Gullies were bunded by sand bags to prevent surface runoff.



Date of site inspection: 25 May 2021
The surrounding of gullies near the construction site areas were temporarily sealed.



Date of site inspection: 25 May 2021

Manholes were maintained to remove the deposited silt after the rainstorm to prevent overflows.

Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210525_M3_NTU						
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1						
Date:	2021/05/25						
Time: (hh:mm)	(Flood Tide) M1: M2: M3: <u>7:00</u>						
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	59.0	68.0
	M2	1.88	1.79	50.8	55.1	81.0	112.0
	M3	3.28	3.14	74.3	78.0	104.0	167.0
Measured level of exceeded parameter: (fill in / circle as appropriate)	M1	DO (AL / LL) : _____		M3	DO (AL / LL) : _____		
		NTU (AL / LL) : _____			NTU (AL / LL) : <u>89.8</u>		
		SS (AL / LL) : _____			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 checked="" type="checkbox"/> In-situ measurement is repeated. <input type="checkbox"/> Other _____						
Possible reason for action or Limit level Non-compliance: (tick / fill in as appropriate)				DO	Turbidity	SS	
	Finding / Evidences						
	<input type="checkbox"/> Upstream Control Station exceeded AL/LL						
	<input type="checkbox"/> Station was polluted by the inflow of other construction site						
	<input type="checkbox"/> Station was polluted by the inflow of residential discharge						
	<input checked="" type="checkbox"/> Station was polluted by the inflow of surface runoff from rainstorm and storm water drainage				M3		
	<input checked="" type="checkbox"/> No construction activities were carried out in the vicinity of station				M3		
<input type="checkbox"/> Other _____							

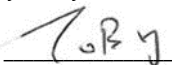
Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210525_M3_NTU			
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1			
Date:	2021/05/25			
Conclusion:		DO	Turbidity	SS
	<input checked="" type="checkbox"/> Due to change or/and influences of ambient condition in the vicinity, not Project related		M3	
	<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 checked="" type="checkbox"/> Repeat in-situ measurement was done.			
	M1	DO : _____ NTU : _____	M3	DO : _____ NTU : <u>90.7</u>
	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 Annex D – Site Inspection			

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

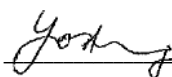
Prepared by: Toby Wan

Signature: 

Date (dd/mm/yyyy): 25/5/2021

Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 25/5/2021

Notes:

- Abbreviation:

DO – Dissolved Oxygen

NTU - Turbidity

SS – Suspended Solids

AL – Action Level

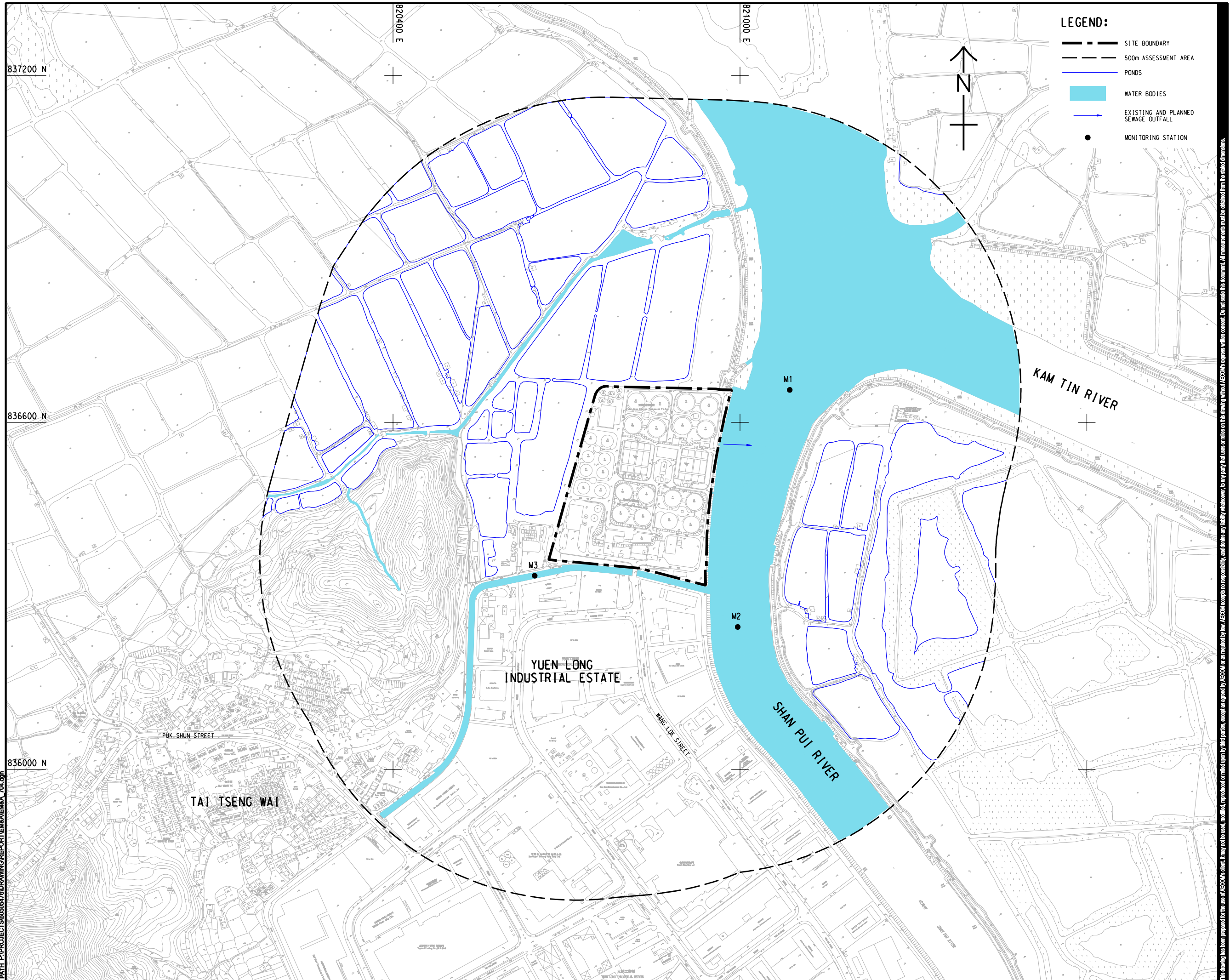
LL – Limit Level

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													
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	25/5/2021	Mid-Flood	Rainy	Calm	06:30	1.1	M	0.55	1	0.119	195	7.20	7.21	2.82	2.83	30.08	30.09	41.2	41.1	3.04	3.04	42.4	42.4
M1	25/5/2021	Mid-Flood	Rainy	Calm	06:30	1.1	M	0.55	2			7.21		2.83		30.09		41.0		3.03		42.3	
M2	25/5/2021	Mid-Flood	Rainy	Calm	06:50	0.9	M	0.45	1	0.036	170	7.16	7.16	2.99	2.99	29.72	29.76	29.0	28.9	2.11	2.10	30.0	29.9
M2	25/5/2021	Mid-Flood	Rainy	Calm	06:50	0.9	M	0.45	2			7.16		2.99		29.79		28.8		2.09		29.8	
M3	25/5/2021	Mid-Flood	Rainy	Calm	07:00	0.8	M	0.4	1	0.083	74	7.39	7.39	0.26	0.25	27.00	27.10	85.5	85.8	6.80	6.83	92.1	89.8
M3	25/5/2021	Mid-Flood	Rainy	Calm	07:00	0.8	M	0.4	2			7.38		0.24		27.20		86.1		6.85		87.4	
M1	25/5/2021	Mid-Ebb	Rainy	Calm	12:57	1	M	0.5	1	0.069	266	7.13	7.13	2.84	2.84	30.21	30.23	25.6	25.5	1.87	1.87	115.7	117.6
M1	25/5/2021	Mid-Ebb	Rainy	Calm	12:57	1	M	0.5	2			7.13		2.84		30.25		25.4		1.86		119.4	
M2	25/5/2021	Mid-Ebb	Rainy	Calm	12:45	0.8	M	0.4	1	0.024	248	7.12	7.12	2.75	2.75	30.36	30.34	23.7	23.8	1.80	1.81	72.9	72.5
M2	25/5/2021	Mid-Ebb	Rainy	Calm	12:45	0.8	M	0.4	2			7.12		2.74		30.32		23.9		1.82		72.0	
M3	25/5/2021	Mid-Ebb	Rainy	Calm	12:48	0.4	M	0.2	1	0.133	252	7.16	7.16	0.28	0.28	27.50	27.45	71.0	71.3	5.60	5.62	48.0	50.4
M3	25/5/2021	Mid-Ebb	Rainy	Calm	12:48	0.4	M	0.2	2			7.16		0.28		27.40		71.6		5.64		52.7	

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. Limti 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. Limti 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	
	AL	LL	AL	LL
M1	2.25	1.91	48.4	50.4
M2	1.88	1.79	50.8	55.1
M3	3.28	3.14	74.3	78.0

For Ebb Tide

Monitoring Location	DO		NTU	
	AL	LL	AL	LL
M1	2.25	1.91	73.7	79.8
M2	1.88	1.79	43.0	52.4
M3	3.28	3.14	74.3	78.0

Annex C – Photo of investigation

Date of investigation: 25 May 2021 (**Flood Tide**)

Monitoring Station: M3



Annex D – Site Inspection



Date of site inspection: 25 May 2021
Gullies were banded by sand bags to prevent surface runoff.



Date of site inspection: 25 May 2021
The surrounding of gullies near the construction site areas were temporarily sealed.



