Appendix 5.11c

Operation Phase Water Quality Model Results at WSRs

Operational Phase Water Quality Model Results at WSRs

WSRs (Assessment Depth) Figure 5.1	ID	Scenarios	Water Quality Parameters [Note (a)]										
			Annual Minimum DO	Annual Maximum SS	Annual Maximum NH_3-N	Annual Maximum BOD_5	Annual Maximum *E. coli*	Annual 10%ile Bottom DO	Annual 10%ile Depth Average DO	Annual Mean TIN	Annual Mean UIA	Geometric Mean *E. coli*	Annual Maximum Sedimentation Rate
			mg/L	mg/L	mg/L	mg/L	no. / 100 mL	mg/L	mg/L	mg/L	mg/L	no. / 100 mL	$g/m^2/day$
Flushing Water Intake (Depth average)													
		WSD's Target Water Quality Objectives for Flushing Water Intakes:	**> 2**	**< 10**	**< 1**	**< 10**	**<20,000**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Tseung Kwan O	FW1	Scenario B1 – Baseline scenario without the Project	2.8	4.7	0.2	2.4	18022	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.7	4.7	0.2	2.3	16901	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.7	4.7	0.2	2.3	16892	-	-	-	-	-	-
Cha Kwo Ling	FW2	Scenario B1 – Baseline scenario without the Project	3.8	8.1	0.4	2.6	17352	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.8	8.2	0.4	2.6	17320	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.8	8.2	0.4	2.6	17334	-	-	-	-	-	-
Sai Wan Ho	FW3	Scenario B1 – Baseline scenario without the Project	3.8	3.9	0.2	1.6	6269	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.7	3.9	0.2	1.6	6286	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.7	3.9	0.2	1.6	6288	-	-	-	-	-	-
Quarry Bay	FW4	Scenario B1 – Baseline scenario without the Project	3.8	4.0	0.3	1.6	10765	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.7	4.0	0.3	1.7	10738	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.7	4.0	0.3	1.7	10745	-	-	-	-	-	-
Heng Fa Chuen	FW5	Scenario B1 – Baseline scenario without the Project	3.8	3.1	0.2	1.5	4916	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.8	3.1	0.2	1.5	4633	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.8	3.1	0.2	1.5	4595	-	-	-	-	-	-
Siu Sai Wan	FW6	Scenario B1 – Baseline scenario without the Project	3.9	3.3	0.2	1.7	14592	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.7	3.3	0.2	1.7	14484	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.8	3.3	0.2	1.7	14485	-	-	-	-	-	-
Seawater Intake (Depth average)													
		WSD's Seawater Quality Design Basis Value for SS / Water Quality Objectives for Eastern Buffer Water Control Zone [Note (b)]:	**NA**	**≤ 40**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.4**	**≤0.021**	**NA**	**NA**
TKO Desalination Plant	SW1	Scenario B1 – Baseline scenario without the Project	-	1.9	-	-		5.2	5.7	0.2	0.004	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	1.9	-	-		5.2	5.7	0.2	0.004	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	1.9	-	-		5.3	5.7	0.2	0.004	-	-
Cooling Water Intake (Depth average)													
		Assessment Criteria [Note (c)]:	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Kai Tak District Cooling System	CW1	Scenario B1 – Baseline scenario without the Project	3.7	8.6	0.4	2.3	9181	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.9	8.7	0.4	2.3	9174	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.9	8.6	0.4	2.3	9180	-	-	-	-	-	-
Yau Tong Bay Ice Plant	CW2	Scenario B1 – Baseline scenario without the Project	3.8	4.5	0.4	2.0	18061	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.7	4.5	0.4	2.0	18253	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.7	4.5	0.4	2.0	18225	-	-	-	-	-	-
Tai Koo Place	CW3	Scenario B1 – Baseline scenario without the Project	3.7	4.0	0.3	1.6	8694	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.7	4.1	0.3	1.6	8800	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.7	4.1	0.3	1.6	8809	-	-	-	-	-	-
North Point Government Office	CW4	Scenario B1 – Baseline scenario without the Project	3.7	4.0	0.3	1.6	13614	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.7	4.0	0.3	1.7	13606	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.7	4.0	0.3	1.7	13661	-	-	-	-	-	-
Pamela Youde Nethersole Eastern Hospital	CW5	Scenario B1 – Baseline scenario without the Project	3.8	3.1	0.2	1.5	8958	-	-	-	-	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.8	3.1	0.2	1.6	8934	-	-	-	-	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.8	3.1	0.2	1.6	8933	-	-	-	-	-	-
Gazetted Bathing Beach (Depth average)													
		Water Quality Objectives for Southern and Port Shelter Water Control Zones:	**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.1**	**≤0.021**	**≤180 (Mar to Oct)**	**NA**
Big Wave Bay	B1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.6	5.7	**0.2**	0.0037	80	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.6	5.7	**0.2**	0.0037	81	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.6	5.7	**0.2**	0.0037	81	-
Rocky Bay	B2	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.1	5.5	**0.2**	0.0039	120	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.1	5.4	**0.2**	0.0039	124	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.1	5.4	**0.2**	0.0039	124	-
Shek O	B3	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.5	5.6	**0.2**	0.0038	19	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.5	5.6	**0.2**	0.0038	19	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.5	5.6	**0.2**	0.0038	19	-
Clear Water Bay First	B4	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	6.7	6.7	0.1	0.0031	65	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	6.7	6.7	0.1	0.0031	65	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	6.7	6.7	0.1	0.0031	65	-
Clear Water Bay Second	B5	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	6.7	6.7	0.1	0.0031	73	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	6.7	6.7	0.1	0.0031	73	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	6.7	6.7	0.1	0.0031	73	-
Potential Water Sports Area (Depth average)													
		Water Quality Objectives for Junk Bay Water Control Zone:	**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.3**	**≤0.021**	**NA**	**NA**
Junk Bay	WS1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.4	5.1	0.3	0.005	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.3	5.1	0.3	0.005	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.3	5.2	0.3	0.005	-	-

