Contract No. EP/SP/66 Integrated Waste Mana	/12 gement Facilities, Phase 1	Keppel Seghers – Zhen Hua Joint Venture
Appendix N	Exceedance Report	

Statistical Summary of Exceedances in the Reporting Period

	Wate	r Quality	
Location	Action Level	Limit Level	Total
B1	2	3	5
B2	2	6	8
В3	1	3	4
B4	3	2	5
CR1	1	2	3
CR2	3	5	8
F1	2	3	5
H1	5	0	5
S1	0	0	0
S2	0	0	0
S3	0	0	0
M1	3	2	5
I	N	loise	
Location	Action Level	Limit Level	Total
M1 / N_S1	0	0	0
M2 / N_S2	0	0	0
M3 / N_S3	0	0	0

Project	Integrated Waste Management Facilities, Phase 1						
Date	3 November 2018 (Lab result received on 7 November 2018)						
Time	09:53 – 13:55 (Mid-Ebb)						
	14:16 – 17:59 (Mid-Flood)						
	Mid-E	Ebb					
Monitoring Location	H1 & CR2						
	+ B1 • S1	PROPOSED OUTFALL + 4 PROPOSED 132KV SUBMARINE CABLES B3 S2 H1 SHEK KWU CHAU CR2 S3 CR1 PROPOSED RECLAIMED AREA FOR THE IMMIF	Key A PROPOSED 132KV SUBMARINE CABLE C MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY				
Parameter	Suspended Solid (SS)						
Action & Limit Levels	Action Level	Limit Level					
Action & Ellint Levels	\geq 10.8 mg/L (120% of C1)	$\geq 11.7 \text{ mg/L}$ (130% of C1)				
Measurement Level	Impact Station(s) with	Control Stations	Impact Station(s) without				
Wedsarement Level	Exceedance	Control Stations	Exceedance				
	17.7 mg/L (H1)	9.0 mg/L (C1)	9.8 mg/L (B1)				
	16.0 mg/L (CR2)	*10.5 mg/L (C2)	9.5 mg/L (B2)				
	1010 1119/2 (0112)	10.0 11.9 2 (02)	*10.3 mg/L (B3)				
			*10.8 mg/L (B4)				
			*7.5 mg/L (F1)				
			*9.8 mg/L (M1)				
			4.8 mg/L (CR1)				
Possible reason for Action or	Most of works schoduled on	site on 2/11 were suspended a					
Possible reason for Action or Limit Level Non-compliance	Most of works scheduled on site on 3/11 were suspended due to the yet to recover progress from typhoon YUTU except ground investigation (GI) work of 1borehole drilling and DCM sample coring for pre-construction site trial, which shall not be a major source of SS concentration increase considering the limited scale and nature of works. Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.						
	CR1, the closest downstream monitoring station to the site location when comparing to H1 (upstream monitoring stations), exhibited a smaller SS level. CR2 is located close to works location within the project site, while no observation of silt plume was made during the sampling event. The above rationales and absence of major SS source might suggest that high SS level exceedance at CR2 and H1 are deemed to be						

	unrelated to the Project.					
Actions taken / to be taken	Site tidiness in the present barges in the Project site were checked during weekly site inspection on 6/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection. Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual. Mid-Flood					
Monitoring Location	B3 & CR2 B10 S1	PROPOSED OUTFALL + PROPOSED SUBMARINE CA S2 + PROPOSED RECLAME FOR THE IMMIF	H1 SHEK KWU CHAU CR2 S3 CR1	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY		
Parameter	Suspended Solid (SS)		-			
Action & Limit Levels	Action Level		Limit Level	1200/ 5 (20)		
Measurement Level	≥ 12.2 mg/L (120% of C2) Impact Station(s) of Exceedance 13.0 mg/L (B3) 18.0 mg/L (CR2)	Control Stati 10.0 mg/L (C 10.2 mg/L (C	C1) C2)	Impact Station(s) without Exceedance 9.8 mg/L (B1) 9.5 mg/L (B2) 8.8 mg/L (B4) 10.3 mg/L (F1) 9.3 mg/L (H1) 7.2 mg/L (M1) 11.8 mg/L (CR1)		
Possible reason for Action or Limit Level Non-compliance	Most of works scheduled on site on 3/11 were suspended due to the yet to recover progress from typhoon YUTU except ground investigation (GI) work of 1borehole drilling and DCM sample coring for pre-construction site trial, which shall not be a major source of SS concentration increase considering the limited scale and nature of works. Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau. B3 is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of this monitoring location is deemed to be					

	Tepper segnors Enter Haustonic Venture
	unrelated to the Project.
	CR2 is located close to the works location within the Project site, while no observation of silt plume was made during the sampling event and absence of major SS source might suggest that SS exceedance at CR2 is deemed to be unrelated to the Project.
	Site tidiness in the present barges in the Project site were checked during weekly site inspection on 6/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection.
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.
Remarks	Note: Data with (*) are considered as reference use only since their sampling time were out of predicted tidal period.
	Current direction during mid-ebb sampling on 3/11: B PING Treasure Island Restaurant & Bar
	+ + + × × × × × × × × × × × × × × × × ×
	Current direction during mid-flood sampling on 3/11: Treasure Island Restaurant & Bar
	Mong A Tung Wan A To A T
	Cheung Po Tsai CSPe Cheung Chau
	Ration

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	Legend			
	Speed (knot)		Speed (knot)	
	0-0.5	\rightarrow	1.5-2.0	\rightarrow
	0.5-1.0	\rightarrow	2.0-2.5	\rightarrow
	1.0-1.5		2.5 and above	\rightarrow
	(Sourced from	http:	//current.hydro	.gov.hk/
Prepared by	Polar Chan			
Date	8 November 2	018		

