

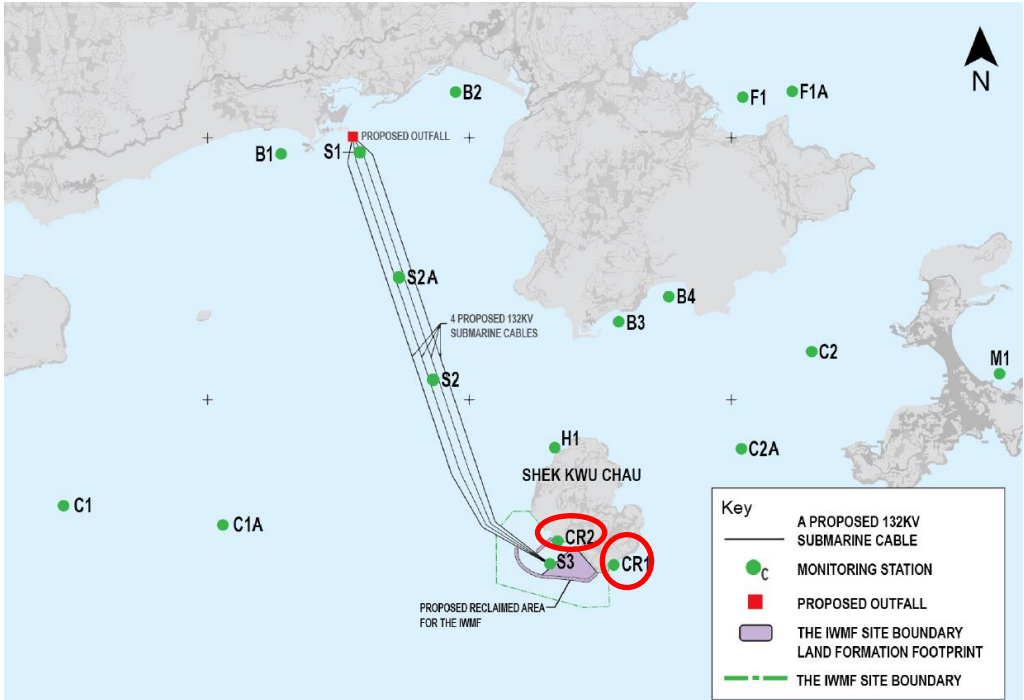
Appendix N Exceedance Report

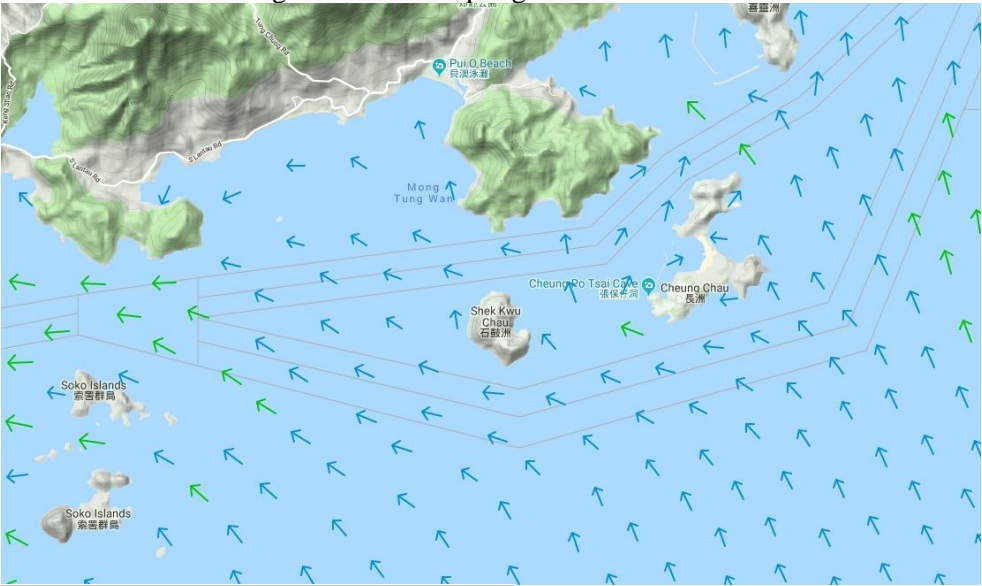
Statistical Summary of Exceedances in the Reporting Period

Water Quality (Regular DCM)			
Location	Action Level	Limit Level	Total
B1	0	0	0
B2	0	0	0
B3	0	0	0
B4	0	0	0
CR1	1	0	1
CR2	1	0	1
F1A	0	1	1
H1	0	0	0
S1	0	1	1
S2A	0	0	0
S3	0	0	0
M1	0	0	0

