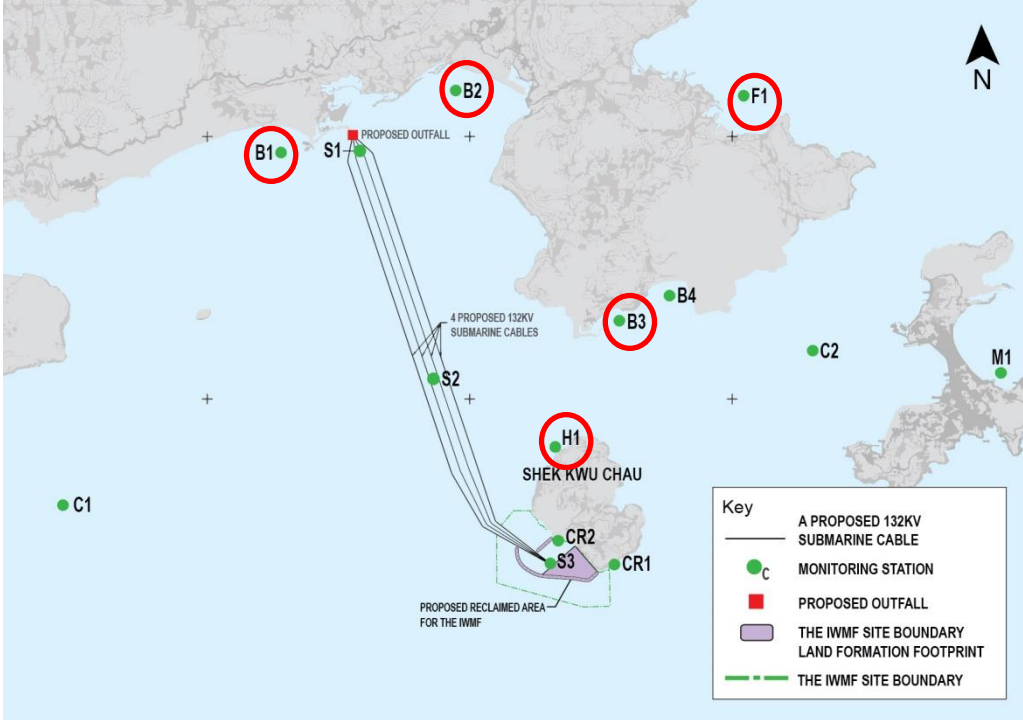



Appendix N Exceedance Report

Statistical Summary of Exceedances in the Reporting Period

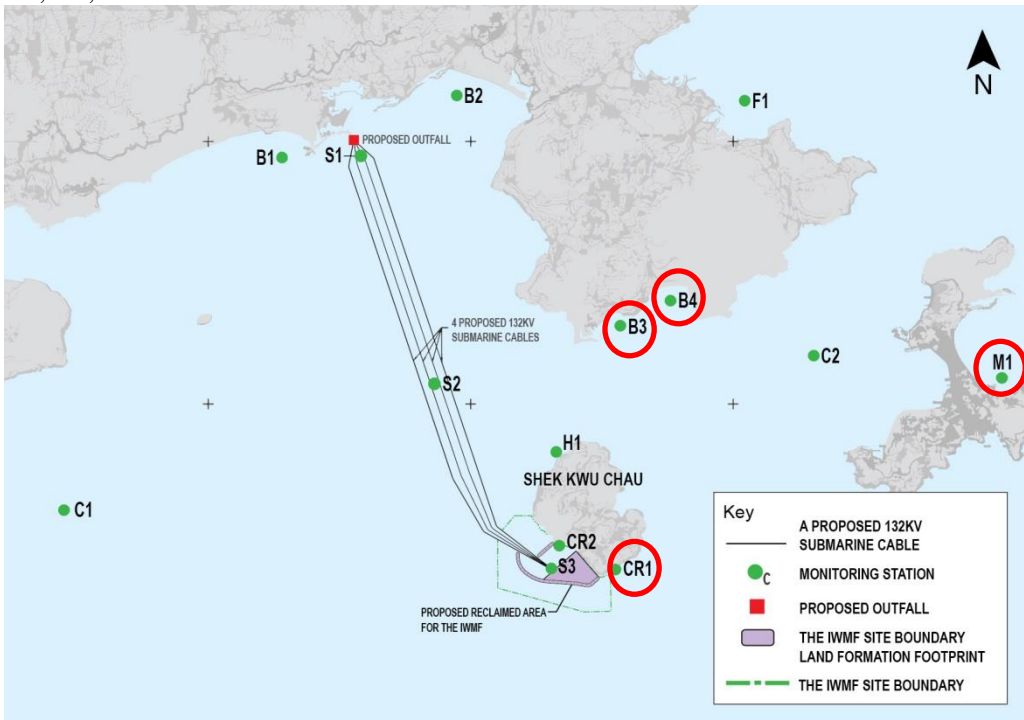
Water Quality			
Location	Action Level	Limit Level	Total
B1	3	7	10
B2	4	5	9
B3	3	5	8
B4	5	4	9
CR1	3	5	8
CR2	1	6	7
F1	4	1	5
H1	3	2	5
S1	1	6	7
S2	1	4	5
S3	1	5	6
M1	2	7	9
Noise			
Location	Action Level	Limit Level	Total
M1 / N_S1	0	0	0
M2 / N_S2	0	0	0
M3 / N_S3	0	0	0

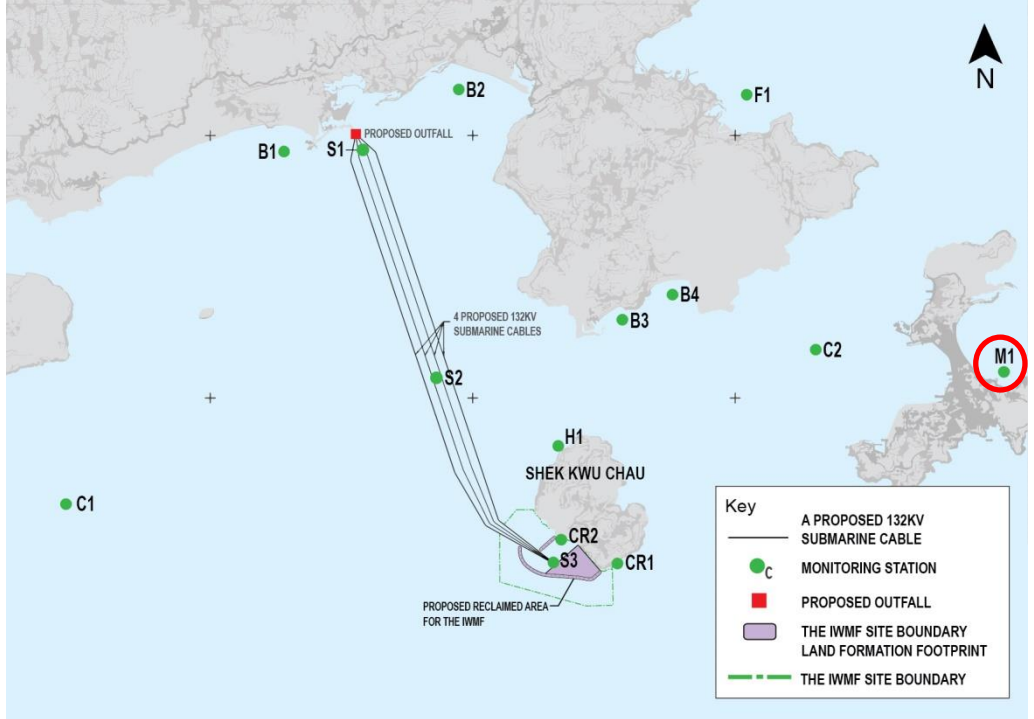
Incident Report on Action Level or Limit Level Non-compliance


Project	Integrated Waste Management Facilities, Phase 1		
Date	03 December 2018 (Lab result received on 06 December 2018)		
Time	13:57 – 17:27 (Mid-Flood)		
Mid-Flood			
Monitoring Location	B1, B2, B3, F1 & H1 		
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 Exceedance	Control Stations	Impact Station(s) without Exceedance
	8.5 mg/L (B1) 8.0 mg/L (B2) 8.0 mg/L (B3) 8.0 mg/L (F1) 8.2 mg/L (H1)	6.7 mg/L (C1) 6.5 mg/L (C2)	5.8 mg/L (B4) 6.5 mg/L (M1) 7.5 mg/L (CR1) 6.8 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 03/12 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.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B1, B2, B3 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.</p> <p>CR1 and CR2, the closest monitoring stations to the site location when comparing to H1 (upstream monitoring station), exhibited a much smaller SS level. No observation of silt plume was made during the sampling event. Silt curtain checking was implemented by the contractor and checking result showed that no deficiency of silt curtain was found on that day. It might suggest that the high SS level exceedance at</p>		