Project	Integrated Waste Management Facilities, Phase 1						
Date	5 November 2018 (Lab result received on 8 November 2018)						
Time	10:00 – 13:29 (Mid-Ebb)						
	15:11 – 18:50 (Mid-Flood)						
	Mid-E	Ebb					
Monitoring Location	B3, M1 & CR2						
	+ B1 S1-	PROPOSED GUTFALL + 4 PROPOSED 132RV SUBMARINE CABLES S2 H1 SHEK KWU CHAU CR2 S3 CR1 PROPOSED RECLAIMED AREA FOR THE IMMIF	Key A PROPOSED 132KV SUBMARINE CABLE C MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY				
Parameter	Suspended Solid (SS)						
Action & Limit Levels	Action Level	Limit Level					
retion & Ellint Levels	\geq 17.6 mg/L (120% of C1)	≥ 19.1 mg/L (130% of C1)				
Measurement Level	Impact Station(s) with	Control Stations	Impact Station(s) without				
Wedsarement Level	Exceedance	Control Stations	Exceedance				
	17.8 mg/L (B3)	14.7 mg/L (C1)	7.3 mg/L (B1)				
	18.5 mg/L (M1)	14.2 mg/L (C2)	12.8 mg/L (B2)				
	36.2 mg/L (CR2)	1	17.3 mg/L (B4)				
	30.2 mg/2 (C12)		10.7 mg/L (F1)				
			14.2 mg/L (H1)				
			15.7 mg/L (CR1)				
Possible reason for Action or Limit Level Non-compliance							
	Dominating sea current direction was found to be from Northwest to Southeas waters around Shek Kwu Chau. B3 and M1 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of these monitoring locations are deemed to be unrelated to the Project.						
		orks location within the Proje g the sampling event. The abo					

	major SS source might sugge unrelated to the Project. It is noted that SS level at CF source of SS increase was no	R2 is exception	ally high on tha	nt day, however, potential			
	track of any re-occurrence of						
	Site tidiness in the present barges in the Project site were checked during weekly site inspection on 6/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection.						
Actions taken / to be taken	Examination of environment weekly inspection, and the C mitigation measures as per the	Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.					
Monitoring Location	Mid-F: B1, B2, B3, F1, M1 & CR2	lood					
Wolfford Decaron	+ B10 S1	PROPOSED OUTFALL + PROPOSED SUBMARINE C. S2 + PROPOSED RECLAIME FOR THE IMMF	H1 SHEK KWU CHAU CR2 S3 CR1	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY			
Demonstra	G1-1-G-1:1-(GG)						
Parameter Action & Limit Levels	Suspended Solid (SS) Action Level		Limit Level				
ACTION & LIMIT LEVEIS	≥ 10.6 mg/L (120% of C2)		$\geq 11.5 \text{ mg/L}$ (130% of C2)			
Measurement Level	Impact Station(s) of	Control Stati		Impact Station(s) without			
Wedstrement Level	Exceedance	Control State	Olis	Exceedance			
	11.8 mg/L (B1)	10.0 mg/L (0	C1)	9.8 mg/L (B4)			
	15.9 mg/L (B2)	8.8 mg/L (C		8.8 mg/L (H1)			
	12.3 mg/L (B3)		,	8.0 mg/L (CR1)			
	14.5 mg/L (F1)						
	14.2 mg/L (M1) 16.3 mg/L (CR2)						
Possible reason for Action or	Most of works scheduled on	site on 5 /11 w	ere suspended	due to the yet to recover			
Limit Level Non-compliance	progress from typhoon YUT						
1	drilling and DCM sample co						
	major source of SS concentration increase considering the limited scale and nature of works.						
	Dominating sea current direct	ominating sea current direction was found to be from Southeast to Northwest at					

waters around Shek Kwu Chau. B1, B2, B3, F1 & M1 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of these monitoring locations are deemed to be unrelated to the Project. CR2 is located close to works location within the Project site, while no observation of silt plume was made during the sampling event and absence of major SS source might suggest that SS exceedance at CR2 is deemed to be unrelated to the Project. Site tidiness in the present barges in the Project site were checked during weekly site inspection on 6/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection. Actions taken / to be taken Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual. Current direction during mid-ebb sampling on 5/11: Remarks Current direction during mid-flood sampling on 5/11:

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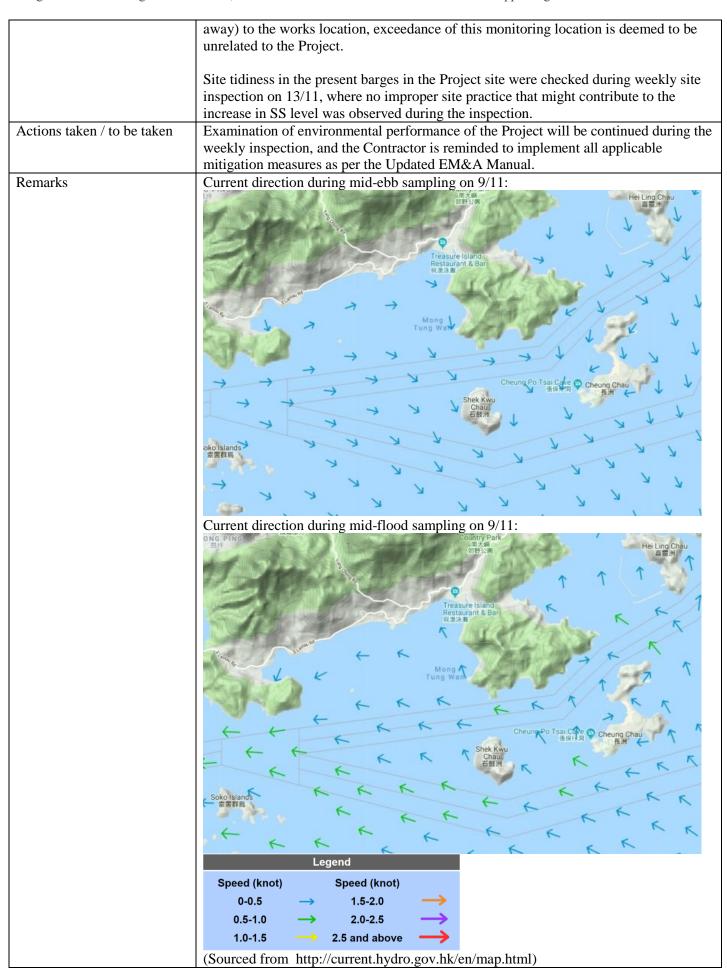
		Legend		
	Speed (knot)		Speed (knot)	
	0-0.5	\rightarrow	1.5-2.0	\rightarrow
	0.5-1.0	\rightarrow	2.0-2.5	\rightarrow
	1.0-1.5		2.5 and above	\rightarrow
	(Sourced from	http:	//current.hydro	.gov.hk/
Prepared by	Polar Chan			
Date	9 November 2	018		