Noise (Day Time)			
Location	Action Level	Limit Level	Total
M1 / N_S1	0	0	0
M2 / N_S2	0	0	0
M3 / N_S3	0	0	0
Noise (Evening Time)			
Location	Action Level	Limit Level	Total
M1 / N_S1	0	0	0
M2 / N_S2	0	0	0
M3 / N_S3	0	0	0
Noise (Night Time)			
Location	Action Level	Limit Level	Total
M1 / N_S1	0	0	0
M2 / N_S2	0	0	0
M3 / N_S3	0	0	0

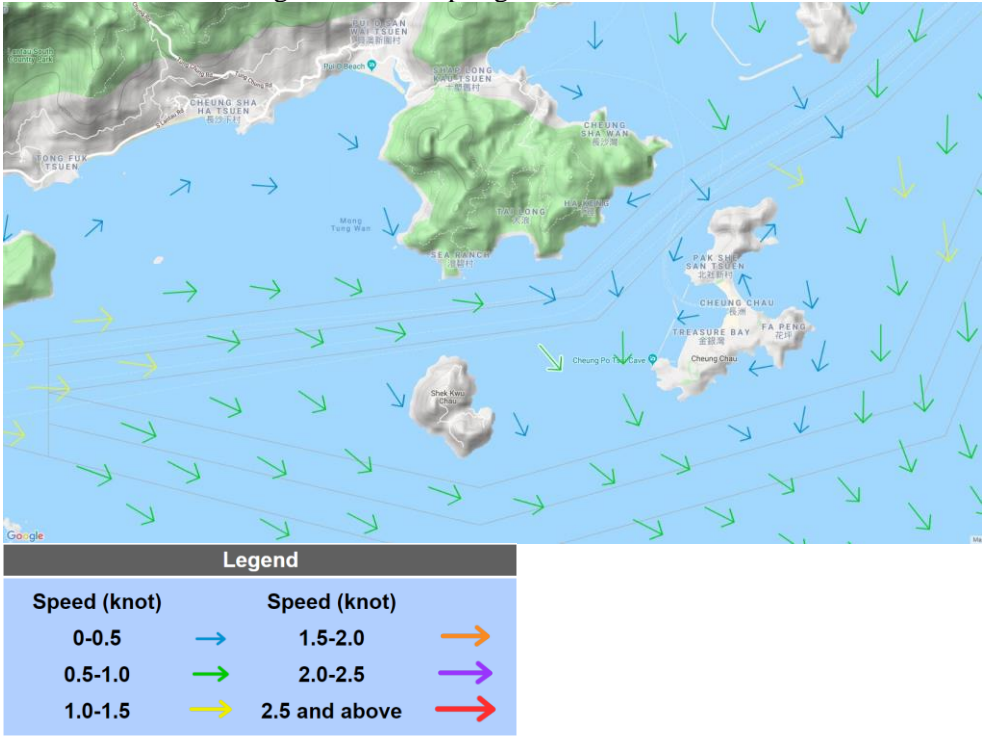
Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	02 Aug 2019 (Lab result received on 6 Aug 2019)		
Time	17:09 – 19:00 (Mid-Flood)		
Mid-Flood			
Monitoring Location	CR1 & CR2 		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 12.0 mg/L		≥ 14.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	13.5 mg/L (CR1) 13.0 mg/L (CR2)	3.8 mg/L (C1A) 6.2 mg/L (C2A)	8.5 mg/L (B1) 11.0 mg/L (B2) 8.5 mg/L (B3) 4.0 mg/L (B4) 8.2 mg/L (F1A) 4.2 mg/L (H1) 11.8 mg/L (M1) 6.8 mg/L (S1) 6.0 mg/L (S2A) 10.2 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 02/08 include DCM main works, DCM sample coring for DCM main works, ground investigation works, diving works for stockpiling concrete blocks, dredging at vertical seawall area, cone penetration test, uploading rockfill at seawall B, demolition of SLT platform, removal of seabed surface rock and stockpile material at vertical seawall area.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>CR1 & CR2 are located close to the works location within the Project site. According to the site diary on 02/08, no construction activities was carried out after the hitting of Typhoon WIPHA. Exceedance of these monitoring stations are deemed to be</p>		

