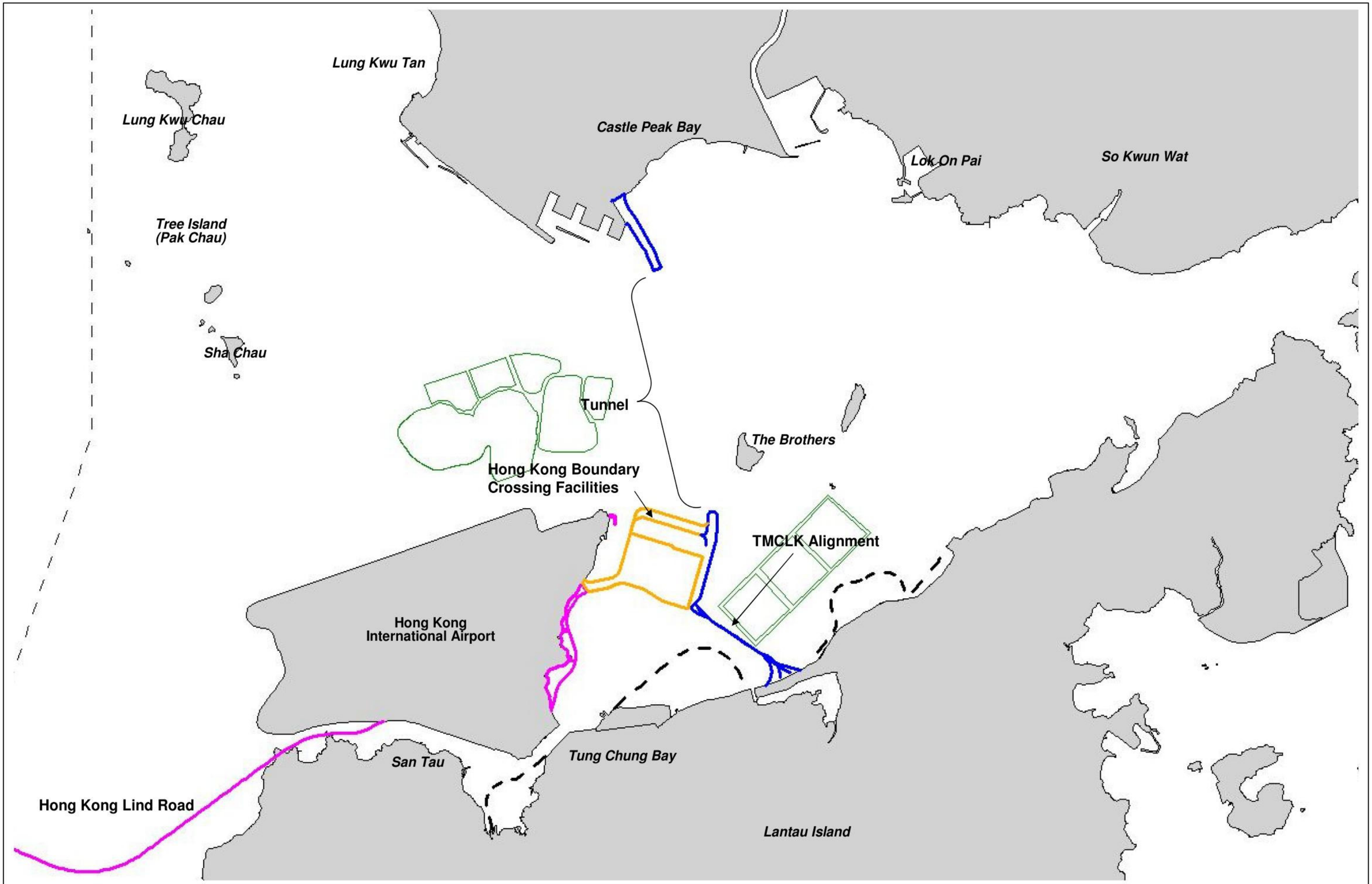


路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title **Location Plan for HKBCF, TM-CLKL and HKLR**	Drawing No. **Figure 9.1**

TM-CLKL Northern Reclamation

ID	Area	Works	Item	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14
	Portion N-c	Mobilisation and preparation																																											
1		Seawall dredging and reclamation	DN1															DN1	120,000	120,000	120,000	120,000	DN1																								
2		Seawall filling (50% rock, 50% PF)	FN1															FN1	73,077	73,077	73,077	73,077	73,077	FN1																							
		Construct seawall																																												
3		Reclamation filling (PF)	FN2																			FN2	120,577	120,577	120,577	FN2 (behind seawall: partial)																				
		Reclamation filling (above +2.5mPD)																								0																				
	Portion N-a and N-b	Mobilisation and preparation																																											
5		Seawall dredging	DN2																		DN2		120,000	120,000	120,000	120,000	DN2																				
6		Seawall filling (50% rock, 50% PF)	FN3																	linked activities with ID1, same rate				FN3	73,077	73,077	73,077	73,077	73,077	FN3																		
		Construct seawall																																												
		Reclamation dredging - not required																																					FN4 (behind seawall: partial -> full)								
7		Reclamation filling (PF)	FN4																												FN4	120,577	120,577	120,577	120,577	43,846	43,846								
		Reclamation filling (above +2.5mPDI)																																				0	0							
		TMCLKL North Total Daily Losses																	193,077	193,077	193,077	193,077	313,654	240,577	240,577	193,077	73,077	73,077	73,077	73,077	0	0	120,577	120,577	120,577	120,577	43,846	43,846	0	0						

TM-CLKL Southern Reclamation

	Area	Works	Item	08-10	09-10	10-10	11-10	12-10	01-11	02-11	03-11	04-11	05-11	06-11	07-11	08-11	09-11	10-11	11-11	12-11	01-12	02-12	03-12	04-12	05-12	06-12	07-12	08-12	09-12	10-12	11-12	12-12	01-13	02-13	03-13	04-13	05-13	06-13	07-13	08-13	09-13	10-13	11-13	12-13	01-14	02-14
	Portion S-a	Mobilisation and preparation																																												
8		Seawall dredging and reclamation	DS1															DS1	240,000	240,000	240,000	240,000	240,000	DS1																							
9		Seawall filling (50% rock, 50% PF)	FS1																FS1	109,615	109,615	109,615	109,615	109,615	109,615	FS1																					
		Construct seawall																																												
10		Reclamation filling (70% sand, 30 % PF)	FS2																				FS2	27,204	27,204	27,204	27,204	27,204	27,204	27,204	27,204	27,204	FS2 (behind seawall: partial)														
		Reclamation filling (above +2.5mPD)																															0	0													
	Portion S-b	Plant mobilisation																																												
11		Seawall dredging	DS2																							DS2	240,000	240,000	240,000	240,000	240,000	240,000	DS2														
12		Seawall filling (50% rock, 50% PF)	FS3																								FS3	73,077	73,077	73,077	73,077	73,077	73,077	73,077	FS3											
		Construct seawall																																												
		Reclamation dredging - not required																																												
13		Reclamation filling (70% sand, 30 % PF)	FS4																												FS4	27,204	27,204	27,204	27,204	27,204	27,204	27,204	27,204	27,204	27,204	27,204	27,204	27,204	FS4 (behind seawall:	
		Reclamation filling (above +2.5mPD)																																										0	0	0	
	Portion S-c	Mobilisation and preparation																																												
14		Dredging for seawall	DS3																															DS3	120,000	120,000	120,000	DS3							
15		Seawall filling (50% rock, 50% PF)	FS5																																FS5	73,077	73,077	73,077	73,077	FS5						
		Construct seawall																																											FS6 (behind seawall: partial -> full)	
		Reclamation dredging - not required																																												
16		Reclamation filling (70% sand, 30 % PF)	FS6																																											
		Reclamation filling (above +2.5mPD)																																											0		
17	Viaduct	Piling & Pile Cap Construction	P																	p	360	360	360	360	360	360	360	360	360	360	360	360	360	p												
		TM-CLKL South Total Daily Losses																	240,000	349,615	349,975	349,975	349,975	137,179	137,179	27,564	267,564	340,641	340,641	340,641	340,641	367,845	100,641	100,641	147,204	220,281	220,281	100,281	107,388	34,312	34,312	54,408	54,408	54,408	0	0

HKBCF

	Area	Works	Item	08-10	09-10	10-10	11-10	12-10	01-11	02-11	03-11	04-11	05-11	06-11	07-11	08-11	09-11	10-11	11-11	12-11	01-12	02-12	03-12	04-12	05-12	06-12	07-12	08-12	09-12	10-12	11-12	12-12	01-13	02-13	03-13	04-13	05-13	06-13	07-13	08-13	09-13	10-13	11-13	12-13	01-14	02-14
	Phase 1 - Portion A	Mobilisation and preparation																																											
18		Seawall dredging (Portion A)	1	1	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000																																
19		Seawall filling (Portion A)	a			a	705,385	705,385	705,385	705,385	705,385	705,385	Rock Fill	a																																	
20		Reclamation dredging (Portion A)	1							1						[No seawall assumed]																															
21		Reclamation filling (Portion A)	a						linked activities, higher rate (ID18) assumed				a	141,077	141,077	141,077	c	(behind seawall: full, temporary)																															
22	Phase 1 - Portion B	Seawall dredging (Portion B)	7/2			7/2 -> 7	514,500	514,500	514,500	1,029,000	1,029,000	1,029,000	7																																		
25		Seawall filling (Portion B)	f							f	1,028,000	1,028,000	1,028,000	1,028,000	Rock Fill	f																																
28		Reclamation dredging (Portion B)	2										2	301,950	301,950	301,950	301,950	2	(behind seawall: partial)																													
29		Reclamation filling (Portion B)	b												b	141,077	141,077	141,077	141,077	b	(behind seawall: full)																											
23	Phase 1 - Portion C	Seawall dredging (Portion C)	7/2			7/2	514,500	514,500	514,500	7																																				
26		Seawall filling (Portion C)	f					f	1,028,000	1,028,000	Rock Fill	f																																					
		Reclamation dredging (Portion C) - not required																																												
30		Reclamation filling (Portion C)	a										a	387,962	387,962	141,077	141,077	141,077	141,077	70,538	70,538	70,538	70,538	a	(behind seawall: partial -> full)																									
24	Phase 1 - Portion D	Seawall dredging (Portion D)	3																												3	600,000	600,000	600,000	600,000	c											
27		Seawall filling (Portion D)	b																														b	705,385	705,385	705,385	Rock Fill	b									
31		Reclamation dredging (Portion D)	3																															3	600,000	600,000	600,000	3	[No seawall assumed]							
32		Reclamation filling (Portion D)	b																																	b	387,962	387,962	Rock Fill	b	(behind seawall: partial)						
33	Phase 2	Seawall dredging	4												4	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	4																								
34		Seawall filling	c														c	309,692	309,692	309,692	309,692	309,692	309,692	309,692	309,692	309,692	309,692	Rock Fill	c																								
37		Reclamation dredging	5																										5	72,000	72,000	72,000	72,000	5	(behind seawall: full)												
38		Reclamation filling	d																											d		58,062	58,062	58,062	58,062	58,062	58,062	58,062	58,062	58,062	58,062	58,062	58,062	58,062	(behind seawall: full)	
33	Pits for Mf sediment	Install sheet piles																																												
34		Dredging to form the Mf pits																																												
35		Redeposition of Mf sediments within the pits																																												
36		Remove sheet pile after capping by sandfill																																												
37																																													
38																																													
39	APM & FSD berth	Dredging for seawall and reclamation (FSD)	6	6	240,000	240,000	240,000	240,000	11	240,000	240,000	6																																		
40		Seawall filling (FSD)	e			e	191,385	191,385	191,385	191,385	191,385	Rock Fill	e																																	
41		Reclamation filling (FSD)	e								e	105,262	105,262	105,262	e	(behind seawall; partial)																																
42		Dredging for APM (by IMT method)	6																		6	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	d																
43		Filling for APM after installation to IMT	e																																											
		HKBCF Total Daily Losses		0	1,080,000	1,080,000	3,005,769	3,005,769	4,033,769	4,033,769	4,033,769	3,707,646	1,973,262	2,804,250	830,988	1,205,181	1,064,104	1,071,846	1,071,846	860,231	860,231	1,100,231	1,100,231	1,221,077	1,221,077	1,221,077	741,077	431,385	503,385	503,385	863,385	921,446	849,446	1,363,446	1,363,446	1,363,446	1,046,023	446,023	58,062	58,062	58,062	58,062	58,062		

Activities related to the re-deposition of Mf sediment are not included in the model and the water quality imapcts was assessed separately.

HKLR

	Area	Works	Item	08-10	09-10	10-10	11-10	12-10	01-11	02-11	03-11	04-11	05-11	06-11	07-11	08-11	09-11	10-11	11-11	12-11	01-12	02-12	03-12	04-12	05-12	06-12	07-12	08-12	09-12	10-12	11-12	12-12	01-13	02-13	03-13	04-13	05-13	06-13	07-13	08-13	09-13	10-13	11-13	12-13	01-14	02-14
	Portion 1	Mobilisation and preparation																																												
44		Seawall dredging	1						1	360,000	360,000	360,000	360,000	360,000	360,000	1																																
45		Seawall filling	a											a		240,846	240,846	240,846	240,846	a			linked activities, higher rate (ID48) assumed																								
46		Reclamation dredging	1										linked activities, higher rate (ID44)assumed					1		72,000	72,000	72,000	1	(behind seawall: full)																								
47		Reclamation filling	b													linked activities, higher rate (ID45) assumed					b	48,169	48,169	b	(behind seawall: full)																								
48	Portion 2 & 3	Dredging for seawall and reclamation	1																			1	360,000	360,000	360,000	360,000	360,000	360,000	360,000	1																				
49		Filling for seawall and reclamation	a -> b																								a	240,846	240,846	240,846	132,465	132,465	132,465	a -> b													
50	Viaduct in western open sea	Piling & Pile Cap Construction (Portion A)	p1											p1	636	636	636	636	636	636	636	636	636	636	p1																								
51		Piling & Pile Cap Construction (Portion B)	p1																					p1	636	636	636	636	636	636	636	636	636	p1													
52		Piling & Pile Cap Construction (Portion C)	p1																															p1	636	636	636	636	636	636	636	636	636	636	p1		
	Pits for Mf sediment	Install sheet piles																																												
		Dredging to form the Mf pits																																												
		Redeposition of Mf sediments within the pits																																												
		Remove sheet pile after capping by sandfill																																												
53	Viaduct at Airport Channel	Piling & Pile Cap Construction (Portion 1)	p2											p2	239	239	239	239	239	239	p2	239	239	239	239	239	239	p2																				
54		Piling & Pile Cap Construction (Portion 2)	p2																	p2	239	239	239	239	239	239	p2																				
55		Piling & Pile Cap Construction (Portion 3) (No marine works)	p3																							p3	0	0	0	0	0	0	p3													
56		Piling & Pile Cap Construction (Portion 4) (No marine works)	p3																													p3	0	0	0	0	0	0	p3						
57		Piling & Pile Cap Construction (Portion 5) (No marine works)	p3																																			p3	0	0	0	0	0	0	p3		
		Superstructure, roadworks & E&M works																																												
		HKLR Total Daily Losses								360,000	360,000	360,000	360,000	360,000	361,075	241,921	241,921	241,921	241,921	73,075	73,075	73,075	409,244	409,244	409,244	409,244	409,005	649,851	601,682	601,682	133,301	133,301	133,301	836	836	836	836	836	836	836	836	836	836	836		

Activities related to the re-deposition of Mf sediment are not included in the model and the water quality imapcts was assessed separately.

Project Summary		Time	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14
	TM-CLKL North	TM-CLKL North	-	-	-	-		-	-	-	-	-	-	-	-	-	-	193,077	193,077	193,077	193,077	313,654	240,577	240,577	193,077	73,077	73,077	73,077	73,077			120,577	120,577	120,577	120,577	43,846	43,846								
	TM-CLKL South	TM-CLKL South	-	-	-	-		-	-	-	-	-	-	-	-	-	-	240,000	349,615	349,975	349,975	349,975	137,179	137,179	27,564	267,564	340,641	340,641	340,641	340,641	367,845	100,641	100,641	147,204	220,281	220,281	100,281	107,388	34,312	34,312	54,408	54,408	54,408	-	-
	HKBCF	HKBCF	-	1,080,000	1,080,000	3,005,769	3,005,769	4,033,769	4,033,769	4,033,769	3,707,646	1,973,262	2,804,250	830,988	1,205,181	1,064,104	1,071,846	1,071,846	860,231	860,231	1,100,231	1,100,231	1,221,077	1,221,077	1,221,077	741,077	431,385	503,385	503,385	863,385	921,446	849,446	1,363,446	1,363,446	1,363,446	1,046,023	446,023	58,062	58,062	58,062	58,062	58,062	-	-
	HKLR	HKLR	-	-	-	-	-	-	360,000	360,000	360,000	360,000	360,000	361,075	241,921	241,921	241,921	241,921	73,075	73,075	73,075	409,244	409,244	409,244	409,244	409,005	649,851	601,682	601,682	133,301	133,301	133,301	836	836	836	836	836	836	836	836	836	836	-	-
	All 3 Prjs	All 3 Prjs	-	1,080,000	1,080,000	3,005,769	3,005,769	4,033,769	4,393,769	4,393,769	4,067,646	2,333,262	3,164,250	1,192,063	1,447,102	1,306,025	1,313,767	1,746,844	1,475,998	1,476,358	1,716,358	2,173,104	2,008,077	2,008,077	1,850,962	1,490,723	1,494,954	1,518,784	1,518,784	1,337,327	1,422,592	1,203,965	1,585,500	1,632,063	1,705,140	1,310,986	590,986	166,286	93,209	93,209	113,305	113,305	55,244	-	-

Dredging
Dredging behind partially full seawall / pilling
Dredging behind full seawall

Filling
Filling behind partially full seawall
Filling behind full seawall, or Above +2.5 mPD, or Rock Fill

Partial Seawall = Substantially Completed Seawall with 100-200m leading edge.
Full Seawall = Substantially Completed Seawall with 50-100m opening for marine access.

Concurrent Projects

- Lantau Logistics Park Phase I (72ha) (Q2 2010 to 2012)
- Lantau Logistics Park Phase II (40ha extension) (2024 to 2026 assumed)
- Tung Chung East and West Future Developments(2016 to 2018)
- Kwai Tsing Basin Dredging (2010 to 2013)
- Road P1 eastern section (assumed) (2024 to 2026)
- Contaminated Mud Pits at ESC (Capping) (Complete)
- Future CMP at ESC Pit V (assumed) (June 2009 to Aug 2014)
- Future CMP at South Brothers (assumed) (Mid 2011 to Sept 2016)
- HKZMB (2010 to 2014)
- Backfilling at North Brothers MBA
- Tonggu Channel Maintenance Dredging

路政署
HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge
Hong Kong Project Management Office

ARUP
奧雅納工程顧問
Ove Arup & Partners
Hong Kong Limited

Drawing Title

Envisaged Programmed of Reclamation & Sediment Loss Rates (Unmitigated) for HKBCF (Sequence A)+HKLR+TMCLKL

Drawing No.

Figure 9.2a

TM-CLKL Northern Reclamation

ID	Area	Works	Item	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	**Feb-11**	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	**Apr-12**	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	**Apr-13**	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
				08	09	10	11	12	01	**02**	03	04	05	06	07	08	09	10	11	12	01	02	03	**04**	05	06	07	08	09	10	11	12	01	02	03	**04**	05	06	07	08	09	10	11	12	01	02	03	04	05	06
	Portion N-c	Mobilisation and preparation																																														
1		Seawall dredging and reclamation	DN1															DN1	120,000	120,000	120,000	120,000	DN1																											
2		Seawall filling (50% rock, 50% PF)	FN1															FN1	73,077	73,077	73,077	73,077	FN1																											
		Construct seawall																																															
3		Reclamation filling (PF)	FN2																			FN2	120,577	120,577	120,577	FN2 (behind seawall: partial)																								
		Reclamation filling (above +2.5mPDl)																								0																								
	Portion N-a and N-b	Mobilisation and preparation																																															
5		Seawall dredging	DN2																		DN2		120,000	120,000	120,000	120,000	DN2																								
6		Seawall filling (50% rock, 50% PF)	FN3																	linked activities with ID1, same rate					FN3	73,077	73,077	73,077	73,077	73,077	FN3																							
		Construct seawall																																					FN4 (behind seawall; partial -> full)												
		Reclamation dredging - not required																																															
7		Reclamation filling (PF)	FN4																												FN4	120,577	120,577	120,577	120,577	43,846	43,846														
		Reclamation filling (above +2.5mPDl)																																				0	0											
		TMCLKL North Total Daily Losses																	193,077	193,077	193,077	193,077	313,654	240,577	240,577	193,077	73,077	73,077	73,077	73,077	0	0	120,577	120,577	120,577	120,577	43,846	43,846	0	0	0	0	0	0	0	0	0	0	0	0	0

TM-CLKL Southern Reclamation

	Area	Works	Item	08-10	09-10	10-10	11-10	12-10	01-11	02-11	03-11	04-11	05-11	06-11	07-11	08-11	09-11	10-11	11-11	12-11	01-12	02-12	03-12	04-12	05-12	06-12	07-12	08-12	09-12	10-12	11-12	12-12	01-13	02-13	03-13	04-13	05-13	06-13	07-13	08-13	09-13	10-13	11-13	12-13	01-14	02-14	03-14	04-14	05-14	06-14
	Portion S-a	Mobilisation and preparation																																															
8		Seawall dredging and reclamation	DS1b						DS1b	1,080,000																																									
9		Seawall filling (50% rock, 50% sand)	FS1b							FS1b	19,385	19,385	19,385	19,385	19,385	19,385	FS1b																																		
		Construct seawall																																																
10		Reclamation filling (70% sand, 30 % PF)	FS2b												FS2b	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	FS2b (behind seawall: full)																								
		Reclamation filling (above +2.5mPD)																																															
	Portion S-b	Mobilisation and preparation																																															
11		Seawall dredging	DS2b				DS2b	720,000	720,000	DS2b																																								
12		Seawall filling (50% rock, 50% sand)	FS3b						FS3b	19,385	19,385	19,385	19,385	FS3b																																				
		Construct seawall																																															
		Reclamation dredging - not required																																															
13		Reclamation filling (70% sand, 30 % PF)	FS4b												FS4b	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	9,892	FS4b (behind seawall: full)																								
		Reclamation filling (above +2.5mPD)																																															
	Portion S-c	Mobilisation and preparation																																															
14		Dredging for seawall	DS3b			DS3b	480,000																																										
15		Seawall filling (50% rock, 50% sand)	FS5b				FS5	12,923	12,923	12,923	12,923																																								
		Construct seawall																																																
		Reclamation dredging - not required																																															
16		Reclamation filling (70% sand, 30 % PF)	FS6b												FS6	9,892	9,892	9,892	9,892	9,892	9,892	FS6 (behind seawall: full)																												
		Reclamation filling (above +2.5mPD)																																															
17	Viaduct	Piling & Pile Cap Construction	P																	p	360	360	360	360	360	360	360	360	360	360	360	360	360	360	p																		
		TM-CLKL South Total Daily Losses					480,000	732,923	732,923	1,112,308	51,692	38,769	38,769	19,385	19,385	49,062	29,677	29,677	29,677	29,677	30,037	20,145	20,145	20,145	10,252	10,252	10,252	10,252	360	360	360	360	360	360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

HKBCF

	Area	Works	Item	08-10	09-10	10-10	11-10	12-10	01-11	02-11	03-11	04-11	05-11	06-11	07-11	08-11	09-11	10-11	11-11	12-11	01-12	02-12	03-12	04-12	05-12	06-12	07-12	08-12	09-12	10-12	11-12	12-12	01-13	02-13	03-13	04-13	05-13	06-13	07-13	08-13	09-13	10-13	11-13	12-13	01-14	02-14	03-14	04-14	05-14	06-14
	Seawalls	Mobilisation and preparation																																															
18		Seawall dredging (Portion 1)	8	8	1,080,000	1,080,000					1,080,000	1,080,000	1,080,000	8																																				
19		Seawall filling (Portion 1)	A				A	193,846	193,846	193,846	193,846	193,846	193,846	193,846	193,846	(No seawall)	A																																		
20		Seawall dredging (Portion 2)	9										9	720,000	720,000	720,000	9																																
21		Seawall filling (Portion 2)	B												B	161,538	161,538	161,538	161,538	161,538	(No seawall)	B																													
22		Seawall dredging (Portion 3)	9													9	720,000	720,000	720,000	720,000	720,000		9																												
25		Seawall filling (Portion 3)	B																	B	161,538	161,538	161,538	161,538	161,538	161,538	(No seawall)	B																							
28	Phase 1 - Portion A	Sand blanket	C												C	129,231	(No seawall)	C																																
29		Reclamation filling	H																H	123,877	123,877	123,877	123,877	(behind seawall: full)	H																										
23	Phase 1 - Portion B	Sand blanket	D																	D	25,846	(behind seawall: full)	D																												
26		Reclamation filling	L																								L	92,908	92,908	92,908	92,908	92,908	92,908	(behind seawall: full)	L																				
	Phase 1 - Portion C	Sand blanket	C													C	129,231	129,231	(No seawall)	C																															
30		Reclamation filling	I																		I	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	(behind seawall: full)	I																			
24	Phase 1 - Portion D	Dredging	10																										10	240,000	240,000	10																			
27		Reclamation filling	F																													61,938	(behind seawall: full)	F																		
31	Phase 2 - Portion C	Sand blanket	D																										D	25,846	25,846	(behind seawall: full)																				
32		Reclamation filling	I																																		I	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	I
33		Install sheet piles																																															
34	Pits for Mf sediment	Dredging to form the Mf pits																																														
35		Redeposition of Mf sediments within the pits																																															
36		Remove sheet pile after capping by sandfill																																															
37																																																
38																																																
39	APM & FSD berth	Dredging for seawall and reclamation (FSD)	11	11	120,000	120,000	120,000	120,000	11																																								
40		Seawall filling (FSD)	J					J	64,615	64,615	J	(No seawall)																																							
41		Reclamation filling (FSD)	M							M	92,462	92,462	92,462	92,462	M	(No seawall)																																			
42		Dredging for APM (by IMT method)	10 -> 11												10 -> 11	240,000	240,000	240,000	240,000	240,000	240,000	240,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	11																								
43		Filling for APM after installation fo IMT	K																	K	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	154,846	(No seawall)	K																				
		HKBCF Total Daily Losses		0	1,200,000	1,200,000	120,000	313,846	258,462	258,462	1,366,308	1,366,308	1,366,308	1,006,308	913,846	1,250,769	1,250,769	1,250,769	1,121,538	1,245,415	1,426,108	729,723	609,723	485,846	485,846	485,846	417,215	417,215	683,062	563,062	359,154	297,215	204,308	204,308	204,308	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49461.54	49461.54	49461.54

Activities related to the re-deposition of Mf sediment are not included in the model and the water quality imapcts was assessed separately.