Operational Phase Water Quality Model Results at WSRs

WSRs (Assessment Depth) Figure 5.1	ID	Scenarios	Water Quality Parameters [Note (a)]										
			Annual Minimum DO	Annual Maximum SS	Annual Maximum NH_3-N	Annual Maximum BOD_5	Annual Maximum *E. coli*	Annual 10%ile Bottom DO	Annual 10%ile Depth Average DO	Annual Mean TIN	Annual Mean UIA	Geometric Mean *E. coli*	Annual Maximum Sedimentation Rate
			mg/L	mg/L	mg/L	mg/L	no. / 100 mL	mg/L	mg/L	mg/L	mg/L	no. / 100 mL	$g/m^2/day$
Secondary Contact Recreation Subzone (Depth average)													
Water Quality Objectives for Secondary Contact Recreation Subzone in Junk Bay Water Control Zone:			NA	NA	NA	NA	NA	**≥ 2**	**≥ 4**	**≤0.3**	**≤0.021**	**≤610 (Annual)**	**NA**
Junk Bay West	C1a	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.2	5.3	0.2	0.005	114	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.3	5.5	0.2	0.005	79	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.4	5.5	0.2	0.005	79	-
Junk Bay West	C1d	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.1	0.2	0.005	104	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.9	5.1	0.2	0.005	111	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-		-	-	-	4.9	5.1	0.2	0.005	112	-
Junk Bay West	C1f	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.8	5.1	0.2	0.005	61	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.8	5.2	0.2	0.005	29	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-		-	-	-	4.8	5.2	0.2	0.005	29	-
Junk Bay West	C1g	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.2	0.2	0.005	102	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.0	5.4	0.2	0.005	63	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.0	5.4	0.2	0.005	63	-
Junk Bay West	CR1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.0	5.2	0.2	0.005	54	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.0	5.3	0.2	0.005	30	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.0	5.3	0.2	0.005	30	-
Coral Recipient Sites for Translocated Corals under Previous Projects (Bottom)													
Water Quality Objectives for Junk Bay Water Control Zone / Sedimentation Criterion for Benthic Communities:			NA	NA	NA	NA	NA	**≥ 2**	**≥ 4**	**≤0.3**	**≤0.021**	**NA**	**≤100**
Junk Bay West	CR1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.0	5.2	0.2	0.005	-	8
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.0	5.3	0.2	0.005	-	9
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.0	5.3	0.2	0.005	-	9
Fai Tong Chau	CR2	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.1	5.2	0.2	0.005	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.1	5.2	0.2	0.005	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.1	5.2	0.2	0.005	-	7
Coral Communities (Bottom)													
Water Quality Objectives for Junk Bay and Mirs Bay Water Control Zones / Sedimentation Criterion for Benthic Communities:			NA	NA	NA	NA	NA	**≥ 2**	**≥ 4**	**≤0.3**	**≤0.021**	**NA**	**≤100**
Junk Bay West	C1a	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.2	5.3	0.2	0.005	-	11
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.3	5.5	0.2	0.005	-	14
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.4	5.5	0.2	0.005	-	14
Junk Bay West	C1d	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.1	0.2	0.004	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.9	5.1	0.2	0.004	-	6
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-		-	-	-	4.9	5.1	0.2	0.004	-	6
Junk Bay West	C1e	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.2	0.2	0.005	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.8	5.2	0.2	0.005	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.8	5.2	0.2	0.005	-	7
Junk Bay West	C1f	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.8	5.1	0.2	0.005	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-		-	-	-	4.8	5.2	0.2	0.005	-	8
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.8	5.2	0.2	0.005	-	8
Junk Bay West	C1g	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.2	0.2	0.005	-	9
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-		-	-	-	5.0	5.4	0.2	0.006	-	12
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.0	5.4	0.2	0.006	-	12
Junk Bay	C2	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.8	5.2	0.2	0.005	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.8	5.2	0.2	0.005	-	6
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.8	5.3	0.2	0.005	-	6
Tung Lung Chau North	C15	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.2	5.5	0.2	0.004	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.2	5.5	0.2	0.004	-	5
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.3	5.5	0.2	0.004	-	5
Tung Lung Chau East	C16	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.5	0.2	0.004	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.9	5.5	0.2	0.004	-	5
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.9	5.6	0.2	0.004	-	5
Tung Lung Chau East	C17	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.3	5.6	0.2	0.003	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.3	5.6	0.2	0.003	-	5
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.3	5.6	0.2	0.003	-	5
Lohas Park	C3	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.4	4.9	0.3	0.006	-	8
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.3	4.9	0.3	0.007	-	8
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.3	4.9	0.3	0.007	-	8
Junk Island	C4	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.1	4.9	0.3	0.007	-	9
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	3.9	4.8	0.3	0.007	-	9
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	3.9	4.9	0.3	0.007	-	9