	<p>unrelated to the Project.</p> <p>From MMO monitoring records on 02/08, no MMO teams was arranged since no construction work required MMO's observation on that day.</p> <p>Site tidiness on the barges was checked during the weekly site inspection on 30 Jul 2019. Sand accumulation was found at the edge of Cheung Kee No.10, however, Cheung Kee No.10 was tugged back to Hei Ling Chau due to hitting of Typhoon WIPHA on 31 Jul 2019. Therefore, this observation might not contribute to the increase of SS level.</p>								
<p>Actions taken / to be taken</p>	<p>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.</p>								
<p>Remarks</p>	<p>Current direction during mid-flood sampling on 02/08:</p>  <p>Legend</p> <table border="1" data-bbox="472 1263 986 1451"> <thead> <tr> <th>Speed (knot)</th> <th>Speed (knot)</th> </tr> </thead> <tbody> <tr> <td>0-0.5</td> <td>1.5-2.0</td> </tr> <tr> <td>0.5-1.0</td> <td>2.0-2.5</td> </tr> <tr> <td>1.0-1.5</td> <td>2.5 and above</td> </tr> </tbody> </table> <p>(Sourced from http://current.hydro.gov.hk/en/map.html)</p>	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
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								
<p>Prepared by</p>	<p>Polar Chan</p>								
<p>Date</p>	<p>7 Aug 2019</p>								


Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	19 Aug 2019		
Time	12:42 – 15:10 (Mid-Ebb)		
Monitoring Location	Mid-Ebb C2A		
Parameter	Bottom-Dissolved Oxygen		
Action & Limit Levels	Action Level		Limit Level
	≤ 5.3 mg/L		≤ 4.0 mg/L
Measurement Level	Station(s) of Exceedance	Control Station	Impact Station(s) without Exceedance
	3.5 mg/L (C2A)	8.1 mg/L (C1A)	8.2 mg/L (B1) 8.3 mg/L (B2) 6.7 mg/L (B3) 8.3 mg/L (B4) 8.2 mg/L (F1A) 7.3 mg/L (H1) 8.1 mg/L (M1) 8.2 mg/L (S1) 6.1 mg/L (S2A) 5.8 mg/L (S3) 6.3 mg/L (CR1) 6.5 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 19/08 include DCM main works, DCM sample coring for DCM main works, dredging at vertical seawall area, cone penetration test, removal of seabed surface slag material, unloading rockfill at seawall and rock filling works.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>C2A is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of this monitoring station is deemed to be unrelated to the Project.</p>		

	<p>From MMO monitoring records on 19/08, MMO teams were arranged for two derrick barges (GD-851 and 宏建 2) and two DCM barges (ESC-61 and ESC-62) on that day while no marine mammal concerning construction activity was reported until 16:00 of that day.</p> <p>Silt curtain checking on ESC-61 (15:30), GD-851 (10:00), 宏建 2 (10:00) & ESC-62 (15:30) and diver inspection of silt curtain on ESC-62 (15:00) were implemented by the Contractor. The checking results showed that no deficiency of silt curtain was found on that day. No dredging work was carried out on Cheung Kee no.10 with referring to the site diary on that day.</p> <p>Removal of seabed surface slag material and DCM main works might affect the DO level in bottom water by stirring up the high BOD substance, however, CR1, CR2 & S3 (closest monitoring stations within the Project site) showed a higher level of DO reading in bottom water. Therefore, the lack of spatial DO gradient among different monitoring stations has shown that exceedance of this monitoring station is unrelated to the Project.</p> <p>Site tidiness on the barges was checked during the weekly site inspection on 13 Aug 2019. Part of silt curtain was found floated up in ESC-61 & ESC-62 while no DCM works are in progress. However, according to the investigation in the previous paragraphs, this reminder was not considered as the source of DO exceedance.</p>
<p>Actions taken / to be taken</p>	<p>The Contractor was reminded to keep tracking on the status of the deployed silt curtain during construction works.</p> <p>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.</p>
<p>Remarks</p>	<p>Current direction during mid-ebb sampling on 19/08:</p>  <p>(Sourced from http://current.hydro.gov.hk/en/map.html)</p>
<p>Prepared by</p>	<p>Nelson Tsui</p>
<p>Date</p>	<p>22 Aug 2019</p>


Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	28 Aug 2019 (Lab result received on 02 Sep 2019)		
Time	08:44 – 12:14 (Mid-Ebb)		
Monitoring Location	Mid-Ebb		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 12.0 mg/L		≥ 14.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	14.0 mg/L (S1)	10.0 mg/L (C1A) 10.7 mg/L (C2A)	9.5 mg/L (B1) 8.5 mg/L (B2) 7.8 mg/L (B3) 7.5 mg/L (B4) 10.5 mg/L (F1A) 9.2 mg/L (H1) 6.7 mg/L (M1) 7.7 mg/L (S2A) 10.2 mg/L (S3) 11.0 mg/L (CR1) 10.2 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 28/08 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the sand blanket and rock filling works.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>S1 is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of this monitoring station is deemed to be unrelated to the Project.</p>		