HKLR

	Area	Works	Item	08-10	09-10	10-10	11-10	12-10	01-11	02-11	03-11	04-11	05-11	06-11	07-11	08-11	09-11	10-11	11-11	12-11	01-12	02-12	03-12	04-12	05-12	06-12	07-12	08-12	09-12	10-12	11-12	12-12	01-13	02-13	03-13	04-13	05-13	06-13	07-13	08-13	09-13	10-13	11-13	12-13	01-14	02-14	03-14	04-14	05-14	06-14
	Portion 1	Mobilisation and preparation																																															
44		Seawall dredging	1						1	360,000	360,000	360,000	360,000	360,000	360,000	1																																			
45		Seawall filling	a											a		240,846	240,846	240,846	240,846	a			linked activities, higher rate (ID48) assumed																										
46		Reclamation dredging	1									linked activities, higher rate (ID44) assumed						1		72,000	72,000	72,000		1	(behind seawall: full)																										
47		Reclamation filling	b														linked activities, higher rate (ID45) assumed				b	48,169	48,169	48,169	48,169	48,169	48,169	b		(behind seawall: full)																								
48	Portion 2 & 3	Dredging for seawall and reclamation	1																		1	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	1																								
49		Filling for seawall and reclamation	a -> b																			a	240,846	240,846	240,846	132,465	132,465	132,465	a -> b																								
50	Viaduct	Piling & Pile Cap Construction (Portion A)	p1											p1	836	836	836	836	836	836	836	836	836	836	p1								836	836	p1											p1								
51	in western open sea	Piling & Pile Cap Construction (Portion B)	p1																					p1	836	836	836	836	836	836	836	836	p1	836	836	836	836	836	836	836	836	836	836	836	836						
52		Piling & Pile Cap Construction (Portion C)	p1																														p1	836	836	836	836	836	836	836	836	836	836	836	836	p1					
		Install sheet piles																																																
	Pits for Mf sediment	Dredging to form the Mf pits																																															
		Redeposition of Mf sediments within the pits																																															
		Remove sheet pile after capping by sandfill																																															
53	Viaduct at	Piling & Pile Cap Construction (Portion 1)	p2												p2	239	239	239	239	239	p2																														
54	Airport Channel	Piling & Pile Cap Construction (Portion 2)	p2																	p2	239	239	239	239	239	239	p2																								
55		Piling & Pile Cap Construction (Portion 3) (No marine works)	p3																							p3	0	0	0	0	0	0	p3																		
56		Piling & Pile Cap Construction (Portion 4) (No marine works)	p3																												p3	0	0	0	0	0	0	p3												
57		Piling & Pile Cap Construction (Portion 5) (No marine works)	p3																																					p3	0	0	0	0	0	0	p3					
		Superstructure, roadworks & E&M works																																															
		HKLR Total Daily Losses								360,000	360,000	360,000	360,000	360,000	361,075	241,921	241,921	241,921	241,921	73,075	73,075	73,075	409,244	409,244	409,244	409,244	409,005	649,851	601,682	601,682	133,301	133,301	133,301	836	836	836	836	836	836	836	836	836	836	836	0	0	0	0	0	0

Activities related to the re-deposition of Mf sediment are not included in the model and the water quality imapcts was assessed separately.

Project Summary	Time	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14
TM-CLKL North	TM-CLKL N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193,077	193,077	193,077	193,077	313,654	240,577	240,577	193,077	73,077	73,077	73,077	73,077	-	-	120,577	120,577	120,577	120,577	43,846	43,846	-	-	-	-	-	-	-	-	-	-	-
TM-CLKL South	TM-CLKL S	-	-	-	480,000	732,923	732,923	1,112,308	51,692	38,769	38,769	19,385	19,385	49,062	29,677	29,677	29,677	29,677	30,037	20,145	20,145	20,145	10,252	10,252	10,252	10,252	360	360	360	360	360	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HKBCF	HKBCF	-	1,200,000	1,200,000	120,000	313,846	258,462	258,462	1,366,308	1,366,308	1,366,308	1,006,308	913,846	1,250,769	1,250,769	1,250,769	1,121,538	1,245,415	1,426,108	729,723	609,723	485,846	485,846	485,846	417,215	417,215	683,062	563,062	359,154	297,215	204,308	204,308	204,308	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462	49,462
HKLR	HKLR	-	-	-	-	-	-	360,000	360,000	360,000	360,000	360,000	361,075	241,921	241,921	241,921	241,921	73,075	73,075	73,075	409,244	409,244	409,244	409,244	409,005	649,851	601,682	601,682	133,301	133,301	133,301	836	836	836	836	836	836	836	836	836	836	836	-	-	-	-	-	-
All 3 Prjs (Sequence B)	All 3 Prjs	-	1,200,000	1,200,000	600,000	1,046,769	991,385	1,730,769	1,778,000	1,765,077	1,765,077	1,385,692	1,294,305	1,541,752	1,522,367	1,522,367	1,586,213	1,541,244	1,722,296	1,016,019	1,352,765	1,159,812	1,145,919	1,098,419	909,550	1,150,396	1,358,180	1,238,180	492,815	430,877	458,546	326,080	325,720	130,874	94,144	94,144	50,297	50,297	50,297	50,297	50,297	50,297	49,462	49,462	49,462	49,462	49,462	49,462

Dredging
Dredging behind partially full seawall / pilling
Dredging behind full seawall

Filling
Filling behind partially full seawall
Filing behind full seawall, or Above +2.5 mPD, or Rock Fill

Partial Seawall = Substantially Completed Seawall with 100-200m leading edge.
Full Seawall = Substantially Completed Seawall with 50-100m opening for marine access.

Concurrent Projects
Lantau Logistics Park Phase I (72ha) (Q2 2010 to 2012)
Lantau Logistics Park Phase II (40ha extension) (2024 to 2026 assumed)
Tung Chung East and West Future Developments(2016 to 2018)
Kwai Tsing Basin Dredging (2010 to 2013)
Road P1 eastern section (assumed) (2024 to 2026)
Contaminated Mud Pits at ESC (Capping) (Complete)
Future CMP at ESC Pit V (assumed) (June 2009 to Aug 2014)
Future CMP at South Brothers (assumed) (Mid 2011 to Sept 2016)
HKZMB (2010 to 2014)
Backfilling at North Brothers MBA
Tonggu Channel Maintenance Dredging

路政署
HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge
Hong Kong Project Management Office

ARUP
奧雅納工程顧問
Ove Arup & Partners
Hong Kong Limited

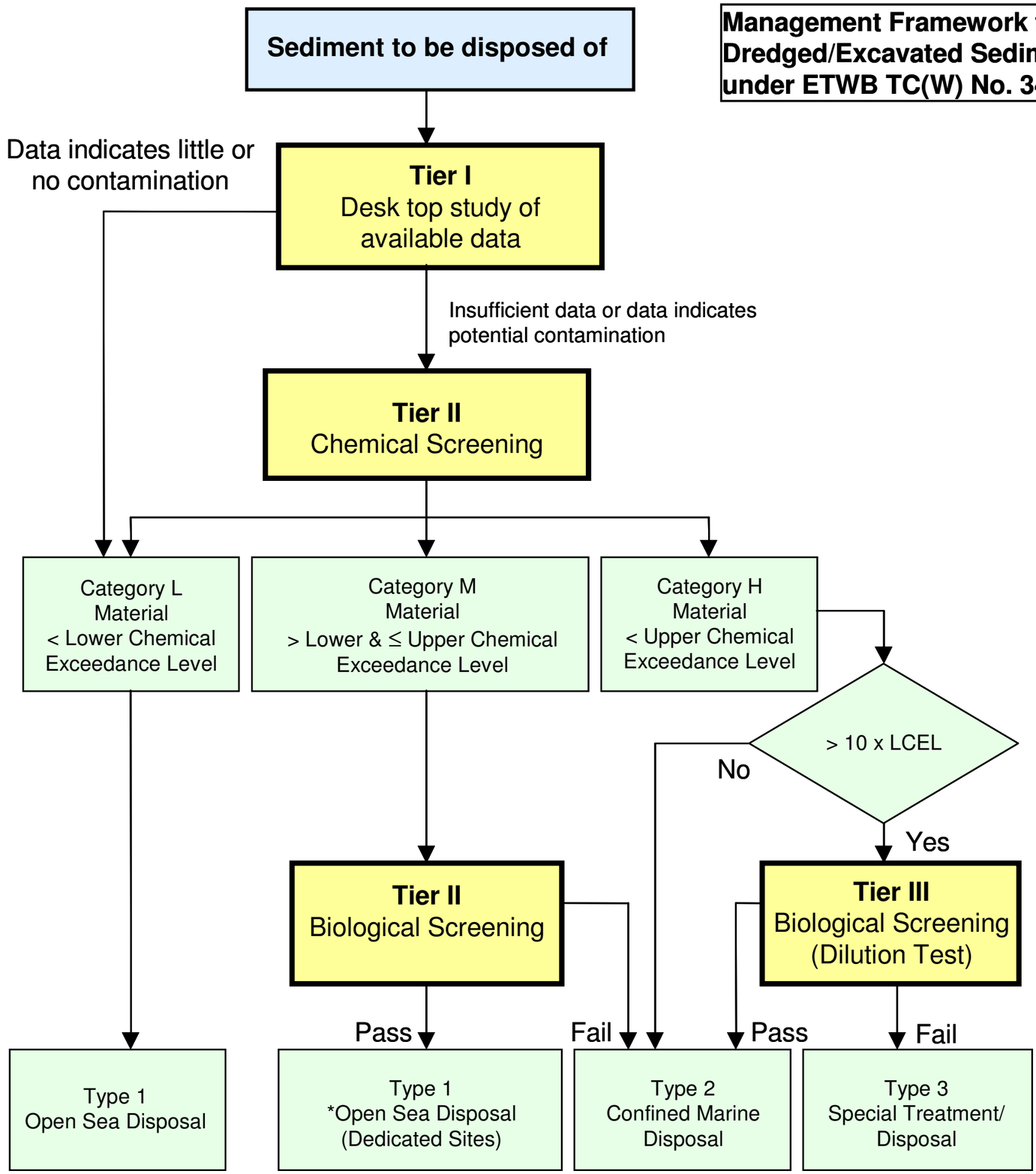
Drawing Title

Envisaged Programmed of Reclamation & Sediment Loss Rates (Unmitigated) for HKBCF (Sequence B)+HKLR+TMCLKL

Drawing No.

Figure 9.2b

Management Framework for Dredged/Excavated Sediment under ETWB TC(W) No. 34/2002



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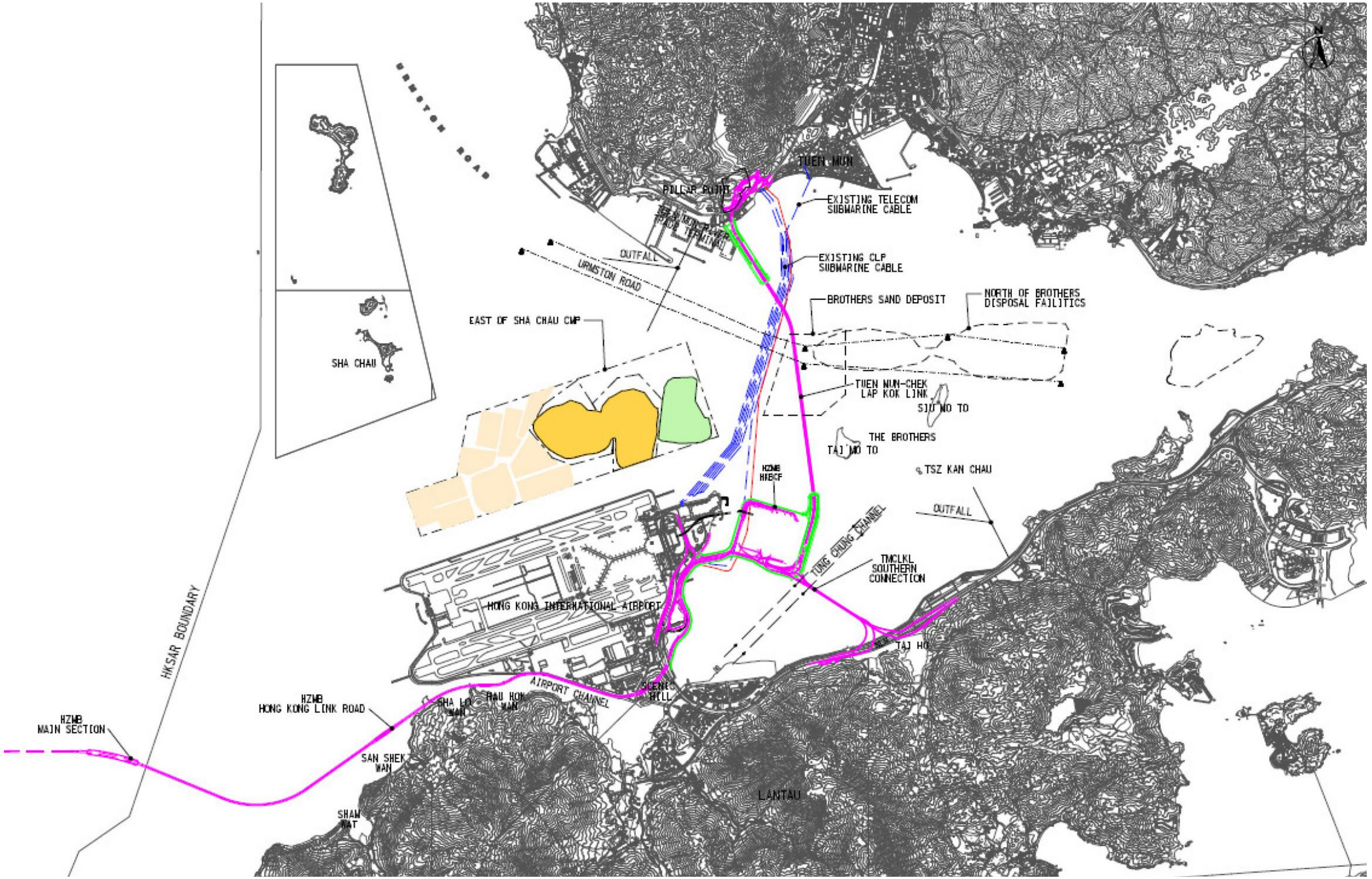

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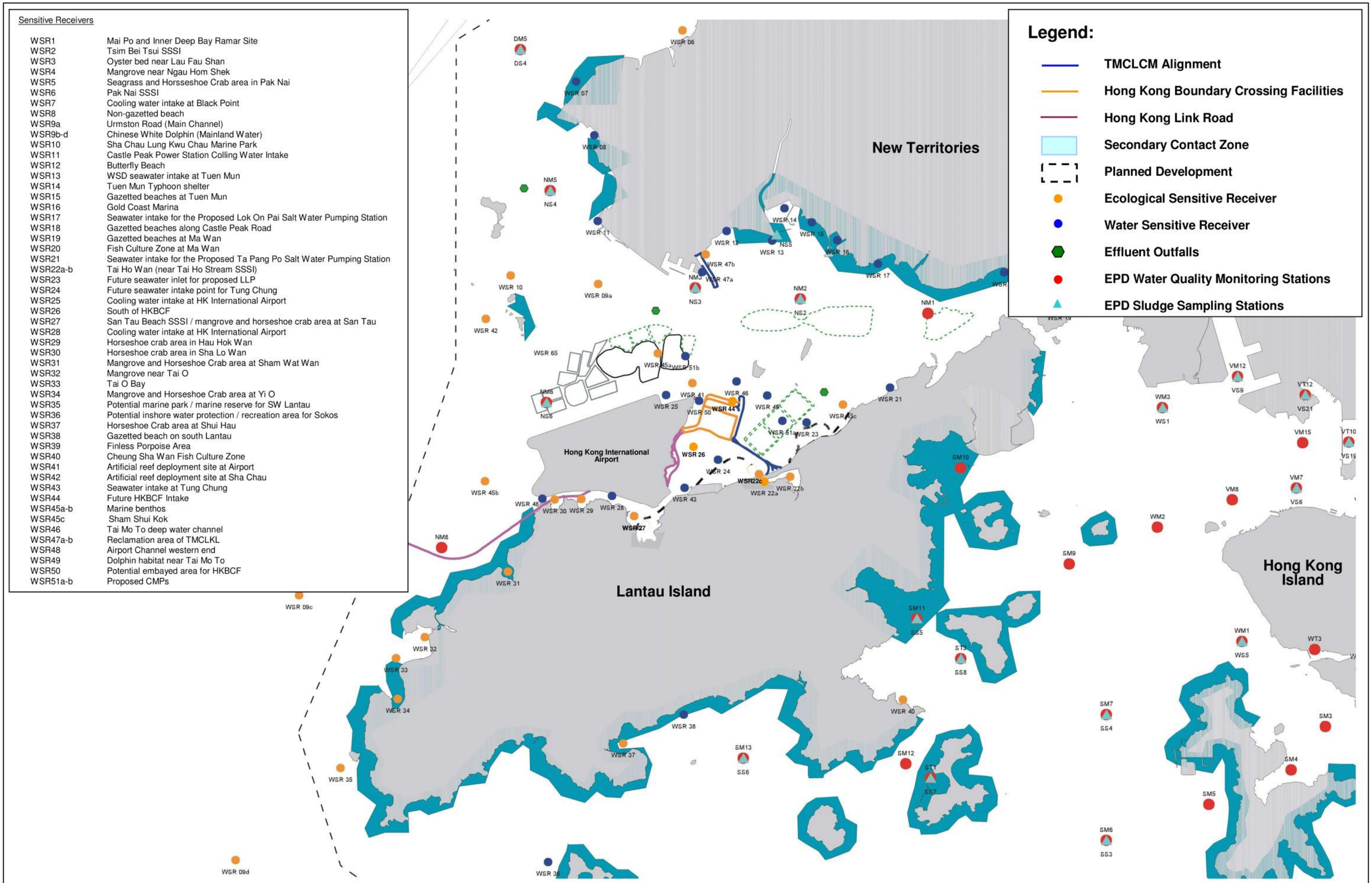
Sensitive Receivers

WSR1	Mai Po and Inner Deep Bay Ramar Site
WSR2	Tsim Bei Tsui SSSI
WSR3	Oyster bed near Lau Fau Shan
WSR4	Mangrove near Ngau Hom Shek
WSR5	Seagrass and Horsseshoe Crab area in Pak Nai
WSR6	Pak Nai SSSI
WSR7	Cooling water intake at Black Point
WSR8	Non-gazetted beach
WSR9a	Urmston Road (Main Channel)
WSR9b-d	Chinese White Dolphin (Mainland Water)
WSR10	Sha Chau Lung Kwu Chau Marine Park
WSR11	Castle Peak Power Station Colling Water Intake
WSR12	Butterfly Beach
WSR13	WSD seawater intake at Tuen Mun
WSR14	Tuen Mun Typhoon shelter
WSR15	Gazetted beaches at Tuen Mun
WSR16	Gold Coast Marina
WSR17	Seawater intake for the Proposed Lok On Pai Salt Water Pumping Station
WSR18	Gazetted beaches along Castle Peak Road
WSR19	Gazetted beaches at Ma Wan
WSR20	Fish Culture Zone at Ma Wan
WSR21	Seawater intake for the Proposed Ta Pang Po Salt Water Pumping Station
WSR22a-b	Tai Ho Wan (near Tai Ho Stream SSSI)
WSR23	Future seawater inlet for proposed LLP
WSR24	Future seawater intake point for Tung Chung
WSR25	Cooling water intake at HK International Airport
WSR26	South of HKBCF
WSR27	San Tau Beach SSSI / mangrove and horseshoe crab area at San Tau
WSR28	Cooling water intake at HK International Airport
WSR29	Horseshoe crab area in Hau Hok Wan
WSR30	Horseshoe crab area in Sha Lo Wan
WSR31	Mangrove and Horseshoe Crab area at Sham Wat Wan
WSR32	Mangrove near Tai O
WSR33	Tai O Bay
WSR34	Mangrove and Horseshoe Crab area at Yi O
WSR35	Potential marine park / marine reserve for SW Lantau
WSR36	Potential inshore water protection / recreation area for Sokos
WSR37	Horseshoe Crab area at Shui Hau
WSR38	Gazetted beach on south Lantau
WSR39	Finless Porpoise Area
WSR40	Cheung Sha Wan Fish Culture Zone
WSR41	Artificial reef deployment site at Airport
WSR42	Artificial reef deployment site at Sha Chau
WSR43	Seawater intake at Tung Chung
WSR44	Future HKBCF Intake
WSR45a-b	Marine benthos
WSR45c	Sham Shui Kok
WSR46	Tai Mo To deep water channel
WSR47a-b	Reclamation area of TMCLKL
WSR48	Airport Channel western end
WSR49	Dolphin habitat near Tai Mo To
WSR50	Potential embayed area for HKBCF
WSR51a-b	Proposed CMPs