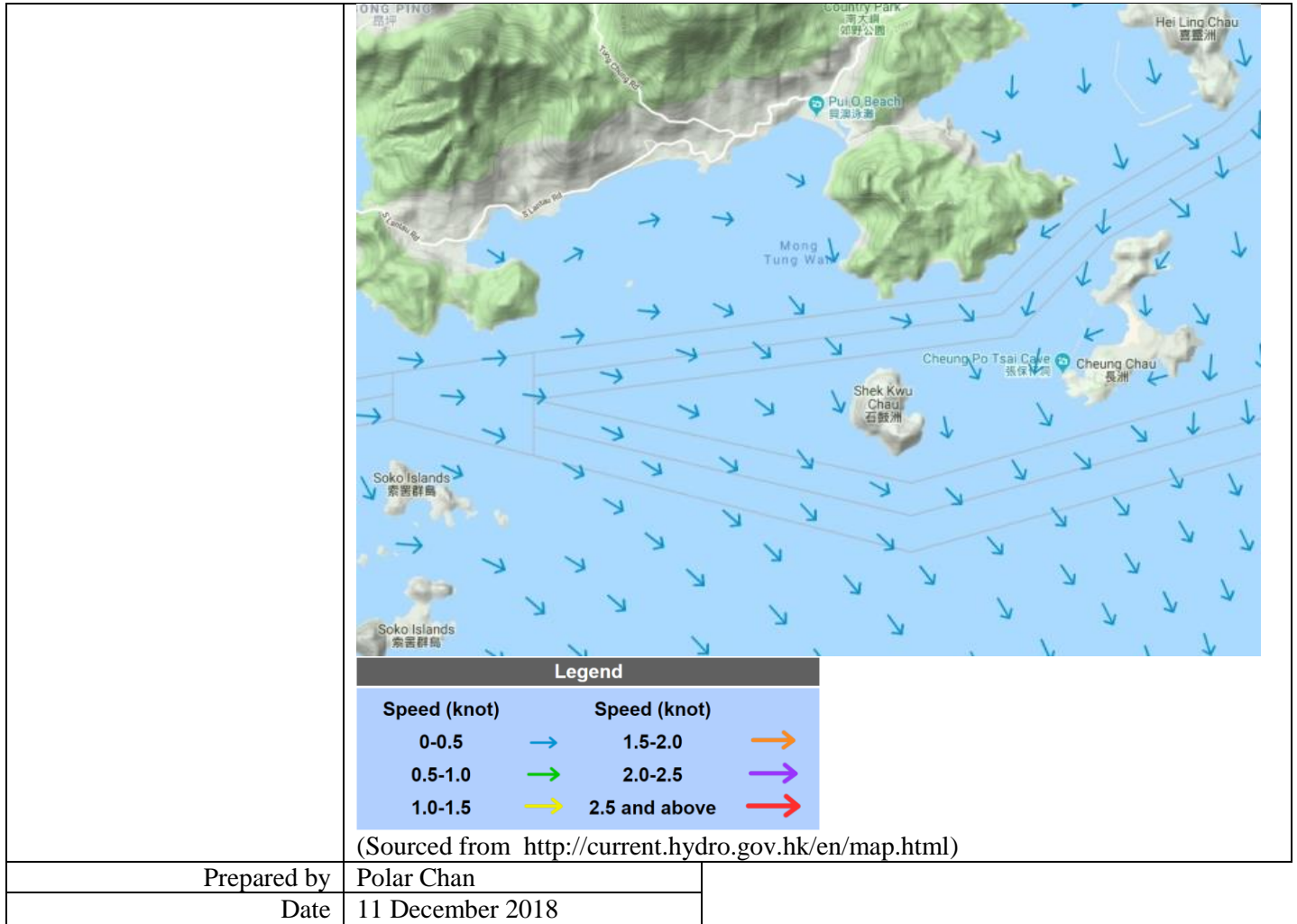
	<p>H1 is deemed to be unrelated to the project.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 04/12, there was two observations might contribute the SS level increase where sand on the pontoon surface was nearly overflowed to the sea on FTB 19 and a big lump of sand was observed at the edge of the barge surface on 祥記 7. However, according to the rationale in the previous paragraph, these two observations were not considered as the source of SS exceedance at H1.</p>
<p>Actions taken / to be taken</p>	<p>The Contractor was reminded to clean up the sand more frequently and hence to avoid the sand was leaked outside the silt curtain. The Contractor was reminded to use an elongated soft hose to avoid the sand accumulation on the pontoon surface during sand blanket laying process.</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 03/12:</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>7 December 2018</p>

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	5 December 2018 (Lab result received on 10 December 2018)		
Time	09:19 – 12:49 (Mid-Ebb) 15:02 – 18:32 (Mid-Flood)		
Mid-Ebb			
Monitoring Location	B3, B4, M1 & CR1 		
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 Exceedance	Control Stations	Impact Station(s) without Exceedance
	9.3 mg/L (B3) 8.8 mg/L (B4) 10.7 mg/L (M1) 8.8 mg/L (CR1)	6.3 mg/L (C1) 9.8 mg/L (C2)	7.5 mg/L (B1) 7.8 mg/L (B2) 7.5 mg/L (F1) 7.7 mg/L (H1) 5.3 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 05/12 include ground investigation (GI) work of 2 borehole drilling, DCM sample coring for pre-construction site trial and laying of sand blanket at caisson seawall area.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>B3, B4 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.</p> <p>CR1 is located at downstream direction to the works location, while no observation of silt plume was made during the sampling event. Silt curtain checking was implemented by the contractor and checking result showed that no deficiency of silt curtain was found on that day. It might suggest that the high SS level exceedance at</p>		


	<p>CR1 is deemed to be unrelated to the project.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 4/12, where sand on the pontoon surface was nearly overflowed to the sea on FTB 19 and a big lump of sand was observed at the edge of the barge surface on 祥記 7. However, according to the rationale in the previous paragraph, these two observations were not considered as the source of SS exceedance.</p>		
<p>Actions taken / to be taken</p>	<p>The Contractor was reminded to clean up the sand more frequently and hence to avoid the sand was leaked outside the silt curtain. The Contractor was reminded to use an elongated soft hose to avoid the sand accumulation on the pontoon surface during sand blanket laying process.</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>Mid-Flood</p>			
<p>Monitoring Location</p>	<p>M1</p>  <p>The map shows the project site in the vicinity of Shek Kwu Chau. It includes several monitoring stations labeled B1 through F1, H1, M1, CR1, and CR2. A proposed outfall is marked as S1. Four proposed 132KV submarine cables are shown connecting the outfall area to the site. A proposed reclaimed area for the IWMF is outlined in green. The IWMF site boundary and land formation footprint are also shown. A key in the bottom right corner defines the symbols: a solid line for a proposed 132KV submarine cable, a green circle with a 'C' for a monitoring station, a red square for a proposed outfall, a purple shaded area for the IWMF site boundary, a solid purple line for the land formation footprint, and a dashed green line for the IWMF site boundary.</p>		
<p>Parameter</p>	<p>Suspended Solid (SS)</p>		
<p>Action & Limit Levels</p>	<p>Action Level ≥ 10.0 mg/L (120% of C2)</p>	<p>Limit Level ≥ 10.8 mg/L (130% of C2)</p>	
<p>Measurement Level</p>	<p>Impact Station(s) of Exceedance 11.0 mg/L (M1)</p>	<p>Control Stations 7.2 mg/L (C1) 8.3 mg/L (C2)</p>	<p>Impact Station(s) without Exceedance 6.5 mg/L (B1) 8.0 mg/L (B2) 7.0 mg/L (B3) 6.8 mg/L (B4) 8.3 mg/L (F1) 5.7 mg/L (H1) 8.3 mg/L (CR1) 7.8 mg/L (CR2)</p>
<p>Possible reason for Action or Limit Level Non-compliance</p>	<p>Works scheduled on site on 05/12 include ground investigation (GI) work of 2 borehole drilling, DCM sample coring for pre-construction site trial and laying of sand blanket at caisson seawall area.</p>		