Operational Phase Water Quality Model Results at WSRs

WSRs (Assessment Depth) Figure 5.1	ID	Scenarios	Water Quality Parameters [Note (a)]										
			Annual Minimum DO	Annual Maximum SS	Annual Maximum NH_3-N	Annual Maximum BOD_5	Annual Maximum *E. coli*	Annual 10%ile Bottom DO	Annual 10%ile Depth Average DO	Annual Mean TIN	Annual Mean UIA	Geometric Mean *E. coli*	Annual Maximum Sedimentation Rate
			mg/L	mg/L	mg/L	mg/L	no. / 100 mL	mg/L	mg/L	mg/L	mg/L	no. / 100 mL	$g/m^2/day$
Coral Communities (Bottom)				-									
Water Quality Objectives for Junk Bay Water Control Zones / Sedimentation Criterion for Benthic Communities:			NA	NA	NA	NA	NA	**≥ 2**	**≥ 4**	**≤0.3**	**≤0.021**	**NA**	**≤100**
TKO INNOPARK	C5a	Scenario B1 – Baseline scenario without the Project	-		-	-	-	4.2	4.8	0.3	0.007	-	8
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.1	4.8	0.3	0.007	-	8
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.1	4.8	0.3	0.007	-	8
TKO INNOPARK	C5b	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.5	5.0	0.2	0.006	-	8
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.5	5.0	0.3	0.006	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.5	5.0	0.3	0.006	-	7
TKO INNOPARK	C5c	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.7	5.0	0.2	0.006	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.6	5.0	0.2	0.006	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.7	5.0	0.2	0.006	-	7
TKO INNOPARK	C5d	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.8	5.0	0.2	0.005	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.7	5.0	0.2	0.005	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.8	5.1	0.2	0.005	-	7
Fat Tong Chau	C6a	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.1	0.2	0.005	-	8
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.9	5.1	0.3	0.006	-	8
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.9	5.1	0.3	0.006	-	8
Fai Tong Chau	C6b	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.0	5.1	0.2	0.005	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.0	5.1	0.2	0.005	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.0	5.1	0.3	0.005	-	7
Water Quality Objectives for Eastern Buffer Water Control Zone / Sedimentation Criterion for Benthic Communities:			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.4**	**≤0.021**	**NA**	**≤100**
Tit Cham Chau	C7	Scenario B1 – Baseline scenario without the Project	-		-	-	-	5.5	5.7	0.2	0.004	-	6
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.5	5.7	0.2	0.004	-	6
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.5	5.7	0.2	0.004	-	6
Kwun Tsai	C8	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	6.0	6.0	0.2	0.004	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	6.0	6.0	0.2	0.004	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	6.0	6.1	0.2	0.004	-	7
Tin Ha Au	C9	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.5	5.9	0.2	0.004	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.5	5.9	0.2	0.004	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.6	5.9	0.2	0.004	-	7
Tin Ha Shan	C10	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.2	5.7	0.2	0.005	-	6
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.1	5.8	0.2	0.005	-	6
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.2	5.8	0.2	0.005	-	6
Tai Miu Wan	C11	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.0	5.5	0.2	0.004	-	6
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.0	5.6	0.2	0.005	-	6
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.1	5.6	0.2	0.005	-	6
Tung Lung Chau West	C12	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.8	5.3	0.2	0.004	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.7	5.3	0.2	0.004	-	4
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.8	5.4	0.2	0.004	-	5
Tung Lung Chau North	C13	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.4	0.2	0.004	-	6
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.8	5.4	0.2	0.005	-	6
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.9	5.4	0.2	0.005	-	6
Tung Lung Chau North	C14	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.8	5.3	0.2	0.005	-	6
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.8	5.4	0.2	0.005	-	6
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.8	5.4	0.2	0.005	-	6
Tung Lung Chau South	C18	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.3	5.2	0.2	0.003	-	3
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.3	5.2	0.2	0.003	-	3
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.2	5.2	0.2	0.003	-	3
Cape Collinson	C19	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.5	5.1	0.2	0.004	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.5	5.1	0.2	0.004	-	5
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.5	5.1	0.2	0.004	-	5
Cape Collinson	C20	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.4	5.1	0.2	0.004	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.4	5.0	0.2	0.004	-	5
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.4	5.0	0.2	0.004	-	5
Cape Collinson	C21	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.5	5.2	0.2	0.004	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.5	5.2	0.2	0.004	-	5
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.5	5.2	0.2	0.004	-	5
Tai Long Pai	C22	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.3	5.1	0.2	0.003	-	4
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.3	5.1	0.2	0.003	-	4
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.2	5.1	0.2	0.003	-	4