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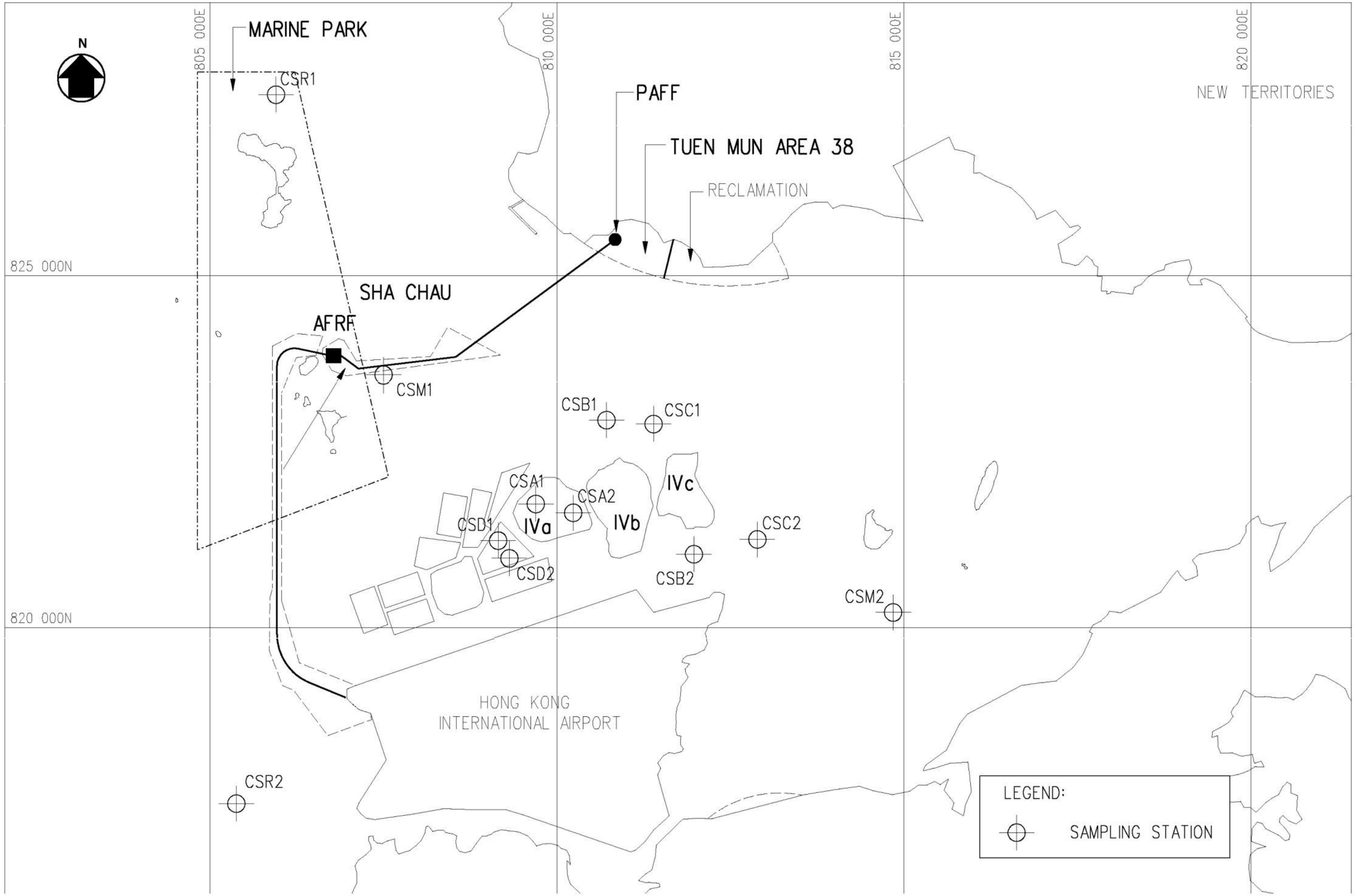

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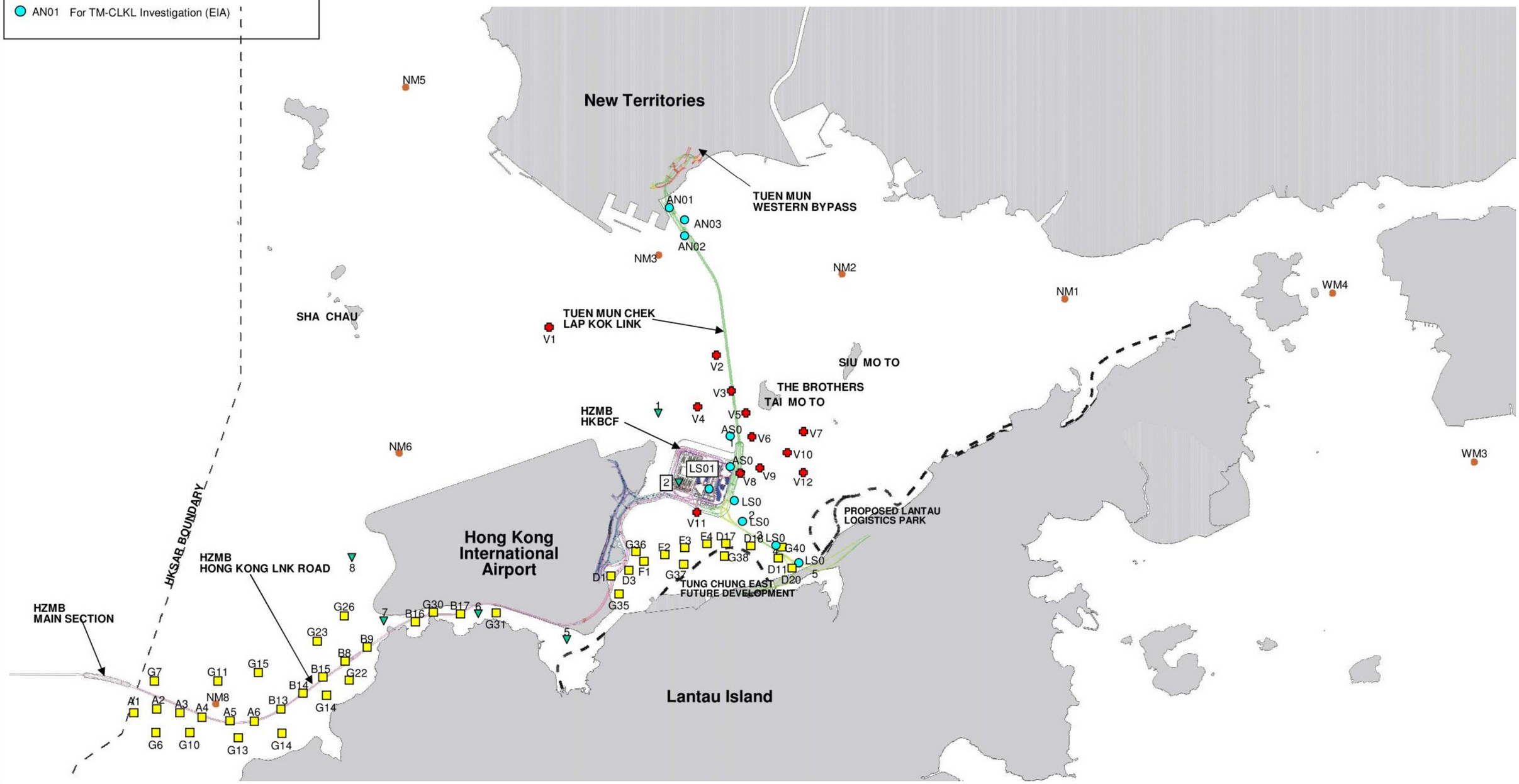
LEGENDS

- NW3 For EPD's Sediment Quality Monitoring
- V1 For New Contaminated Mud Disposal Facility (EIA)
- 1 For Airport Authority of Hong Kong Monitoring
- A1 For HZMB Investigation (EIA)
- AN01 For TM-CLKL Investigation (EIA)



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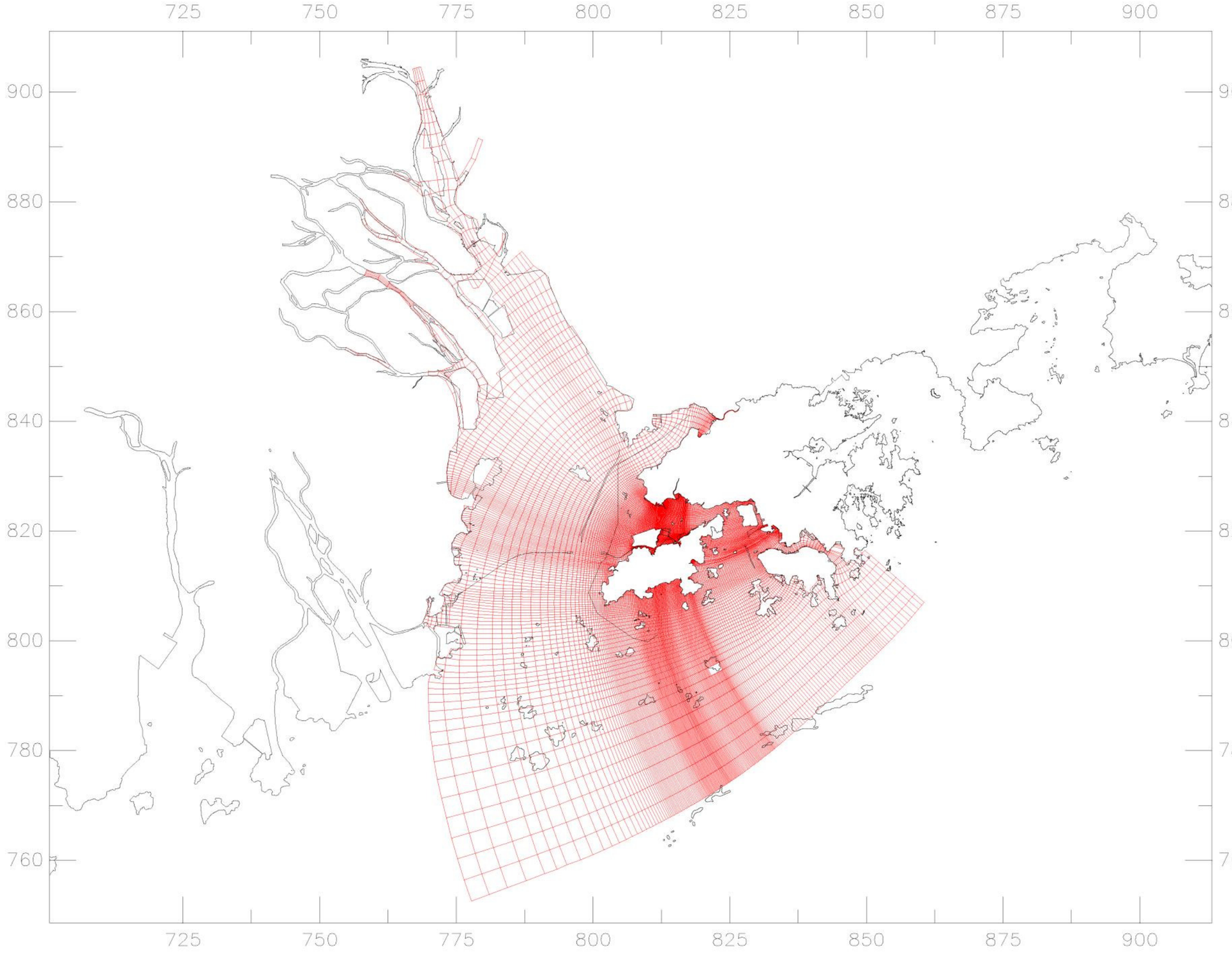

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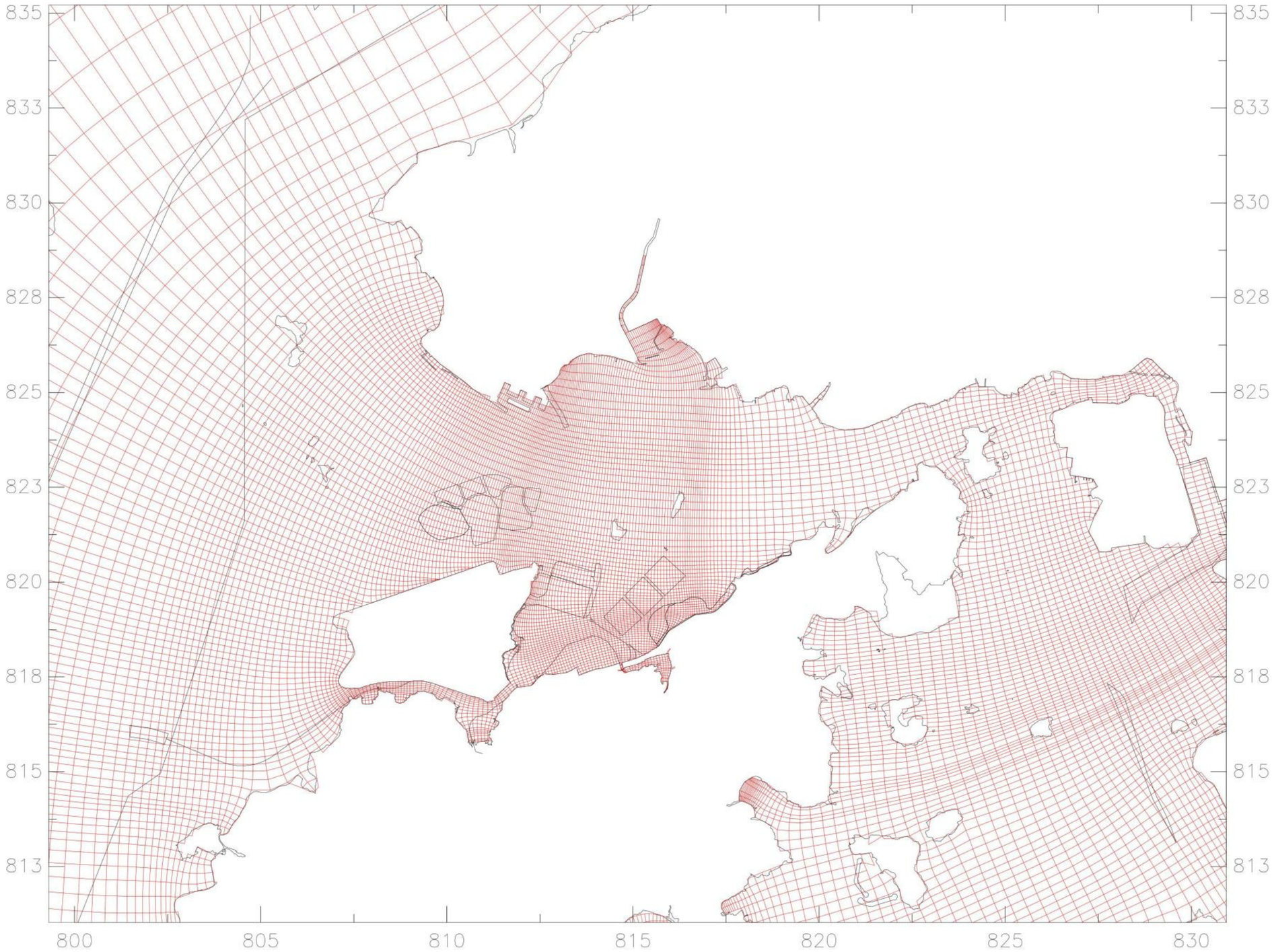

Refined Model Grid (WHM-RG)

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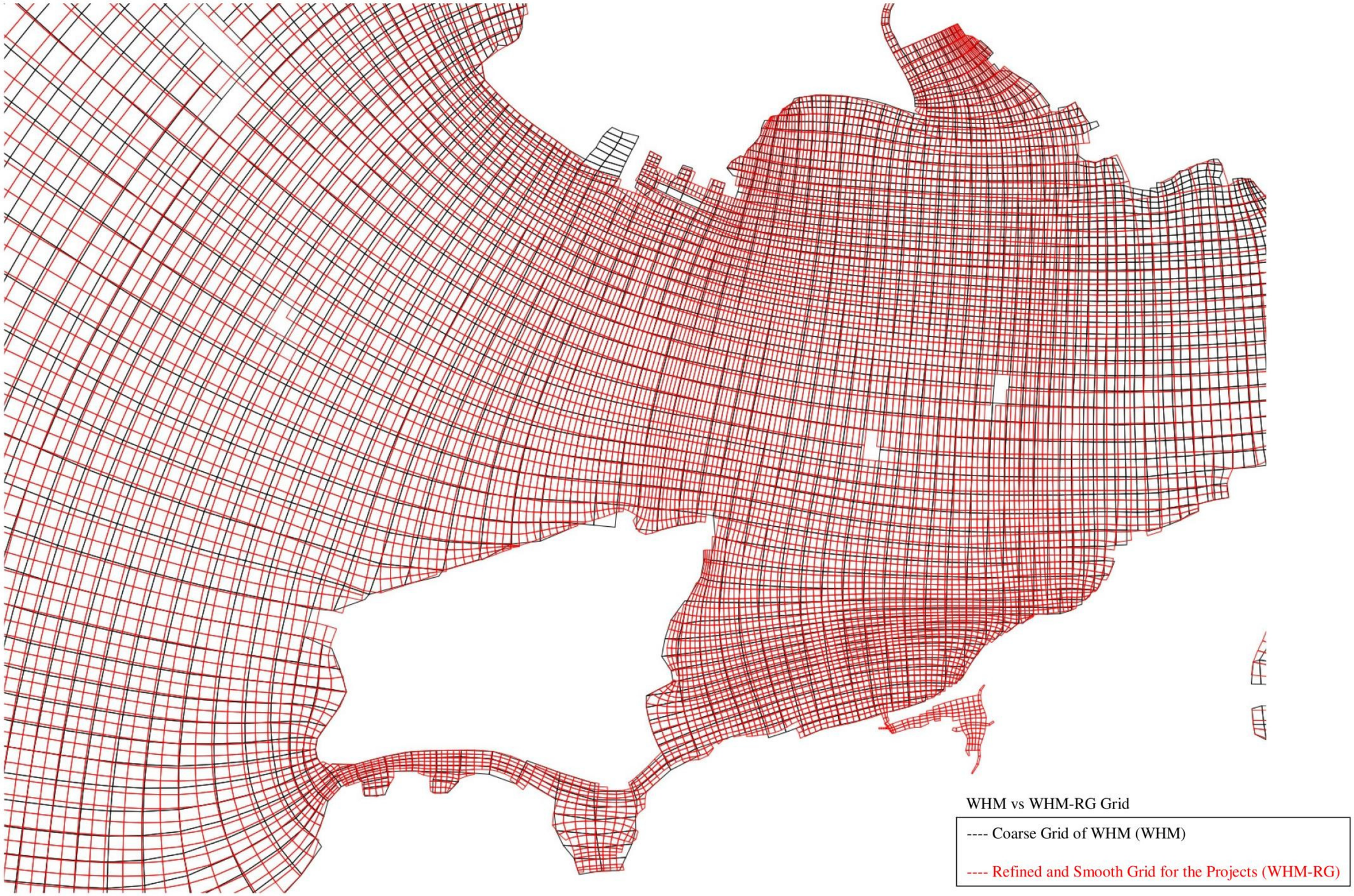

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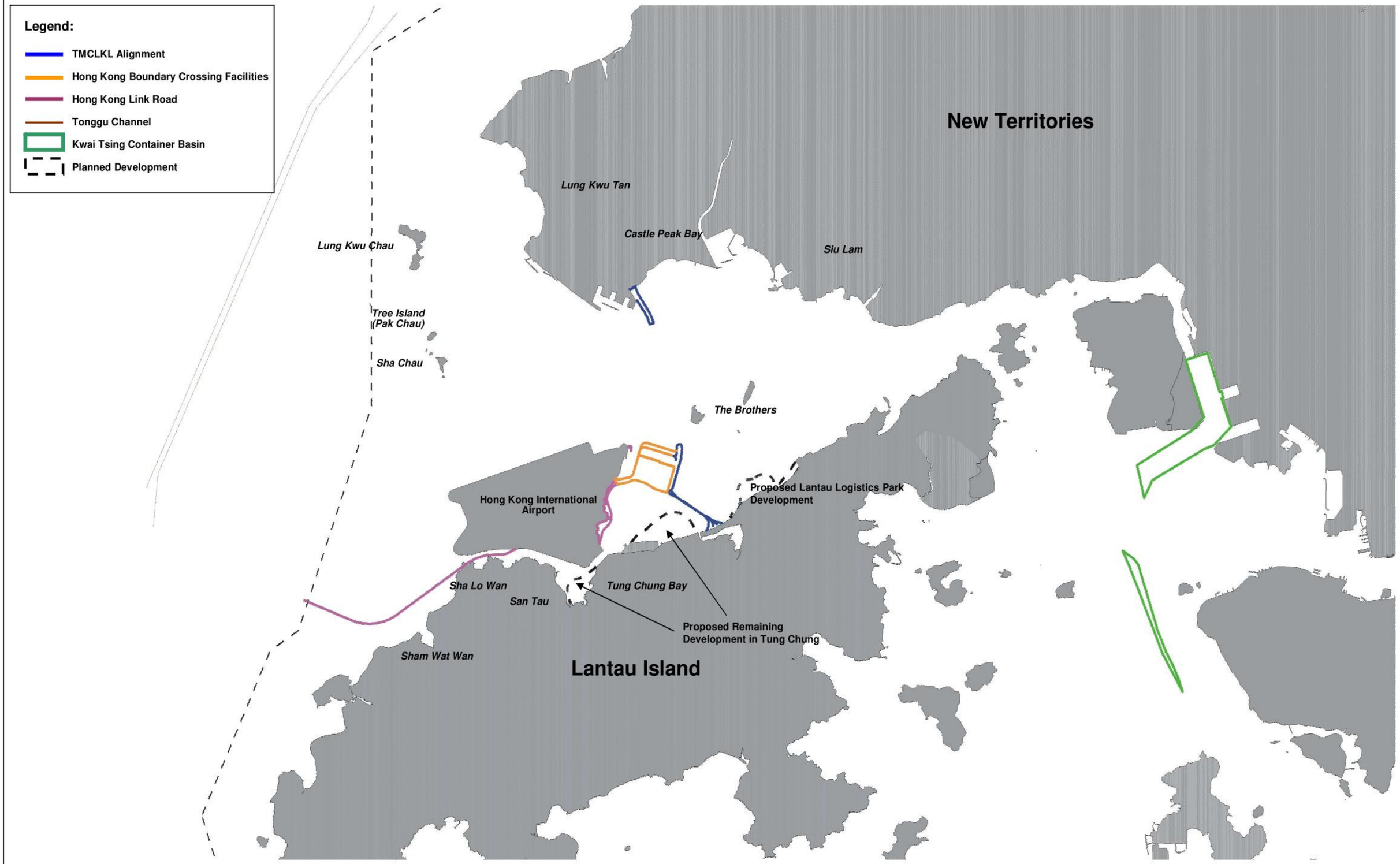