	<p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>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.</p> <p>Silt curtain checking was implemented by contractor and checking result showed no deficiency of silt curtain was found.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 4/12, where sand on the pontoon surface was nearly overflowed to the sea on FTB 19 and a big lump of sand was observed at the edge of the barge surface on 祥記 7. However, according to the rationale in the previous paragraph, these two observations were not considered as the source of SS exceedance.</p>
<p>Actions taken / to be taken</p>	<p>The Contractor was reminded to clean up the sand more frequently and hence to avoid the sand was leaked outside the silt curtain. The Contractor was reminded to use an elongated soft hose to avoid the sand accumulation on the pontoon surface during sand blanket laying process.</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 5/12:</p>  <p>Current direction during mid-flood sampling on 5/12:</p>



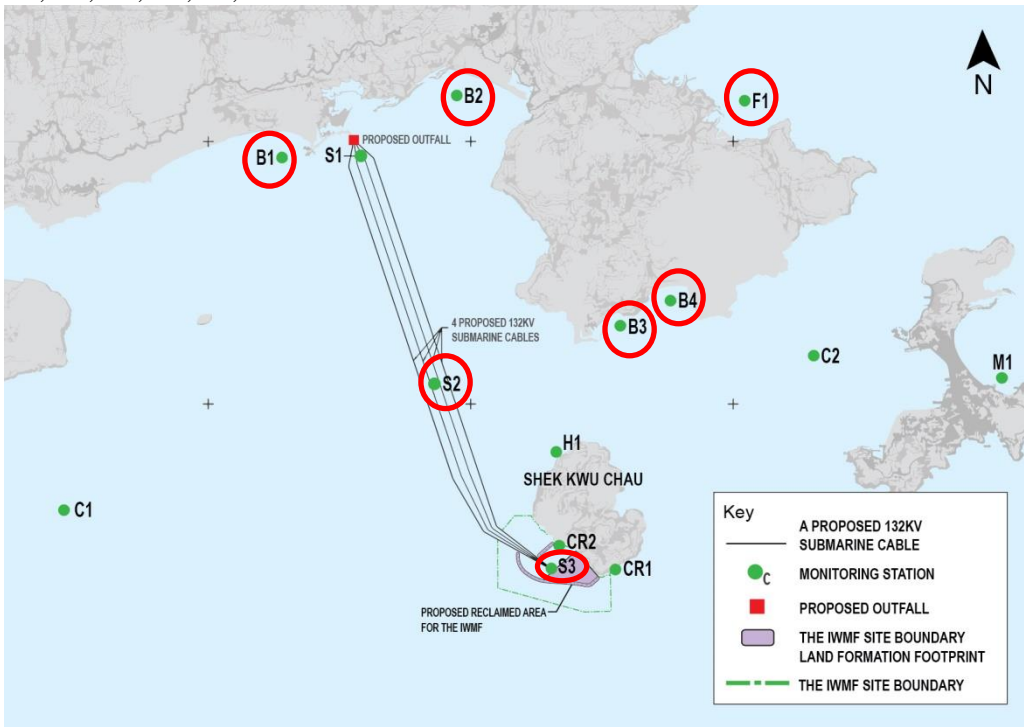
Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	7 December 2018 (Lab result received on 12 December 2018)		
Time	10:51 – 14:21 (Mid-Ebb)		
Monitoring Location	Mid-Ebb		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 9.4 mg/L (120% of C1)		≥ 10.1 mg/L (120% of C1)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	10.0 mg/L (B2) 9.8 mg/L (B4)	7.8 mg/L (C1) 8.0 mg/L (C2)	8.3 mg/L (B1) 7.8 mg/L (B3) 7.8 mg/L (F1) 8.2 mg/L (H1) 8.2 mg/L (M1) 8.5 mg/L (CR1) 9.2 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 07/12 include ground investigation (GI) work of 2 borehole drilling, DCM sample coring for pre-construction site trial and laying of sand blanket at both caisson seawall area and DCM Plant Trial Area.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>B2 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.</p> <p>Silt curtain checking was implemented by the contractor and checking result showed that no deficiency of silt curtain was found on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site</p>		


	<p>inspection on 04/12, there was two observations might contribute the SS level increase where sand on the pontoon surface was nearly overflowed to the sea on FTB 19 and a big lump of sand was observed at the edge of the barge surface on 祥記 7. However, according to the rationale in previous paragraph, these two observations were not considered as the source of SS exceedance.</p>
<p>Actions taken / to be taken</p>	<p>Sand on the pontoon surface was picked up and poured into the hopper by the Contractor on 07/12. Also, the big lump of sand at the edge of the barge surface was cleaned by the Contractor on 07/12.</p> <p>The Contractor was reminded to clean up the sand more frequently and use an elongated soft hose, and hence to avoid the sand was leaked outside the silt curtain.</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 7/12:</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>13 December 2018</p>

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	10 December 2018 (Lab result received on 13 December 2018)		
Time	08:00 – 10:52 (Mid-Flood) 12:37 – 16:07 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, F1, S2 & S3 		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 11.2 mg/L (120% of C2)		≥ 12.1 mg/L (130 % of C2)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	13.0 mg/L (B1) 13.8 mg/L (B2) 14.0 mg/L (B3) 13.3 mg/L (B4) 12.2 mg/L (F1) 15.3 mg/L (S2) 13.5 mg/L (S3)	7.0 mg/L (C1) 9.3 mg/L (C2)	8.8 mg/L (H1) 7.3 mg/L (M1) 11.0 mg/L (CR1) 8.7 mg/L (CR2) 10.5 mg/L (S1)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 10/12 include ground investigation (GI) work of 2 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.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B1, B2, B3, B4, F1 and S2 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.</p> <p>S3 is located close to the works location within the Project site, while no observation of silt plume was made during the sampling event. The absence of site works and</p>		

	<p>above rationales might suggest that the high SS level exceedance at S3 is deemed to be unrelated to the project.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 14/12, where there was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</p>		
Actions taken / to be taken	<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>		
Mid-Ebb			
Monitoring Location	<p>B1, B2, B3, H1, M1, CR1 & CR2</p> <p>The map shows the Shek Kwu Chau area with various monitoring stations marked with green dots. Stations B1, B2, B3, H1, M1, CR1, and CR2 are circled in red. A red square indicates the proposed outfall. Four lines represent the proposed 132KV submarine cables. A purple shaded area shows the IWMF site boundary, and a green dashed line shows the IWMF site footprint. A key in the bottom right corner defines the symbols: a line for a proposed 132KV submarine cable, a green dot for a monitoring station, a red square for a proposed outfall, a purple shaded area for the IWMF site boundary, and a green dashed line for the IWMF site footprint. A north arrow is also present.</p>		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.2 mg/L (120% of C1)		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	10.8 mg/L (B1) 10.0 mg/L (B2) 10.0 mg/L (B3) 9.8 mg/L (H1) 9.7 mg/L (M1) 10.7 mg/L (CR1) 11.0 mg/L (CR2)	6.8 mg/L (C1) 6.2 mg/L (C2)	6.0 mg/L (B4) 6.0 mg/L (F1) 6.5 mg/L (S1) 6.8 mg/L (S2) 7.7 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 10/12 include ground investigation (GI) work of 2 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.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B1, B2, B3 and M1 are located at unrelated stream direction (neither upstream nor</p>		

	<p>downstream, far away) to the works location, exceedance of these monitoring locations are deemed to be unrelated to the Project.</p> <p>H1 is located upstream direction, CR1 is located at downstream 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. The absence of site works and above rationales might suggest that the high SS level exceedance at H1, CR1 and CR2 are deemed to be unrelated to the project.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 14/12, where there was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</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 10/12:</p>  <p>Current direction during mid-ebb sampling on 10/12:</p>



