

Appendix 5.10c

Construction Phase Model Results at WSRs – Mitigated Scenarios

Construction Phase Suspended Solids Elevation, Sedimentation and Oxygen Depletion at WSRs - Mitigated Scenarios, See Note 1

WSRs	ID	Assessment Depth	Maximum Suspended Solids Elevations (mg/L)						Maximum Sediment Deposition Rate (g/m ² /day)				Maximum Dissolved Oxygen Depletion (mg/L)					
			Assessment Criteria, Note 2		Predicted Level (Scenario A1)		Predicted Level (Scenario A2)		Assessment Criteria, Note 2	Predicted Level (Scenario A1)		Predicted Level (Scenario A2)		Assessment Criteria, Note 2	Predicted Level (Scenario A1)		Predicted Level (Scenario A2)	
			Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season		Dry Season	Wet Season	Dry Season	Wet Season		Dry Season	Wet Season	Dry Season	Wet Season
Flushing Water Intake																		
Tseung Kwan O	FW1	Depth average	0.1	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	2.73	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Cha Kwo Ling	FW2	Depth average	3.1	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	2.26	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Sai Wan Ho	FW3	Depth average	3.1	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	2.26	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Quarry Bay	FW4	Depth average	3.4	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	2.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Heng Fa Chuen	FW5	Depth average	1.2	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	2.59	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Siu Sai Wan	FW6	Depth average	1.2	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	2.59	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Seawater Intake																		
TKO Desalination Plant	SW1	Depth average	3.0	3.5	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Cooling Water Intake, Note 3																		
Kai Tak District Cooling System	CW1	Depth average	-	-	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Yau Tong Bay Ice Plant	CW2	Depth average	-	-	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tai Koo Place	CW3	Depth average	-	-	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	2.47E-04	2.47E-04	2.47E-04	2.47E-04
North Point Government Office	CW4	Depth average	-	-	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Pamela Youde Nethersole Eastern Hospital	CW5	Depth average	-	-	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Gazetted Bathing Beach																		
Big Wave Bay	B1	Depth average	3.0	3.2	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.59	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Rocky Bay	B2	Depth average	3.0	3.2	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.59	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Shek O	B3	Depth average	3.0	3.2	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.59	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Clear Water Bay First	B4	Depth average	2.6	2.7	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.68	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Clear Water Bay Second	B5	Depth average	2.6	2.7	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.68	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Potential Water Sports Area																		
Junk Bay	WS1	Depth average	3.2	3.4	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.73	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Secondary Contact Recreation Subzone																		
Junk Bay West	C1a	Depth average	3.2	3.4	0.1	0.8	<0.1	<0.1	-	-	-	-	-	0.73	2.47E-04	1.98E-03	2.47E-04	2.47E-04
Junk Bay West	C1d	Depth average	2.9	3.5	0.4	0.3	<0.1	<0.1	-	-	-	-	-	0.59	9.88E-04	7.41E-04	2.47E-04	2.47E-04
Junk Bay West	C1f	Depth average	2.9	3.5	0.4	0.5	0.5	1.0	-	-	-	-	-	0.59	9.88E-04	1.24E-03	1.24E-03	2.47E-03
Junk Bay West	C1g	Depth average	3.2	3.4	0.3	0.6	0.3	0.3	-	-	-	-	-	0.73	7.41E-04	1.48E-03	7.41E-04	7.41E-04
Junk Bay West	CR1	Depth average	2.9	3.5	0.3	0.4	0.3	0.6	-	-	-	-	-	0.59	7.41E-04	9.88E-04	7.41E-04	1.48E-03
Coral Communities																		
Junk Bay West	C1a	Bottom	4.2	3.5	0.1	1.0	<0.1	<0.1	100	6	40	<1	<1	2.33	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Junk Bay West	C1d	Bottom	3.3	3.8	0.5	0.6	<0.1	0.3	100	21	24	2	5	1.69	1.24E-03	1.48E-03	2.47E-04	7.41E-04