Project	Integrated Waste Management Facilities, Phase 1							
Date	7 November 2018 (Lab result received on 9 November 2018)							
Time	10:41 – 14:25 (Mid-Ebb)							
Mid-Ebb								
Monitoring Location	+ B1 S1-	PROPOSED OUTFALL + 4 PROPOSED 132KV SUBMARINE CABLES S2 H1 SHEK KWU CHAU CR2 S3 CR1 PROPOSED RECLAMED AREA FOR THE IMMF	A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED 0UTFALL THE INWINE SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY					
Parameter	Suspended Solid (SS)							
Action & Limit Levels	Action Level	Limit Level						
	≥ 18.0 mg/L (120% of C1)	\geq 19.5 mg/L ((130% of C1)					
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance					
	18.3 mg/L (F1)	15.0 mg/L (C1) 16.5 mg/L (C2)	15.0 mg/L (B1) 13.3 mg/L (B2) 13.8 mg/L (B3) 15.3 mg/L (B4) 17.3 mg/L (M1) 12.5 mg/L (H1) 15.2 mg/L (CR1) 11.3 mg/L (CR2)					
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 7 borehole drilling and DCM so not be a major source of SS conature of works. Dominating sea current direct waters around Shek Kwu Cha F1 is located at unrelated streaway) to the works location, a unrelated to the Project. Site tidiness in the present basinspection on 6/11, where no	ample coring for pre-construction concentration increase consideration was found to be from Notau. The concentration (neither upstreatexceedance of this monitoring trges in the Project site were concentration)	etion (GI) work of 1 etion site trial, which shall ering the limited scale and orthwest to Southeast at m nor downstream, far g location is deemed to be checked during weekly site					

	increase in SS level was observed during the inspection.					
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the					
	weekly inspection, and the Contractor is reminded to implement all applicable					
	mitigation measures as per the Updated EM&A Manual.					
Remarks	Current direction during mid-ebb sampling on 7/11:					
	Country Park 原文語 Treasure Island Restaurant & Bar 見選注着					
	Cheung Po Tsai Calve ② Cheung Chau 版像V朝 Chau, 百穀洲					
	Soko Islands 新疆群區					
	Legend					
	Speed (knot) Speed (knot)					
	0-0.5 → 1.5-2.0 →					
	0.5-1.0 → 2.0-2.5 →					
	1.0-1.5 —> 2.5 and above —>					
	(Sourced from http://current.hydro.gov.hk/en/map.html)					
Prepared by	Polar Chan					
Date	10 November 2018					

Project	Integrated Waste Management Facilities, Phase 1						
Date	9 November 2018 (Lab result received on 14 November 2018)						
Time	11:48 – 15:40 (Mid-Ebb)	11:48 – 15:40 (Mid-Ebb)					
	17:09 – 20:54 (Mid-Flood)						
	Mid-Ebb						
Monitoring Location	B1, B2, B4, H1, M1 & CR2						
	+ B1 • S1	PROPOSED OUTFALL + 4 PROPOSED 12 SUBMARINE CA S2 PROPOSED RECLAIME FOR THE IMME	SHEK KWU CHAU	Key A PROPOSED 132KV SUBMARINE CABLE C MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY			
Parameter	Suspended Solid (SS)						
Action & Limit Levels	Action Level		Limit Level				
Tieron & Emin Ecvers	\geq 9.4 mg/L (120% of C1)		\geq 10.2 mg/L (1	130% of C1)			
Measurement Level	Impact Station(s) with	Control Stati		Impact Station(s) without			
	Exceedance			Exceedance			
	11.3 mg/L (B1)	7.8 mg/L (C1	1)	9.0 mg/L (B3)			
	12.3 mg/L (B2)	10.7 mg/L (C		8.7 mg/L (F1)			
	10.5 mg/L (B4)	1011 1118/2 (0	/	7.2 mg/L (CR1)			
	13.7 mg/L (H1)			7.2 mg/2 (CIXI)			
	10.2 mg/L (M1)						
	18.8 mg/L (CR2)						
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 9 /11 include ground investigation (GI) work of 1						
	CR1, the closest downstream to H1 (upstream monitoring s close to the works location w	stations), exhib	ited a smaller S	S level. CR2 is located			

	was made during the sampling event. The above rationale and absence of major SS source might suggest that high SS level exceedance at CR2 and H1 are deemed to be unrelated to the Project. Site tidiness in the present barges in the Project site were checked during weekly site inspection on 13/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection.			
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.			
	Mid-F	lood		
Monitoring Location	B2	PROPOSED OUTFALL + PROPOSED SUBMARINE C S2 + PROPOSED RECLAIM FOR THE WIMF	H1 SHEK KWU CHAU CR2 S3 CR1	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level		Limit Level	1200/ of C2)
Measurement Level	≥ 11.0 mg/L (120% of C2) Impact Station(s) of Exceedance	Control Stati	$\geq 11.9 \text{ mg/L } (1)$	Impact Station(s) without Exceedance
	13.0 mg/L (B2)	8.8 mg/L (C1) 9.2 mg/L (C2) 9.0 mg/L (B1) 8.5 mg/L (B3) 9.3 mg/L (B4) 8.5 mg/L (F1) 9.7 mg/L (H1) 9.5 mg/L (M1) 9.8 mg/L (CR1 10.3 mg/L (CR		
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 9/11 include ground investigation (GI) work of 1 borehole drilling and DCM sample coring for pre-construction site trial, which shall not be a major source of SS concentration increase considering the limited scale and nature of works. Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau. B2 is located at unrelated stream direction (neither upstream nor downstream, far			ion site trial, which shall ring the limited scale and