Date of site inspection: 25 May 2021

Manholes were maintained to remove the deposited silt after the rainstorm to prevent overflows.

Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210527_M1_NTU_SS																																				
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1																																				
Date:	2021/05/27																																				
Time: (hh:mm)	(Ebb Tide) M1: <u>14:50</u> M2: M3:																																				
Action level / Limit level: (For Ebb Tide)		DO (mg/L)		Turbidity (NTU)		SS (mg/L)																															
		AL	LL	AL	LL	AL	LL																														
	M1	2.25	1.91	48.4	50.9	59.0	68.0																														
	M2	1.88	1.79	43.0	52.4	81.0	112.0																														
	M3	3.28	3.14	74.3	78.0	104.0	167.0																														
Measured level of exceeded parameter: (fill in / circle as appropriate)	M1	DO (AL / LL) : _____		M3	DO (AL / LL) : _____																																
		NTU (AL / LL) : <u>92.2</u>			NTU (AL / LL) : _____																																
		SS (AL / LL) : <u>125</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 checked="" type="checkbox"/> In-situ measurement is repeated. <input type="checkbox"/> Other _____																																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">DO</th> <th style="width: 15%; text-align: center;">Turbidity</th> <th style="width: 15%; text-align: center;">SS</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;">Finding / Evidences</td> </tr> <tr> <td><input type="checkbox"/> Upstream Control Station exceeded AL/LL</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Station was polluted by the inflow of other construction site</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Station was polluted by the inflow of residential discharge</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Station was polluted by the inflow of surface runoff from rainstorm and storm water drainage</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> No construction activities were carried out in the vicinity of station</td> <td></td> <td style="text-align: center;">M1</td> <td style="text-align: center;">M1</td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							DO	Turbidity	SS	Finding / Evidences				<input type="checkbox"/> Upstream Control Station exceeded AL/LL				<input type="checkbox"/> Station was polluted by the inflow of other construction site				<input type="checkbox"/> Station was polluted by the inflow of residential discharge				<input type="checkbox"/> Station was polluted by the inflow of surface runoff from rainstorm and storm water drainage				<input checked="" type="checkbox"/> No construction activities were carried out in the vicinity of station		M1	M1	<input type="checkbox"/> Other _____		
	DO	Turbidity	SS																																		
Finding / Evidences																																					
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<input checked="" type="checkbox"/> No construction activities were carried out in the vicinity of station		M1	M1																																		
<input type="checkbox"/> Other _____																																					
Possible reason for action or Limit level Non-compliance: (tick / fill in as appropriate)																																					

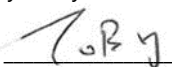
Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210527_M1_NTU_SS			
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1			
Date:	2021/05/27			
Conclusion:	<input checked="" type="checkbox"/>	DO	Turbidity	SS
	Due to change or/and influences of ambient condition in the vicinity, not Project related		M1	M1
	<input type="checkbox"/>			
	Due to influences of construction activities under this project in the vicinity, considered to be Project related			
Mitigation Measures:	<p>The following mitigation measures have been taken:</p> <ol style="list-style-type: none"> 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 checked="" type="checkbox"/> Repeat in-situ measurement was done.			
	M1	DO : _____ NTU : <u>89.8</u>	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 Annex D – Site Inspection			

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

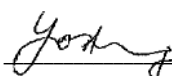
Prepared by: Toby Wan

Signature: 