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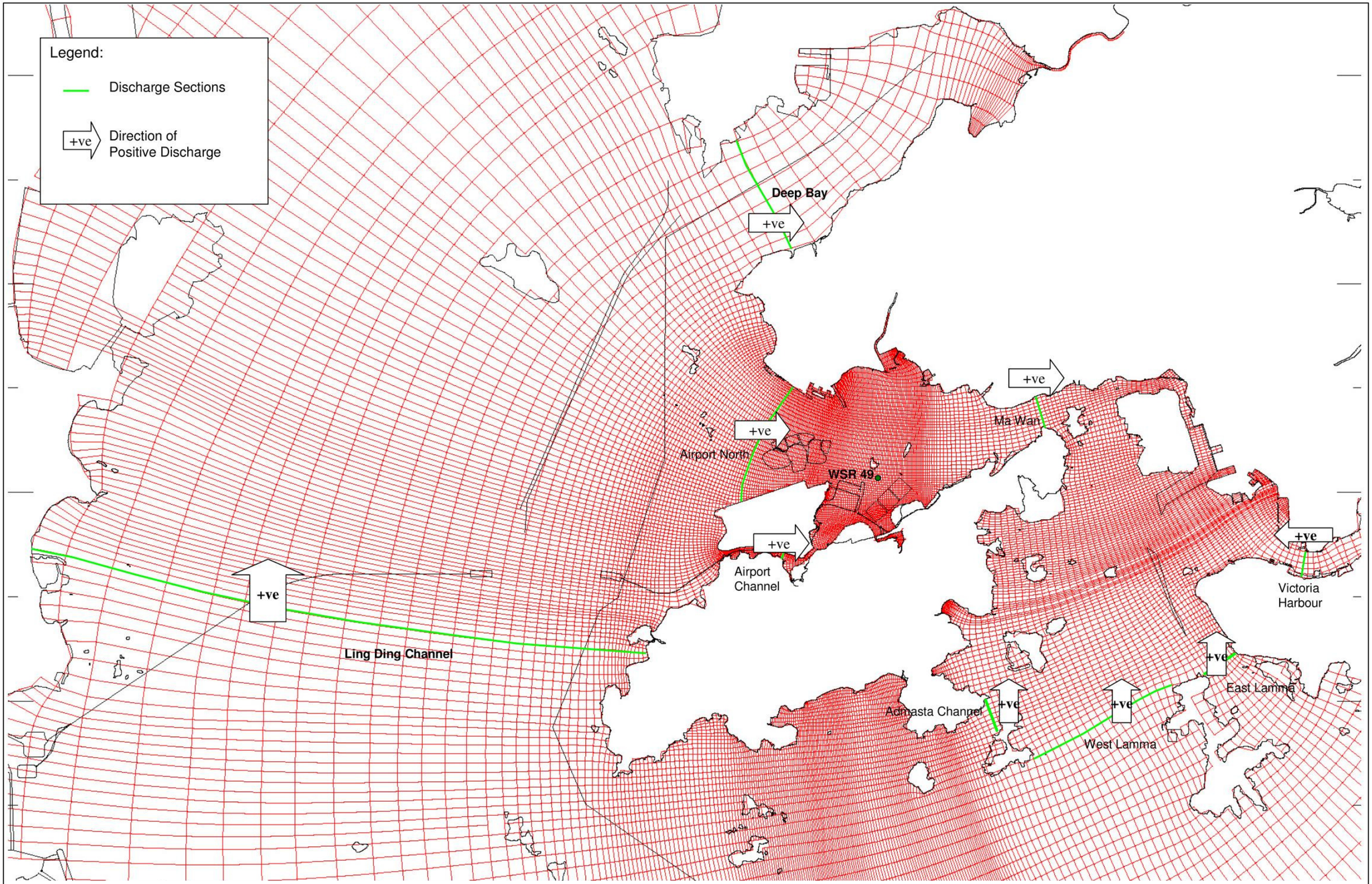
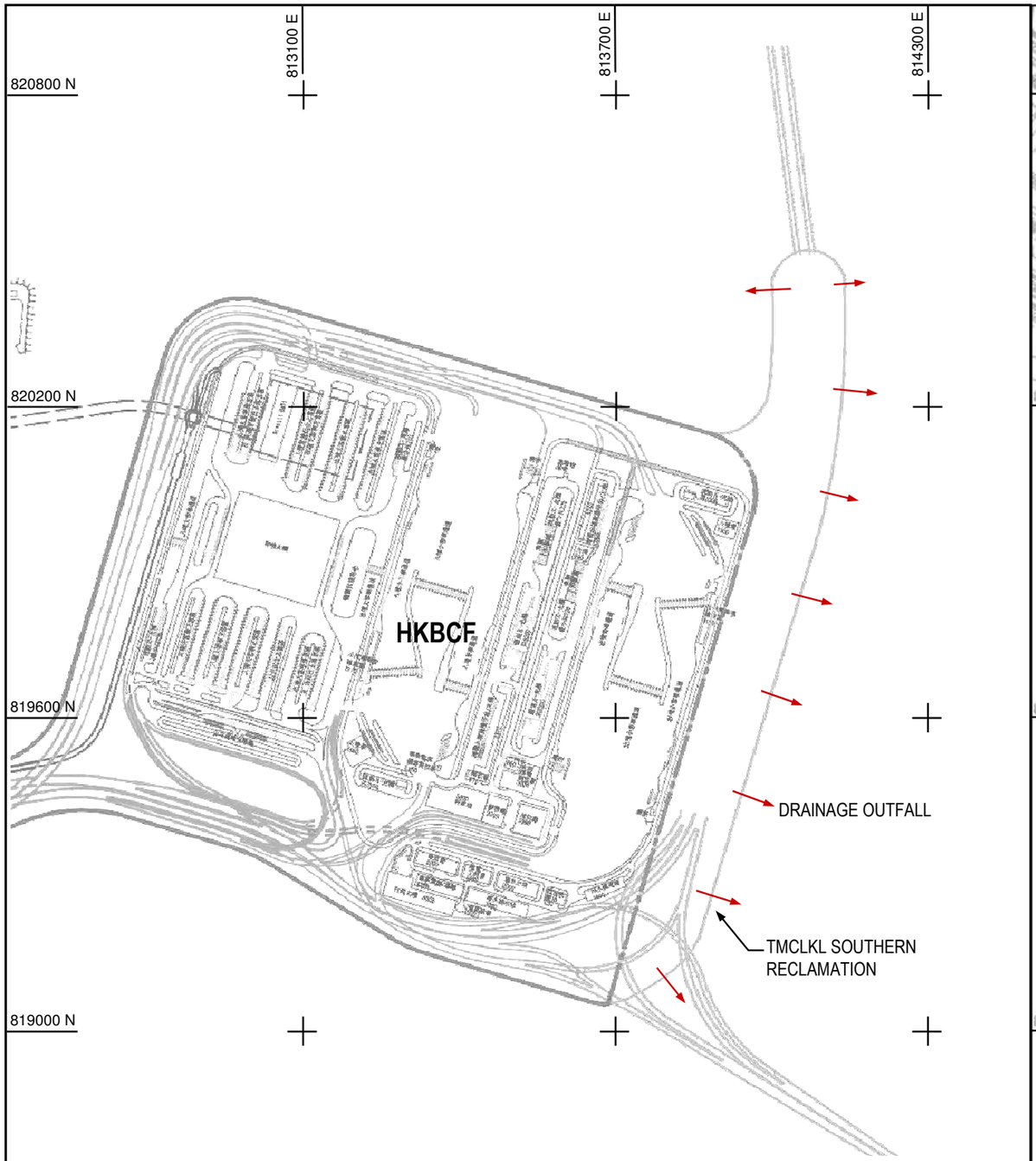
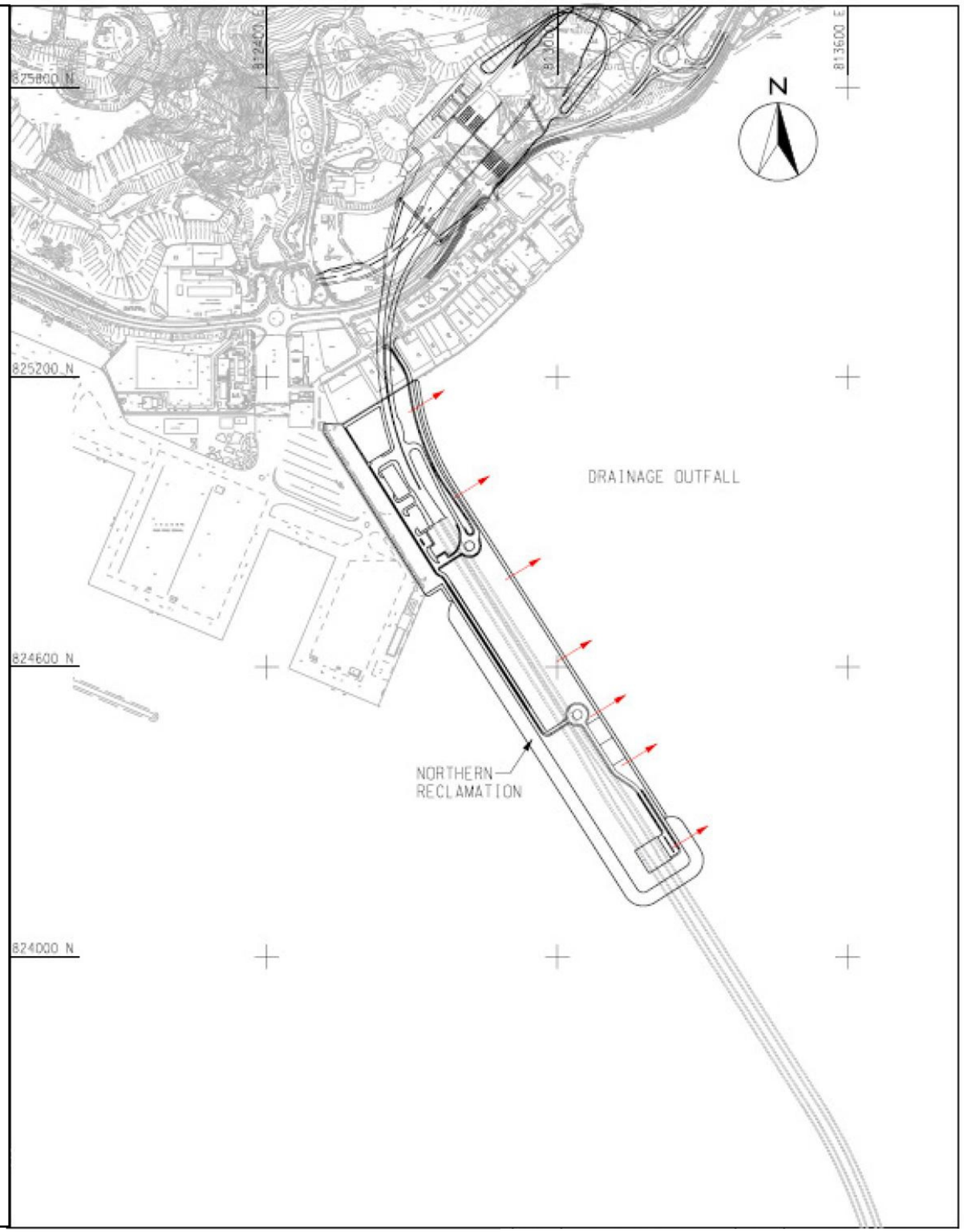


路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **Main Flow Channel in Western Harbour**	Drawing No.: **Figure 9.11**





LEGEND:

DRAINAGE OUTFALL
(AT 200m C/C TYPICAL)

路政署
HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge
Hong Kong Project Management Office

ARUP
奧雅納工程顧問
Ove Arup & Partners
Hong Kong Limited

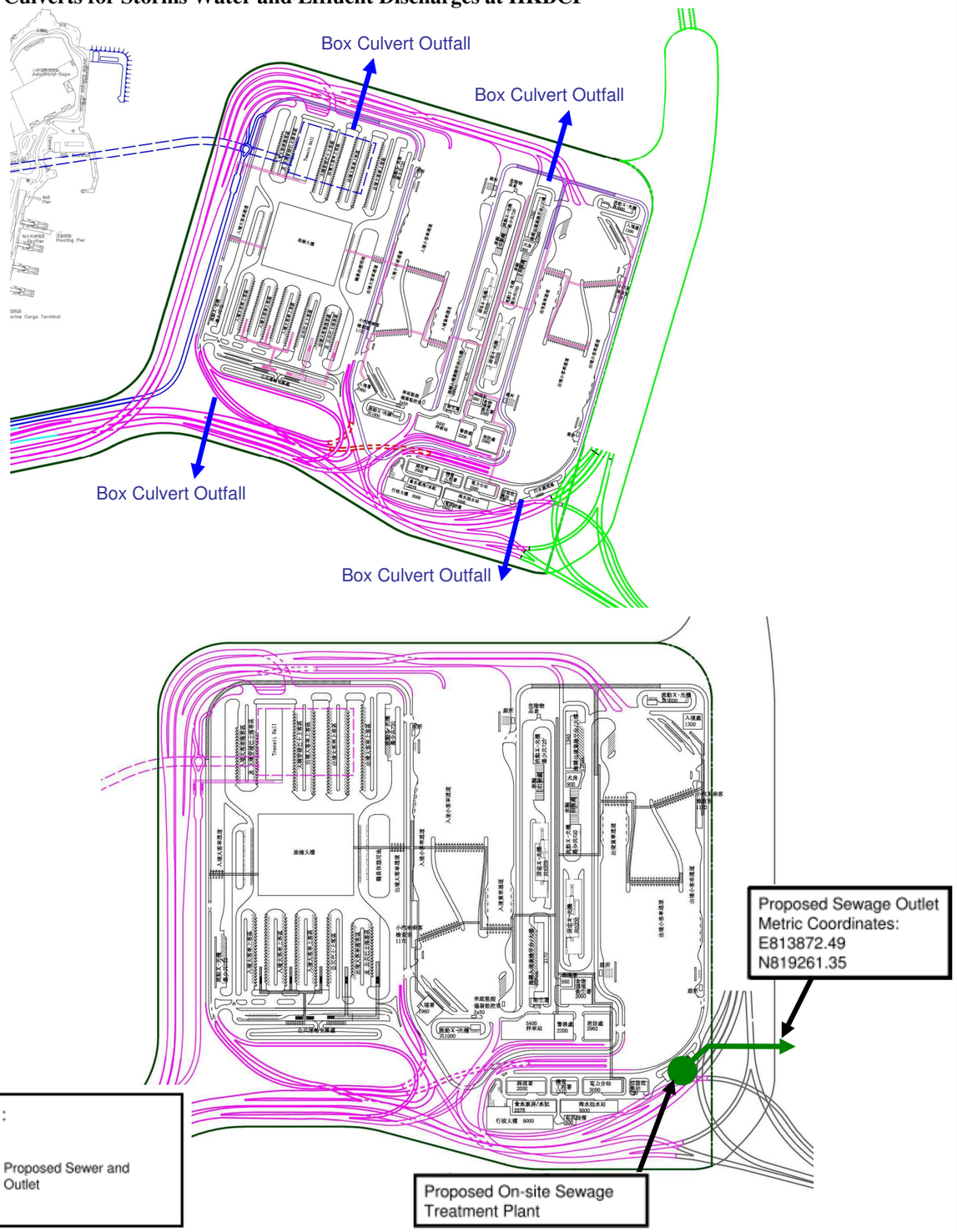
Drawing Title

Indicative Location of Box Culverts for Discharges of Storm Waters from TM-CLKL

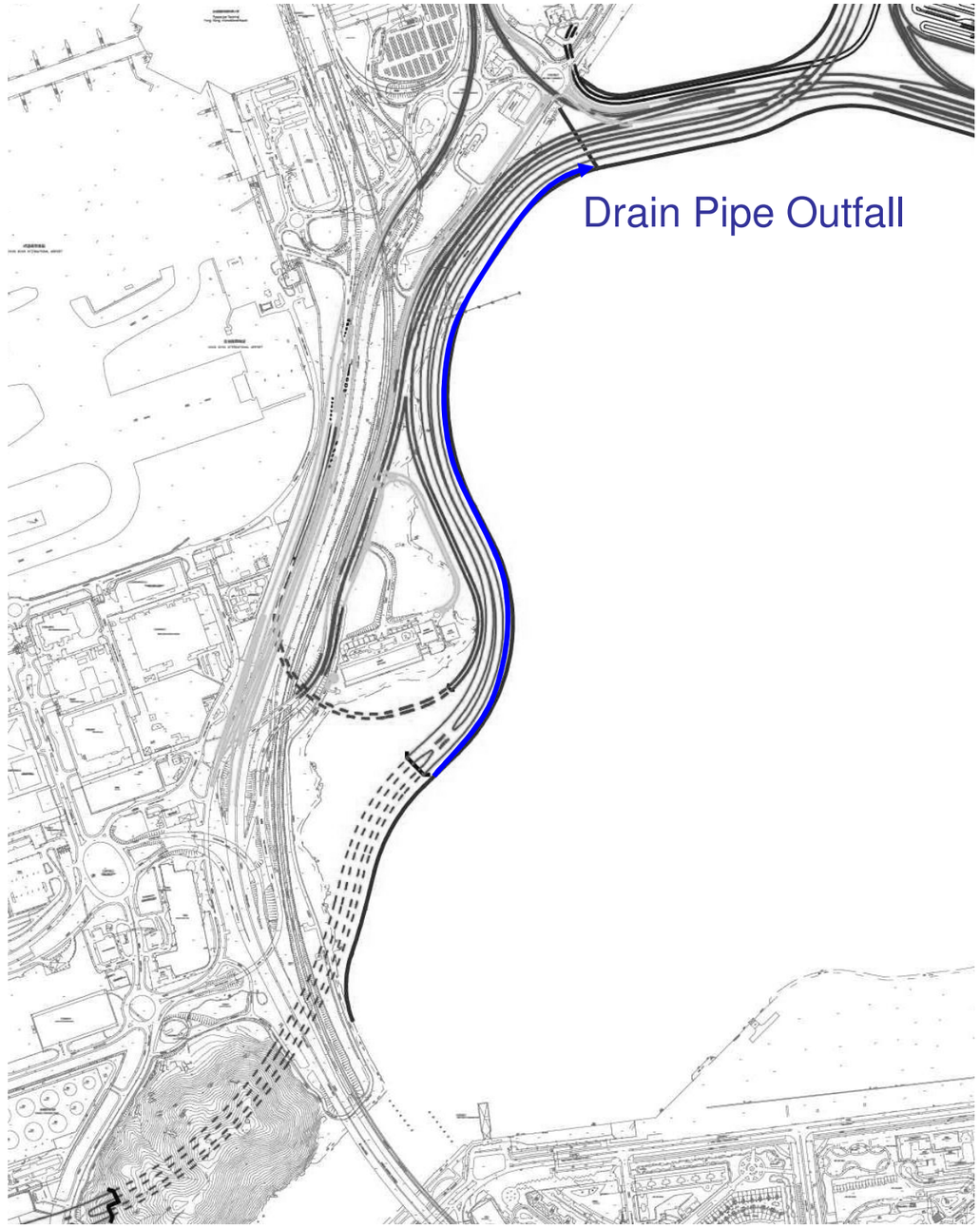
Drawing No.

Figure 9.12

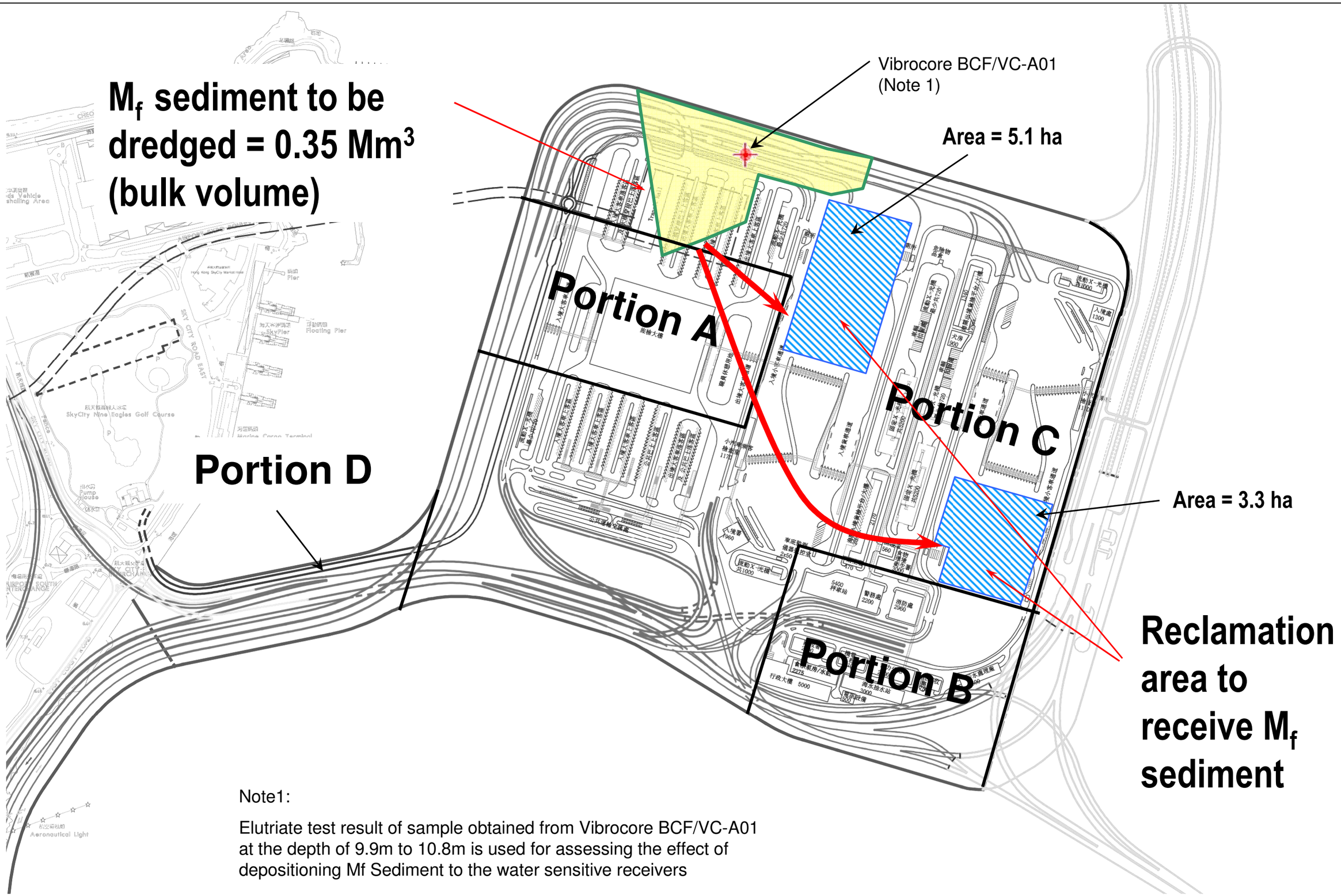
(A) Box Culverts for Storms Water and Effluent Discharges at HKBCF



(A) Box Culverts for Storms Water at HKLR



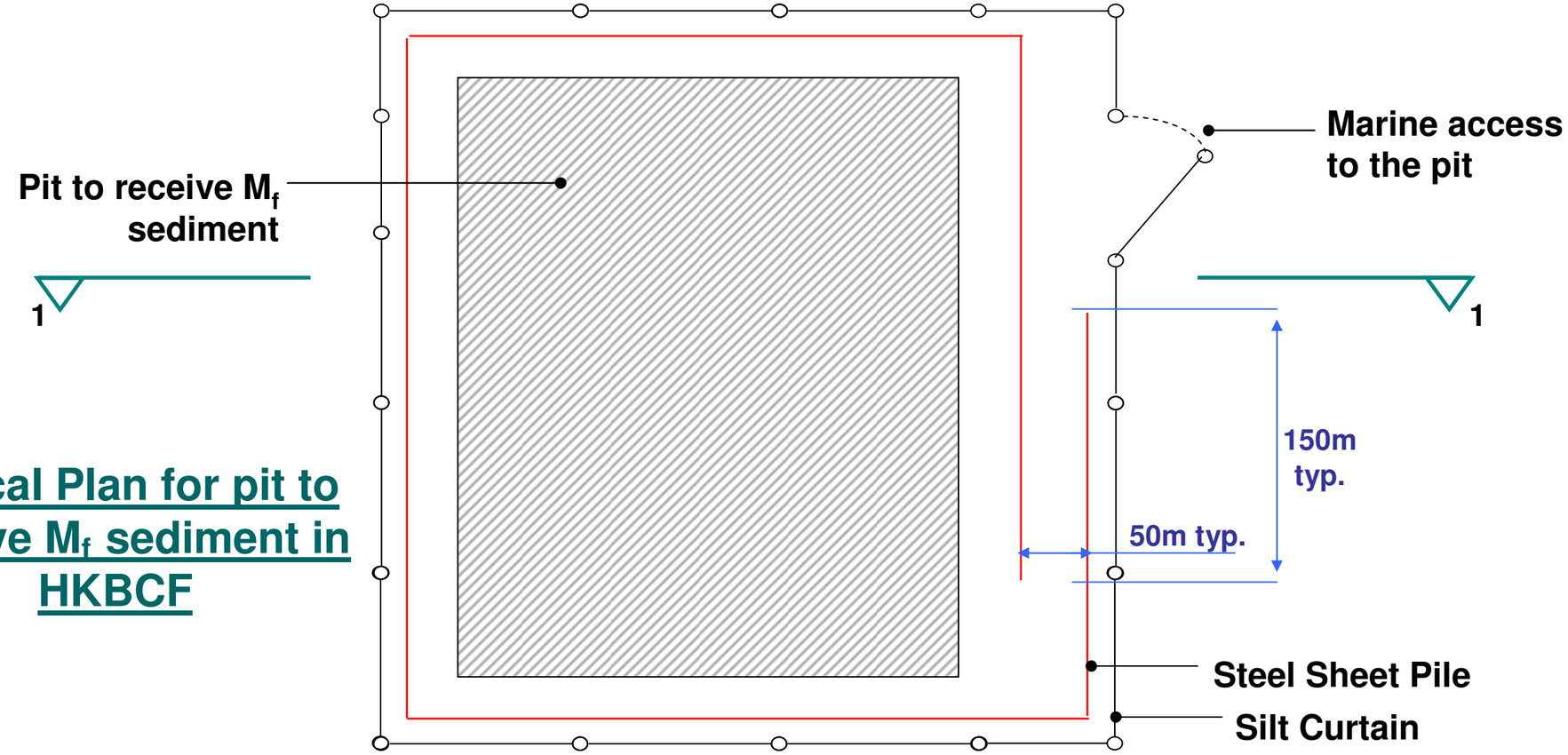
路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **Indicative Location of Box Culverts for Discharges of Storm Waters and Treated Effluent (HKBCF + HKLR)**	Drawing No.: **Figure 9.13**