Prepared by	Polar Chan
Date	15 November 2018

Project	Integrated Waste Management Facilities, Phase 1			
Date	13 November 2018 (Lab result received on 19 November 2018)			
Time	14:39 – 17:52 (Mid-Ebb)			
Mid-Ebb				
Monitoring Location	B3 + C1	PROPOSED OUTFALL + 4 PROPOSED 132KV SUBMARINE CABLES S2 H1 SHEK KWU CHAU CR2 S3 CR1 PROPOSED RECLAMED AREA FOR THE IMMF	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED 0UTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY	
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level	Limit Level		
	≥ 14.4 mg/L (120% of C1)	\geq 15.6 mg/L ((130% of C1)	
Measurement Level	Impact Station(s) of Exceedance * 15.0 mg/L (B3)	Control Stations 12.0 mg/L (C1) * 16.2 mg/L (C2)	Impact Station(s) without Exceedance 11.8 mg/L (B1) 12.5 mg/L (B2)	
			* 13.5 mg/L (B4) * 10.8 mg/L (F1) 9.7 mg/L (H1) * 13.8 mg/L (M1) 8.0 mg/L (CR1) 9.2 mg/L (CR2)	
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 1 borehole drilling, DCM samp geotextile at caisson seawall concentration increase considerable Dominating sea current direct waters around Shek Kwu Characteristics.	ole coring for pre-construction area, which shall not be a madering the limited scale and na- tion was found to be from No.	n site trial and laying of jor source of SS ature of works.	
	B3 is located at unrelated streaway) to the works location, unrelated to the Project. Site tidiness in the present bainspection on 13/11, where no	exceedance of this monitoring	g location is deemed to be checked during weekly site	

	increase in SS level was observed during the inspection.				
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the				
	weekly inspection, and the Contractor is reminded to implement all applicable				
	mitigation measures as per the Updated EM&A Manual.				
Remarks	Note: Data with (*) are considered as reference use only since their sampling time				
	were out of predicted tidal period.				
	Current direction during mid-ebb sampling on 13/11:				
	母妇 文学公园 高量洲				
	Treasure Island				
	Restaurant & Bar 兒風添瀬				
	The state of the s				
	Tung Wan				
	7 7 7 7 7 7 V				
	Cheung Po Tsai Cave O Cheung Chau Shek Kwu Chau! Shek Kwu Chau! Soko Islands				
	N WHEETH Y				
	A MAN MAN				
	as y y y y y , \				
	Legend				
	Speed (knot) Speed (knot)				
	0-0.5 → 1.5-2.0 →				
	0.5-1.0 → 2.0-2.5 →				
	1.0-1.5 —> 2.5 and above —>				
	(Sourced from http://current.hydro.gov.hk/en/map.html)				
Prepared by	Polar Chan				
Date	20 November 2018				

Project	Integrated Waste Management Facilities, Phase 1			
Date	17 November 2018 (Lab result received on 26 November 2018)			
Time	08:30 – 11:48 (Mid-Ebb)			
Mid-Ebb				
Monitoring Location	B4 & F1 & M1			
	+ B1 S1-	PROPOSED OUTFALL + 4 PROPOSED SUBMARINE C S2 + PROPOSED RECLAMM FOR THE INMIF	H1 SHEK KWU CHAU CR2 S3 CR1	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level		Limit Level	
	$\geq 10.0 \text{ mg/L } (120\% \text{ of C1})$		\geq 10.8 mg/L (130% of C1)
Measurement Level	Impact Station(s) of	Control Stati		Impact Station(s) without
	Exceedance			Exceedance
	10.3 mg/L (B4)	8.3 mg/L (C	1)	4.8 mg/L (B1)
	* 11.5 mg/L (F1)	8.8 mg/L (C	•	6.0 mg/L (B2)
	* 9.7 mg/L (M1)		•	8.5 mg/L (B3)
				7.3 mg/L (H1)
				4.0 mg/L (CR1)
				7.3 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 17/11 include ground investigation (GI) work of 3 borehole drilling, DCM sample coring for pre-construction site trial and laying of geotextile at caisson seawall area, which shall not be a major source of SS concentration increase considering the limited scale and nature of works. Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau. B4, F1 and M1 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of these monitoring locations are deemed to be unrelated to the Project. Site tidiness in the present barges in the Project site were checked during weekly site inspection on 20/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection.			
Actions taken / to be taken	Examination of environmenta	al performance	e of the Project v	will be continued during the