Operational Phase Water Quality Model Results at WSRs

WSRs (Assessment Depth) Figure 5.1	ID	Scenarios	Water Quality Parameters [Note (a)]										
			Annual Minimum DO	Annual Maximum SS	Annual Maximum NH_3-N	Annual Maximum BOD_5	Annual Maximum *E. coli*	Annual 10%ile Bottom DO	Annual 10%ile Depth Average DO	Annual Mean TIN	Annual Mean UIA	Geometric Mean *E. coli*	Annual Maximum Sedimentation Rate
			mg/L	mg/L	mg/L	mg/L	no. / 100 mL	mg/L	mg/L	mg/L	mg/L	no. / 100 mL	$g/m^2/day$
Coral Communities (Bottom)				-									
Water Quality Objectives for Eastern Buffer Water Control Zone / Sedimentation Criterion for Benthic Communities:			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.4**	**≤0.021**	**NA**	**≤100**
Hong Kong Museum of Coastal Defence	C27	Scenario B1 – Baseline scenario without the Project	-		-	-	-	4.8	5.0	0.2	0.005	-	6
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-		-	-	-	4.8	5.0	0.2	0.005	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.8	5.0	0.2	0.005	-	7
Water Quality Objectives for Port Shelter Water Control Zone / Sedimentation Criterion for Benthic Communities:			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.1**	**≤0.021**	**NA**	**≤100**
Shek Mei Tau	C23	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.7	**0.2**	0.004	-	4
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.9	5.7	**0.2**	0.004	-	4
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.9	5.7	**0.2**	0.004	-	4
So Shi Tau	C24	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.5	5.5	**0.2**	0.006	-	8
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.5	5.5	**0.2**	0.006	-	9
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.5	5.5	**0.2**	0.006	-	9
Tai Wan Tau	C25	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.1	6.1	**0.2**	0.005	-	8
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.0	6.1	**0.2**	0.005	-	8
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.1	6.1	**0.2**	0.005	-	8
Tai Hang Tun North	C26	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.7	**0.2**	0.004	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.9	5.7	**0.2**	0.004	-	5
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.9	5.7	**0.2**	0.004	-	5
Amphioxus (Bottom)													
Water Quality Objectives for Eastern Buffer Water Control Zone / Sedimentation Criterion for Benthic Communities:			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.4**	**≤0.021**	**NA**	**≤100**
Tit Cham Chau	A1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	5.0	5.4	0.3	0.006	-	7
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	5.0	5.4	0.3	0.006	-	7
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	5.0	5.4	0.3	0.006	-	7
Tathong Channel	A2	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.5	5.2	0.2	0.004	-	5
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.6	5.2	0.2	0.004	-	5
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.6	5.2	0.2	0.004	-	5
Site of Special Scientific Interest (Depth average)													
Water Quality Objectives for Southern Water Control Zone			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.1**	**≤0.021**	**NA**	**NA**
Shek O Headland	SS1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.4	**0.2**	0.004	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.8	5.4	**0.2**	0.004	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-		-	-	-	4.8	5.4	**0.2**	0.004	-	-
Fisheries Sensitive Receivers (Depth average)													
Water Quality Objectives for Fish Cultere Zone in Eastern Buffer Water Control Zone			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 5**	**≤0.4**	**≤0.021**	**≤610 (Annual)**	**NA**
Tung Lung Chau Fish Culture Zone	F1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.8	5.4	0.2	0.004	27	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.7	5.4	0.2	0.004	27	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-		-	-	-	4.8	5.4	0.2	0.004	27	-
Water Quality Objectives for Eastern Buffer Water Control Zone			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.4**	**≤0.021**	**NA**	**NA**
Important Spawning Ground of Commercial Fisheries Resources	SG2	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.2	5.0	0.2	0.003	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.1	4.9	0.2	0.003	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-		-	-	-	4.0	5.0	0.2	0.003	-	-
Water Quality Objectives for Fish Culture Zone in Port Shelter Water Control Zone			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 5**	**≤0.1**	**≤0.021**	**≤610 (Annual)**	**NA**
Po Toi O Fish Culture Zone	F2	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	6.4	6.8	0.1	0.004	**2455**	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	6.4	6.8	0.1	0.004	**2455**	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	6.4	6.8	0.1	0.004	**2455**	-
Fisheries Sensitive Receivers (Depth average)													
Water Quality Objectives for Mirs Bay Water Control Zones			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.3**	**≤0.021**	**NA**	**NA**
Important Spawning Ground of Commercial Fisheries Resources	SG3	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.9	5.4	0.2	0.004	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.9	5.4	0.2	0.004	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-		-	-	-	4.9	5.4	0.2	0.004		-
Water Quality Objectives for Southern and Port Shelter Water Control Zones			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.1**	**≤0.021**	**NA**	**NA**
Important Spawning Ground of Commercial Fisheries Resources	SG1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.3	5.2	**0.2**	0.003	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.3	5.1	**0.2**	0.003	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.2	5.2	**0.2**	0.003	-	-
Important Nursery Ground of Commercial Fisheries Resources	NG1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.1	5.4	**0.2**	0.004	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.1	5.4	**0.2**	0.004	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-		-	-	-	4.1	5.4	**0.2**	0.004	-	-
Typhoon Shelter (Depth average)													
Water Quality Objectives for Victoria Harbour Water Control Zone			**NA**	**NA**	**NA**	**NA**	**NA**	**≥ 2**	**≥ 4**	**≤0.4**	**≤0.021**	**NA**	**NA**
Sam Ka Tsuen	T1	Scenario B1 – Baseline scenario without the Project	-	-	-	-	-	4.8	5.0	0.3	0.008	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	-	-	-	-	-	4.8	5.0	0.3	0.008	-	-
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	-	-	-	-	-	4.8	5.0	0.3	0.008	-	-

Shaded and Bolded Value - Exceedance of Assessment Criteria

(a) The model results for suspended solids and salinity are compared against their respecitve WQOs for relevant WSRs in the subsequent pages.

(b) For SW1, the WSD's seawater quality design basis value is adopted as the assessment criterion for SS. The model results for SS are also compared against the WQO in the subsequent pages. For remaining parameters, the WQOs are adopted as the assessment criteria.

(c) There are no applicable assessment criteria for the cooling water intakes (see Secton 5.2.11).