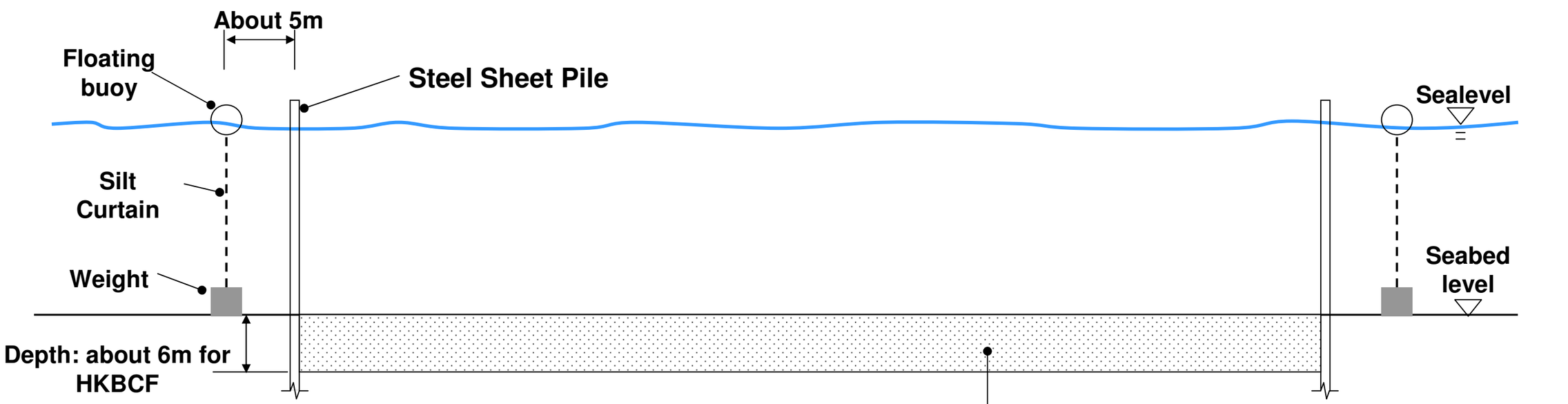
Note1:

Elutriate test result of sample obtained from Vibrocore BCF/VC-A01 at the depth of 9.9m to 10.8m is used for assessing the effect of depositioning Mf Sediment to the water sensitive receivers

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **Location Plan for the Proposed Pits to Receive M_f Sediment in HKBCF**	Drawing No.: **Figure 9.14**

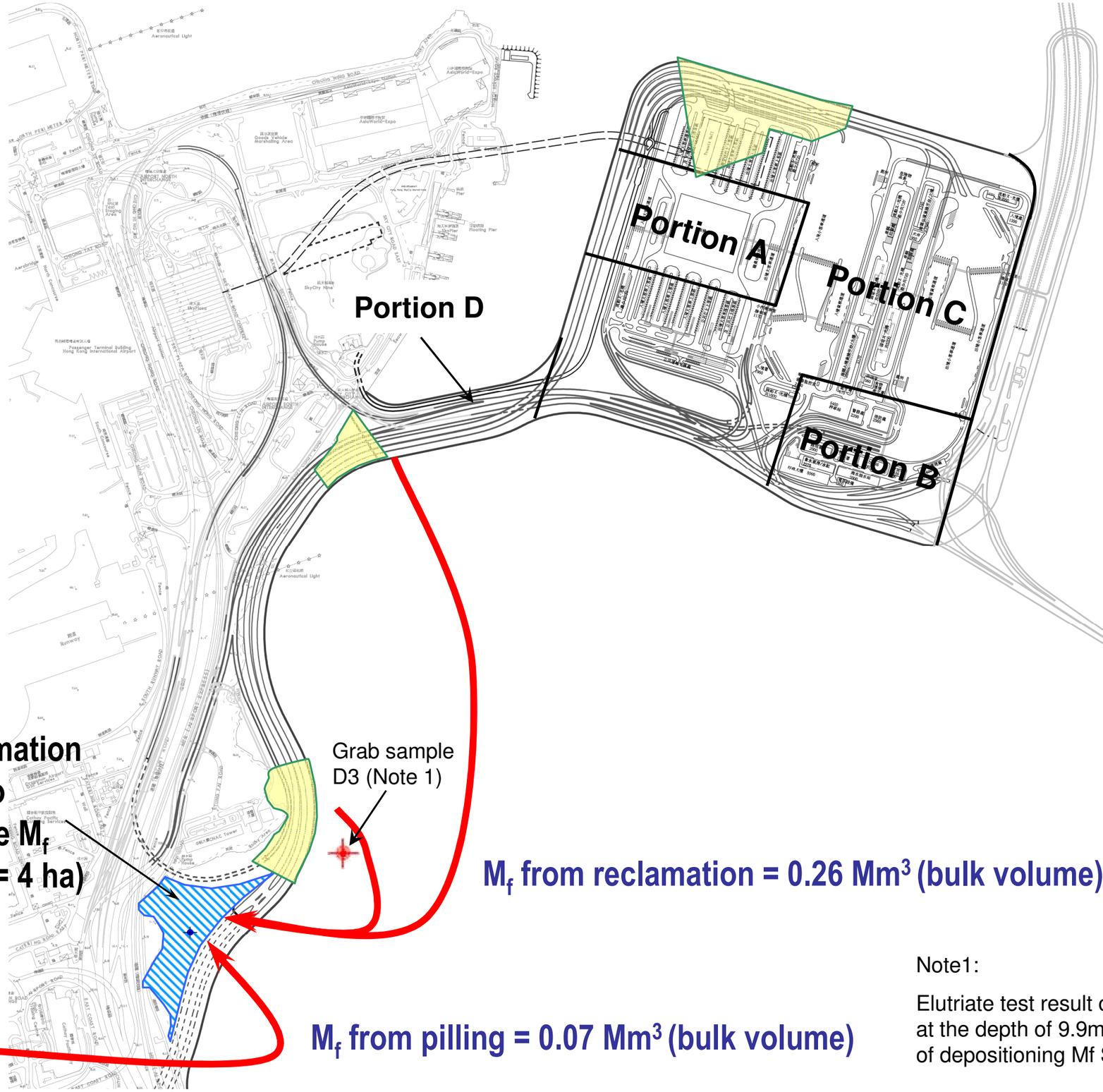


Typical Plan for pit to receive M_f sediment in HKBCF



Section 1-1

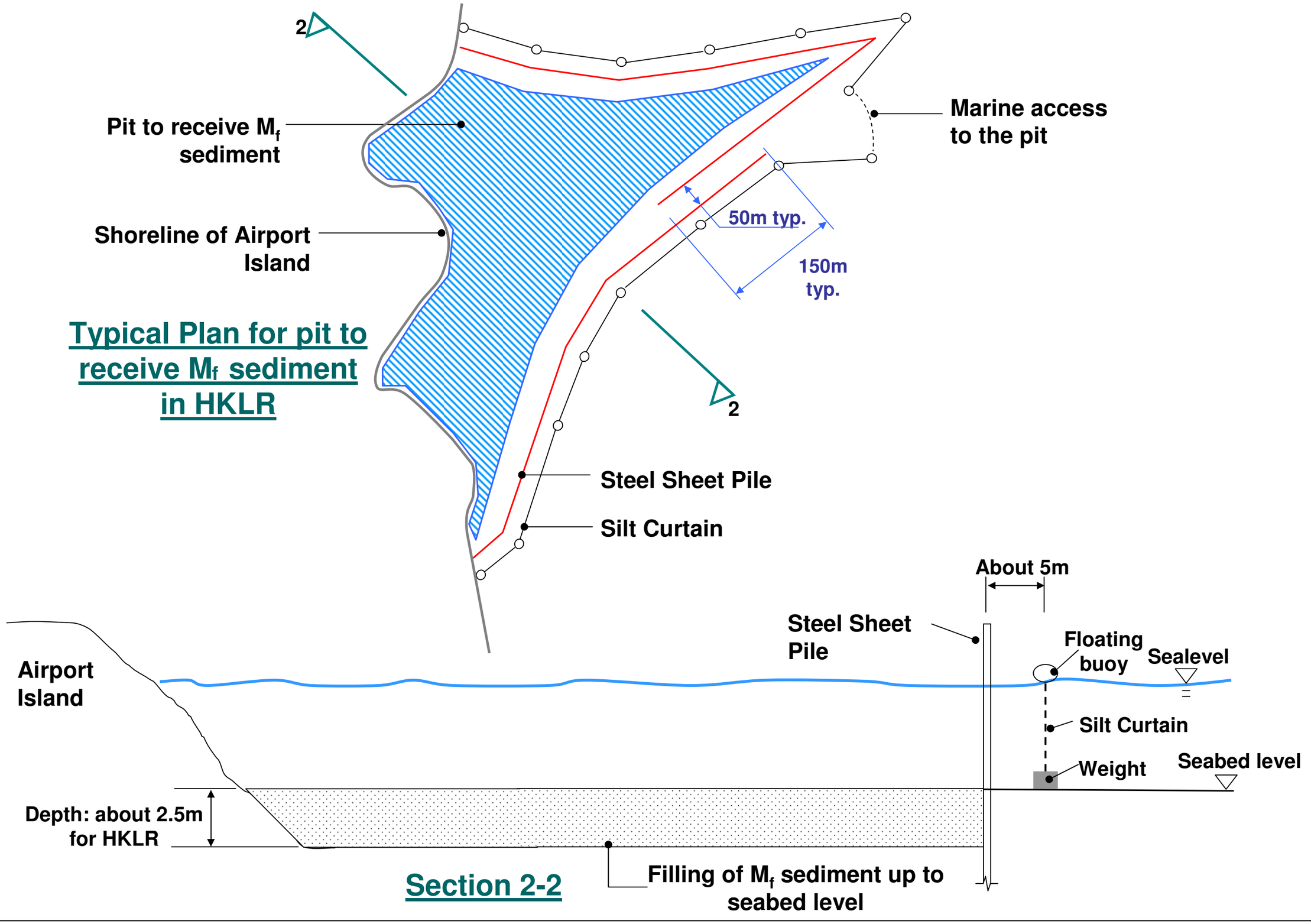
路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **Proposed Details and Mitigation Measures for the Pits to Receive M_f Sediment in HKBCF**	Drawing No.: **Figure 9.15**



Note1:

Elutriate test result of sample obtained from grab sample D3 at the depth of 9.9m to 10.8m is used for assessing the effect of depositioning Mf Sediment to the water sensitive receivers

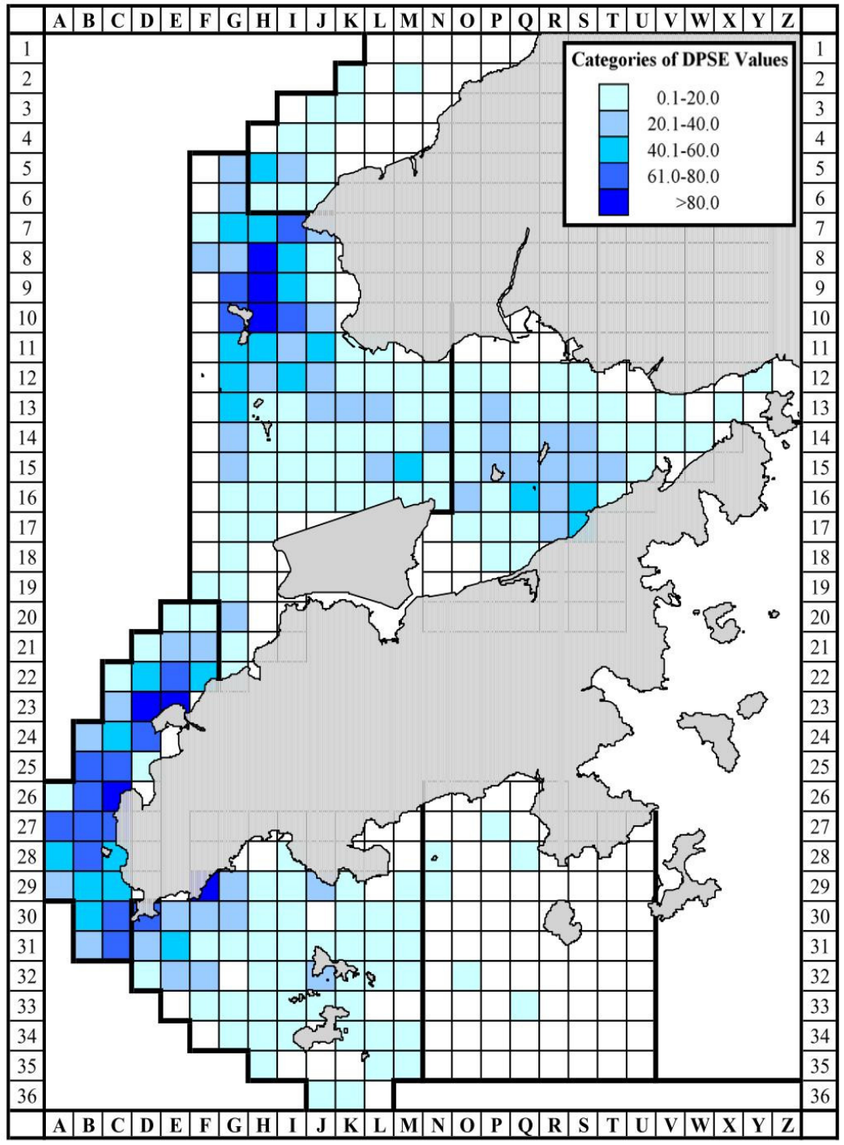
路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **Location Plan for the Proposed Pits to Receive M_f Sediment in HKLR**	Drawing No.: **Figure 9.16**



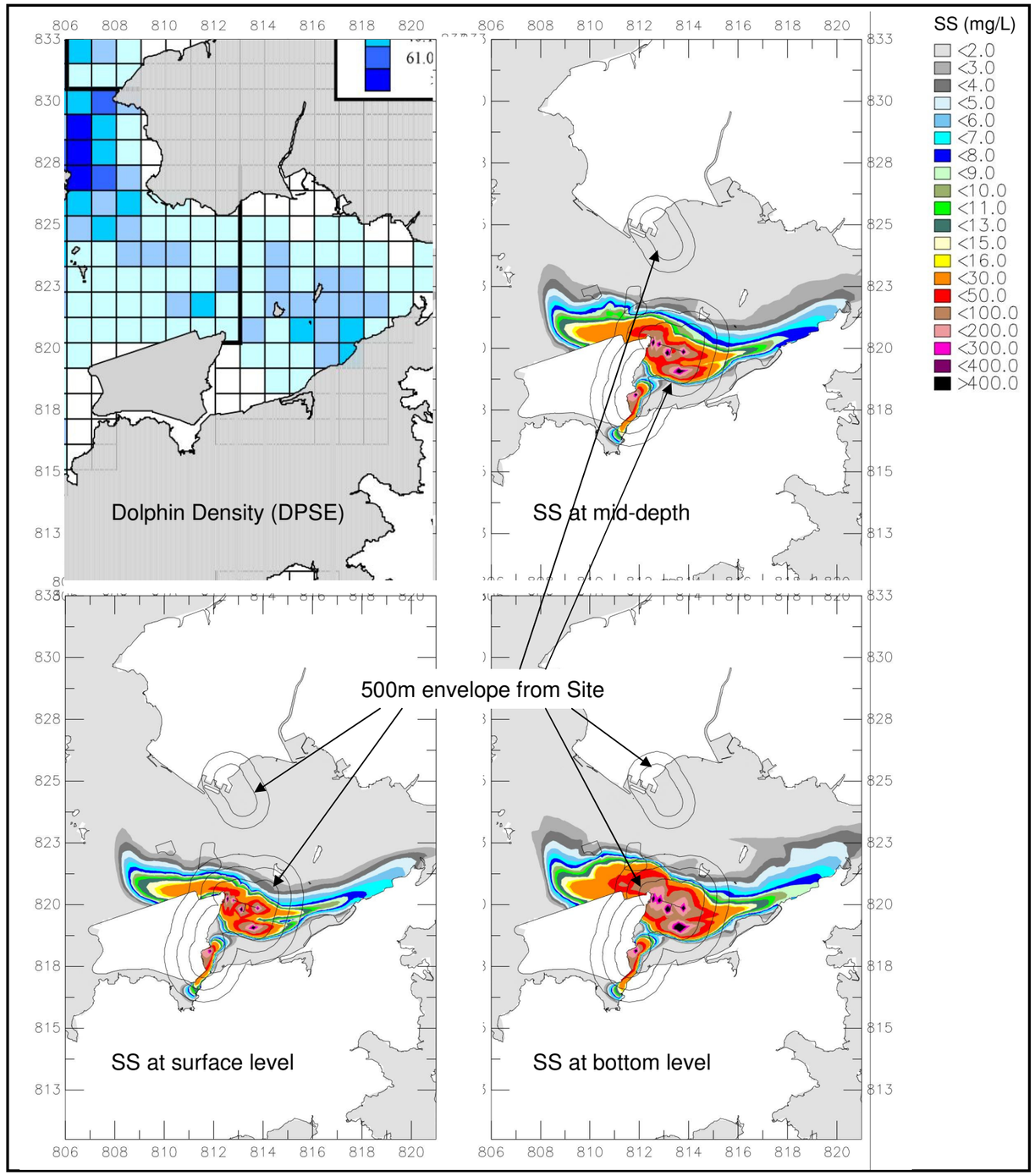
Typical Plan for pit to receive M_f sediment in HKLR

Section 2-2

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **Proposed Details and Mitigation Measures for the Pits to Receive M_f Sediments in HKLR**	Drawing No.: **Figure 9.17**



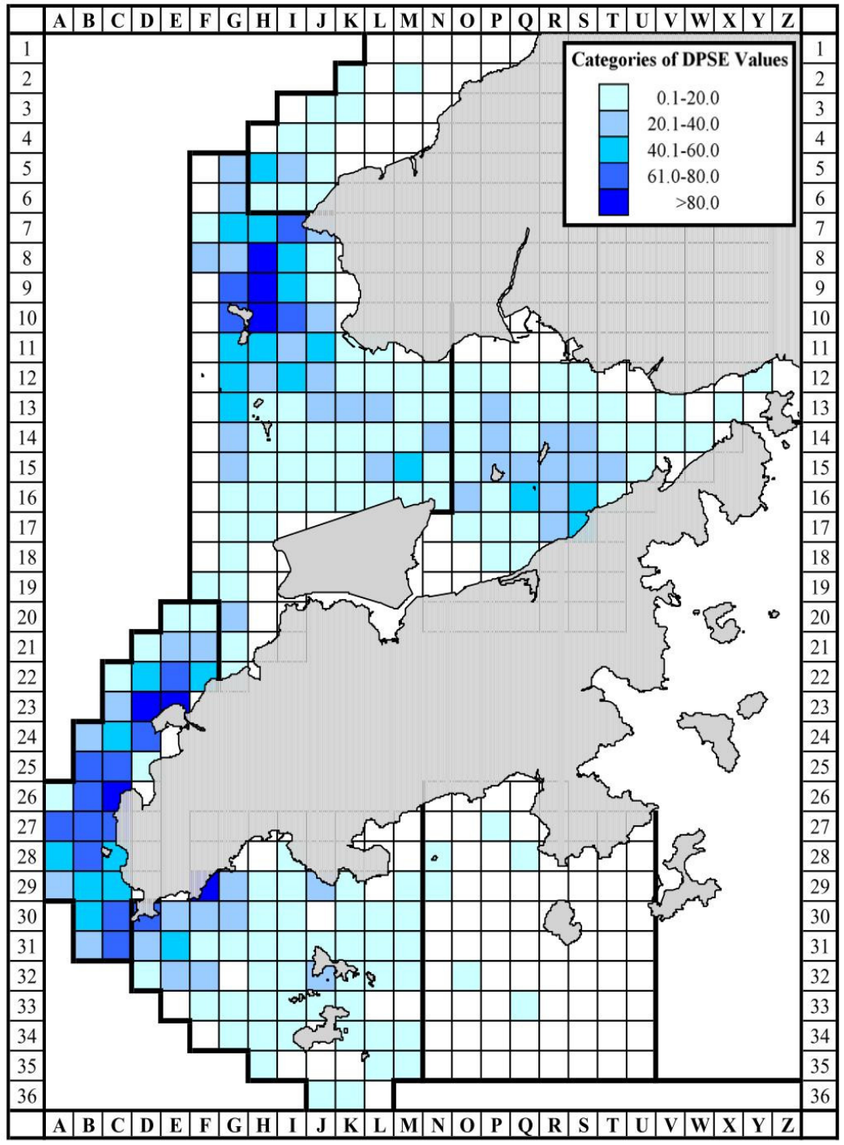
A) 2002-08 DPSE Density of Chinese White Dolphins



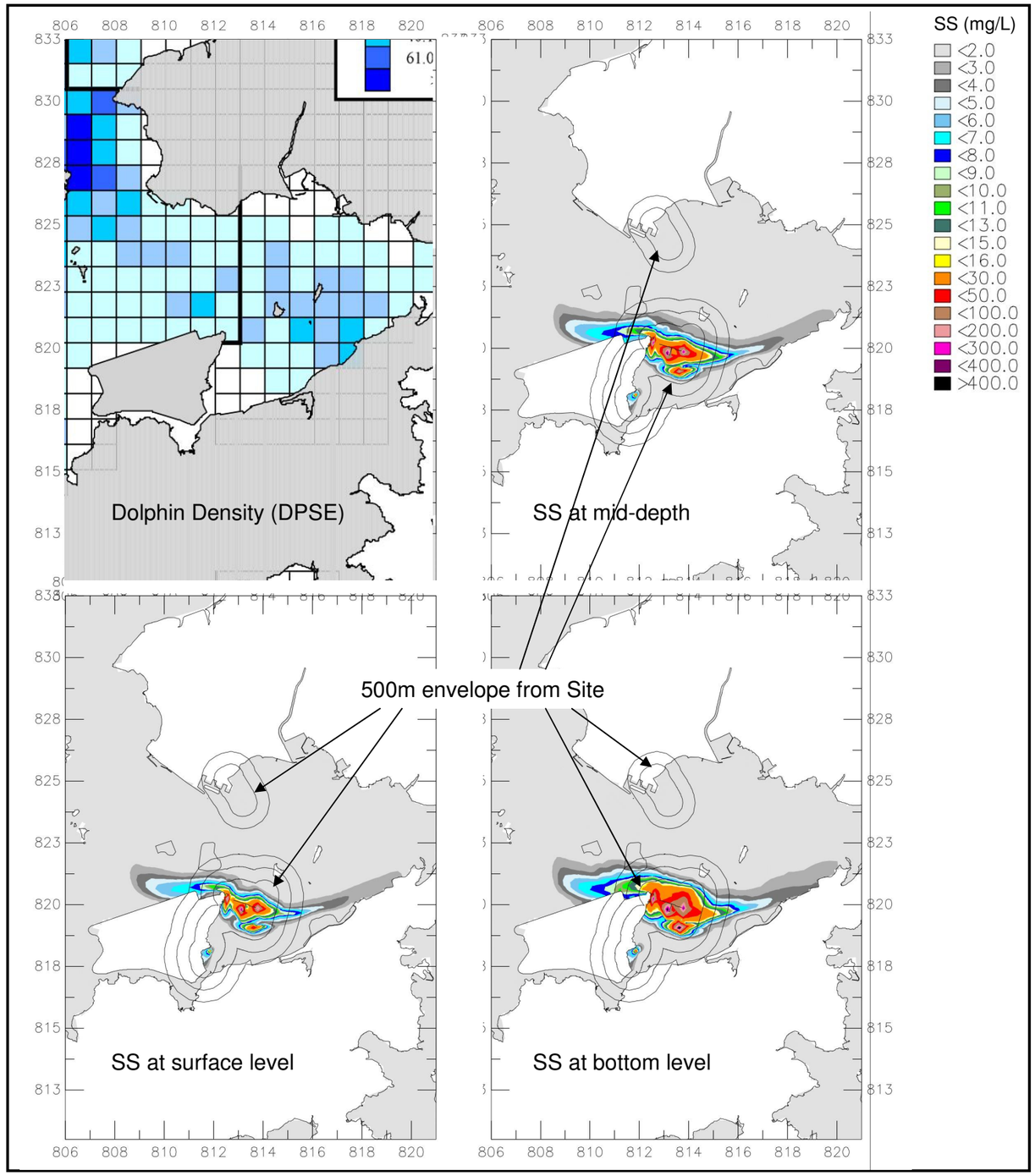
B) Unmitigated Scenario

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title **2011 Dry Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Unmitigated Scenario)**	Drawing No. **Figure 9.18**