Construction Phase Suspended Solids Elevation, Sedimentation and Oxygen Depletion at WSRs - Mitigated Scenarios, See Note 1

WSRs	ID	Assessment Depth	Maximum Suspended Solids Elevations (mg/L)						Maximum Sediment Deposition Rate (g/m ² /day)				Maximum Dissolved Oxygen Depletion (mg/L)					
			Assessment Criteria, Note 2		Predicted Level (Scenario A1)		Predicted Level (Scenario A2)		Assessment Criteria, Note 2	Predicted Level (Scenario A1)		Predicted Level (Scenario A2)		Assessment Criteria, Note 2	Predicted Level (Scenario A1)		Predicted Level (Scenario A2)	
			Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season		Dry Season	Wet Season	Dry Season	Wet Season		Dry Season	Wet Season	Dry Season	Wet Season
Coral Communities																		
Junk Bay West	C1e	Bottom	3.3	3.8	1.5	1.1	0.7	2.0	100	65	49	34	82	1.69	3.71E-03	2.72E-03	1.73E-03	4.94E-03
Junk Bay West	C1f	Bottom	3.3	3.8	0.6	0.9	0.6	0.8	100	26	38	24	33	1.69	1.48E-03	2.22E-03	1.48E-03	1.98E-03
Junk Bay West	C1g	Bottom	4.2	3.5	0.6	0.9	0.4	0.6	100	26	38	15	28	2.33	1.48E-03	2.22E-03	9.88E-04	1.48E-03
Junk Bay	C2	Bottom	3.3	3.8	1.4	1.6	0.5	0.5	100	68	73	22	19	1.69	3.46E-03	3.95E-03	1.24E-03	1.24E-03
Lohas Park	C3	Bottom	4.2	3.5	<0.1	<0.1	<0.1	<0.1	100	<1	1	<1	<1	2.33	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Junk Island	C4	Bottom	4.2	3.5	<0.1	0.2	<0.1	<0.1	100	1	8	<1	<1	2.33	2.47E-04	4.94E-04	2.47E-04	2.47E-04
TKO Innopark	C5a	Bottom	4.2	3.5	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	2.33	2.47E-04	2.47E-04	2.47E-04	2.47E-04
TKO Innopark	C5b	Bottom	4.2	3.5	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	2.33	2.47E-04	2.47E-04	2.47E-04	2.47E-04
TKO Innopark	C5c	Bottom	4.2	3.5	<0.1	<0.1	<0.1	<0.1	100	<1	1	<1	1	2.33	2.47E-04	2.47E-04	2.47E-04	2.47E-04
TKO Innopark	C5d	Bottom	4.2	3.5	<0.1	<0.1	<0.1	<0.1	100	<1	1	1	2	2.33	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Fat Tong Chau	C6a	Bottom	3.3	3.8	<0.1	<0.1	<0.1	<0.1	100	<1	1	1	2	1.69	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Fat Tong Chau	C6b	Bottom	3.3	3.8	<0.1	<0.1	<0.1	<0.1	100	<1	1	2	2	1.69	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tit Cham Chau	C7	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	2	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Kwun Tsai	C8	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tin Ha Au	C9	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tin Ha Shan	C10	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tai Miu Wan	C11	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tung Lung Chau West	C12	Bottom	3.6	3.3	<0.1	<0.1	<0.1	<0.1	100	1	1	<1	1	1.60	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tung Lung Chau North	C13	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tung Lung Chau North	C14	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tung Lung Chau North	C15	Bottom	2.7	3.6	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tung Lung Chau East	C16	Bottom	2.7	3.6	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tung Lung Chau East	C17	Bottom	2.7	3.6	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tung Lung Chau South	C18	Bottom	3.6	3.3	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.60	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Cape Collinson	C19	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Cape Collinson	C20	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Cape Collinson	C21	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tai Long Pai	C22	Bottom	3.6	3.3	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.60	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Shek Mei Tau	C23	Bottom	2.7	3.6	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04
So Shi Tau	C24	Bottom	2.7	3.6	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tai Wan Tau	C25	Bottom	2.7	3.6	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tai Hang Tun North	C26	Bottom	2.7	3.6	<0.1	<0.1	<0.1	<0.1	100	<1	<1	<1	<1	1.50	2.47E-04	2.47E-04	2.47E-04	2.47E-04