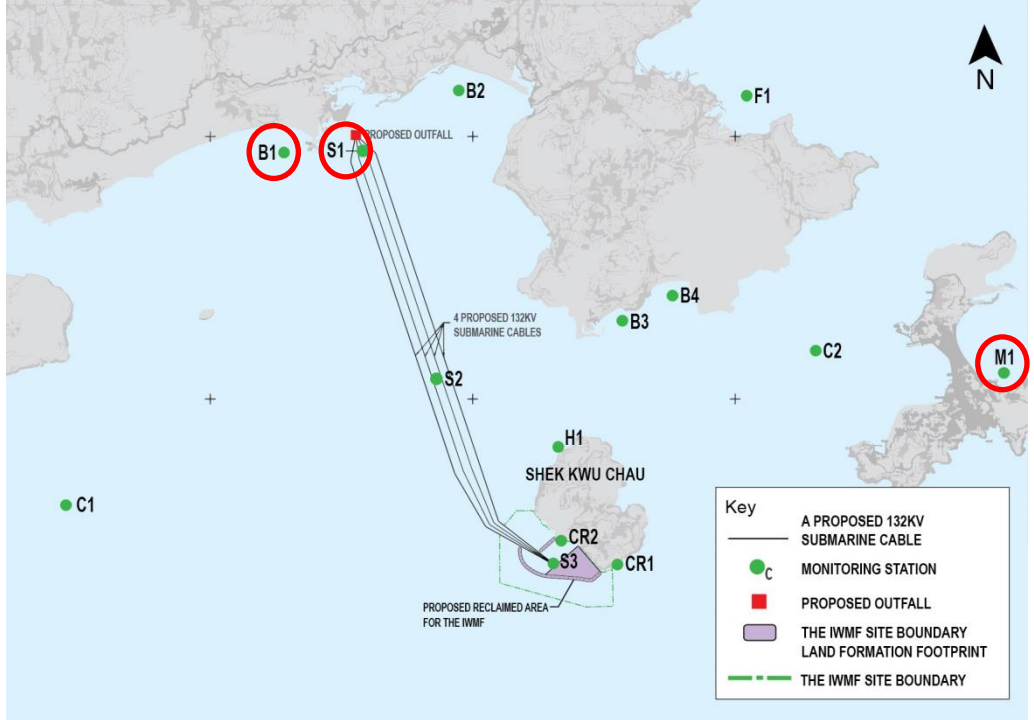
Legend			
Speed (knot)		Speed (knot)	
0-0.5		1.5-2.0	
0.5-1.0		2.0-2.5	
1.0-1.5		2.5 and above	

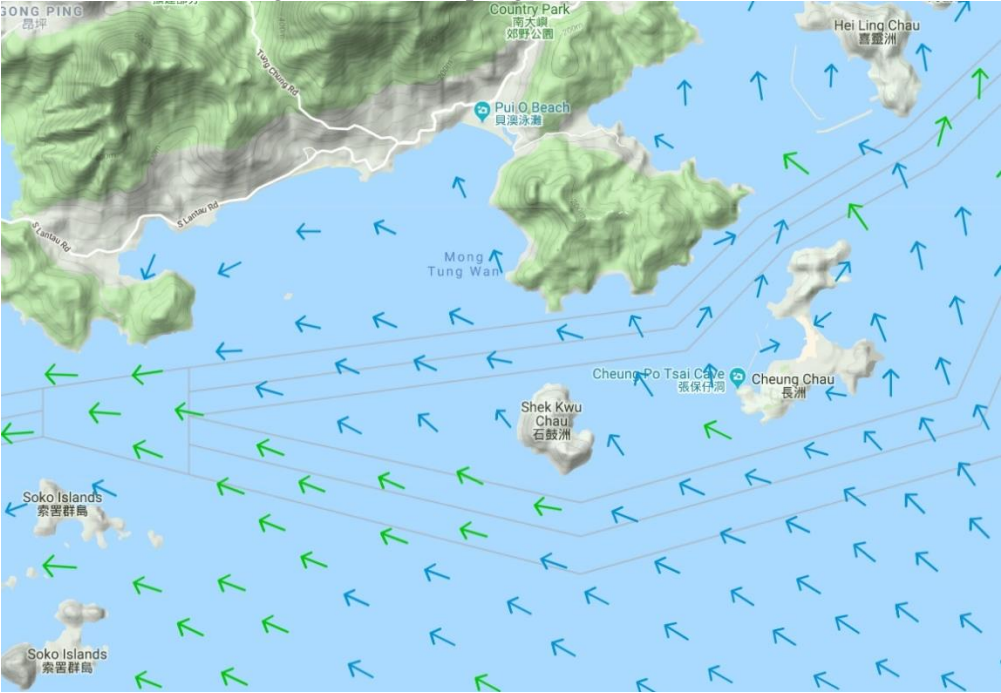
(Sourced from <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	14 December 2018

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	12 December 2018 (Lab result received on 18 December 2018)		
Time	08:37 – 12:07 (Mid-Flood) 14:09 – 16:51 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B3, B4, M1, CR1, CR2, S1 & S3		
	<p>The map shows the Shek Kwu Chau area with various monitoring stations marked with green dots. Stations B1, B3, B4, M1, CR1, CR2, S1, and S3 are circled in red, indicating non-compliance. A red square marks the proposed outfall. A key in the bottom right corner defines symbols: a line for a proposed 132kV submarine cable, a green dot for a monitoring station, a red square for a proposed outfall, a purple outline for the IWMF site boundary land formation footprint, and a green dashed line for the IWMF site boundary. Other stations shown include C1, C2, H1, F1, and S2.</p>		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 11.2 mg/L (120% of C2)		≥ 12.1 mg/L (130 % of C2)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	12.3 mg/L (B1) 12.3 mg/L (B3) 14.8 mg/L (B4) 15.0 mg/L (M1) 13.3 mg/L (CR1) 15.2 mg/L (CR2) 13.5 mg/L (S1) 13.7 mg/L (S3)	9.5 mg/L (C1) 9.3 mg/L (C2)	11.0 mg/L (B2) 10.7 mg/L (F1) 9.3 mg/L (H1) 10.7 mg/L (S2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 12/12 include ground investigation (GI) work of borehole drilling, DCM sample coring for pre-construction site trial, DCM main works, laying of geotextile with sand placing for ballasting and laying of sand blanket at caisson seawall area.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B1, B3, B4, S1, 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.</p>		

	<p>CR1 is located at upstream direction, CR2 & S3 are 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 the contractor and checking result showed that no deficiency of silt curtain was found on that day. Control stations and most of the monitoring stations showed considerably high SS level of that tidal period, implying the high background SS level of surrounding waters. It might suggest that the high SS level exceedance at CR1, CR2 & S3 are deemed to be unrelated to the project.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 14/12, where there was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</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>Mid-Ebb</p>			
<p>Monitoring Location</p>	<p>B1, M1 & S1</p>  <p>The map shows the project site with various monitoring stations marked with green dots. Stations B1, M1, and S1 are circled in red. A proposed outfall is marked with a red square. Submarine cables are shown as lines connecting the outfall to the site. The site boundary is indicated by a purple line, and the land formation footprint is shown with a dashed green line. A north arrow is present in the top right corner.</p>		
<p>Parameter</p>	<p>Suspended Solid (SS)</p>		
<p>Action & Limit Levels</p>	<p>Action Level</p>		<p>Limit Level</p>
	<p>≥ 15.0 mg/L (120% of C1)</p>		<p>≥ 16.3 mg/L (130% of C1)</p>
<p>Measurement Level</p>	<p>Impact Station(s) of Exceedance</p>	<p>Control Stations</p>	<p>Impact Station(s) without Exceedance</p>
	<p>18.5 mg/L (B1) 17.0 mg/L (M1) 16.8 mg/L (S1)</p>	<p>12.5 mg/L (C1) 13.2 mg/L (C2)</p>	<p>11.5 mg/L (B2) 14.3 mg/L (B3) 11.8 mg/L (B4) 11.7 mg/L (F1) 12.0 mg/L (H1) 10.7 mg/L (CR1) 12.5 mg/L (CR2) 11.2 mg/L (S2) 13.0 mg/L (S3)</p>
<p>Possible reason for Action or Limit Level Non-compliance</p>	<p>Works scheduled on site on 12/12 include ground investigation (GI) work of borehole drilling, DCM sample coring for pre-construction site trial, DCM main works, laying</p>		

	<p>of geotextile with sand placing for ballasting and laying of sand blanket at caisson seawall area.</p> <p>Dominating sea current direction was found to be from Northwest to Southwest waters around Shek Kwu Chau.</p> <p>B1, S1 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. Silt curtain checking was implemented by the contractor and checking result showed that no deficiency of silt curtain was found on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 14/12, where there was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</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 12/12:</p>  <p>Current direction during mid-ebb sampling on 12/12:</p>