Date (dd/mm/yyyy): 3/6/2021

Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 3/6/2021

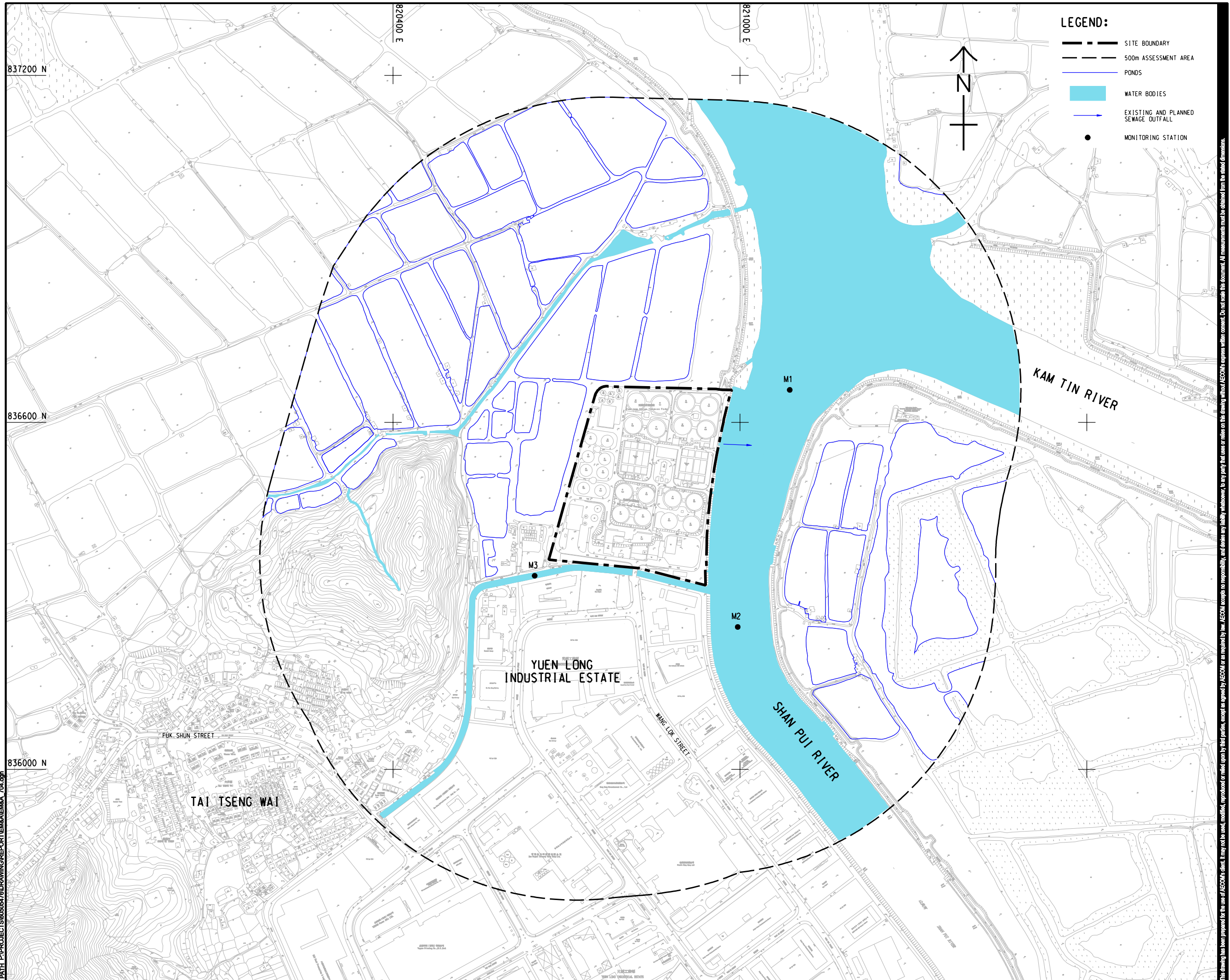
Notes:

- 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.
M1	27/5/2021	Mid-Flood	Fine	Calm	07:45	1.6	M	0.8	1	0.174	322	7.38	7.38	5.55	5.55	31.35	31.37	55.9	56.2	3.99	4.02	29.4	29.4	38	39
M1	27/5/2021	Mid-Flood	Fine	Calm	07:45	1.6	M	0.8	2			7.38	7.38	5.54	5.55	31.39	31.37	56.5	56.2	4.05	4.02	29.4	29.4	40	39
M2	27/5/2021	Mid-Flood	Fine	Calm	08:03	1.5	M	0.75	1	0.169	171	7.46	7.46	4.43	4.44	31.35	31.37	61.4	61.6	4.43	4.44	28.7	28.8	48	48
M2	27/5/2021	Mid-Flood	Fine	Calm	08:03	1.5	M	0.75	2			7.45	7.46	4.44	4.44	31.39	31.37	61.8	61.6	4.45	4.44	28.8	28.8	48	48
M3	27/5/2021	Mid-Flood	Fine	Calm	08:12	1	M	0.5	1	0.082	268	7.08	7.08	2.23	2.23	30.10	30.10	46.8	46.3	3.49	3.46	131.8	138.2	110	115
M3	27/5/2021	Mid-Flood	Fine	Calm	08:12	1	M	0.5	2			7.07	7.08	2.23	2.23	30.10	30.10	45.8	46.3	3.42	3.46	144.5	138.2	120	115
M1	27/5/2021	Mid-Ebb	Fine	Calm	14:50	1.5	M	0.75	1	0.197	330	7.26	7.26	2.86	2.87	31.37	31.38	43.7	43.8	3.18	3.18	92.1	92.2	120	125
M1	27/5/2021	Mid-Ebb	Fine	Calm	14:50	1.5	M	0.75	2			7.25	7.26	2.87	2.87	31.39	31.38	43.9	43.8	3.18	3.18	92.2	92.2	130	125
M2	27/5/2021	Mid-Ebb	Fine	Calm	14:24	1.3	M	0.65	1	0.089	80	7.46	7.47	2.75	2.75	32.13	32.16	74.7	74.7	5.36	5.35	40.8	40.8	51	51
M2	27/5/2021	Mid-Ebb	Fine	Calm	14:24	1.3	M	0.65	2			7.47	7.47	2.75	2.75	32.19	32.16	74.3	74.5	5.34	5.35	40.7	40.8	50	51
M3	27/5/2021	Mid-Ebb	Fine	Calm	14:30	0.5	M	0.25	1	0.152	75	7.52	7.52	2.00	2.01	32.50	32.50	89.8	90.2	6.44	6.47	38.5	37.6	42	45
M3	27/5/2021	Mid-Ebb	Fine	Calm	14:30	0.5	M	0.25	2			7.52	7.52	2.01	2.01	32.50	32.50	90.5	90.2	6.49	6.47	36.6	37.6	47	45