Construction Phase Suspended Solids Elevation, Sedimentation and Oxygen Depletion at WSRs - Mitigated Scenarios, See Note 1

WSRs	ID	Assessment Depth	Maximum Suspended Solids Elevations (mg/L)						Maximum Sediment Deposition Rate (g/m ² /day)				Maximum Dissolved Oxygen Depletion (mg/L)					
			Assessment Criteria, Note 2		Predicted Level (Scenario A1)		Predicted Level (Scenario A2)		Assessment Criteria, Note 2	Predicted Level (Scenario A1)		Predicted Level (Scenario A2)		Assessment Criteria, Note 2	Predicted Level (Scenario A1)		Predicted Level (Scenario A2)	
			Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season		Dry Season	Wet Season	Dry Season	Wet Season		Dry Season	Wet Season	Dry Season	Wet Season
Coral Communities																		
Hong Kong Museum of Coastal Defence	C27	Bottom	3.1	3.8	<0.1	<0.1	<0.1	<0.1	100	1	<1	<1	<1	1.27	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Coral Recipient Site																		
Junk Bay West	CR1	Bottom	3.3	3.8	0.4	0.4	0.3	0.5	100	17	17	15	22	1.69	9.88E-04	9.88E-04	7.41E-04	1.24E-03
Fat Tong Chau	CR2	Bottom	3.5	4.0	0.2	<0.1	0.4	0.3	100	8	4	16	14	1.66	4.94E-04	2.47E-04	9.88E-04	7.41E-04
Amphioxus																		
Tit Cham Chau	A1	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	3	1	1	4	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Tathong Channel	A2	Bottom	3.8	4.1	<0.1	<0.1	<0.1	<0.1	100	1	<1	<1	<1	1.67	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Site of Special Scientific Interest (SSSI)																		
Shek O Headland	SS1	Depth average	3.0	3.2	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.59	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Fisheries Sensitive Receivers																		
Tung Lung Chau FCZ	F1	Depth average	3.0	3.5	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.05	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Po Toi O FCZ	F2	Depth average	2.6	2.7	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.05	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Important Spawning Ground of Commercial Fisheries Resources	SG1	Depth average	3.0	3.2	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.59	2.47E-04	2.47E-04	2.47E-04	2.47E-04
	SG2	Depth average	3.0	3.2	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.59	2.47E-04	2.47E-04	2.47E-04	2.47E-04
	SG3	Depth average	2.6	2.7	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.68	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Important Nursery Ground of Commercial Fisheries Resources	NG1	Depth average	2.9	2.0	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.23	2.47E-04	2.47E-04	2.47E-04	2.47E-04
Typhoon Shelter																		
Sam Ka Tsuen	T1	Depth average	2.1	3.7	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	0.26	2.47E-04	2.47E-04	2.47E-04	2.47E-04

Notes

- Mitigation measures considered under Scenario A1 and Scenario A2:
 - Single layer silt curtain is deployed around the marine construction works at TKO 137.
 - Double layer silt curtain is deployed around the marine construction works at TKO 132, except for the construction of marine viaducts where only single layer silt curtain is deployed.
- Details of assessment criteria are presented in Section 5.7.2.
- There are no applicable assessment criteria for the cooling water intakes (see Section 5.2.11).

Shaded Cell (in Yellow) - Exceedance of assessment criteria