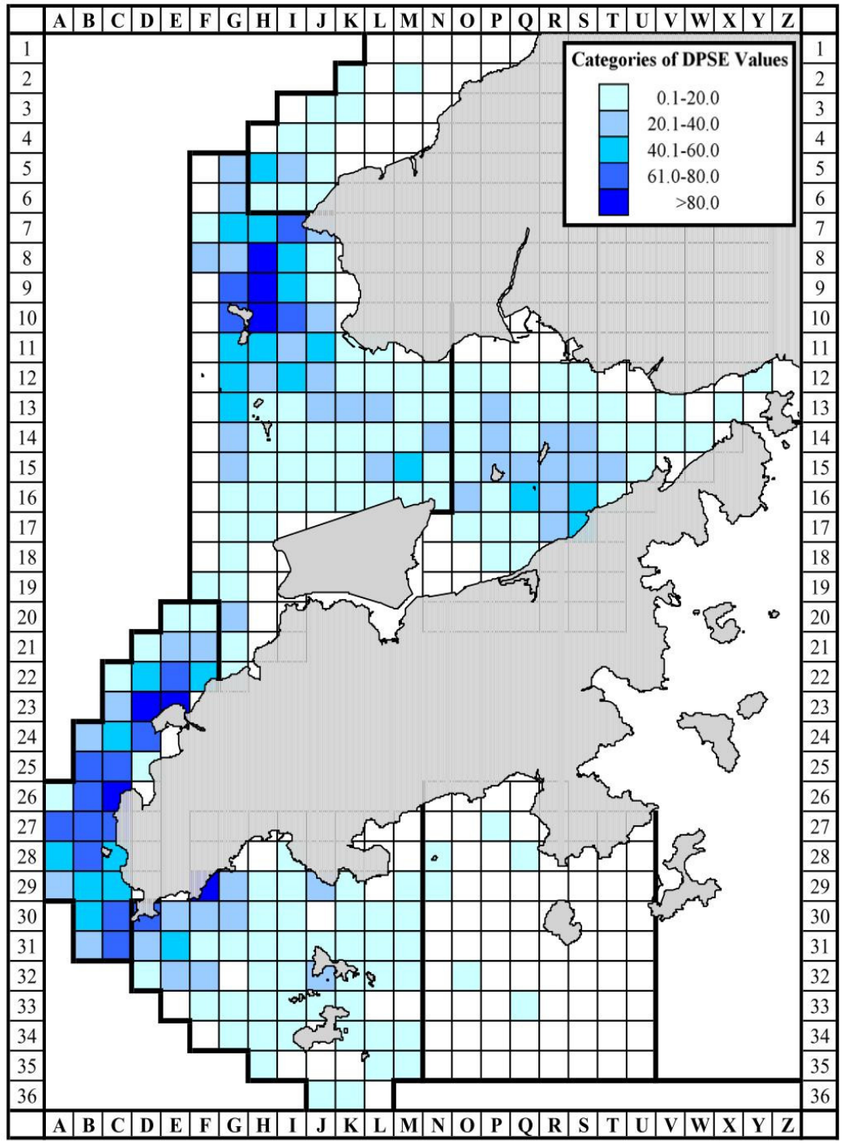
A) 2002-08 DPSE Density of Chinese White Dolphins



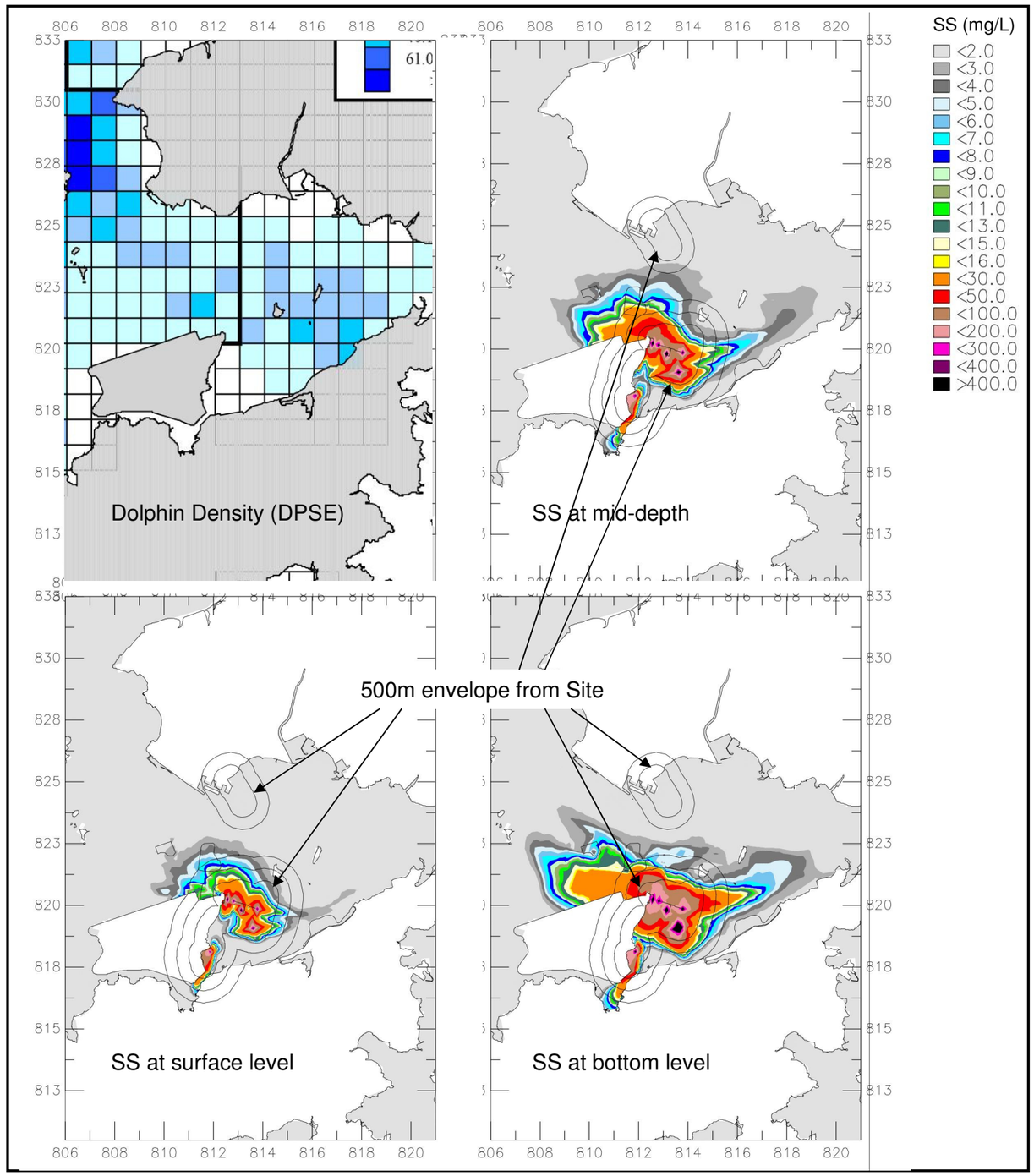
B) After mitigation with (1+1) silt curtain system

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title **2011 Dry Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Mitigated Scenario)**	Drawing No. **Figure 9.19**



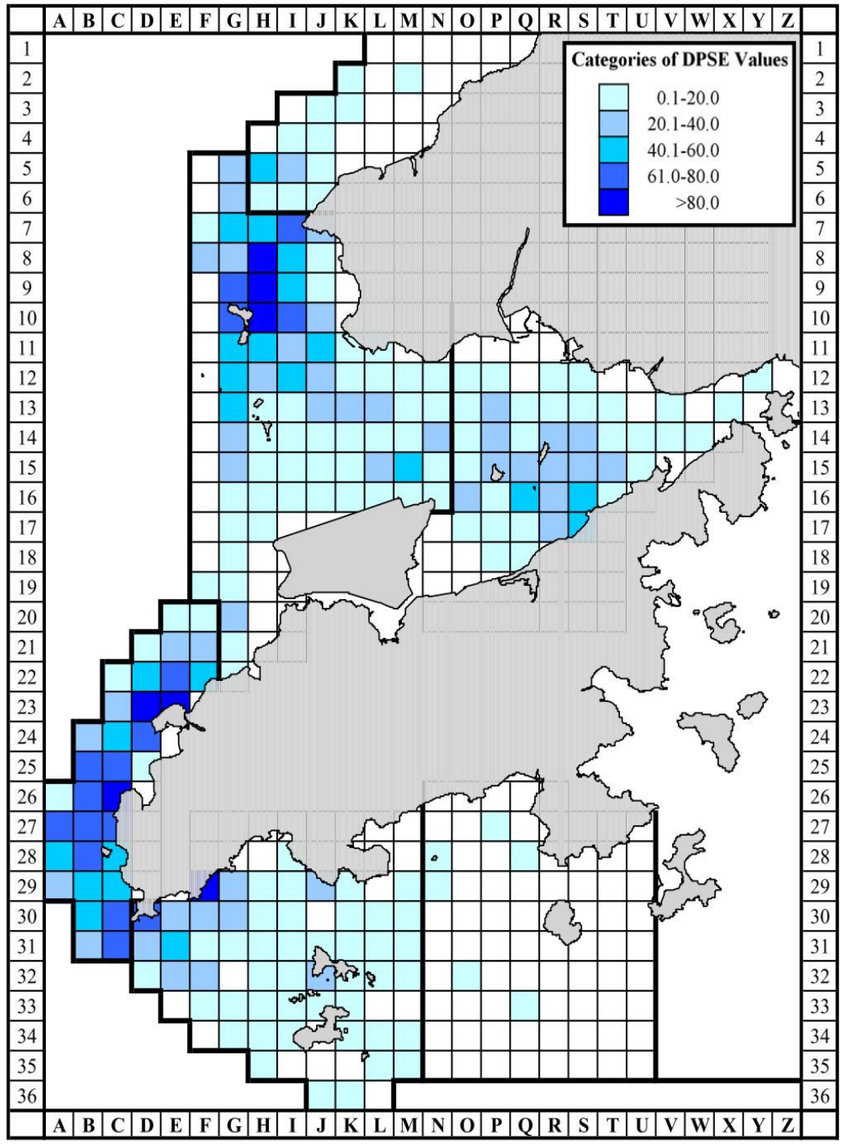
A) 2002-08 DPSE Density of Chinese White Dolphins



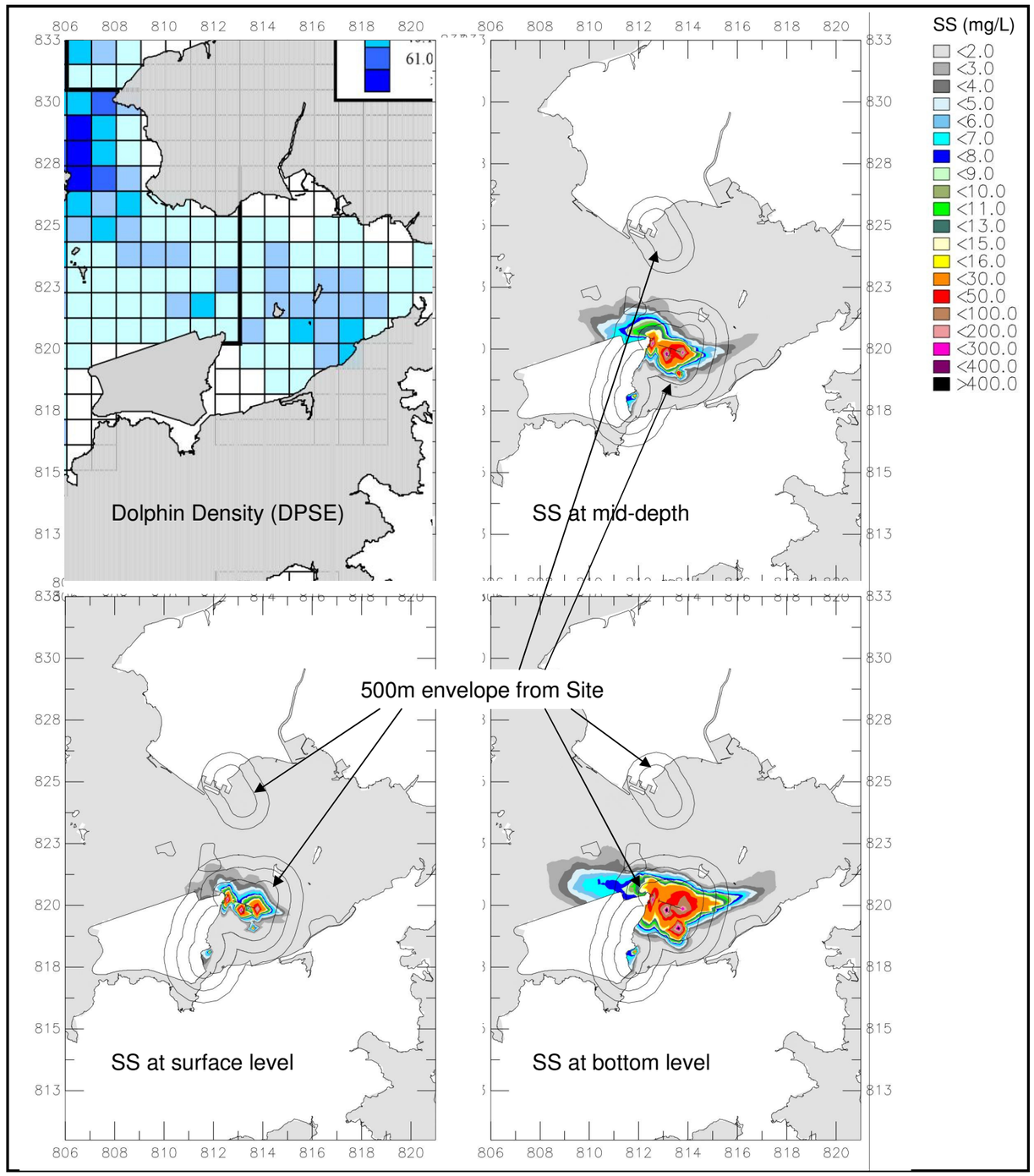
B) Unmitigated Scenario

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **2011 Wet Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Unmitigated Scenario)**	Drawing No.: **Figure 9.20**



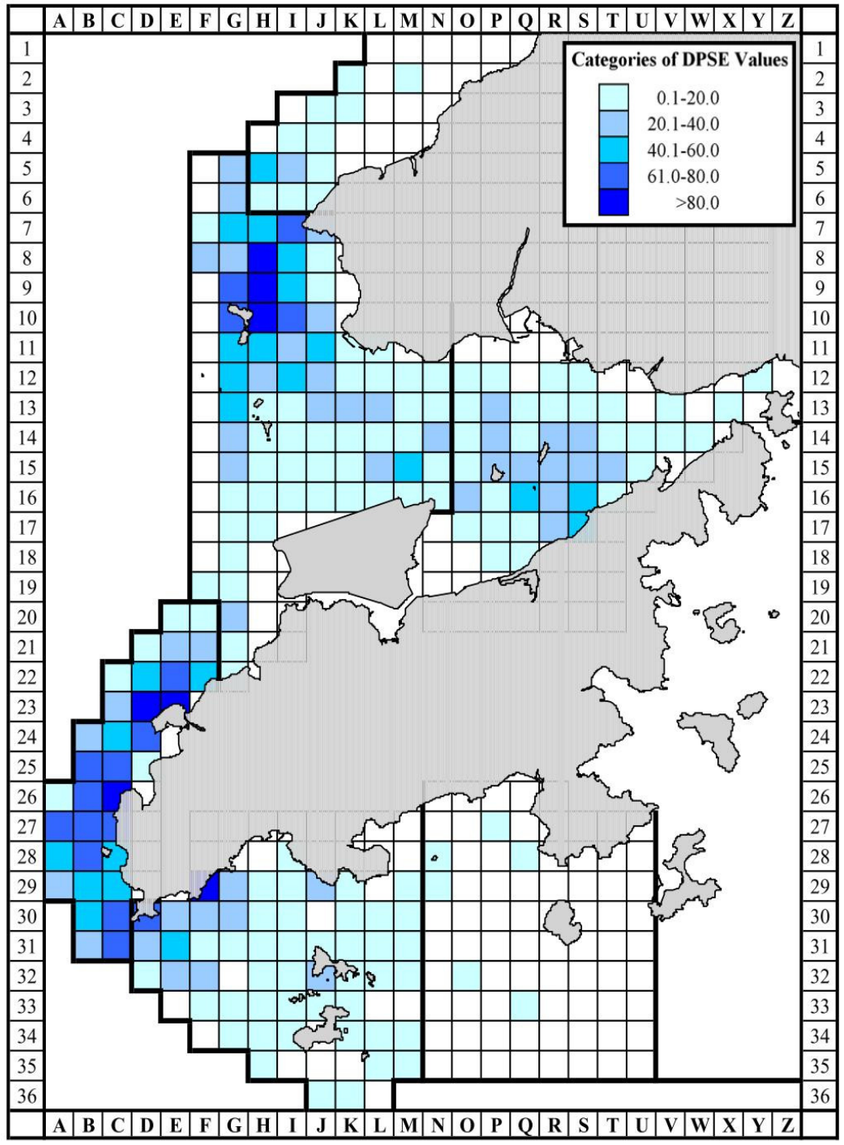
A) 2002-08 DPSE Density of Chinese White Dolphins



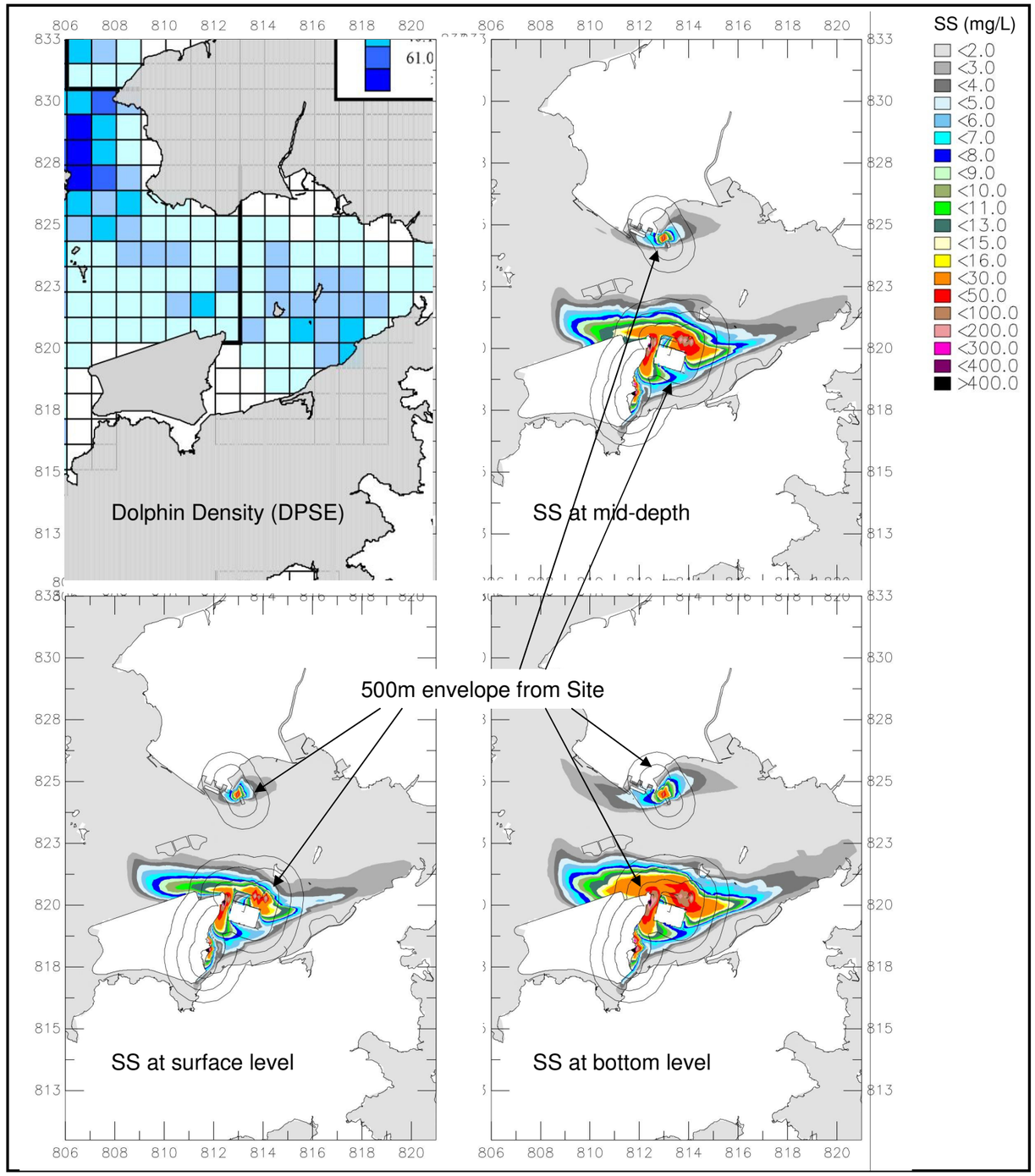
B) After mitigation with (1+1) silt curtain system

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title **2011 Wet Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Mitigated Scenario)**	Drawing No. **Figure 9.21**