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	50.9	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: 27 May 2021 (**Ebb Tide**)
Monitoring Station: M1



Annex D – Site Inspection



Date of site inspection: 25 May 2021
Gullies were bunded by sand bags to prevent surface runoff.



Date of site inspection: 25 May 2021
The surrounding of gullies near the construction site areas were temporarily sealed.



Date of site inspection: 25 May 2021

Manholes were maintained to remove the deposited silt after the rainstorm to prevent overflows.

Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210527_M3_NTU_SS						
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1						
Date:	2021/05/27						
Time: (hh:mm)	(Flood Tide) M1: M2: M3: <u>8:12</u>						
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	59.0	68.0
	M2	1.88	1.79	43.0	52.4	81.0	112.0
	M3	3.28	3.14	74.3	78.0	104.0	167.0
Measured level of exceeded parameter: (fill in / circle as appropriate)	M1	DO (AL / LL) : _____		M3	DO (AL / LL) : _____		
		NTU (AL / LL) : _____			NTU (AL / LL) : <u>138.2</u>		
		SS (AL / LL) : _____			SS (AL / LL) : <u>115</u>		
	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 checked="" type="checkbox"/> In-situ measurement is repeated. <input type="checkbox"/> Other _____						
Possible reason for action or Limit level Non-compliance: (tick / fill in as appropriate)				DO	Turbidity	SS	
	Finding / Evidences						
	<input type="checkbox"/> Upstream Control Station exceeded AL/LL						
	<input type="checkbox"/> Station was polluted by the inflow of other construction site						
	<input type="checkbox"/> Station was polluted by the inflow of residential discharge						
	<input type="checkbox"/> Station was polluted by the inflow of surface runoff from rainstorm and storm water drainage						
	<input checked="" type="checkbox"/> No construction activities were carried out in the vicinity of station				M3	M3	
<input type="checkbox"/> Other _____							

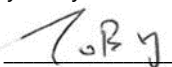
Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210527_M3_NTU_SS			
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1			
Date:	2021/05/27			
Conclusion:	<input checked="" type="checkbox"/>	DO	Turbidity	SS
	Due to change or/and influences of ambient condition in the vicinity, not Project related		M3	M3
	<input type="checkbox"/>			
	Due to influences of construction activities under this project in the vicinity, considered to be Project related			
Mitigation Measures:	<p>The following mitigation measures have been taken:</p> <ol style="list-style-type: none"> 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 checked="" type="checkbox"/> Repeat in-situ measurement was done.			
	M1	DO : _____ NTU : _____	M3	DO : _____ NTU : <u>126.4</u>
	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 Annex D – Site Inspection			

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

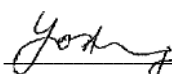
Prepared by: Toby Wan

Signature: 

Date (dd/mm/yyyy): 3/6/2021

Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 3/6/2021

Notes:

- Abbreviation:

DO – Dissolved Oxygen

NTU - Turbidity

SS – Suspended Solids

AL – Action Level

LL – Limit Level

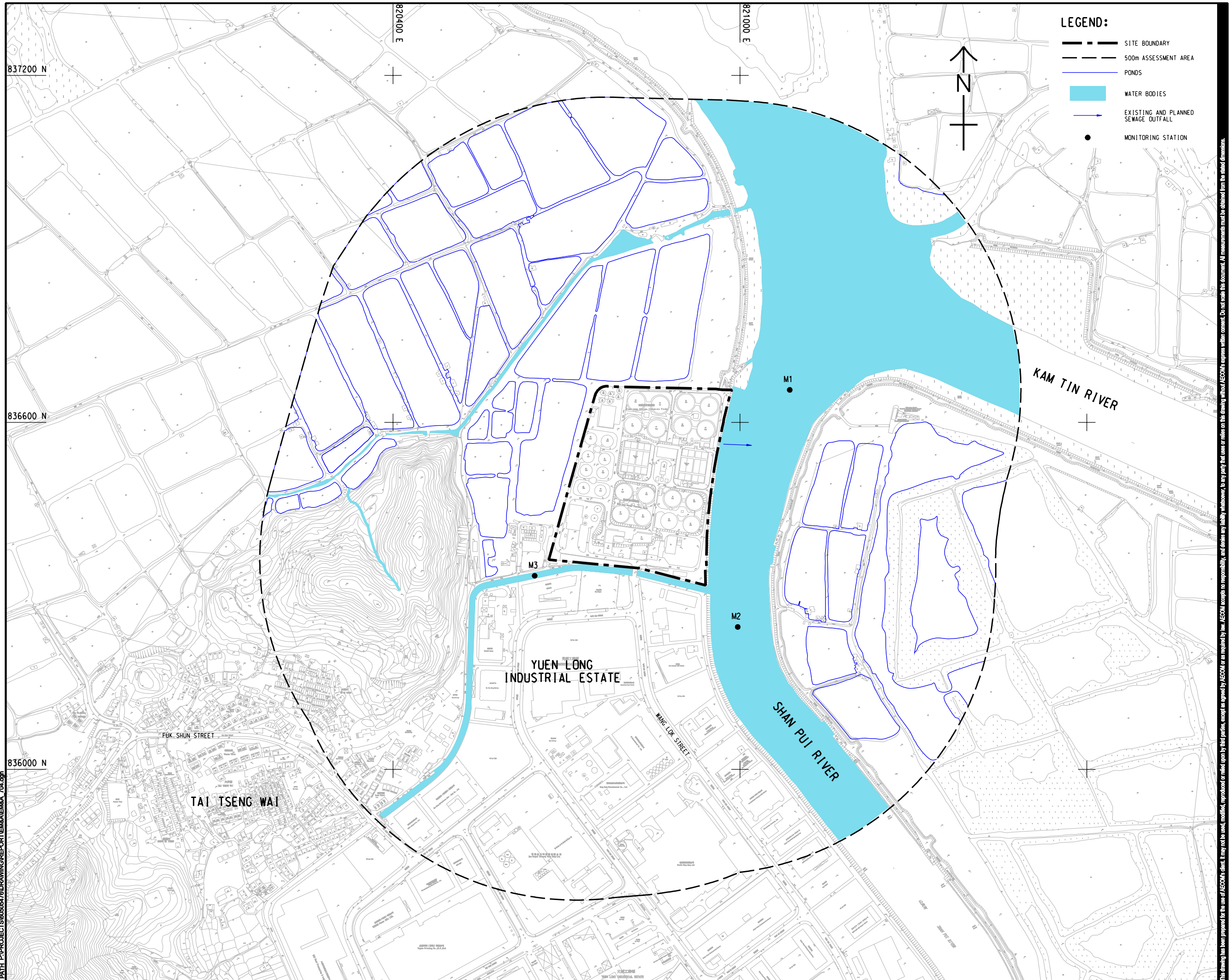
ER – Engineer's Representative

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

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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.
M1	27/5/2021	Mid-Flood	Fine	Calm	07:45	1.6	M	0.8	1	0.174	322	7.38	7.38	5.55	5.55	31.35	31.37	55.9	56.2	3.99	4.02	29.4	29.4	38	39
M1	27/5/2021	Mid-Flood	Fine	Calm	07:45	1.6	M	0.8	2			7.38	7.38	5.54	5.55	31.39	31.37	56.5	56.2	4.05	4.02	29.4	29.4	40	39
M2	27/5/2021	Mid-Flood	Fine	Calm	08:03	1.5	M	0.75	1	0.169	171	7.46	7.46	4.43	4.44	31.35	31.37	61.4	61.6	4.43	4.44	28.7	28.8	48	48
M2	27/5/2021	Mid-Flood	Fine	Calm	08:03	1.5	M	0.75	2			7.45		7.45		4.44		4.44		31.39		31.37		61.8	
M3	27/5/2021	Mid-Flood	Fine	Calm	08:12	1	M	0.5	1	0.082	268	7.08	7.08	2.23	2.23	30.10	30.10	46.8	46.3	3.49	3.46	131.8	138.2	110	115
M3	27/5/2021	Mid-Flood	Fine	Calm	08:12	1	M	0.5	2			7.07		7.07		2.23		2.23		30.10		30.10		45.8	
M1	27/5/2021	Mid-Ebb	Fine	Calm	14:50	1.5	M	0.75	1	0.197	330	7.26	7.26	2.86	2.87	31.37	31.38	43.7	43.8	3.18	3.18	92.1	92.2	120	125
M1	27/5/2021	Mid-Ebb	Fine	Calm	14:50	1.5	M	0.75	2			7.25		7.25		2.87		2.87		31.39		31.38		43.9	
M2	27/5/2021	Mid-Ebb	Fine	Calm	14:24	1.3	M	0.65	1	0.089	80	7.46	7.47	2.75	2.75	32.13	32.16	74.7	74.5	5.36	5.35	40.8	40.8	51	51
M2	27/5/2021	Mid-Ebb	Fine	Calm	14:24	1.3	M	0.65	2			7.47		7.47		2.75		2.75		32.19		32.16		74.3	
M3	27/5/2021	Mid-Ebb	Fine	Calm	14:30	0.5	M	0.25	1	0.152	75	7.52	7.52	2.00	2.01	32.50	32.50	89.8	90.2	6.44	6.47	38.5	37.6	42	45
M3	27/5/2021	Mid-Ebb	Fine	Calm	14:30	0.5	M	0.25	2			7.52		7.52		2.01		2.01		32.50		32.50		90.5	

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	50.9	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: 27 May 2021 (**Flood Tide**)
Monitoring Station: M3



Annex D – Site Inspection



Date of site inspection: 25 May 2021
Gullies were bunded by sand bags to prevent surface runoff.