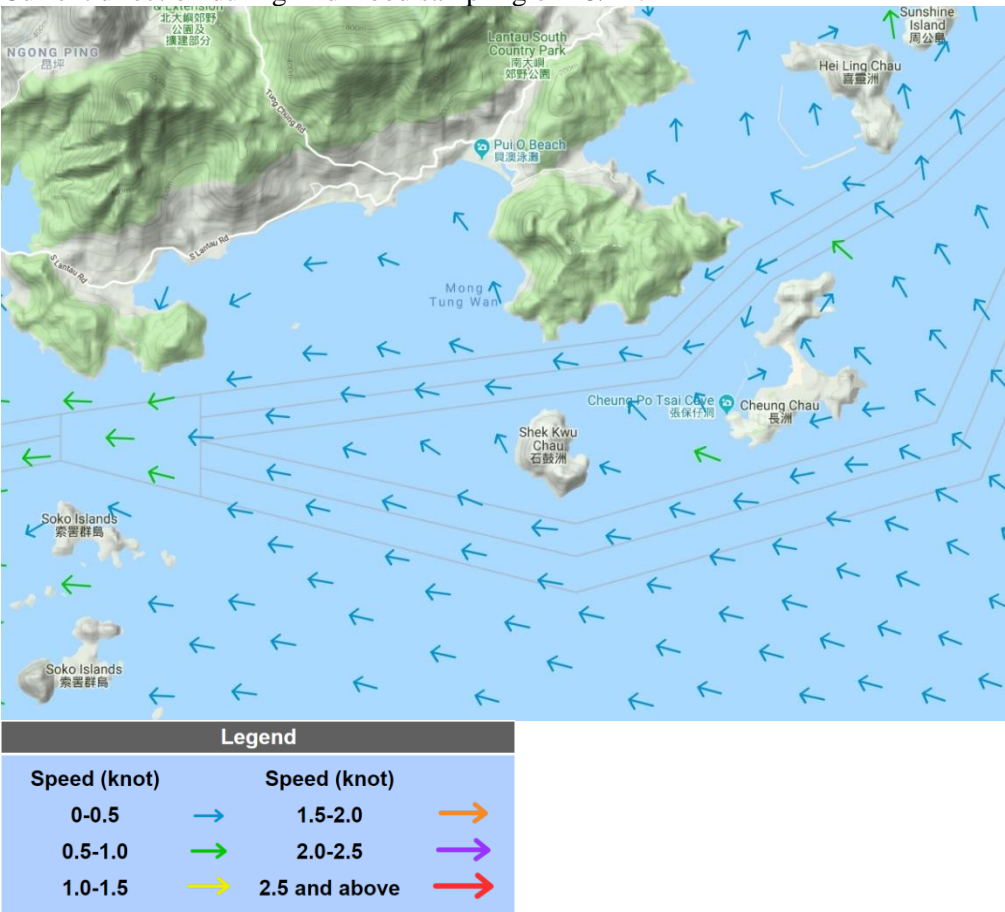
Legend			
Speed (knot)		Speed (knot)	
0-0.5		1.5-2.0	
0.5-1.0		2.0-2.5	
1.0-1.5		2.5 and above	

(Sourced from <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	19 December 2018

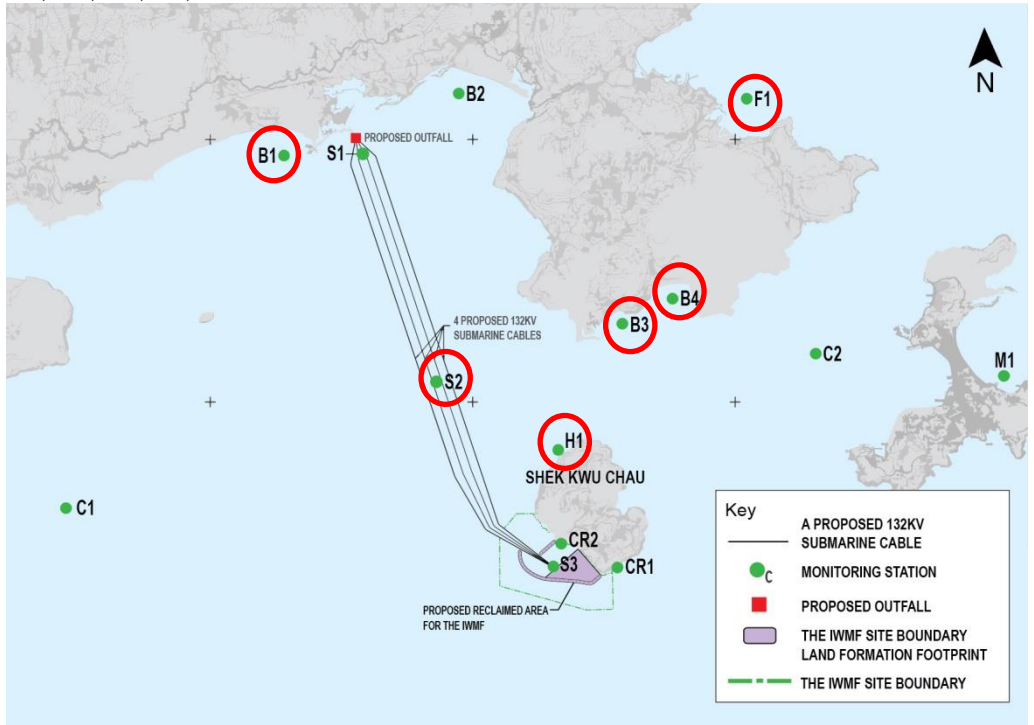
Incident Report on Action Level or Limit Level Non-compliance


Project	Integrated Waste Management Facilities, Phase 1		
Date	15 December 2018 (Lab result received on 19 December 2018)		
Time	11:42 – 15:12 (Mid-Flood)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, F1, M1, CR1, CR2, S1, S2 & S3		
	<p>The map shows the Shek Kwu Chau area with various monitoring stations marked. Stations B1, B2, B3, B4, F1, M1, CR1, CR2, S1, S2, and S3 are circled in red. Stations C1, C2, and H1 are marked with green dots. A red square indicates the proposed outfall. Four blue lines represent proposed 132KV submarine cables. A purple shaded area shows the IWMF site boundary, and a green dashed line shows the land formation footprint. A north arrow is in the top right corner.</p>		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 9.6 mg/L (120% of C2)		≥ 10.4 mg/L (130% of C2)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	11.3 mg/L (B1) 15.0 mg/L (B2) 13.5 mg/L (B3) 14.5 mg/L (B4) 10.0 mg/L (F1) 14.2 mg/L (M1) 12.0 mg/L (CR1) 15.5 mg/L (CR2) 13.5 mg/L (S1) 13.2 mg/L (S2) 12.3 mg/L (S3)	11.0 mg/L (C1) 8.0 mg/L (C2)	8.5 mg/L (H1)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 15/12 include ground investigation (GI) work of 2 borehole drilling, DCM main works and laying of sand blanket at both caisson seawall area and DCM plant trial area.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B1, B2, B3, B4, S1, S2, 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.</p>		

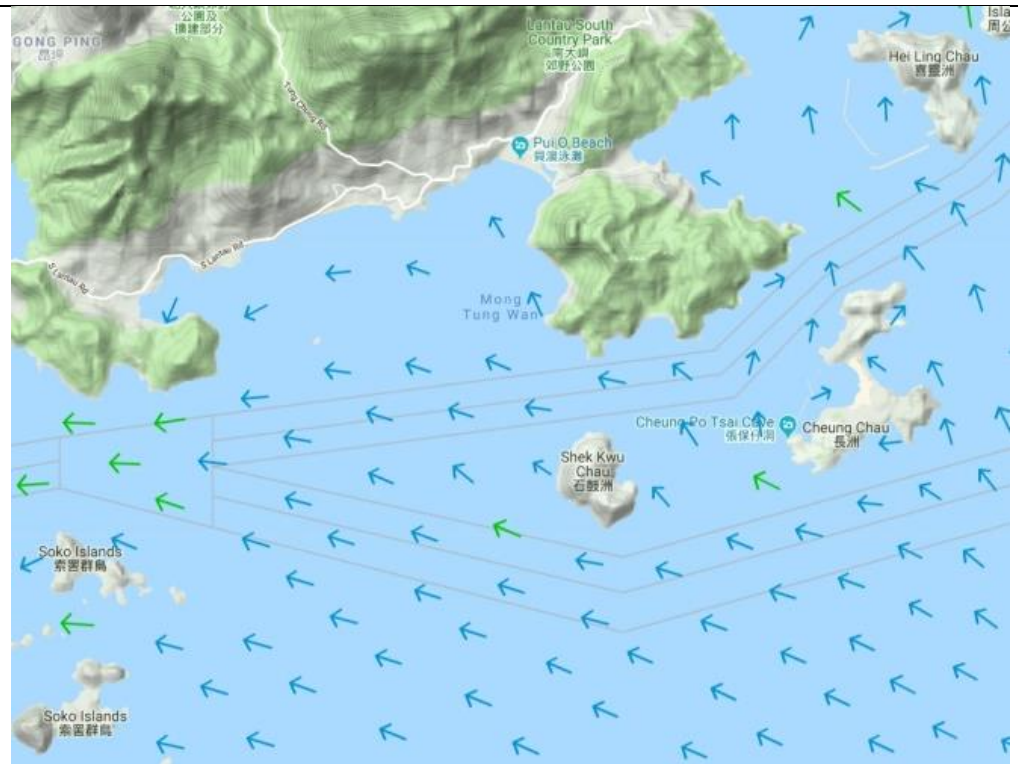
	<p>CR1 is located at upstream direction, CR2 & S3 are located close to the works location within the Project site, while no observation of silt plume was made during the sampling event. Silt curtain checking was implemented by the contractor and checking result showed that no deficiency of silt curtain was found on that day. Control stations and most of the monitoring stations showed considerably high SS level of that tidal period, implying the high background SS level of surrounding waters. It might suggest that the high SS level exceedance at CR1, CR2 & S3 are deemed to be unrelated to the project.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 14/12, where there was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</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 15/12:</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>20 December 2018</p>