Operational Phase Suspended Solids Elevations

WSRs (Assessment Depth) Figure 5.1	ID	Scenarios	Annual Maximum SS Level (mg/L)	Increase in Annual Maximum SS Level (mg/L)	% Increase	Annual Mean SS Level (mg/L)	Increase in Annual Mean SS Level (mg/L)	% Increase
		Water Quality Objective	**NA**	**NA**	**≤30%**	**NA**	**NA**	**≤30%**
Seawater Intake (Depth average)								
TKO Desalination Plant	SW1	Scenario B1 – Baseline scenario without the Project	1.9	-	-	0.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.9	0.02	1.09%	0.4	0.00	-0.75%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.9	0.03	1.46%	0.4	0.00	-0.46%
Gazetted Bathing Beach (Depth average)								
Big Wave Bay	B1	Scenario B1 – Baseline scenario without the Project	4.1	-	-	0.6	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	4.1	-0.03	-0.64%	0.6	0.01	1.43%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	4.1	-0.06	-1.33%	0.6	0.01	1.89%
Rocky Bay	B2	Scenario B1 – Baseline scenario without the Project	3.0	-	-	0.7	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.1	0.07	2.31%	0.7	0.01	0.97%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.2	0.14	4.76%	0.7	0.01	1.37%
Shek O	B3	Scenario B1 – Baseline scenario without the Project	2.1	-	-	0.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.0	-0.09	-4.18%	0.4	0.00	0.98%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.1	0.02	0.83%	0.4	0.01	1.69%
Clear Water Bay First	B4	Scenario B1 – Baseline scenario without the Project	1.4	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.4	0.02	1.23%	0.2	0.00	-0.87%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.4	-0.01	-0.69%	0.2	0.00	-1.15%
Clear Water Bay Second	B5	Scenario B1 – Baseline scenario without the Project	1.6	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.7	0.01	0.71%	0.3	0.00	-0.39%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.6	-0.02	-1.19%	0.3	0.00	-0.41%
Potential Water Sports Area (Depth average)								
Junk Bay	WS1	Scenario B1 – Baseline scenario without the Project	3.0	-	-	0.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.1	0.15	4.93%	0.9	0.02	2.25%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.1	0.15	5.00%	0.9	0.02	2.52%
Secondary Contact Recreation Subzone (Depth average)								
Junk Bay West	C1a	Scenario B1 – Baseline scenario without the Project	4.5	-	-	0.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	4.2	-0.29	-6.42%	1.0	0.03	2.79%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	4.2	-0.28	-6.27%	1.0	0.03	3.00%
Junk Bay West	C1d	Scenario B1 – Baseline scenario without the Project	2.6	-	-	0.6	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.5	-0.16	-5.89%	0.6	0.01	0.86%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.5	-0.16	-6.02%	0.6	0.01	1.22%
Junk Bay West	C1f	Scenario B1 – Baseline scenario without the Project	2.7	-	-	0.7	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.5	-0.15	-5.69%	0.7	-0.03	-3.84%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.5	-0.15	-5.54%	0.7	-0.02	-3.52%
Junk Bay West	C1g	Scenario B1 – Baseline scenario without the Project	3.9	-	-	0.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.5	-0.40	-10.20%	0.9	0.03	3.77%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.5	-0.40	-10.25%	0.9	0.03	3.98%
Junk Bay West	CR1	Scenario B1 – Baseline scenario without the Project	3.0	-	-	0.7	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.7	-0.27	-9.23%	0.7	-0.02	-3.37%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.7	-0.27	-9.17%	0.7	-0.02	-3.09%
Coral Recipient Sites for Translocated Corals under Previous Projects (Bottom)								
Junk Bay West	CR1	Scenario B1 – Baseline scenario without the Project	5.2	-	-	0.7	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	6.2	1.00	19.24%	0.7	-0.02	-2.90%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	6.2	1.00	19.31%	0.7	-0.02	-2.56%
Fai Tong Chau	CR2	Scenario B1 – Baseline scenario without the Project	3.0	-	-	0.6	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.0	0.00	-0.09%	0.6	0.01	2.41%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.0	0.00	-0.02%	0.6	0.02	2.75%
Coral Communities (Bottom)								
Junk Bay West	C1a	Scenario B1 – Baseline scenario without the Project	7.3	-	-	1.0	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	7.5	0.23	3.15%	1.0	0.03	3.62%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	7.5	0.21	2.84%	1.0	0.04	3.84%
Junk Bay West	C1d	Scenario B1 – Baseline scenario without the Project	2.3	-	-	0.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.2	-0.11	-4.63%	0.5	0.00	0.06%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.2	-0.09	-3.84%	0.5	0.00	0.49%
Junk Bay West	C1e	Scenario B1 – Baseline scenario without the Project	2.3	-	-	0.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.2	-0.10	-4.37%	0.5	0.01	2.43%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.2	-0.08	-3.50%	0.5	0.02	2.90%
Junk Bay West	C1f	Scenario B1 – Baseline scenario without the Project	2.5	-	-	0.6	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.4	-0.15	-5.85%	0.6	-0.01	-1.58%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.4	-0.14	-5.55%	0.6	-0.01	-1.18%
Junk Bay West	C1g	Scenario B1 – Baseline scenario without the Project	6.2	-	-	0.8	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	6.5	0.28	4.50%	0.9	0.03	3.77%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	6.5	0.28	4.51%	0.9	0.03	4.00%
Junk Bay	C2	Scenario B1 – Baseline scenario without the Project	2.6	-	-	0.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.2	-0.37	-14.57%	0.5	0.01	1.60%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.2	-0.37	-14.42%	0.5	0.01	2.06%
Tung Lung Chau North	C15	Scenario B1 – Baseline scenario without the Project	1.6	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.6	-0.03	-1.81%	0.3	0.00	-1.64%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.6	-0.01	-0.94%	0.3	0.00	-1.34%
Tung Lung Chau East	C16	Scenario B1 – Baseline scenario without the Project	1.2	-	-	0.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.1	-0.07	-6.07%	0.2	0.00	-0.28%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.1	-0.09	-7.27%	0.2	0.00	0.15%
Tung Lung Chau East	C17	Scenario B1 – Baseline scenario without the Project	1.2	-	-	0.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.2	0.02	1.96%	0.2	0.00	-0.06%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.2	-0.02	-1.76%	0.2	0.00	0.54%
Lohas Park	C3	Scenario B1 – Baseline scenario without the Project	3.4	-	-	0.8	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.3	-0.05	-1.36%	0.8	0.00	-0.06%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.3	-0.05	-1.55%	0.8	0.00	0.25%
Junk Island	C4	Scenario B1 – Baseline scenario without the Project	4.6	-	-	0.7	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	4.6	-0.04	-0.95%	0.7	0.00	0.23%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	4.6	-0.02	-0.42%	0.7	0.00	0.57%
TKO INNOPARK	C5a	Scenario B1 – Baseline scenario without the Project	5.6	-	-	0.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	5.7	0.10	1.76%	0.9	0.01	0.75%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	5.7	0.09	1.60%	0.9	0.01	1.01%
TKO INNOPARK	C5b	Scenario B1 – Baseline scenario without the Project	3.1	-	-	0.7	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.2	0.15	4.98%	0.7	0.01	0.74%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.2	0.16	5.36%	0.7	0.01	1.07%
TKO INNOPARK	C5c	Scenario B1 – Baseline scenario without the Project	3.1	-	-	0.7	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.0	-0.06	-1.80%	0.7	0.00	0.66%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.0	-0.06	-1.80%	0.7	0.01	0.99%
TKO INNOPARK	C5d	Scenario B1 – Baseline scenario without the Project	3.1	-	-	0.6	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.2	0.03	1.05%	0.6	0.00	0.32%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.2	0.05	1.55%	0.7	0.00	0.69%
Fat Tong Chau	C6a	Scenario B1 – Baseline scenario without the Project	3.2	-	-	0.8	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.1	-0.05	-1.49%	0.8	0.01	0.94%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.1	-0.04	-1.38%	0.8	0.01	1.29%
Coral Communities (Bottom)								
Fai Tong Chau	C6b	Scenario B1 – Baseline scenario without the Project	3.3	-	-	0.7	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.2	0.07	0.58%	0.7	0.01	0.68%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.3	-0.15	-1.28%	0.7	0.01	0.56%
Tit Cham Chau	C7	Scenario B1 – Baseline scenario without the Project	2.1	-	-	0.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.0	-0.04	-2.02%	0.5	0.00	0.85%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.0	-0.04	-2.14%	0.5	0.01	1.12%