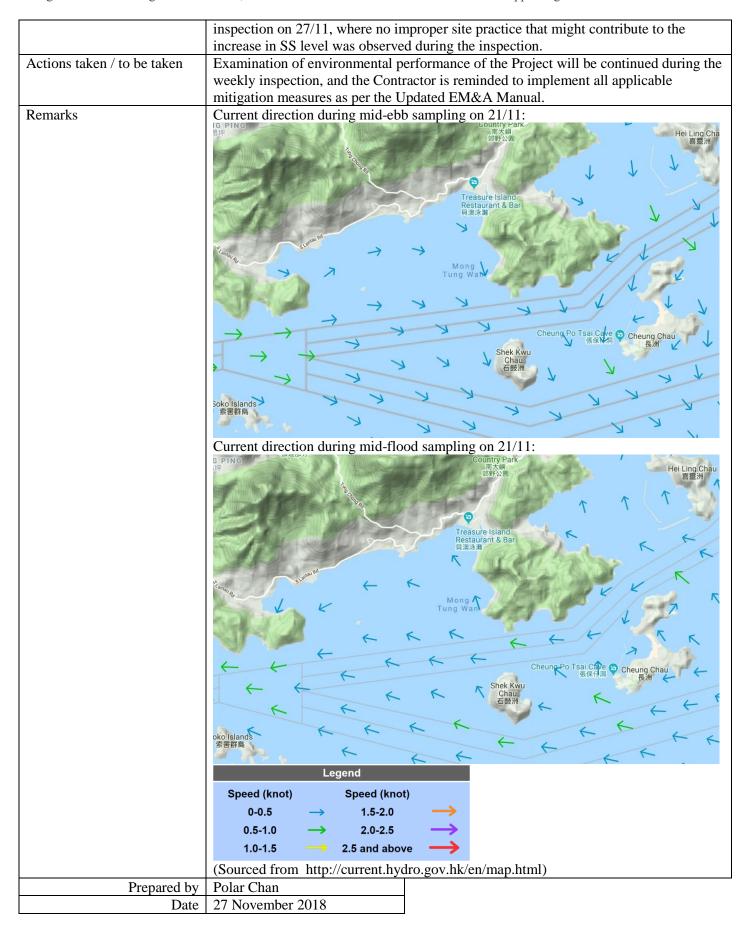
	weakly inspection, and the Contractor is reminded to implement all applicable				
	weekly inspection, and the Contractor is reminded to implement all applicable				
	mitigation measures as per the Updated EM&A Manual.				
Remarks	Note: Data with (*) are considered as reference use only since their sampling time				
	were out of predicted tidal period.				
	Current direction during mid-ebb sampling on 17/11:				
	Treasure Island				
	Treasure Island Restaurant & Bar 貝贝米斯				
	y lands				
	Superior To				
	Mong \				
	Tung Wan				
	> > > > > > > > > > > > > > > > > > >				
	Cheung Po Tsai Cave Cheung Chau				
	大 XX CATT NO 長洲 レ				
	Shek Kwu Chau Chau Tae: W				
	Y Y Y				
	y y y y				
	nds y				
	Mark A A A A A A A A A A A A A A A A A A A				
	Y Y Y Y Y				
	Legend				
	Speed (knot) Speed (knot)				
	0-0.5 → 1.5-2.0 →				
	0.5-1.0 → 2.0-2.5 →				
	1.0-1.5 → 2.5 and above →				
	(Sourced from http://current.hydro.gov.hk/en/map.html)				
Prepared by	Polar Chan				
Date	27 November 2018				
Date	27 November 2010				

Project	Integrated Waste Management Facilities, Phase 1				
Date	19 November 2018 (Lab result received on 22 November 2018)				
Time	07:19 – 11:10 (Mid-Ebb)				
	Mid-Ebb				
Monitoring Location	B4 & F1 + • C1	PROPOSED OUTFALL + PROPOSED 132AV SUBMARINE CABLES S2 H1 SHEK KWU CHAU CR2 S3 CR1 PROPOSED RECLAMED AREA FOR THE IMMF	Key A PROPOSED 132KV SUBMARINE CABLE C MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY		
Parameter	Suspended Solid (SS)				
Action & Limit Levels	Action Level	Limit Level			
	$\geq 10.0 \text{ mg/L } (120\% \text{ of C1})$		(130% of C1)		
Measurement Level	Impact Station(s) of Exceedance 13.5 mg/L (B4) 11.0 mg/L (F1)	Control Stations 8.3 mg/L (C1) 9.5 mg/L (C2)	Impact Station(s) without Exceedance 4.0 mg/L (B1) 5.3 mg/L (B2) 9.5 mg/L (B3) 7.8 mg/L (H1) 9.7 mg/L (M1)		
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 19/11 include ground investigation (GI) work of 3 borehole drilling, DCM sample coring for pre-construction site trial and laying of geotextile at caisson seawall area, which shall not be a major source of SS concentration increase considering the limited scale and nature of works.				
	Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau. B4 and F1 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of these monitoring locations are deemed to be unrelated to the Project. Site tidiness in the present barges in the Project site were checked during weekly site inspection on 20/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection.				

Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the			
	weekly inspection, and the Contractor is reminded to implement all applicable			
	mitigation measures as per the Updated EM&A Manual.			
Remarks	Current direction during mid-ebb sampling on 19/11:			
remarks	Cheung Po Tsai Calve Cheung Chau 景譜 Ko Islands 索爾爾區			
	Legend			
	Speed (knot) Speed (knot)			
	0-0.5 → 1.5-2.0 →			
	0.5-1.0 \longrightarrow 2.0-2.5			
	1.0-1.5 —> 2.5 and above —>			
	(Sourced from http://current.hydro.gov.hk/en/map.html)			
Prepared by	Polar Chan			
Date	23 November 2018			

Project	Integrated Waste Management Facilities, Phase 1			
Date	21 November 2018 (Lab result received on 26 November 2018)			
Time	09:02 – 12:32 (Mid-Ebb)			
	15:07 – 18:37 (Mid-Flood)			
	Mid-Ebb			
Monitoring Location	H1 B1 S1 +	PROPOSED OUTFALL + 4 PROPOSED 132RV SUBMARINE CABLES B3 S2 H1 SHER KWU CHAU CR2 S3 CR1 PROPOSED RECLAMED AREA FOR THE INMIF	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY	
			THE IVIIII ONE BOOKBARY	
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level	Limit Level		
	\geq 15.2 mg/L (120% of C1)		(130% of C1)	
Measurement Level	Impact Station(s) of	Control Stations	Impact Station(s) without	
	Exceedance		Exceedance	
	16.7 mg/L (H1)	12.7 mg/L (C1)	7.3 mg/L (B1)	
		14.0 mg/L (C2)	12.8 mg/L (B2)	
			9.3 mg/L (B3)	
			7.3 mg/L (B4)	
			13.7 mg/L (F1)	
			8.3 mg/L (M1)	
			11.5 mg/L (CR1)	
			12.7 mg/L (CR2)	
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 2 borehole drilling and DCM sa not be a major source of SS c nature of works. Dominating sea current direct Shek Kwu Chau. CR1 and CR2, the closest mo H1 (upstream monitoring stat and absence of major SS sour deemed to be is deemed to be	ample coring for pre-construction concentration increase consideration was found to be from Nonitoring stations to the site lations), exhibited a smaller Stree might suggest that high Street in the site of the	ction site trial, which shall lering the limited scale and orthwest to Southeast around ocation when comparing to S level. The above rationales	