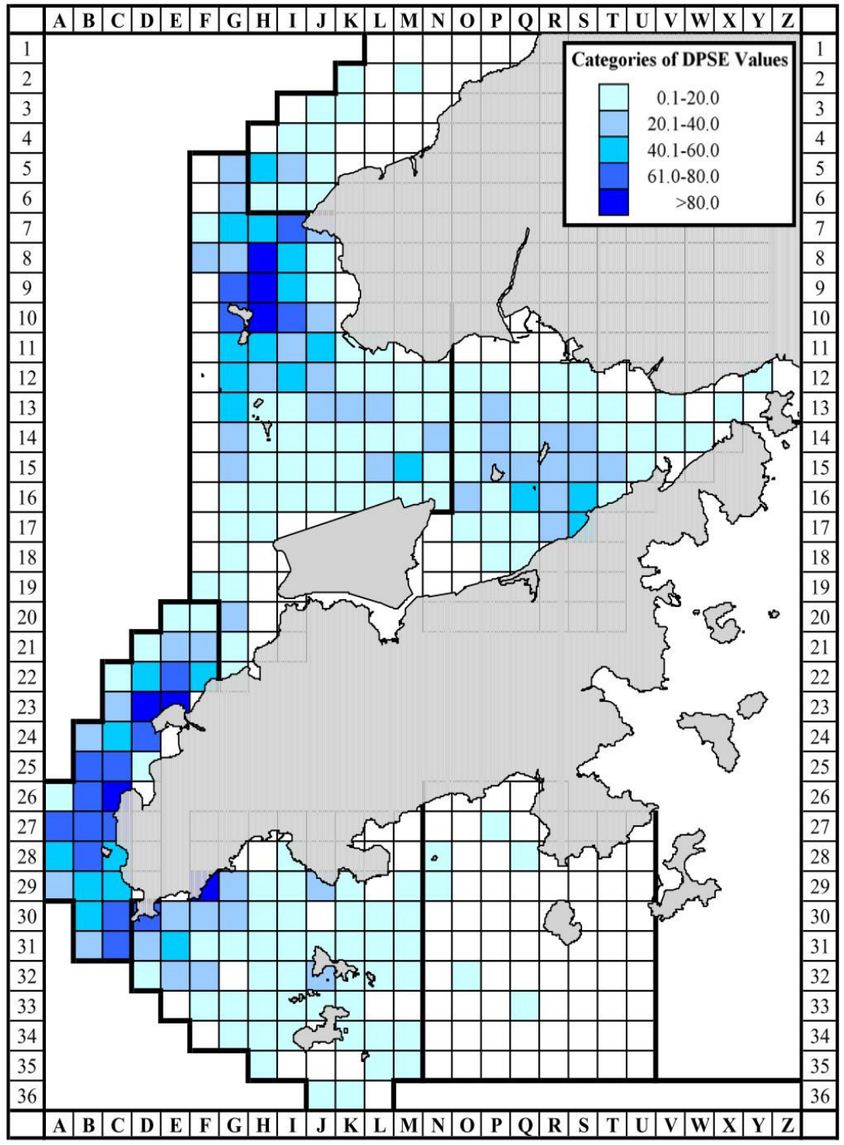
A) 2002-08 DPSE Density of Chinese White Dolphins



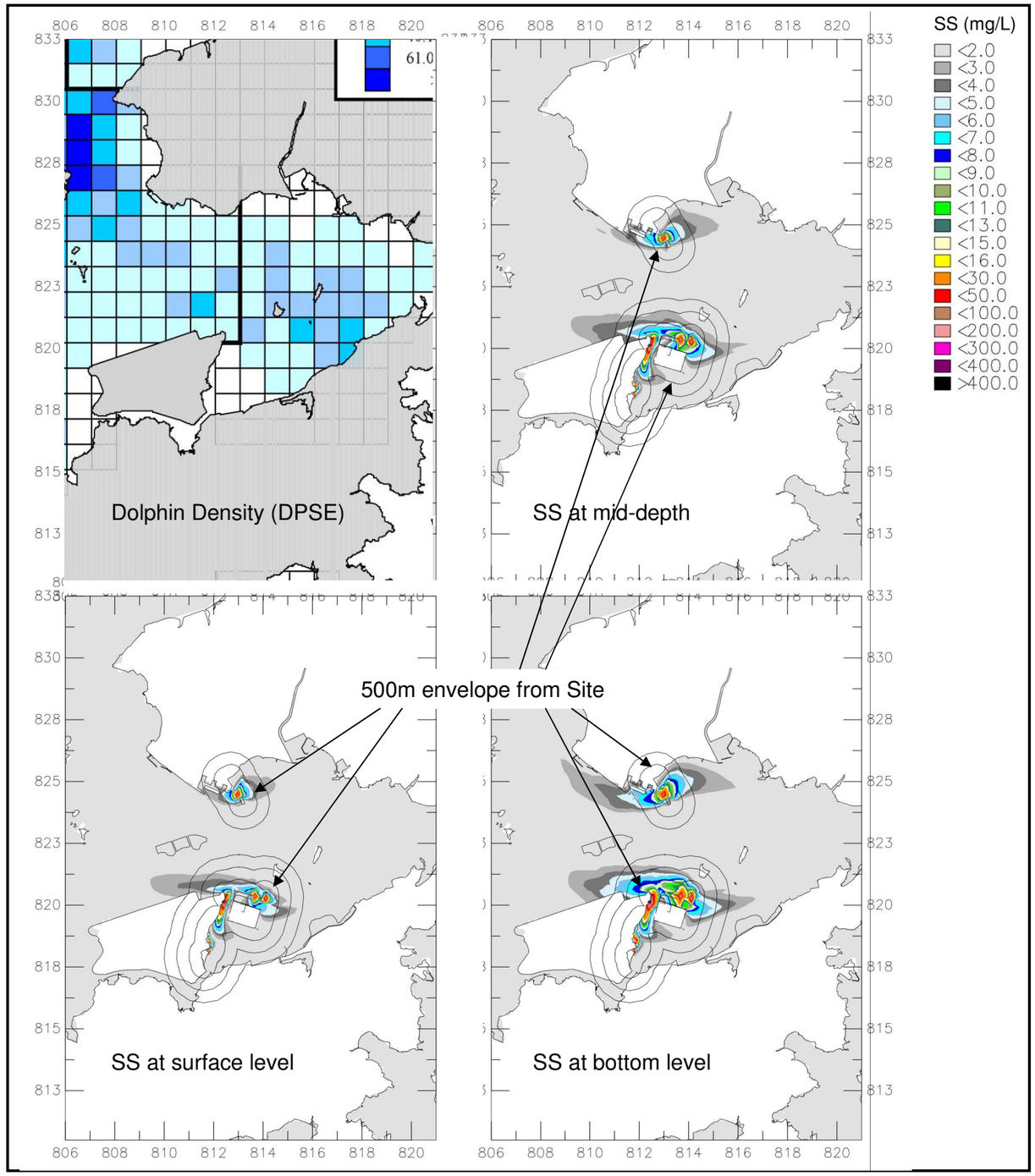
B) Unmitigated Scenario

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title **2012 Dry Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Unmitigated Scenario)**	Drawing No. **Figure 9.22**



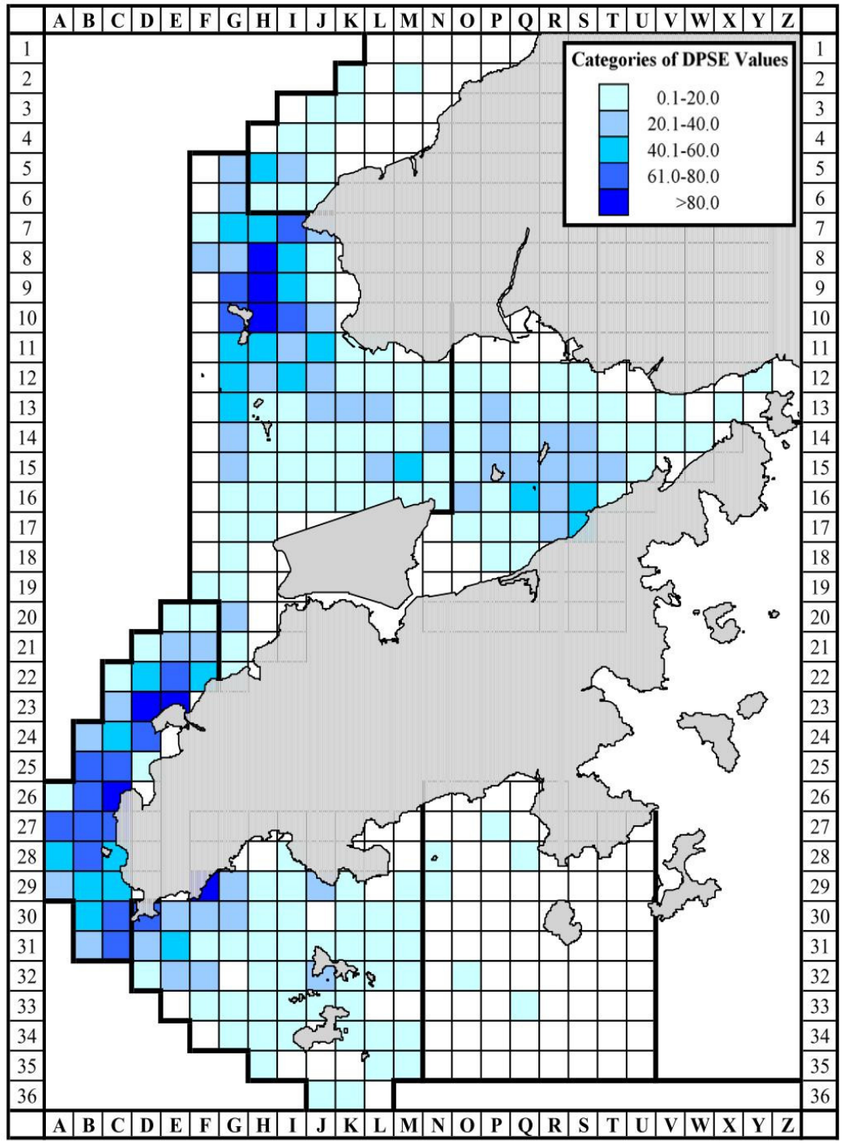
A) 2002-08 DPSE Density of Chinese White Dolphins



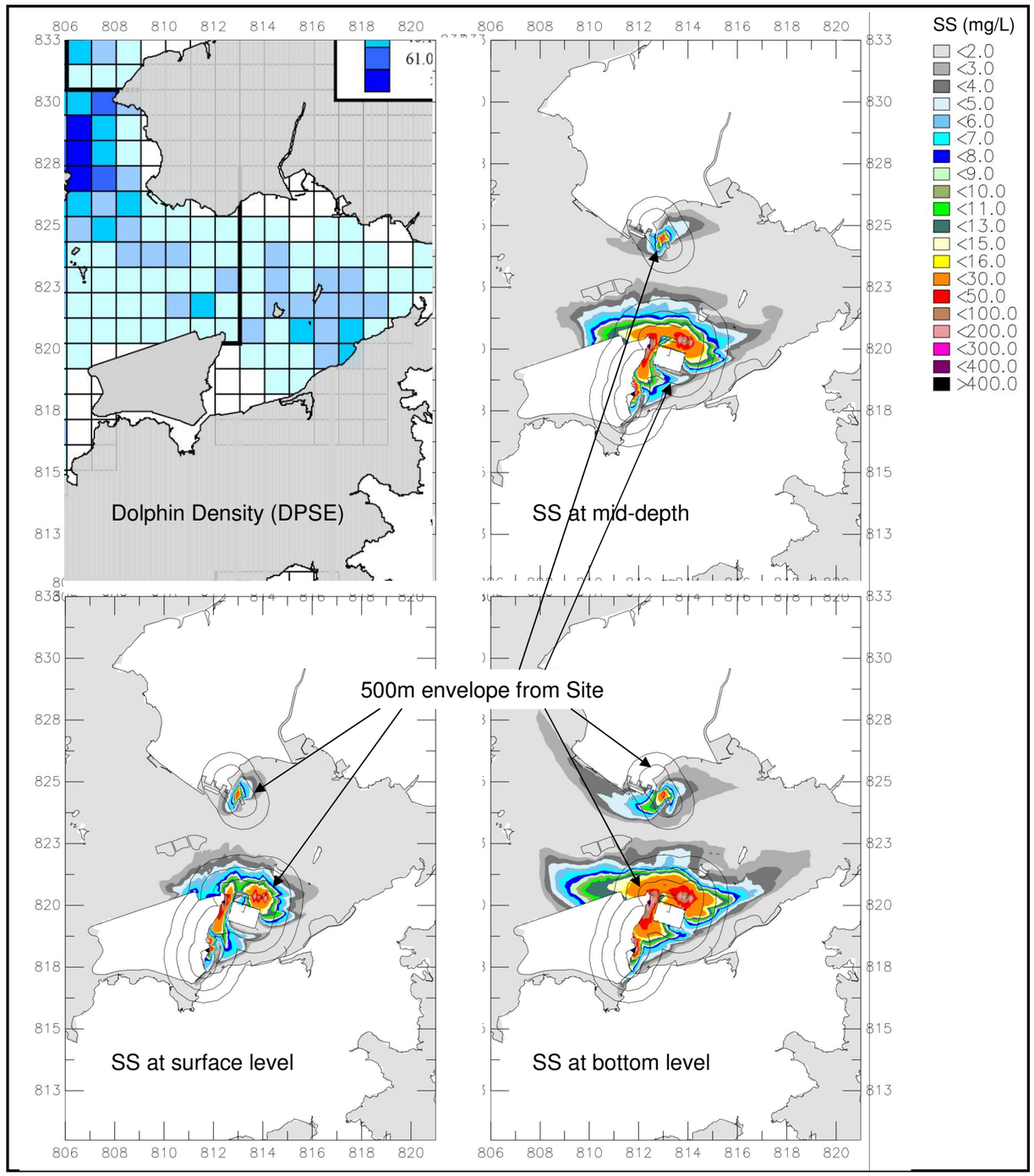
B) After mitigation with (1+1) silt curtain system

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **2012 Dry Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Mitigated Scenario)**	Drawing No.: **Figure 9.23**



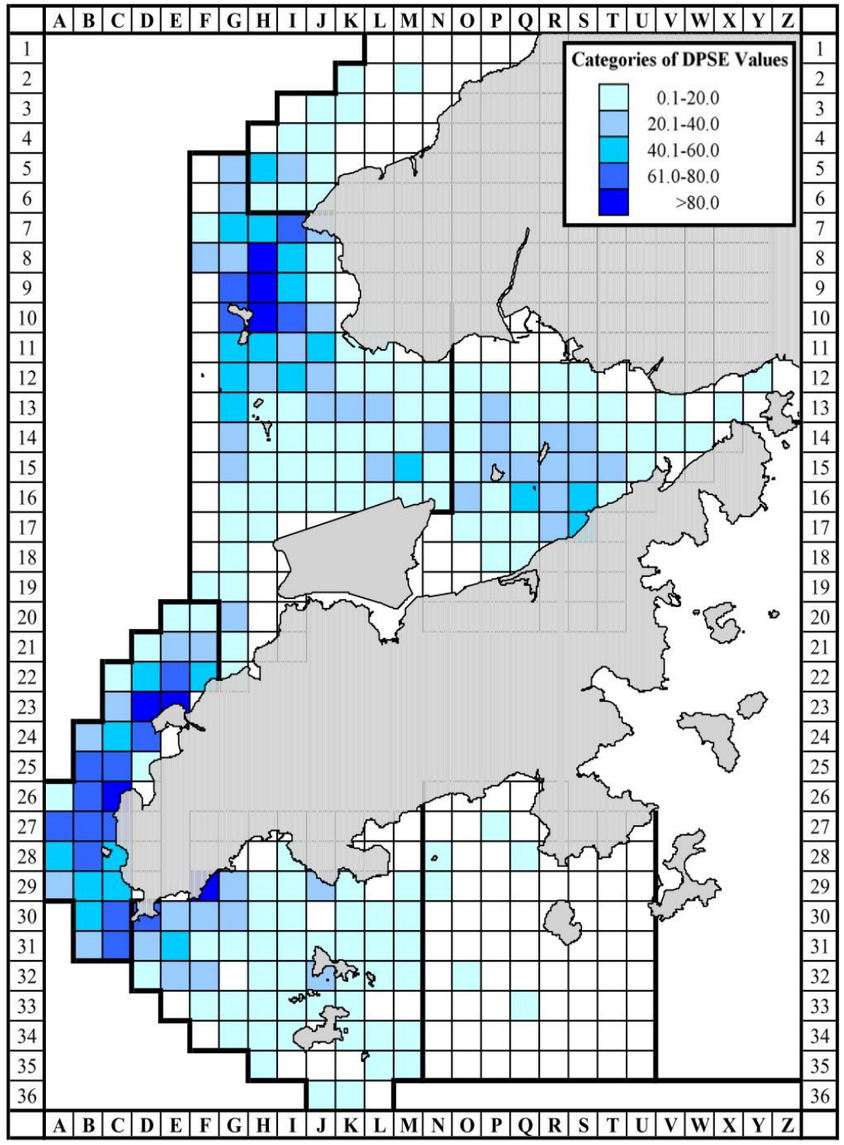
A) 2002-08 DPSE Density of Chinese White Dolphins



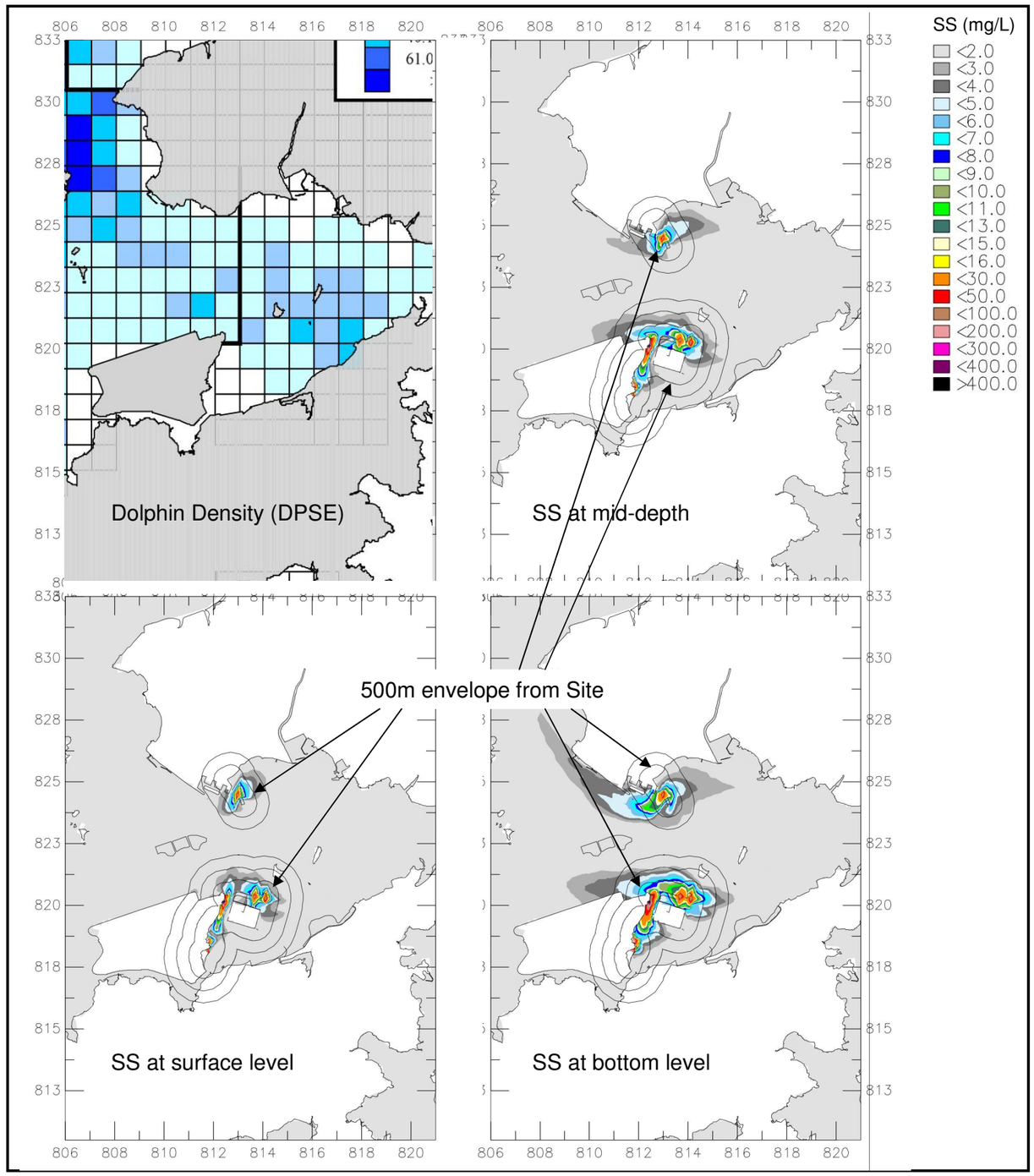
B) Unmitigated Scenario

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title **2012 Wet Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Unmitigated Scenario)**	Drawing No. **Figure 9.24**



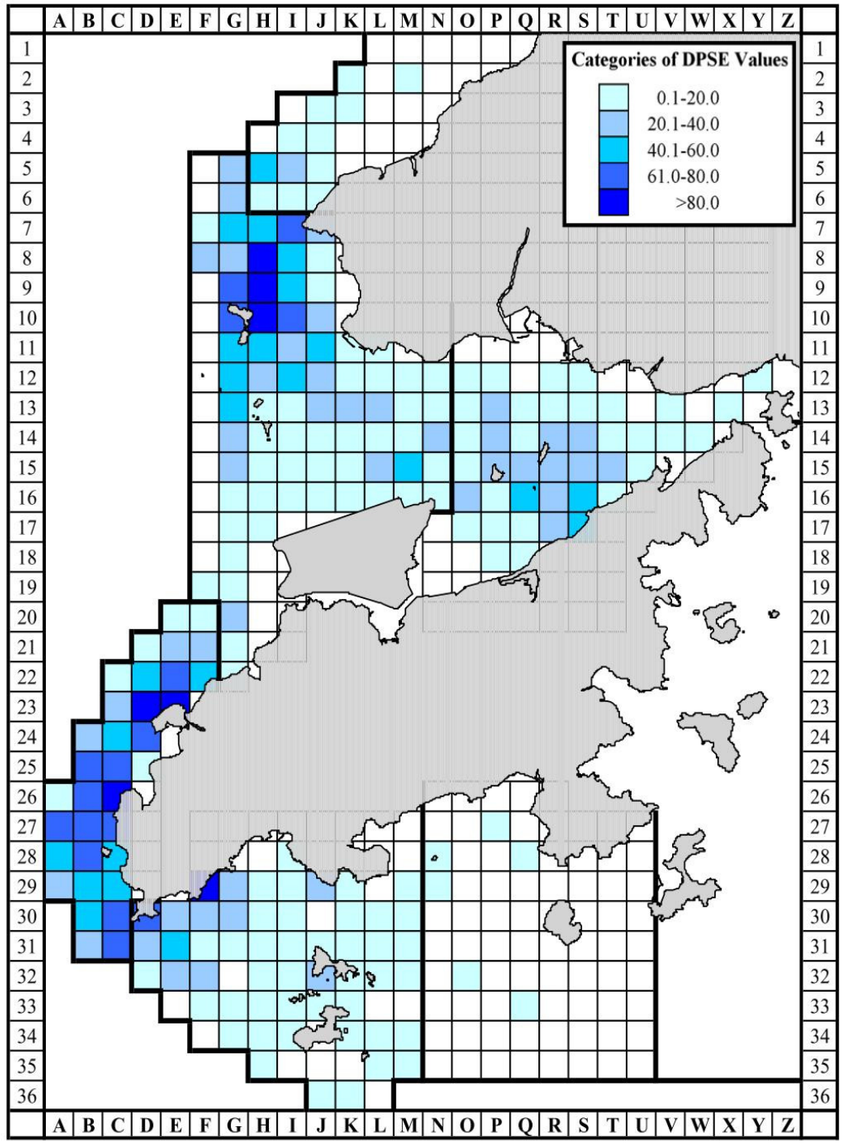
A) 2002-08 DPSE Density of Chinese White Dolphins