	<p>From MMO monitoring records on 28/08, MMO teams were arranged for two DCM barges (ESC-61 & ESC62) and four derrick barges (宏建 1, 宏建 2, GD-851 & Cheung Kee No.10) on that day while no deficiency of silt curtain was found before the start of construction activity.</p> <p>Silt curtain checking was implemented on Cheung Kee 10 (16:30), GD851 (09:00), DL5 (10:30), 宏建 2 (10:10), ESC-62 (08:00@27/08) and ESC-61 (00:30 & 10:00) by the Contractor and checking results showed that no deficiency of silt curtain was found on that day. No rock filling works scheduled in 宏建 1 was carried out with referring to the site diary on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/08, sediment was observed at the edge of the barge DL5. However, according to the investigation in the previous paragraphs, this observation was not considered as the source of SS exceedance.</p>
<p>Actions taken / to be taken</p>	<p>Sediment at the edge of DL5 has been cleared to avoid falling into the sea on 29/08. The Contractor was reminded to clean up the sediment at the edge of barges to avoid the falling of sediment into the sea.</p> <p>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.</p>
<p>Remarks</p>	<p>Current direction during mid-ebb sampling on 28/08:</p>  <p>(Sourced from http://current.hydro.gov.hk/en/map.html)</p>
<p>Prepared by</p>	<p>Polar Chan</p>
<p>Date</p>	<p>4 Sep 2019</p>

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	30 Aug 2019 (Lab result received on 04 Sep 2019)		
Time	08:00 – 12:09 (Mid-Ebb)		
Monitoring Location	Mid-Ebb		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 20.6 mg/L (120% of C1A)		≥ 22.3 mg/L (130% of C1A)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	22.8 mg/L (F1A)	17.2 mg/L (C1A) 18.0 mg/L (C2A)	8.8 mg/L (B1) 11.8 mg/L (B2) 11.5 mg/L (B3) 9.0 mg/L (B4) 12.2 mg/L (H1) 10.8 mg/L (M1) 7.5 mg/L (S1) 6.3 mg/L (S2A) 4.5 mg/L (S3) 7.0 mg/L (CR1) 8.2 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 30/08 include DCM sample coring for DCM main works, levelling the sand blanket, cone penetration test, rock filling works and flattening the formation of caisson seawall.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>F1A is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of this monitoring station is deemed to be unrelated to the Project.</p>		

	<p>From MMO monitoring records on 30/08, MMO teams were arranged for four derrick barges (Chun Tai 2, 宏建 2, GD-851 & Cheung Kee No.10) on that day while no deficiency of silt curtain was found before the start of construction activity.</p> <p>Silt curtain checking was implemented on Chun Tai 2 (18:30), Cheung Kee 10 (15:50) and GD851 (15:30), by the Contractor and checking results showed that no deficiency of silt curtain was found on that day. No rock filling works scheduled in 宏建 2 was carried out with referring to the site diary on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/08, sediment was observed at the edge of the barge DL5. However, according to the investigation in the previous paragraphs, this observation was not considered as the source of SS exceedance.</p>																				
<p>Actions taken / to be taken</p>	<p>Sediment at the edge of DL5 has been cleared to avoid falling into the sea on 29/08. The Contractor was reminded to clean up the sediment at the edge of barges to avoid the falling of sediment into the sea.</p> <p>Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is remained to implement all applicable mitigation measures as per the Updated EM&A Manual.</p>																				
<p>Remarks</p>	<p>Current direction during mid-ebb sampling on 30/08:</p>  <table border="1" data-bbox="472 1592 986 1776"> <thead> <tr> <th colspan="4">Legend</th> </tr> <tr> <th>Speed (knot)</th> <th>Color</th> <th>Speed (knot)</th> <th>Color</th> </tr> </thead> <tbody> <tr> <td>0-0.5</td> <td>Blue</td> <td>1.5-2.0</td> <td>Orange</td> </tr> <tr> <td>0.5-1.0</td> <td>Green</td> <td>2.0-2.5</td> <td>Purple</td> </tr> <tr> <td>1.0-1.5</td> <td>Yellow</td> <td>2.5 and above</td> <td>Red</td> </tr> </tbody> </table> <p>(Sourced from http://current.hydro.gov.hk/en/map.html)</p>	Legend				Speed (knot)	Color	Speed (knot)	Color	0-0.5	Blue	1.5-2.0	Orange	0.5-1.0	Green	2.0-2.5	Purple	1.0-1.5	Yellow	2.5 and above	Red
Legend																					
Speed (knot)	Color	Speed (knot)	Color																		
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0.5-1.0	Green	2.0-2.5	Purple																		
1.0-1.5	Yellow	2.5 and above	Red																		
<p>Prepared by</p>	<p>Polar Chan</p>																				
<p>Date</p>	<p>04 Sep 2019</p>																				