Actions taken / to be taken	inspection on 27/11, where n increase in SS level was observed. Examination of environment	tal performance of the Project Contractor is reminded to imp the Updated EM&A Manual.	might contribute to the twill be continued during the
Monitoring Location	B2	PROPOSED OUTFALL +	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY
D	0 1 10 11 (00)		_
Parameter Action & Limit Levels	Suspended Solid (SS) Action Level	Limit Level	
Action & Limit Levels	\geq 10.4 mg/L (120% of C2)		(130% of C2)
Measurement Level	Impact Station(s) of Exceedance 29.8 mg/L (B2)	Control Stations 7.3 mg/L (C1) 8.7 mg/L (C2)	Impact Station(s) without Exceedance 5.3 mg/L (B1) 8.0 mg/L (B3) 7.8 mg/L (B4) 6.3 mg/L (F1) 8.2 mg/L (H1) 8.5 mg/L (M1) 7.2 mg/L (CR1) 8.0 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	borehole drilling and DCM s not be a major source of SS o nature of works. Dominating sea current direct waters around Shek Kwu Ch B2 is located at unrelated str away) to the works location, unrelated to the Project.	21/11 include ground investig sample coring for pre-constru- concentration increase consid- ction was found to be from So- au. The earn direction (neither upstre- exceedance of this monitoring arges in the Project site were	ction site trial, which shall lering the limited scale and butheast to Northwest at am nor downstream, faring location is deemed to be



Project	Integrated Waste Management Facilities, Phase 1			
Date	23 November 2018 (Lab result received on 29 November 2018)			
Time	10:28 – 13:58 (Mid-Ebb)			
	16:07 – 19:37 (Mid-Flood)			
	Mid-Ebb			
Monitoring Location	B2, B3, B4 & CR1 + B1 - C1	PROPOSED OUTFALL + PROPOSED SUBMARINE C S2 + PROPOSED RECLAME FOR THE IMMF	H1 SHEK KWU CHAU CR2 S3 CR1	Key A PROPOSED 132KV SUBMARINE CABLE OC MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT
				THE IWMF SITE BOUNDARY
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level		Limit Level	
	\geq 9.8 mg/L (120% of C1)	T	\geq 10.6 mg/L (· · · · · · · · · · · · · · · · · · ·
Measurement Level	Impact Station(s) of	Control Stat	ions	Impact Station(s) without
	Exceedance		-	Exceedance
	11.5 mg/L (B2)	8.2 mg/L (C		6.8 mg/L (B1)
	10.8 mg/L (B3)	7.2 mg/L (C	2)	9.0 mg/L (F1)
	10.3 mg/L (B4)			8.3 mg/L (H1)
	15.5 mg/L (CR1)			9.7 mg/L (M1)
D 111	*** 1 1 1 1 1 1 2	2/11: 1 1		8.8 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 2 borehole drilling, DCM samp geotextile with sand placing f	ole coring for p	ore-construction	site trial and laying of
	Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.			rthwest to Southeast at
	B2, B3, and B4 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of these monitoring locations are deemed to be unrelated to the Project.			
	CR1 is located at downstrean silt plume was made during the implemented by contractor are was found on that day. It migunrelated to the Project.	he sampling end checking re	vent. Silt curtair esult showed no	n checking was deficiency of silt curtain

Actions taken / to be taken	Site tidiness in the present base inspection on 27/11, where n increase in SS level was observamination of environments weekly inspection, and the C	o improper site perved during the is all performance o	ractice that manager inspection. If the Project v	will be continued during the
	mitigation measures as per th			
	Mid-Fl	lood		
Monitoring Location	B1, M1 & CR2	PROPOSED OUTFALL + 4 PROPOSED 13ZKV SUBMARINE CABLES	•B4	F1 N
	+	PROPOSED RECLAIMED ARE FOR THE IWMF	H1 IEK KWU CHAU CR2 S3 CR1	Key A PROPOSED 132KV SUBMARINE CABLE C MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level		Limit Level	
	≥ 8.0 mg/L		≥ 10.0 mg/L	
Measurement Level	Impact Station(s) of	Control Station	ıs	Impact Station(s) without
	Exceedance			Exceedance
	9.5 mg/L (B1)	5.7 mg/L (C1)		6.8 mg/L (B2)
	8.5 mg/L (M1)	5.5 mg/L (C2)		7.8 mg/L (B3)
	8.3 mg/L (CR2)			6.0 mg/L (B4)
				5.8 mg/L (F1)
				5.2 mg/L (H1)
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 23/11 include ground investigation (GI) work of 2 borehole drilling, DCM sample coring for pre-construction site trial and laying of geotextile with sand placing for ballasting at caisson seawall area.			
	Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.			
	B1 and M1 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of these monitoring locations are deemed to be unrelated to the Project.			
	CR2 is located close to works location within the Project site, while no observation of silt plume was made during the sampling event. Silt curtain checking was implemented by contractor and checking result showed no deficiency of silt curtain was found on that day. It might suggest that exceedance of SS at CR2 is deemed to be			