Operational Phase Suspended Solids Elevations

WSRs (Assessment Depth) Figure 5.1	ID	Scenarios	Annual Maximum SS Level (mg/L)	Increase in Annual Maximum SS Level (mg/L)	% Increase	Annual Mean SS Level (mg/L)	Increase in Annual Mean SS Level (mg/L)	% Increase
		Water Quality Objective	**NA**	**NA**	**≤30%**	**NA**	**NA**	**≤30%**
Coral Communities (Bottom)								
Kwun Tsai	C8	Scenario B1 – Baseline scenario without the Project	2.5	-	-	0.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.8	0.30	12.19%	0.4	0.00	-1.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.7	0.28	11.38%	0.4	0.00	-0.66%
Tin Ha Au	C9	Scenario B1 – Baseline scenario without the Project	4.1	-	-	0.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	4.2	0.07	1.68%	0.4	-0.01	-2.30%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	4.1	0.05	1.33%	0.4	-0.01	-2.05%
Tin Ha Shan	C10	Scenario B1 – Baseline scenario without the Project	1.9	-	-	0.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.9	0.02	1.15%	0.3	-0.01	-2.55%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.9	0.00	0.02%	0.3	-0.01	-2.28%
Tai Miu Wan	C11	Scenario B1 – Baseline scenario without the Project	1.5	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.6	0.01	0.90%	0.3	0.00	-1.08%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.6	0.03	1.68%	0.3	0.00	-0.80%
Tung Lung Chau West	C12	Scenario B1 – Baseline scenario without the Project	2.4	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.3	-0.13	-5.41%	0.3	0.00	-0.76%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.3	-0.13	-5.51%	0.3	0.00	-0.17%
Tung Lung Chau North	C13	Scenario B1 – Baseline scenario without the Project	1.8	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.7	-0.01	-0.40%	0.3	0.00	-0.59%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.8	0.01	0.77%	0.3	0.00	-0.05%
Tung Lung Chau North	C14	Scenario B1 – Baseline scenario without the Project	1.7	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.8	0.01	0.49%	0.3	0.00	-0.39%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.8	0.03	1.66%	0.3	0.00	0.13%
Tung Lung Chau South	C18	Scenario B1 – Baseline scenario without the Project	1.7	-	-	0.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.7	0.01	0.55%	0.2	0.00	0.96%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.6	-0.06	-3.84%	0.2	0.00	2.10%
Cape Collinson	C19	Scenario B1 – Baseline scenario without the Project	1.9	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.8	-0.05	-2.68%	0.3	0.01	1.58%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.8	-0.05	-2.41%	0.3	0.01	2.45%
Cape Collinson	C20	Scenario B1 – Baseline scenario without the Project	1.5	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.5	0.01	0.89%	0.3	0.01	2.17%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.5	0.01	0.72%	0.3	0.01	3.17%
Cape Collinson	C21	Scenario B1 – Baseline scenario without the Project	1.6	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.6	0.02	1.41%	0.3	0.00	1.59%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.6	0.02	1.53%	0.3	0.01	2.73%
Tai Long Pai	C22	Scenario B1 – Baseline scenario without the Project	1.9	-	-	0.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.0	0.01	0.71%	0.2	0.00	0.82%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.9	-0.04	-1.95%	0.2	0.00	1.99%
Hong Kong Museum of Coastal Defence	C27	Scenario B1 – Baseline scenario without the Project	3.2	-	-	0.6	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.2	0.00	0.02%	0.7	0.00	0.54%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.2	0.00	0.00%	0.7	0.01	0.96%
Shek Mei Tau	C23	Scenario B1 – Baseline scenario without the Project	1.1	-	-	0.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.1	0.04	3.21%	0.2	0.00	-0.42%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.1	-0.04	-3.25%	0.2	0.00	-0.08%
So Shi Tau	C24	Scenario B1 – Baseline scenario without the Project	5.0	-	-	0.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	5.0	0.00	-0.06%	0.4	0.00	-0.44%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	5.0	-0.05	-0.94%	0.4	0.00	-0.35%
Tai Wan Tau	C25	Scenario B1 – Baseline scenario without the Project	3.0	-	-	0.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	3.1	0.10	3.23%	0.2	0.00	-1.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	3.0	0.04	1.50%	0.2	0.00	-1.06%
Tai Hang Tun North	C26	Scenario B1 – Baseline scenario without the Project	1.0	-	-	0.1	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.0	0.03	2.91%	0.1	0.00	-0.84%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.0	-0.02	-1.56%	0.1	0.00	-0.20%
Amphioxus (Bottom)								
Tit Cham Chau	A1	Scenario B1 – Baseline scenario without the Project	2.9	-	-	0.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.8	-0.09	-3.00%	0.9	0.02	1.64%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.8	-0.08	-2.61%	0.9	0.02	1.84%
Tathong Channel	A2	Scenario B1 – Baseline scenario without the Project	1.7	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.8	0.10	6.09%	0.3	0.00	1.55%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.9	0.16	9.27%	0.3	0.01	2.26%
Site of Special Scientific Interest (Depth average)								
Shek O Headland	SS1	Scenario B1 – Baseline scenario without the Project	1.6	-	-	0.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.6	-0.01	-0.46%	0.4	0.00	0.91%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.6	0.01	0.87%	0.4	0.01	1.77%
Fisheries Sensitive Receivers (Depth average)								
Tung Lung Chau Fish Culture Zone	F1	Scenario B1 – Baseline scenario without the Project	2.3	-	-	0.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	2.1	-0.19	-8.40%	0.4	-0.01	-3.04%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	2.1	-0.17	-7.31%	0.4	-0.01	-2.66%
Fisheries Sensitive Receivers (Depth average)								
Important Spawning Ground of Commercial Fisheries Resources	SG2	Scenario B1 – Baseline scenario without the Project	1.5	-	-	0.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.5	-0.05	-3.07%	0.2	0.00	0.67%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.5	-0.06	-3.75%	0.2	0.00	1.29%
Po Toi O Fish Culture Zone	F2	Scenario B1 – Baseline scenario without the Project	7.0	-	-	1.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	6.9	-0.09	-1.24%	1.4	0.00	-0.19%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	7.0	-0.03	-0.48%	1.4	0.00	-0.10%
Important Spawning Ground of Commercial Fisheries Resources	SG3	Scenario B1 – Baseline scenario without the Project	1.7	-	-	0.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.6	-0.04	-2.37%	0.2	-0.01	-2.17%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.7	-0.03	-1.74%	0.2	0.00	-1.83%
Important Spawning Ground of Commercial Fisheries Resources	SG1	Scenario B1 – Baseline scenario without the Project	1.6	-	-	0.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	1.6	0.00	0.05%	0.2	0.00	0.86%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	1.6	0.01	0.92%	0.2	0.00	1.86%
Important Nursery Ground of Commercial Fisheries Resources	NG1	Scenario B1 – Baseline scenario without the Project	0.9	-	-	0.1	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	0.9	0.04	4.28%	0.1	0.00	-0.68%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	0.9	-0.01	-0.72%	0.1	0.00	-0.14%
Typhoon Shelter (Depth average)								
Sam Ka Tsuen	T1	Scenario B1 – Baseline scenario without the Project	5.1	-	-	1.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	5.1	0.06	1.14%	1.2	0.01	0.49%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	5.1	0.08	1.58%	1.2	0.01	0.67%