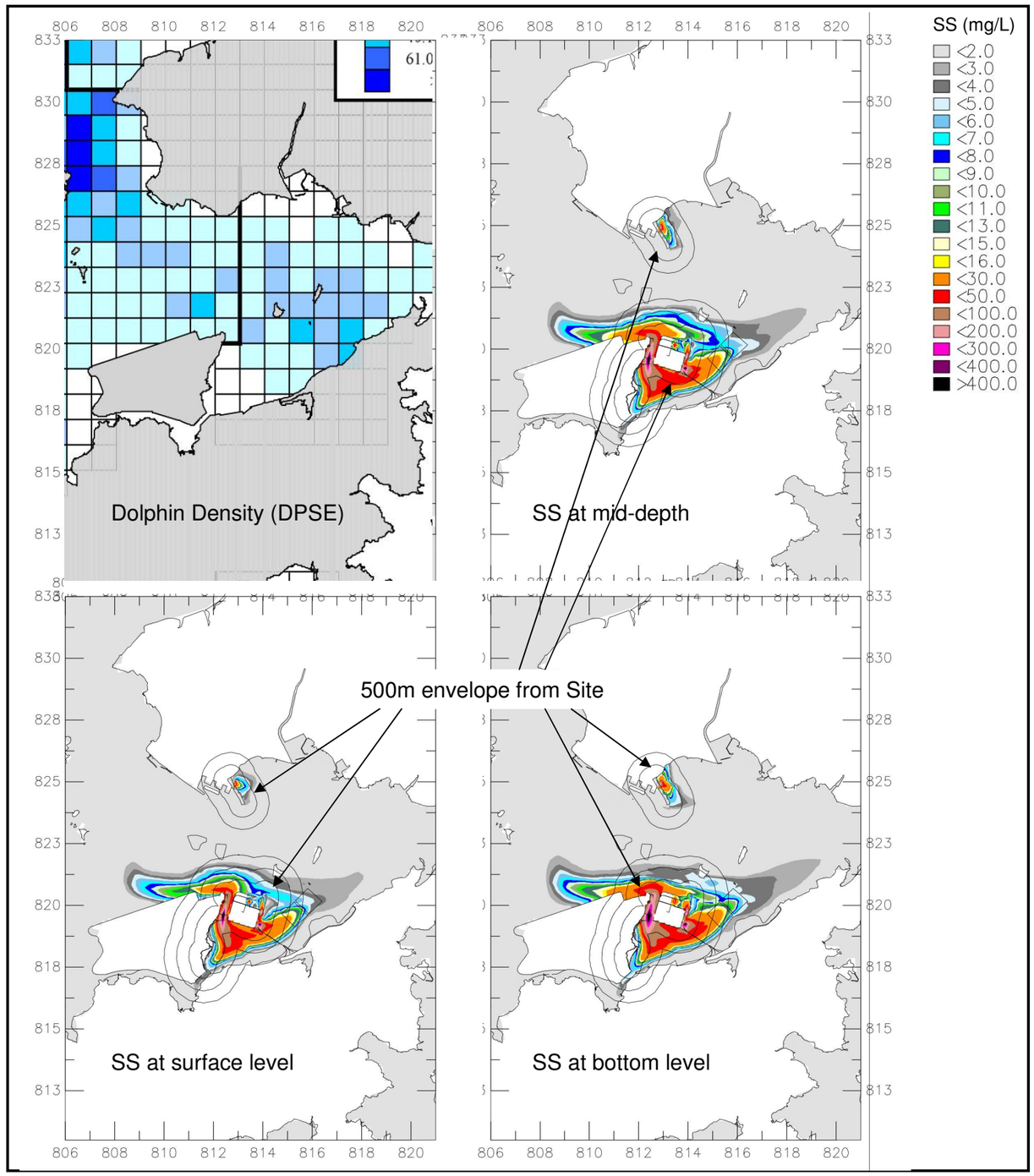
B) After mitigation with (1+1) silt curtain system

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **2012 Wet Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Mitigated Scenario)**	Drawing No.: **Figure 9.25**



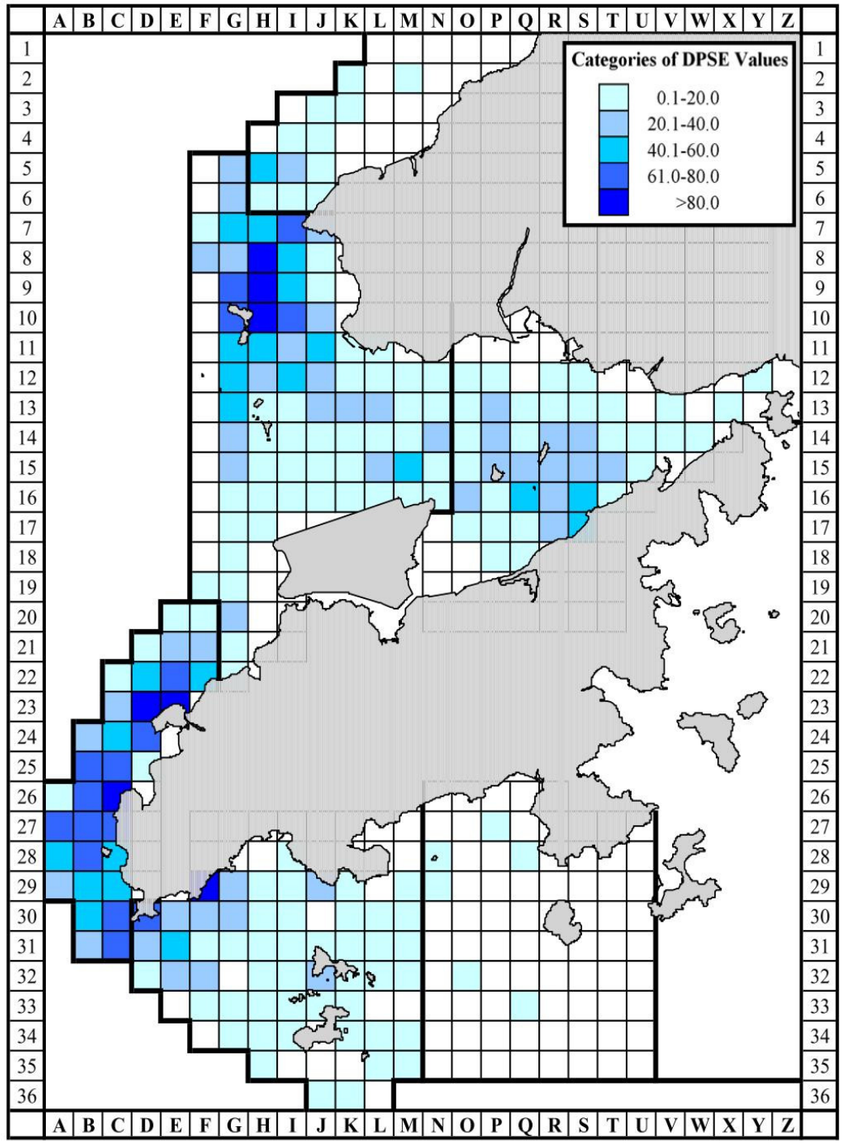
A) 2002-08 DPSE Density of Chinese White Dolphins



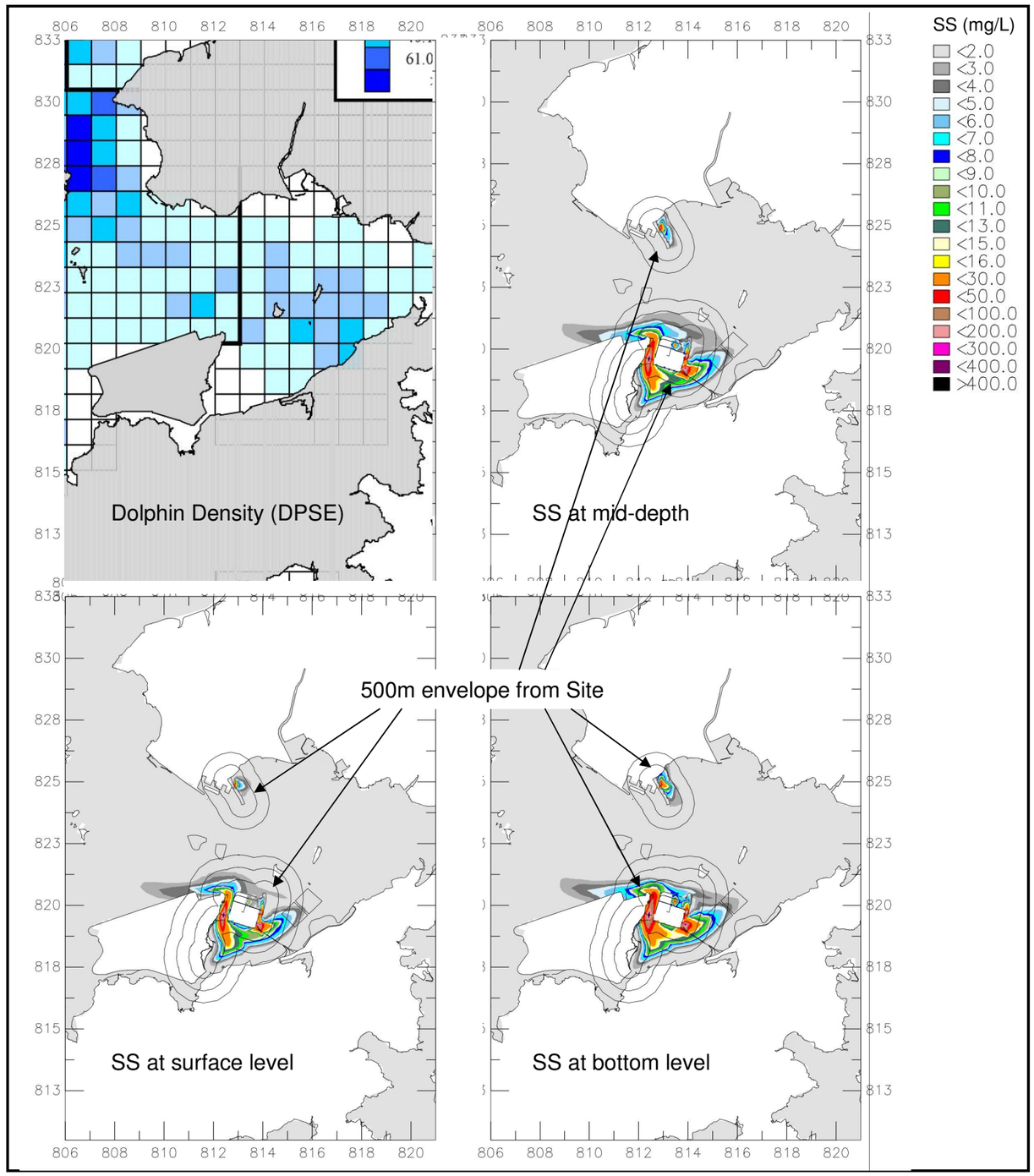
B) Unmitigated Scenario

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title **2013 Dry Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Unmitigated Scenario)**	Drawing No. **Figure 9.26**



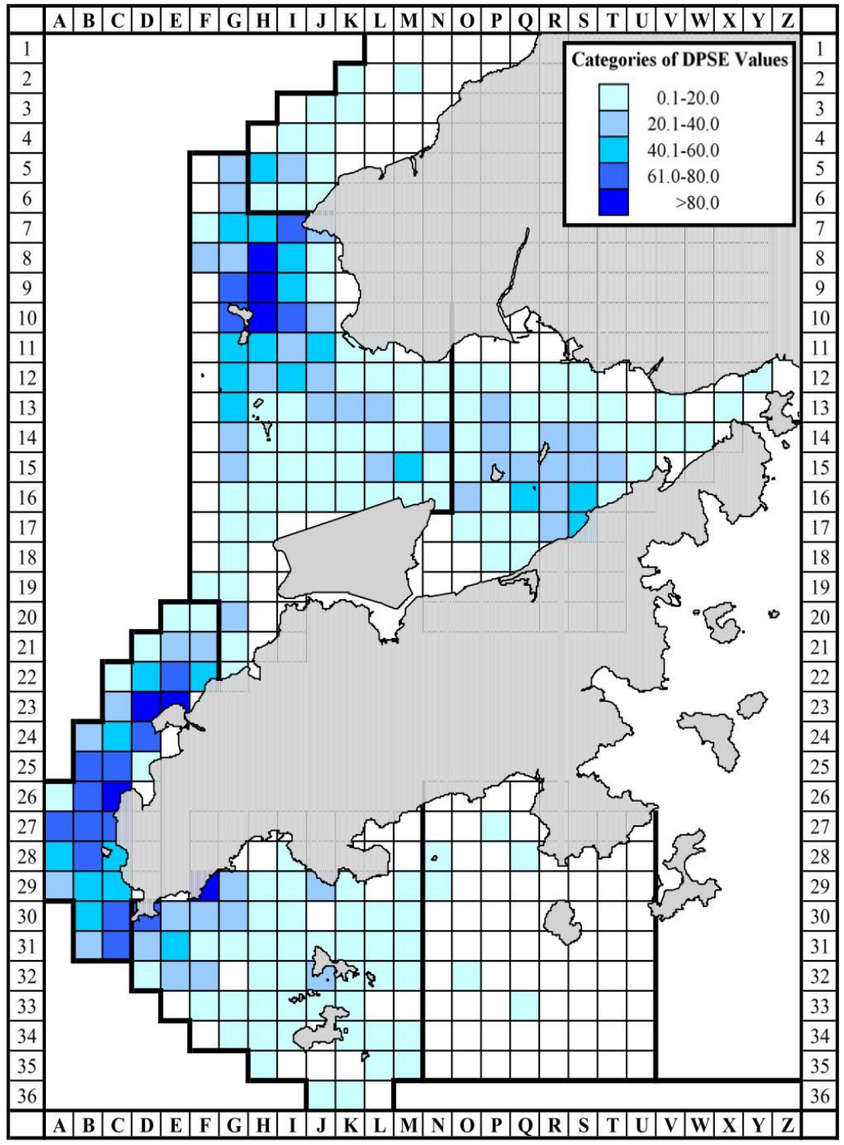
A) 2002-08 DPSE Density of Chinese White Dolphins



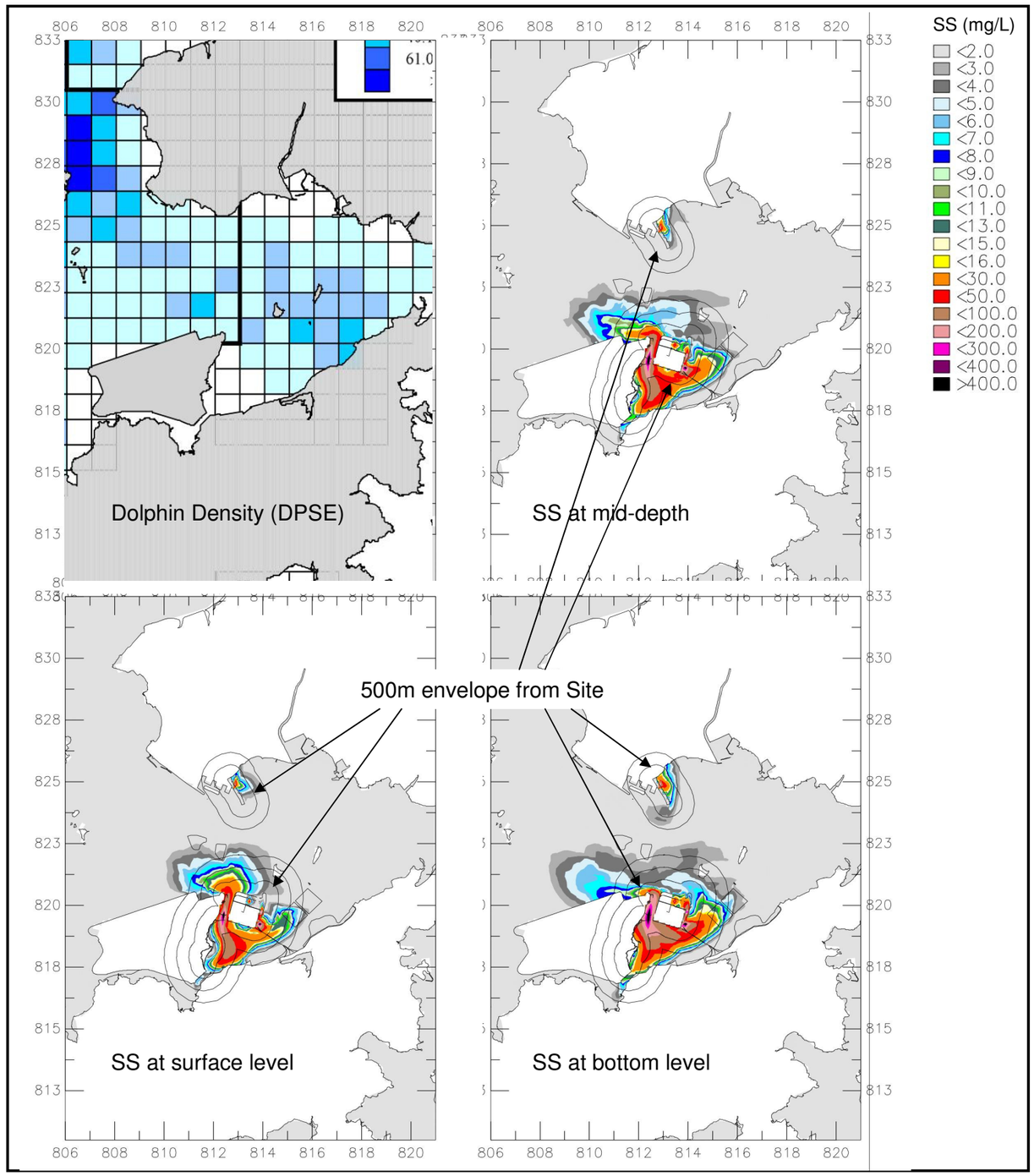
B) After mitigation with (1+1) silt curtain system

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title **2013 Dry Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Mitigated Scenario)**	Drawing No. **Figure 9.27**



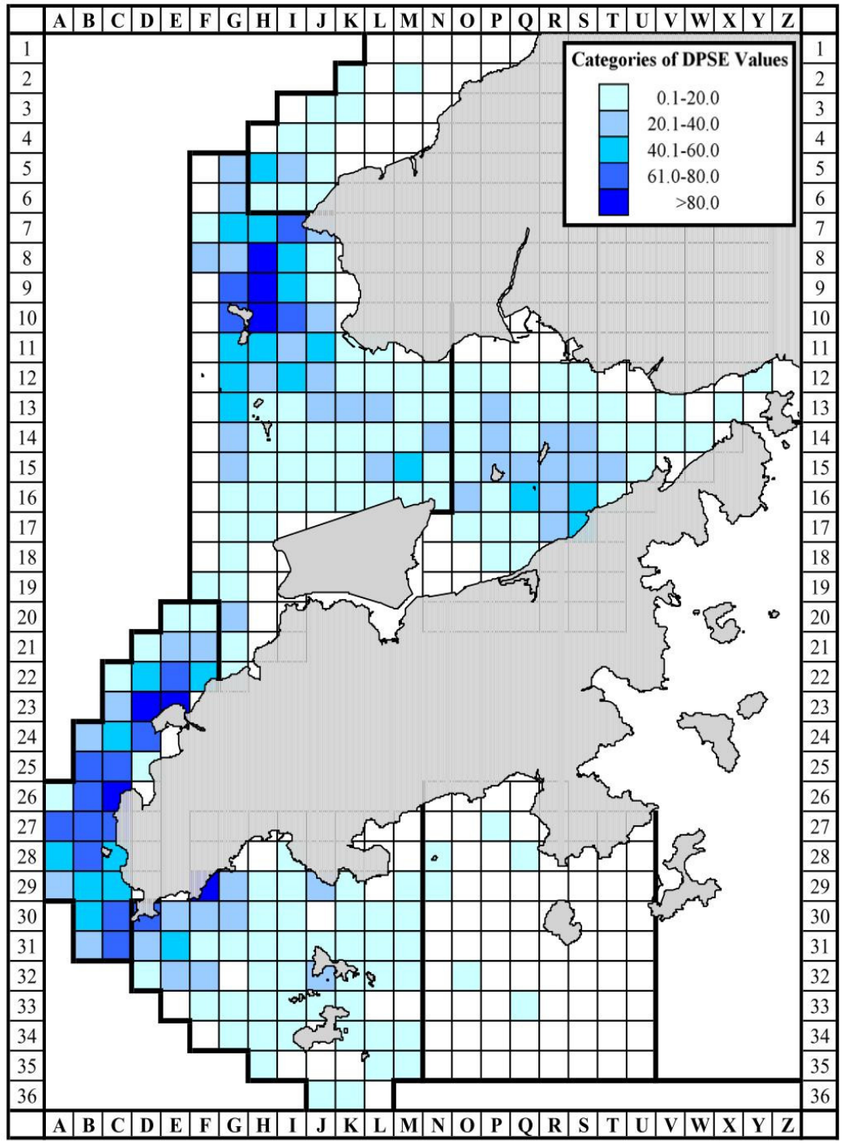
A) 2002-08 DPSE Density of Chinese White Dolphins



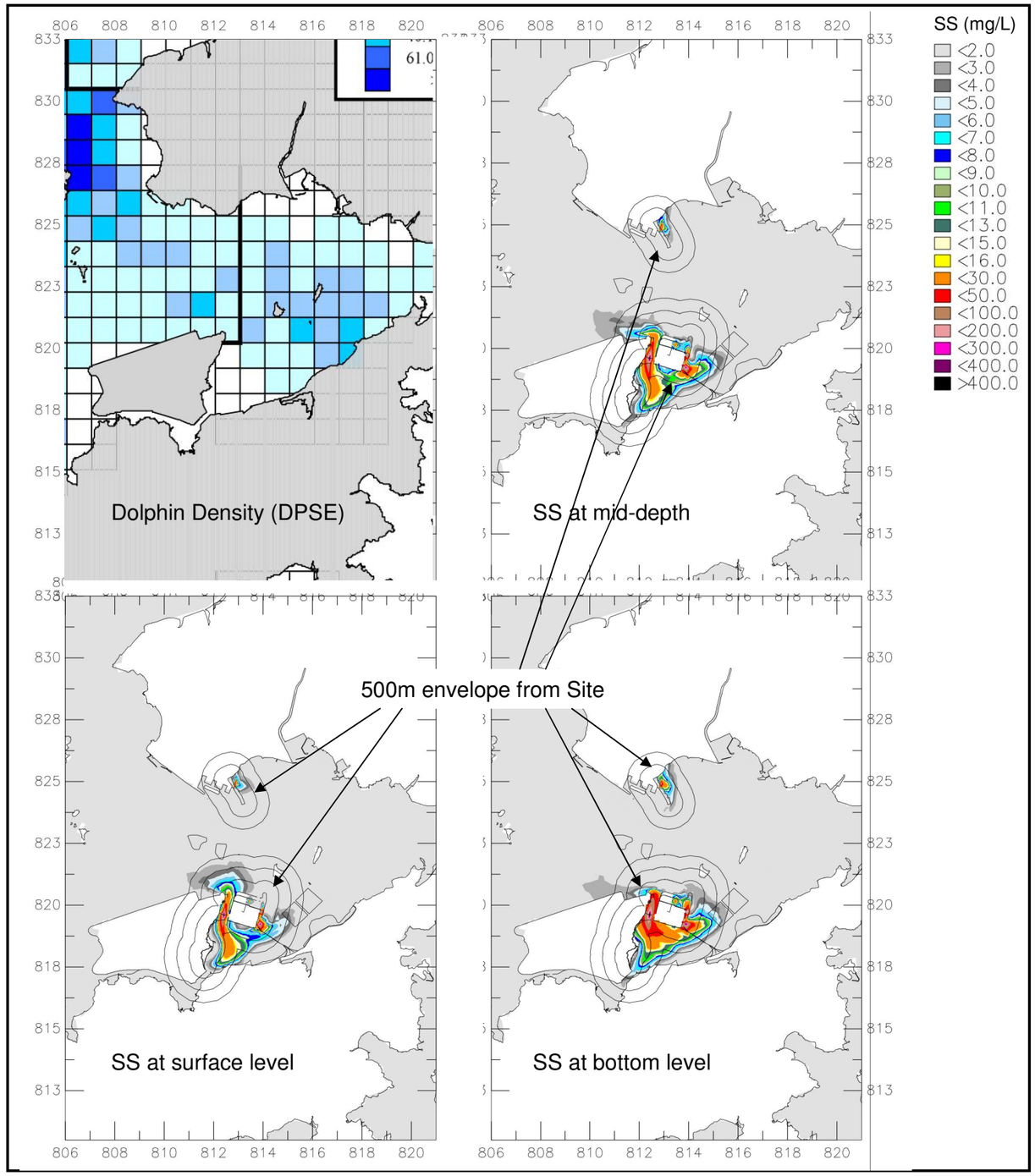
B) Unmitigated Scenario

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **2013 Wet Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Unmitigated Scenario)**	Drawing No.: **Figure 9.28**



A) 2002-08 DPSE Density of Chinese White Dolphins



B) After mitigation with (1+1) silt curtain system

Note: The contour shows the predicted highest SS concentration over the whole simulation period and such a level may only be predicted for a very short period of time.

路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited	Drawing Title: **2013 Wet Season Predicted Maximum Sediment Plumes and Dolphin Density in North Lantau Waters (Mitigated Scenario)**	Drawing No.: **Figure 9.29**