Date of site inspection: 25 May 2021
The surrounding of gullies near the construction site areas were temporarily sealed.



Date of site inspection: 25 May 2021

Manholes were maintained to remove the deposited silt after the rainstorm to prevent overflows.

Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210529_M3_SS						
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1						
Date:	2021/05/29						
Time: (hh:mm)	(Flood Tide) M1: M2: M3: <u>8:36</u>						
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	59.0	68.0
	M2	1.88	1.79	43.0	52.4	81.0	112.0
	M3	3.28	3.14	74.3	78.0	104.0	167.0
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) : _____			SS (AL / LL) : <u>110</u>		
	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 _____						
Possible reason for action or Limit level Non-compliance: (tick / fill in as appropriate)				DO	Turbidity	SS	
	Finding / Evidences						
	<input checked="" type="checkbox"/> Upstream Control Station exceeded AL/LL					M1 (64 mg/L)	
	<input type="checkbox"/> Station was polluted by the inflow of other construction site						
	<input type="checkbox"/> Station was polluted by the inflow of residential discharge						
	<input type="checkbox"/> Station was polluted by the inflow of surface runoff from rainstorm and storm water drainage						
	<input type="checkbox"/> No construction activities were carried out in the vicinity of station						
<input type="checkbox"/> Other _____							

Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20210529_M3_SS			
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1			
Date:	2021/05/29			
Conclusion:	<input checked="" type="checkbox"/>	DO	Turbidity	SS
	Due to change or/and influences of ambient condition in the vicinity, not Project related			M3
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.

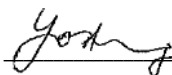
Prepared by: Toby Wan

Signature: 

Date (dd/mm/yyyy): 4/6/2021

Certified by: David Hung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yyyy): 4/6/2021

Notes:

- Abbreviation:

DO – Dissolved Oxygen

NTU - Turbidity

SS – Suspended Solids

AL – Action Level

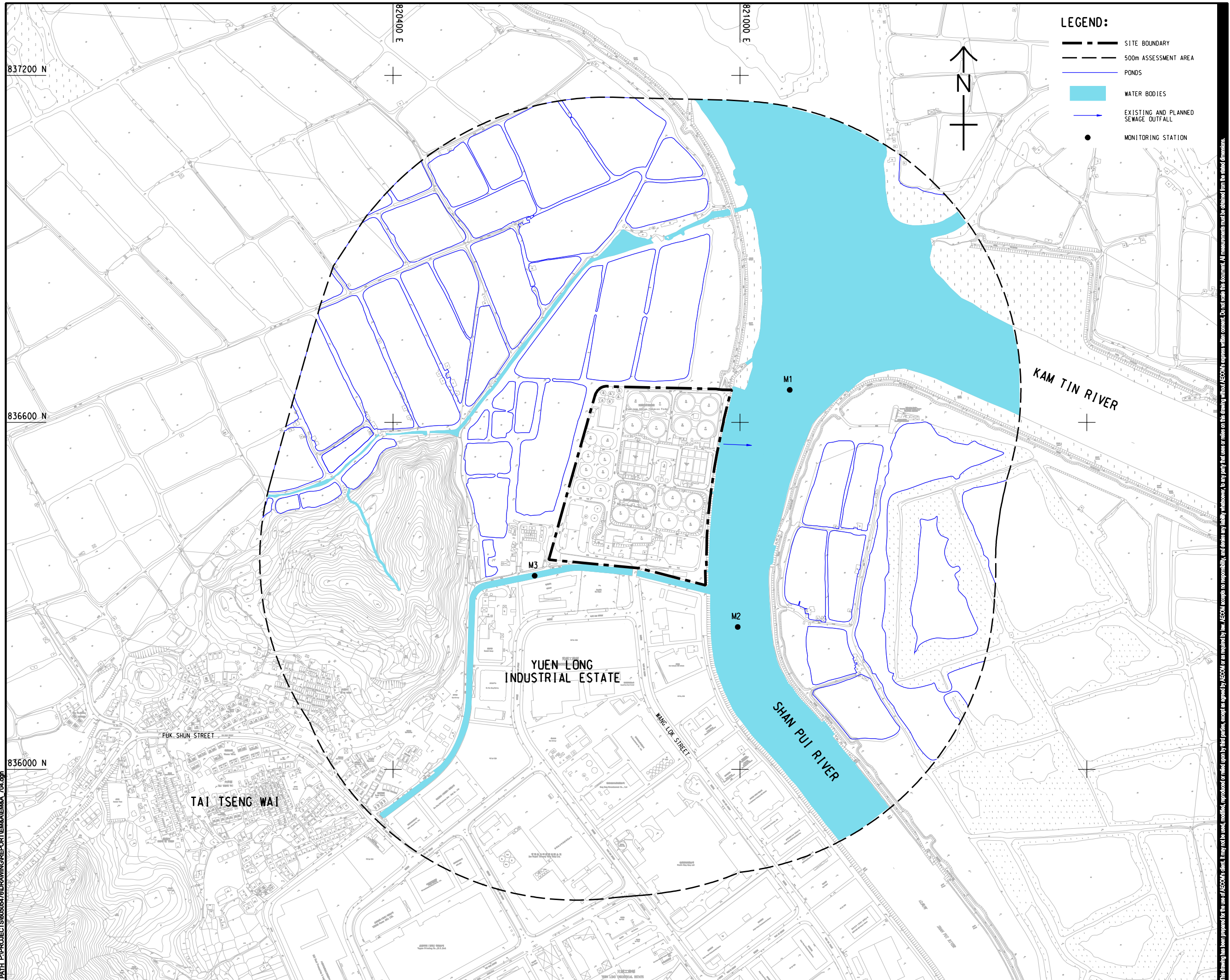
LL – Limit Level

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
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Drainage Services Department

SHEET TITLE
LOCATIONS OF WATER QUALITY MONITORING STATIONS FOR CONSTRUCTION PHASE

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12/18
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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.
M1	29/5/2021	Mid-Flood	Fine	Calm	08:44	1.3	M	0.65	1	0.11	231	7.42	7.43	7.96	7.97	30.62	30.64	59.4	59.5	4.26	4.28	82.4	82.4	64	64
M1	29/5/2021	Mid-Flood	Fine	Calm	08:44	1.3	M	0.65	2			7.44	7.43	7.98	7.97	30.66	30.64	59.6	59.5	4.30	4.28	82.4	82.4	64	64
M2	29/5/2021	Mid-Flood	Fine	Calm	09:10	1.1	M	0.55	1	0.085	255	7.54	7.52	6.89	6.89	30.68	30.80	69.2	68.6	4.96	4.91	39.9	39.6	48	49
M2	29/5/2021	Mid-Flood	Fine	Calm	09:10	1.1	M	0.55	2			7.50	7.52	6.89	6.89	30.91	30.80	68.0	68.6	4.85	4.91	39.2	39.6	50	49
M3	29/5/2021	Mid-Flood	Fine	Calm	08:36	0.3	M	0.15	1	0.199	261	6.90	6.91	2.85	2.86	30.70	30.70	47.2	44.8	3.47	3.30	95.6	96.6	100	110
M3	29/5/2021	Mid-Flood	Fine	Calm	08:36	0.3	M	0.15	2			6.92	6.91	2.86	2.86	30.70	30.70	42.4	44.8	3.12	3.30	97.7	96.6	120	110
M1	29/5/2021	Mid-Ebb	Fine	Calm	16:17	1.2	M	0.6	1	0.065	128	7.61	7.62	6.47	6.48	31.40	31.42	79.1	79.4	5.64	5.65	24.5	24.6	29	30
M1	29/5/2021	Mid-Ebb	Fine	Calm	16:17	1.2	M	0.6	2			7.62	7.62	6.49	6.48	31.43	31.42	79.6	79.4	5.66	5.65	24.6	24.6	31	30
M2	29/5/2021	Mid-Ebb	Fine	Calm	15:58	0.9	M	0.45	1	0.06	136	7.56	7.56	7.56	7.55	31.51	31.51	76.5	76.5	5.43	5.42	28.1	28.1	26	28
M2	29/5/2021	Mid-Ebb	Fine	Calm	15:58	0.9	M	0.45	2			7.56	7.56	7.54	7.55	31.51	31.51	76.4	76.5	5.41	5.42	28.0	28.1	29	28
M3	29/5/2021	Mid-Ebb	Fine	Calm	16:02	0.8	M	0.4	1	0.151	80	7.47	7.48	2.94	2.95	32.30	32.30	101.6	102.0	7.26	7.29	22.7	22.0	22	23
M3	29/5/2021	Mid-Ebb	Fine	Calm	16:02	0.8	M	0.4	2			7.48	7.48	2.95	2.95	32.30	32.30	102.4	102.0	7.31	7.29	21.2	22.0	23	23

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	98.9	107.1	81	112
M3	3.28	3.14	98.9	107.1	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: 29 May 2021 (**Flood Tide**)

Monitoring Station: M1



Date of investigation: 29 May 2021 (**Flood Tide**)

Monitoring Station: M3