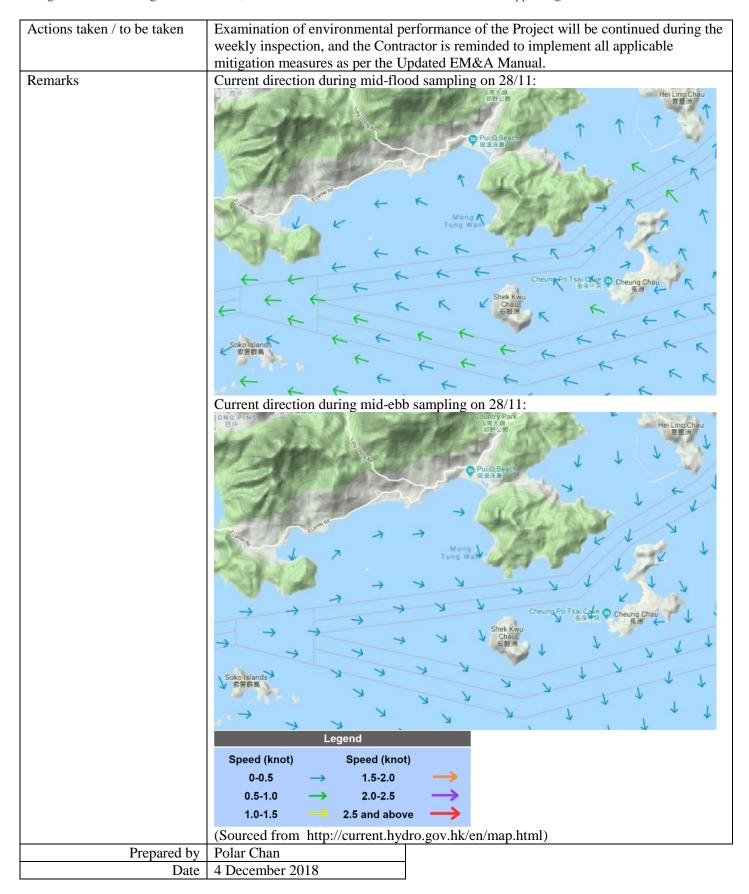
	unrelated to the Project.			
	Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/11, where no improper site practice that might contribute to the ingresse in SS level was observed during the inspection			
Actions taken / to be taken	increase in SS level was observed during the inspection.			
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable			
	mitigation measures as per the Updated EM&A Manual.			
Remarks	Current direction during mid-ebb sampling on 23/11:			
Kemarks	PINS PINS Gounty Park Hel Ling Chau			
	SRF公園 Eight School Pui (O, Beach) 日周末寿			
	The state of the s			
	Tung Wall			
	Cheung Po Tsai Care O Cheung Chau			
	oko islands ² 索苦蘇島			
	Current direction during mid-flood sampling on 23/11:			
	NG PING 選押 Country Park 順大網 您野公園 中 T T T T T T T T T T T T T T T T T T			
	Tung Wan			
	Cheung Po Tsai Citye © Cheung Chau Bight City			
	- 大 K K Shek Kwu Chaul G爾洲 K K K K K K K K K K K K K K K K K K K			
	Soko Islands 新聞評職			
	Legend			
	Speed (knot) Speed (knot) 0-0.5 → 1.5-2.0 →			
	0.5-1.0 \rightarrow 2.0-2.5 \rightarrow			
	1.0-1.5 — 2.5 and above —			
	(Sourced from http://current.hydro.gov.hk/en/map.html)			
Prepared by	Polar Chan			
Date	30 November 2018			

Project	Integrated Waste Management Facilities, Phase 1			
Date	26 November 2018 (Lab result received on 29 November 2018)			2018)
Time	12:42 – 16:12 (Mid-Ebb)			
	Mid-E	Ebb		
Monitoring Location	B1, B2, B4 & H1 + B1 • C1	PROPOSED OUTFALL + PROPOSED SUBMARINE C S2 PROPOSED RECLAIM FOR THE IWMF	SHER RWU CHAU CR2 S3 CR1	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level		Limit Level	
Tieron & Elimit Ec vers	\geq 13.2 mg/L (120% of C1)		\geq 14.3 mg/L (130% of C1)
Measurement Level	Impact Station(s) of	Control Stati		Impact Station(s) without
	Exceedance			Exceedance
	14.3 mg/L (B1) 13.3 mg/L (B2) 13.3 mg/L (B4) 14.7 mg/L (H1)	11.0 mg/L (0 11.8 mg/L (0		12.3 mg/L (B3) 11.8 mg/L (F1) 12.5 mg/L (M1) 10.7 mg/L (CR1) 10.8 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 26/11 include ground investigation (GI) work of 2			ntion (GI) work of 2 site trial and laying of
				of these monitoring
				er SS level. Silt curtain result showed that no

	exceedance at H1 is deemed to be unrelated to the project.		
	Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection.		
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the		
	weekly inspection, and the Contractor is reminded to implement all applicable		
	mitigation measures as per the Updated EM&A Manual.		
Remarks	Current direction during mid-ebb sampling on 26/11: Output Park Tung Was Cheung Po Tsai Cale © Cheung Chau Ch		
	0.5-1.0 \longrightarrow 2.0-2.5 \longrightarrow 1.0-1.5 \longrightarrow 2.5 and above \longrightarrow		
D 11	(Sourced from http://current.hydro.gov.hk/en/map.html)		
Prepared by	Polar Chan		
Date	30 November 2018		