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	17 December 2018 (Lab result received on 20 December 2018)		
Time	08:00 – 08:44 (Mid-Ebb) 12:50 – 16:20 (Mid-Flood)		
Mid-Ebb			
Monitoring Location	B2, B4, H1, M1, CR1, CR2 & S3		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.2 mg/L (120% of C1)		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	8.5 mg/L (B2) 8.8 mg/L (B4) 8.5 mg/L (H1) 13.2 mg/L (M1) 12.7 mg/L (CR1) 9.5 mg/L (CR2) 8.8 mg/L (S3)	6.8 mg/L (C1) 6.7 mg/L (C2)	5.8 mg/L (B1) 7.0 mg/L (B3) 6.3 mg/L (F1) 7.5 mg/L (S1) 6.7 mg/L (S2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 17/12 include ground investigation (GI) work of 2 borehole drilling, DCM main works, laying of geotextile with sand placing for ballasting at caisson seawall area and laying of sand blanket at caisson seawall area.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>B2, B4 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.</p> <p>H1 is located at upstream location, CR1 is located at downstream direction, CR2 & S3 are located close to the works location within the Project site, while no observation of</p>		

	<p>silt plume was made during the sampling event. Silt curtain checking was implemented by the Contractor and checking results showed that no deficiency of silt curtain was found on that day. It might suggest that the high SS level exceedance at H1, CR1, CR2 & S3 are deemed to be unrelated to the Project.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 18/12, where was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</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>Mid-Flood</p>			
<p>Monitoring Location</p>	<p>B1, B3, B4, F1, H1 & S2</p>  <p>The map shows the Shek Kwu Chau area with various monitoring stations marked with green dots. Stations B1, B3, B4, F1, H1, and S2 are circled in red. A red square indicates the proposed outfall. Four lines represent the proposed 132KV submarine cables. A purple shaded area shows the IWMF site boundary and land formation footprint. A green dashed line shows the IWMF site boundary. A key in the bottom right corner explains the symbols: A PROPOSED 132KV SUBMARINE CABLE (black line), MONITORING STATION (green dot), PROPOSED OUTFALL (red square), THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT (purple shaded area), and THE IWMF SITE BOUNDARY (green dashed line). A north arrow is also present.</p>		
<p>Parameter</p>	<p>Suspended Solid (SS)</p>		
<p>Action & Limit Levels</p>	<p>Action Level ≥ 8.2 mg/L (120% of C2)</p>	<p>Limit Level ≥ 10.0 mg/L</p>	
<p>Measurement Level</p>	<p>Impact Station(s) of Exceedance</p> <p>8.5 mg/L (B1) 8.3 mg/L (B3) 9.3 mg/L (B4) 8.7 mg/L (F1) 10.8 mg/L (H1) 10.0 mg/L (S2)</p>	<p>Control Stations</p> <p>5.7 mg/L (C1) 6.8 mg/L (C2)</p>	<p>Impact Station(s) without Exceedance</p> <p>6.8 mg/L (B2) 6.8 mg/L (M1) 6.7 mg/L (CR1) 6.3 mg/L (CR2) 7.8 mg/L (S1) 7.7 mg/L (S3)</p>
<p>Possible reason for Action or Limit Level Non-compliance</p>	<p>Works scheduled on site on 17/12 include ground investigation (GI) work of 2 borehole drilling, DCM main works, laying of geotextile with sand placing for ballasting at caisson seawall area and laying of sand blanket at caisson seawall area.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B1, B3, B4, F1 and S2 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.</p>		

	<p>CR1, CR2 and S3, the closet monitoring stations to the site location when comparing to H1 (downstream monitoring station), exhibited a smaller SS level. It might suggest that the high SS level exceedance at H1 is deemed to be unrelated to the Project.</p> <p>However, questionable silt curtain deployment condition in the present pelican barge was observed by MMO and SO, where presence of sandy water outside the silt curtain were found around 2:30pm. Also, silt plume was observed near the pelican barge YGZH 1332 and it was recorded by SO around 11:10 am, and the mal-practice was stopped immediately.</p>
<p>Actions taken / to be taken</p>	<p>The sand blanket laying works were suspended by the Contractor immediately and the Contractor was reminded to properly fix and maintain the deployed silt curtain for the operation of sand blanket laying works. Further diver inspection on silt curtain was implemented on 18/12/2018 and checking result showed no deficiency of silt curtain was found.</p> <p>Silt plume near pelican barge “YGZH 1332” vanished immediately after switching off the propeller of the barge. The environmental department of the Contractor was reminded to keep paying attention to avoid the repeating of such incidents.</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 17/12:</p>  <p>Current direction during mid-flood sampling on 17/12:</p>



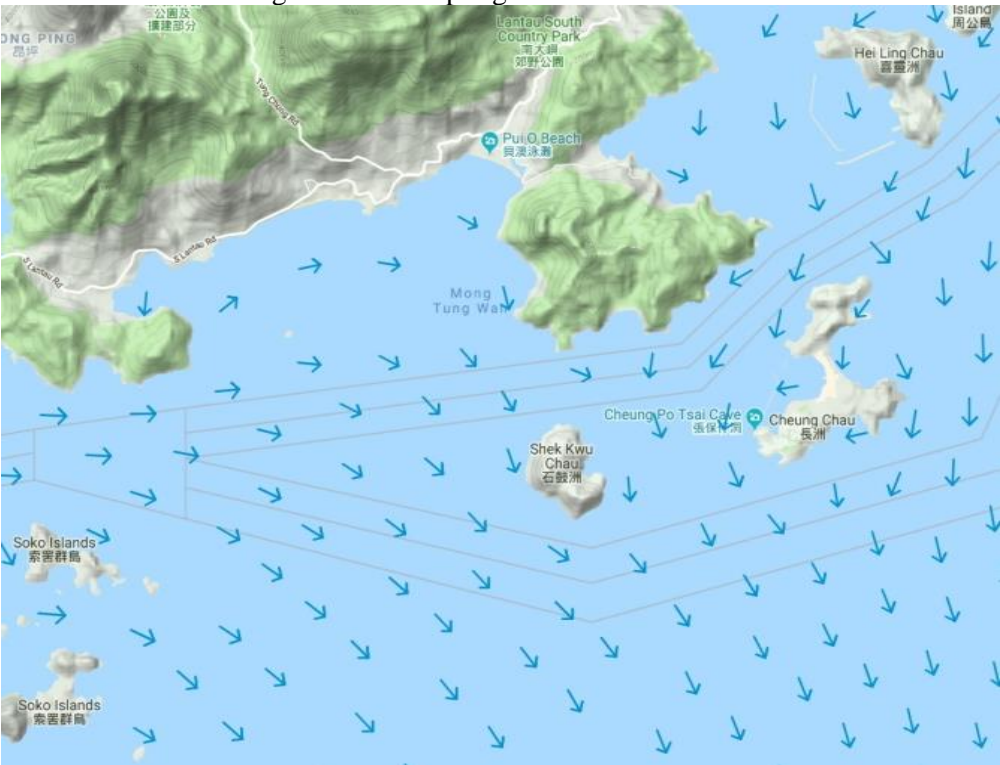
Legend			
Speed (knot)	→	Speed (knot)	→
0-0.5	→	1.5-2.0	→
0.5-1.0	→	2.0-2.5	→
1.0-1.5	→	2.5 and above	→