Operational Phase Saliniaty Changes

WSRs (Assessment Depth) Figure 5.1	ID	Scenarios	Annual Maximum Salinity Level (ppt)	Increase in Annual Maximum Salinity Level	% Change	Annual Mean Salinity Level (ppt)	Increase in Annual Mean Salinity Level (ppt)	% Change
		Water Quality Objective	**NA**	**NA**	**±10%**	**NA**	**NA**	**±10%**
Seawater Intake (Depth average)								
TKO Desalination Plant	SW1	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.02	0.07%	33.4	0.02	0.06%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.06	0.17%	33.4	0.01	0.03%
Gazetted Bathing Beach (Depth average)								
Big Wave Bay	B1	Scenario B1 – Baseline scenario without the Project	33.8	-	-	33.0	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.8	0.00	0.00%	33.0	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	0.03	0.09%	33.0	-0.01	-0.02%
Rocky Bay	B2	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.0	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	0.00	0.01%	33.0	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	0.00	0.00%	33.0	-0.01	-0.02%
Shek O	B3	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.1	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.01	-0.02%	33.1	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	0.02	0.07%	33.1	-0.01	-0.02%
Clear Water Bay First	B4	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.00	0.00%	33.3	0.01	0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.0	-0.01	-0.03%	33.3	0.00	0.00%
Clear Water Bay Second	B5	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.00	0.00%	33.3	0.01	0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.0	-0.01	-0.03%	33.3	0.00	0.00%
Potential Water Sports Area (Depth average)								
Junk Bay	WS1	Scenario B1 – Baseline scenario without the Project	33.9	-	-	32.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.01	-0.04%	32.9	-0.01	-0.04%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	-0.02	-0.05%	32.9	-0.02	-0.07%
Secondary Contact Recreation Subzone (Depth average)								
Junk Bay West	C1a	Scenario B1 – Baseline scenario without the Project	33.9	-	-	32.8	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	0.00	-0.01%	32.8	-0.04	-0.13%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	-0.01	-0.02%	32.8	-0.05	-0.16%
Junk Bay West	C1d	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.02	-0.07%	33.2	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	0.00	0.01%	33.2	0.00	0.00%
Junk Bay West	C1f	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.1	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.02	-0.05%	33.1	0.02	0.06%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	-0.02	-0.06%	33.1	0.01	0.03%
Junk Bay West	C1g	Scenario B1 – Baseline scenario without the Project	33.9	-	-	32.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.03	-0.08%	32.8	-0.05	-0.15%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	-0.03	-0.08%	32.8	-0.06	-0.18%
Junk Bay West	CR1	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.0	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.01	-0.04%	33.0	0.02	0.05%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	-0.02	-0.05%	33.0	0.01	0.02%
Coral Recipient Sites for Translocated Corals under Previous Projects (Bottom)								
Junk Bay West	CR1	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.1	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	0.00	-0.01%	33.1	0.03	0.08%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	0.04	0.11%	33.1	0.02	0.05%
Fai Tong Chau	CR2	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.05	0.16%	33.3	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.07	0.20%	33.3	0.00	-0.01%
Coral Communities (Bottom)								
Junk Bay West	C1a	Scenario B1 – Baseline scenario without the Project	33.9	-	-	32.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	0.00	-0.01%	32.8	-0.04	-0.13%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	-0.01	-0.02%	32.8	-0.05	-0.16%
Junk Bay West	C1d	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.01	0.03%	33.4	0.01	0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.01	0.03%	33.4	0.00	0.00%
Junk Bay West	C1e	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.00	0.01%	33.3	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.03	0.09%	33.3	-0.01	-0.02%
Junk Bay West	C1f	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.01	-0.02%	33.2	0.01	0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.0	0.03	0.10%	33.2	0.00	0.00%
Junk Bay West	C1g	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.0	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.03	-0.09%	33.0	-0.03	-0.10%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	-0.03	-0.10%	32.9	-0.04	-0.13%
Junk Bay	C2	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.00	-0.01%	33.4	-0.01	-0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.03	0.09%	33.4	-0.02	-0.06%
Tung Lung Chau North	C15	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.00	0.01%	33.4	0.01	0.04%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.4	0.00	0.01%
Tung Lung Chau East	C16	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.5	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.5	0.00	-0.01%
Tung Lung Chau East	C17	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.00	-0.01%	33.4	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.01	0.02%	33.4	0.00	0.00%
Lohas Park	C3	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.1	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	-0.01	-0.03%	33.1	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.0	0.01	0.04%	33.1	0.00	-0.01%
Junk Island	C4	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.01	0.02%	33.2	0.02	0.05%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.0	0.05	0.14%	33.2	0.01	0.02%
TKO INNOPARK	C5a	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.0	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	0.00	0.00%	33.0	0.00	0.00%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	0.04	0.12%	33.0	-0.01	-0.03%
TKO INNOPARK	C5b	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.01	0.03%	33.2	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.05	0.13%	33.2	-0.01	-0.02%
TKO INNOPARK	C5c	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.01	0.04%	33.2	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.05	0.14%	33.2	-0.01	-0.02%
TKO INNOPARK	C5d	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.03	0.08%	33.3	0.01	0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.04	0.12%	33.3	0.00	0.00%
Coral Communities (Bottom)								
Fat Tong Chau	C6a	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.1	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.05	0.16%	33.1	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.07	0.22%	33.1	-0.01	-0.02%