Project	Integrated Waste Management Facilities, Phase 1			
Date	28 November 2018 (Lab resu	lt received on 3 Decemb	er 2018)	
Time	09:21 – 12:51 (Mid-Flood)			
	14:57 – 17:50 (Mid-Ebb)			
	Mid-Fl	ood		
Monitoring Location	B1 & B2			
	+ B1 • S1-	PROPOSED OUTFALL + 4 PROPOSED 132RV SUBMARINE CABLES \$2 H1 SHEK KWU CHAI CR2 RROPOSED RECLAIMED AREA FOR THE IMMIF	Key A PROPOSED 132KV SUBMARINE CABLE	
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level	Limit Le	we1	
Action & Limit Levels	\geq 9.0 mg/L (120% of C2)	≥ 10.0 m		
Measurement Level	Impact Station(s) of	Control Stations	Impact Station(s) without	
Tricusarement Level	Exceedance	Control Stations	Exceedance	
	14.8 mg/L (B1)	8.2 mg/L (C1)	6.8 mg/L (B3)	
	9.0 mg/L (B2)	7.5 mg/L (C2)	8.3 mg/L (B4)	
) ing 2 (32)	7.5 mg/L (C2)	8.2 mg/L (F1)	
			8.0 mg/L (H1)	
			8.3 mg/L (M1)	
			8.5 mg/L (CR1)	
			8.3 mg/L (CR2)	
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 28/11 include ground investigation (GI) work of 2			
	Site tidiness in the present ba inspection on 27/11, where no	-	ere checked during weekly site hat might contribute to the	

	increase in SS level was obse	rved during th	ne inspection.	
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.			
	Mid-E	_		
Monitoring Location	+ B1 S1-	PROPOSED OUTFALL + PROPOSED SUBMARINE C S2 PROPOSED RECLAMM FOR THE IMMF	H1 SHEK KWU CHAU CR2 83 CR1	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY
Parameter	Suspended Solid (SS)			
Action & Limit Levels	Action Level		Limit Level	
	\geq 11.6 mg/L (120% of C1)	T	\geq 12.6 mg/L (1	,
Measurement Level	Impact Station(s) of	Control Stat	ions	Impact Station(s) without
	Exceedance 15.7 mg/L (F1)	9.7 mg/L (C 12.8 mg/L (C	C2)	Exceedance 8.8 mg/L (B1) 11.3 mg/L (B2) 9.5 mg/L (B3) 6.0 mg/L (B4) 7.8 mg/L (H1) 9.3 mg/L (M1) 11.3 mg/L (CR1) 10.8 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 28/11 include ground investigation (GI) work of 2 borehole drilling, DCM sample coring for pre-construction site trial and laying of geotextile with sand placing for ballasting at caisson seawall area. Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau. F1 is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, silt curtain checking was implemented by contractor and checking result showed no deficiency of silt curtain was found on that day, exceedance of this monitoring location is deemed to be unrelated to the Project. Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection.			



Project	Integrated Waste Management Facilities, Phase 1			
Date	30 November 2018 (Lab result received on 5 December 2018)			
Time	11:41 – 15:11 (Mid-Flood)			
	17:33 – 20:23 (Mid-Ebb)			
	Mid-Fl	ood		
Monitoring Location	M1, CR1 & CR2			
	+ B1 • S1-	PROPOSED OUTFALL + 4 PROPOSED 132RV SUBMARINE CABLES 52 H1 SHEK KWU CHAU PROPOSED RECLAMED AREA FOR THE IMMF	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY	
Danasatan	G			
Parameter	Suspended Solid (SS)	T * *, T	1	
Action & Limit Levels	Action Level	Limit Leve		
	$\geq 8.0 \text{ mg/L}$	$\geq 10.0 \text{ mg/s}$		
Measurement Level	Impact Station(s) of	Control Stations	Impact Station(s) without	
	Exceedance		Exceedance	
	8.8 mg/L (M1)	6.0 mg/L (C1)	6.3 mg/L (B1)	
	8.0 mg/L (CR1)	5.3 mg/L (C2)	5.8 mg/L (B2)	
	9.3 mg/L (CR2)		5.5 mg/L (B3)	
			6.0 mg/L (B4)	
			5.2 mg/L (F1)	
			5.8 mg/L (H1)	
Possible reason for Action or	Works scheduled on site on 3	 RO/11 include ground inves		
		•		
Limit Level Non-compliance	borehole drilling, DCM sample coring for pre-construction site trial, laying of geotextile with sand placing for ballasting and sand blanket laying at caisson seawall area.			
	Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.			
	M1 is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of this monitoring location is deemed to be unrelated to the Project.			
	CR1 is located at upstream direction and CR2 is located close to the works location within the Project site, while no observation of silt plume was made during the sampling event. Silt curtain checking was implemented by contractor and checking result showed no deficiency of silt curtain was found on that day. It might suggest that			

Integrated Waste Management Facilities, Phase 1 Keppel Seghers – Zhen Hua Joint Ventu			
	exceedance of SS at CR1 and CR2 are deemed to be unrelated to the Project. Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/11, where no improper site practice that might contribute to the increase in SS level was observed during the inspection.		
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual. Mid-Ebb		
Monitoring Location	B2, F1, H1, CR1 & CR2		
	+ B1 S1	PROPOSED OUTFALL + 4 PROPOSED 132KV SUBMARINE CABLES 83 S2 H1 SHER KWU CHAU CR2 S3 CR1 PROPOSED RECLAMED AREA FOR THE IWMF	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT
			THE IWMF SITE BOUNDARY
Parameter	Suspended Solid (SS)	ľ	
Action & Limit Levels	Action Level	Limit Level	
Measurement Level	\geq 8.0 mg/L Impact Station(s) of	$\geq 10.0 \text{ mg/L}$ Control Stations	Impact Station(s) without
ivicasurement Level	Exceedance	Control Stations	Exceedance
	9.5 mg/L (B2)	4.7 mg/L (C1)	7.0 mg/L (B1)
	8.0 mg/L (F1)	10.3 mg/L (C2)	6.3 mg/L (B3)
	10.3 mg/L (H1)		6.5 mg/L (B4)
	10.8 mg/L (CR1) 8.5 mg/L (CR2)		7.5 mg/L (M1)
Possible reason for Action or		1 30/11 include ground investig	vation (GI) work of 2
Limit Level Non-compliance			

| (Sourced from http://current.hydro.gov.hk/en/map.html)
| Prepared by | Polar Chan |
| Date | 6 December 2018 |