Operational Phase Saliniaty Changes

WSRs (Assessment Depth) Figure 5.1	ID	Scenarios	Annual Maximum Salinity Level (ppt)	Increase in Annual Maximum Salinity Level	% Change	Annual Mean Salinity Level (ppt)	Increase in Annual Mean Salinity Level (ppt)	% Change
		Water Quality Objective	**NA**	**NA**	**±10%**	**NA**	**NA**	**±10%**
Coral Communities (Bottom)								
Fai Tong Chau	C6b	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.1	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.03	0.10%	33.1	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.08	0.23%	33.1	-0.01	-0.02%
Tit Cham Chau	C7	Scenario B1 – Baseline scenario without the Project	34.4	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.4	0.01	0.03%	33.5	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.5	0.04	0.12%	33.5	0.00	-0.01%
Kwun Tsai	C8	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.03	0.10%	33.2	0.02	0.07%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.02	0.07%	33.2	0.01	0.04%
Tin Ha Au	C9	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.04	0.12%	33.3	0.02	0.06%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.03	0.09%	33.3	0.01	0.03%
Tin Ha Shan	C10	Scenario B1 – Baseline scenario without the Project	34.3	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.3	0.01	0.04%	33.4	0.02	0.05%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.3	0.01	0.03%	33.4	0.01	0.03%
Tai Miu Wan	C11	Scenario B1 – Baseline scenario without the Project	34.3	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.3	0.01	0.04%	33.5	0.01	0.04%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.3	0.03	0.08%	33.5	0.00	0.01%
Tung Lung Chau West	C12	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.5	0.01	0.04%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.5	0.00	0.01%
Tung Lung Chau North	C13	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.00	-0.01%	33.5	0.02	0.05%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.00	0.00%	33.4	0.01	0.02%
Tung Lung Chau North	C14	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.01	0.02%	33.4	0.02	0.05%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.03	0.09%	33.4	0.01	0.02%
Tung Lung Chau South	C18	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.6	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.6	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.6	0.00	-0.01%
Cape Collinson	C19	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.5	0.00	-0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.5	-0.01	-0.04%
Cape Collinson	C20	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.5	0.00	-0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.5	-0.01	-0.03%
Cape Collinson	C21	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.5	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.5	-0.01	-0.02%
Tai Long Pai	C22	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.6	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.6	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.6	-0.01	-0.02%
Hong Kong Museum of Coastal Defence	C27	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.02	0.07%	33.2	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.0	0.03	0.09%	33.2	0.00	0.00%
Shek Mei Tau	C23	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.5	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.4	0.00	-0.01%
So Shi Tau	C24	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.00	0.01%	33.3	0.01	0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.0	0.00	-0.01%	33.3	0.00	0.00%
Tai Wan Tau	C25	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.00	0.01%	33.3	0.01	0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	-0.01	-0.02%	33.3	0.00	0.00%
Tai Hang Tun North	C26	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.5	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.00%	33.5	0.00	-0.01%
Amphioxus (Bottom)								
Tit Cham Chau	A1	Scenario B1 – Baseline scenario without the Project	35.6	-	-	34.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	35.6	0.01	0.02%	34.3	0.01	0.04%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	35.6	0.00	0.01%	34.3	0.01	0.02%
Tathong Channel	A2	Scenario B1 – Baseline scenario without the Project	34.2	-	-	33.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.2	0.00	0.00%	33.5	0.00	0.00%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.2	0.00	0.01%	33.5	-0.01	-0.02%
Site of Special Scientific Interest (Depth average)								
Shek O Headland	SS1	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.01	0.02%	33.3	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.0	0.00	0.00%	33.3	0.00	-0.01%
Fisheries Sensitive Receivers (Depth average)								
Tung Lung Chau Fish Culture Zone	F1	Scenario B1 – Baseline scenario without the Project	33.9	-	-	33.2	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.9	-0.02	-0.07%	33.3	0.02	0.07%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.9	0.01	0.02%	33.2	0.01	0.04%
Important Spawning Ground of Commercial Fisheries Resources	SG2	Scenario B1 – Baseline scenario without the Project	34.0	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.0	0.01	0.02%	33.4	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.04	0.12%	33.4	0.00	-0.01%
Po Toi O Fish Culture Zone	F2	Scenario B1 – Baseline scenario without the Project	33.8	-	-	32.9	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.8	0.00	0.00%	32.9	0.01	0.03%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.8	-0.01	-0.02%	32.9	0.00	0.00%
Important Spawning Ground of Commercial Fisheries Resources	SG3	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.3	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.00	-0.01%	33.4	0.01	0.04%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.00	0.00%	33.4	0.00	0.01%
Important Spawning Ground of Commercial Fisheries Resources	SG1	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.01	0.03%	33.4	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.02	0.07%	33.4	0.00	-0.01%
Important Nursery Ground of Commercial Fisheries Resources	NG1	Scenario B1 – Baseline scenario without the Project	34.1	-	-	33.4	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	34.1	0.00	0.00%	33.4	0.01	0.02%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	34.1	0.00	-0.01%	33.4	0.00	-0.01%
Typhoon Shelter (Depth average)								
Sam Ka Tsuen	T1	Scenario B1 – Baseline scenario without the Project	33.9	-	-	32.5	-	-
		Scenario B2 – "With Project" scenario (normal operation of EPP)	33.8	-0.01	-0.02%	32.5	0.00	0.01%
		Scenario B3 – "With Project" Scenario (with 2-hour emergency discharge in both dry and wet seasons)	33.8	-0.01	-0.02%	32.5	0.01	0.03%