(Sourced from <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	21 December 2018

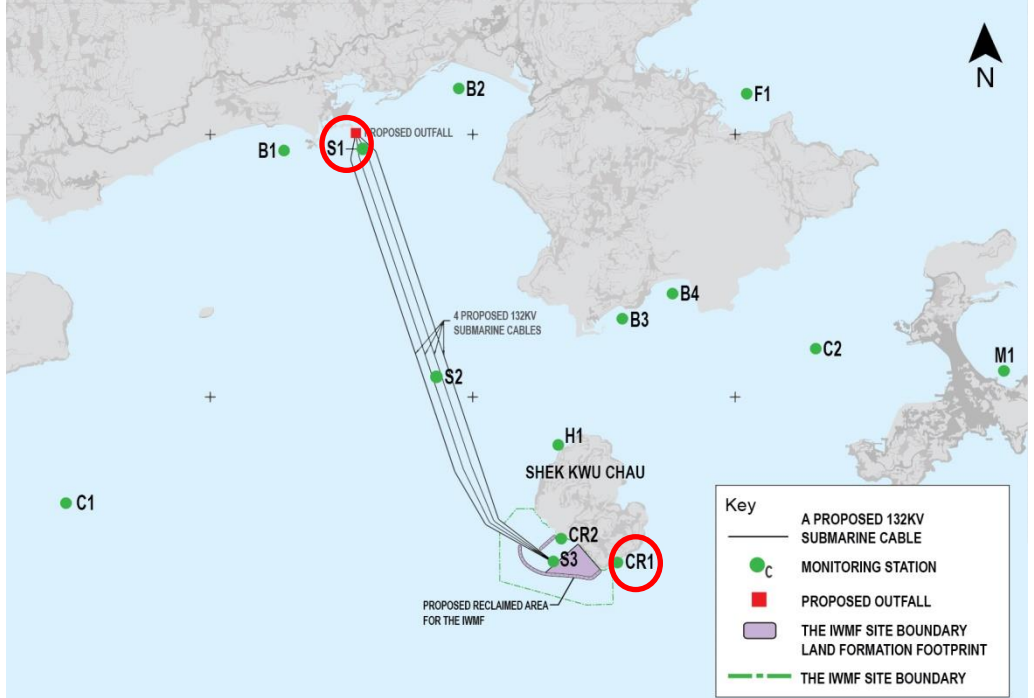
Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	19 December 2018 (Lab result received on 27 December 2018)		
Time	08:00 – 10:41 (Mid-Ebb)		
Mid-Ebb			
Monitoring Location	F1, M1, CR1, CR2, S2 & S3		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 10.4 mg/L (120% of C1)		≥ 11.3 mg/L (130% of C1)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	10.5 mg/L (F1) 13.8 mg/L (M1) 14.0 mg/L (CR1) 15.3 mg/L (CR2) 11.0 mg/L (S2) 11.8 mg/L (S3)	8.7 mg/L (C1) 9.5 mg/L (C2)	7.8 mg/L (B1) 7.5 mg/L (B2) 5.5 mg/L (B3) 7.5 mg/L (B4) 6.2 mg/L (H1) 7.5 mg/L (S1)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 19/12 include ground investigation (GI) work of 2 borehole drilling and laying of sand blanket at both plant trial area and seawall area.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>S2, 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.</p> <p>CR1 is located at downstream direction, CR2 & S3 are located close to the works location within the Project site, while silt curtain checking was implemented by the Contractor and checking result showed that no deficiency of silt curtain was found on that day. It might suggest that the high SS exceedance at CR1, CR2 & S3 are deemed to be unrelated to the Project.</p>		

	<p>However, a track of observable silt plume at the back of the pelican barge deployed for sand blanket laying works was found around 3:00 pm.</p>								
<p>Actions taken / to be taken</p>	<p>After switching off the engine of the pelican barge, the observable silt plume had vanished. The Contractor confirmed the observable silt plume was related to the engine operation of pelican barge in shallow water. The Contractor designed to use the tugboat to manoeuvre the pelican barge especially in shallow water. The environmental department of the Contractor was reminded to keep paying attention to avoid the repeating of such incidents.</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 19/12:</p>  <p>Legend</p> <table border="1" data-bbox="472 1388 986 1579"> <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>31 December 2018</p>								

Interim Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	27 December 2018 (Lab result received on 05 January 2019)		
Time	08:59 – 12:29 (Mid-Flood) 14:26 – 17:56 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, CR1 & CR2		
	<p>The map shows the Shek Kwu Chau area with various monitoring stations marked with green dots. Stations B1, B2, CR1, and CR2 are circled in red. A red square indicates the proposed outfall. Four lines represent the proposed 132KV submarine cables. A purple shaded area shows the IWMF site boundary and land formation footprint. A dashed green line indicates the IWMF site boundary. A north arrow is in the top right corner.</p>		
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 Exceedance	Control Stations	Impact Station(s) without Exceedance
	9.3 mg/L (B1) 8.5 mg/L (B2) 9.2 mg/L (CR1) 10.3 mg/L (CR2)	7.8 mg/L (C1) 6.3 mg/L (C2)	4.0 mg/L (B3) 6.0 mg/L (B4) 6.8 mg/L (F1) 5.8 mg/L (H1) 7.2 mg/L (M1) 7.5 mg/L (S1) 7.2 mg/L (S2) 6.3 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>From MMO monitoring records on 27/12, two DCM barges (ESC-61 & ESC-62) and two dumb lighters (DT 12 & FTB 19) were in operations on that day. No deficiency of silt curtain was found before the start of construction activity.</p> <p>Silt curtain checking was implemented by the Contractor and checking results showed no deficiency of silt curtain was found on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/12, where was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</p>		
Actions taken / to be taken	Asking the Contractor to provide more information.		
Mid-Ebb			

<p>Monitoring Location</p>	<p>CR1 & S1</p> 		
<p>Parameter</p>	<p>Suspended Solid (SS)</p>		
<p>Action & Limit Levels</p>	<p>Action Level ≥ 8.0 mg/L</p>		<p>Limit Level ≥ 10.0 mg/L</p>
<p>Measurement Level</p>	<p>Impact Station(s) of Exceedance 8.5 mg/L (CR1) 9.8 mg/L (S1)</p>	<p>Control Stations 5.5 mg/L (C1) 6.7 mg/L (C2)</p>	<p>Impact Station(s) without Exceedance 7.3 mg/L (B1) 7.8 mg/L (B2) 7.8 mg/L (B3) 5.8 mg/L (B4) 5.8 mg/L (F1) 6.3 mg/L (H1) 5.3 mg/L (M1) 7.8 mg/L (CR2) 7.5 mg/L (S2) 7.7 mg/L (S3)</p>
<p>Possible reason for Action or Limit Level Non-compliance</p>	<p>From MMO monitoring records on 27/12, two DCM barges (ESC-61 & ESC-62) and two dumb lighters (DT 12 & FTB 19) were in operations on that day. No deficiency of silt curtain was found before the start of construction activity.</p> <p>Silt curtain checking was implemented by the Contractor and checking results showed no deficiency of silt curtain was found on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/12, where was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</p>		
<p>Actions taken / to be taken</p>	<p>Asking the Contractor to provide more information.</p>		
<p>Remarks</p>	<p>Current direction during mid-flood sampling on 27/12:</p>		



Current direction during mid-ebb sampling on 27/12:



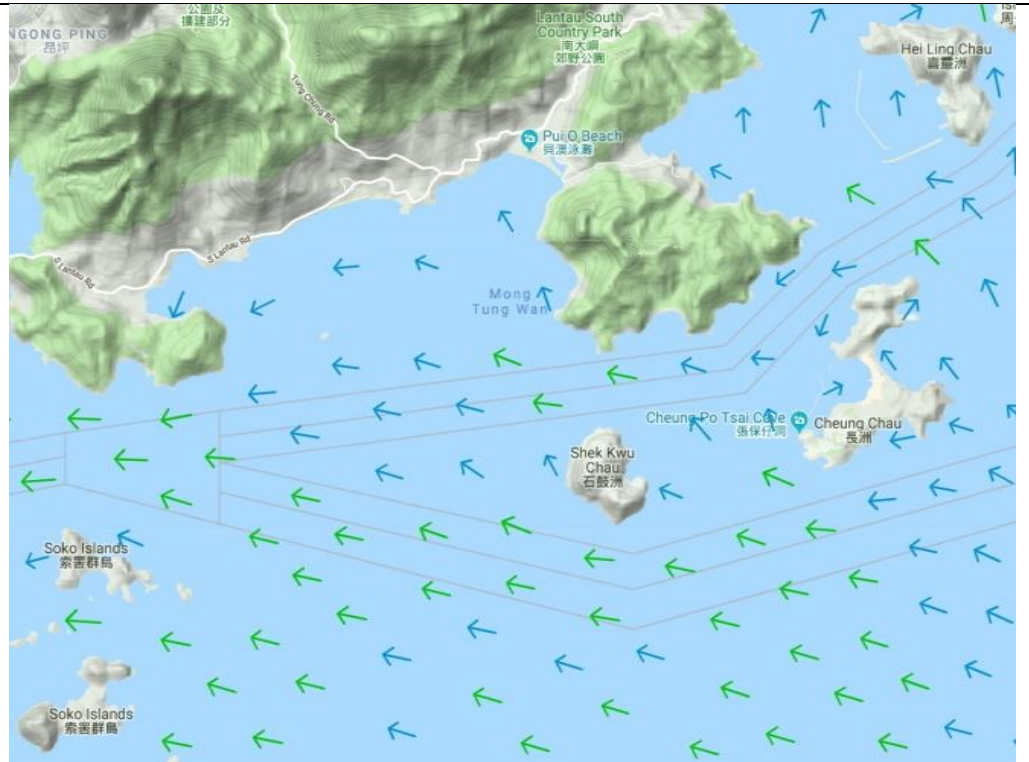
Legend	
Speed (knot)	Speed (knot)
0-0.5	1.5-2.0
0.5-1.0	2.0-2.5
1.0-1.5	2.5 and above

(Sourced from <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	7 January 2019

Interim Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	29 December 2018 (Lab result received on 9 January 2019)		
Time	10:40 – 14:10 (Mid-Flood)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, H1, CR1, CR2, S1, S2 & S3		
	<p>The map displays the Shek Kwu Chau area with various monitoring stations marked by green dots. Stations B1, B2, B3, B4, H1, CR1, CR2, S1, S2, and S3 are circled in red. A red square indicates the proposed outfall. Four lines represent the proposed 132KV submarine cables. A purple shaded area shows the IWMF site boundary, and a green dashed line shows the IWMF site boundary footprint. A north arrow is located in the top right corner.</p>		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.6 mg/L (120% of C2)		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	21.8 mg/L (B1) 16.0 mg/L (B2) 10.3 mg/L (B3) 8.8 mg/L (B4) 10.5 mg/L (H1) 22.8 mg/L (CR1) 23.3 mg/L (CR2) 22.8 mg/L (S1) 23.0 mg/L (S2) 23.5 mg/L (S3)	20.7 mg/L (C1) 7.2 mg/L (C2)	7.7 mg/L (F1) 7.7 mg/L (M1)
Possible reason for Action or Limit Level Non-compliance	<p>From MMO monitoring records on 29/12, one DCM barge (ESC-61) and two dumb lighters (Shun Tat D12 & FTB-12) were in operations on that day while no deficiency of silt curtain was found before the start of construction activity.</p> <p>Silt curtain checking was implemented by the Contractor and checking results showed no deficiency of silt curtain was found on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/12, where was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</p>		
Actions taken / to be taken	Asking the Contractor to provide more information.		
Remarks	Current direction during mid-ebb sampling on 29/12:		

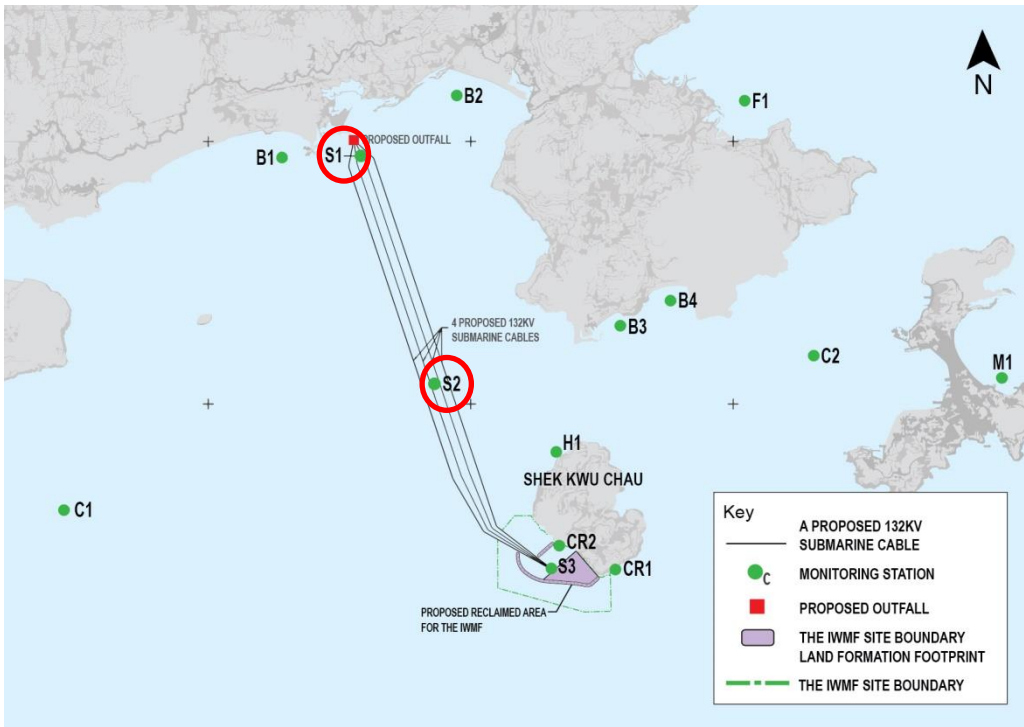


Legend			
Speed (knot)	→	Speed (knot)	→
0-0.5	→	1.5-2.0	→
0.5-1.0	→	2.0-2.5	→
1.0-1.5	→	2.5 and above	→

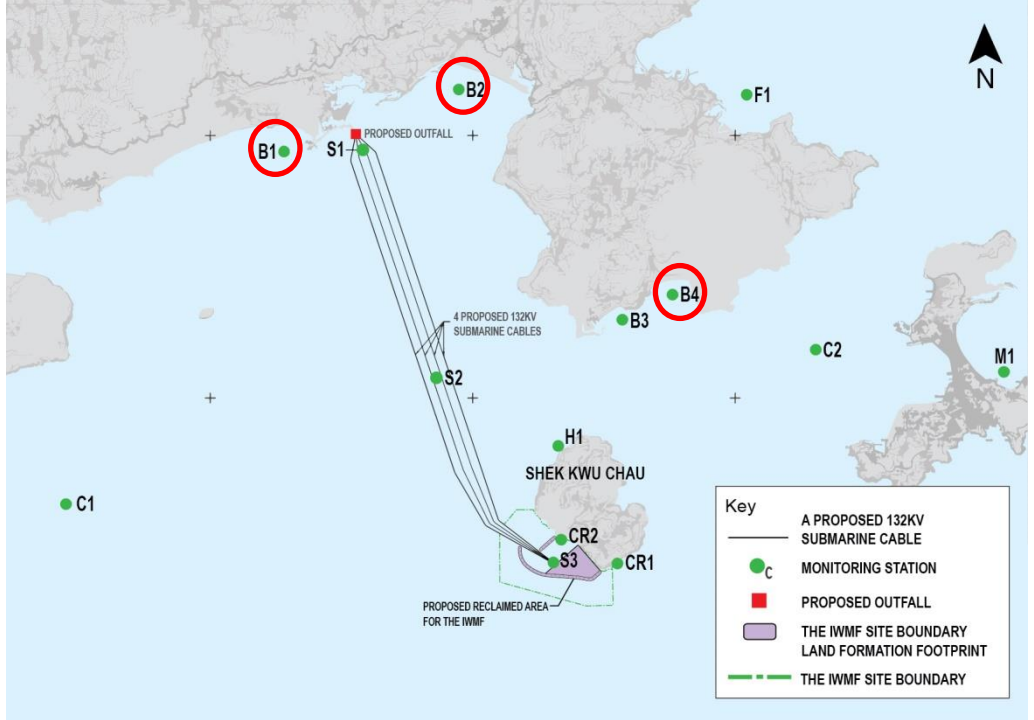
(Sourced from <http://current.hydro.gov.hk/en/map.html>)

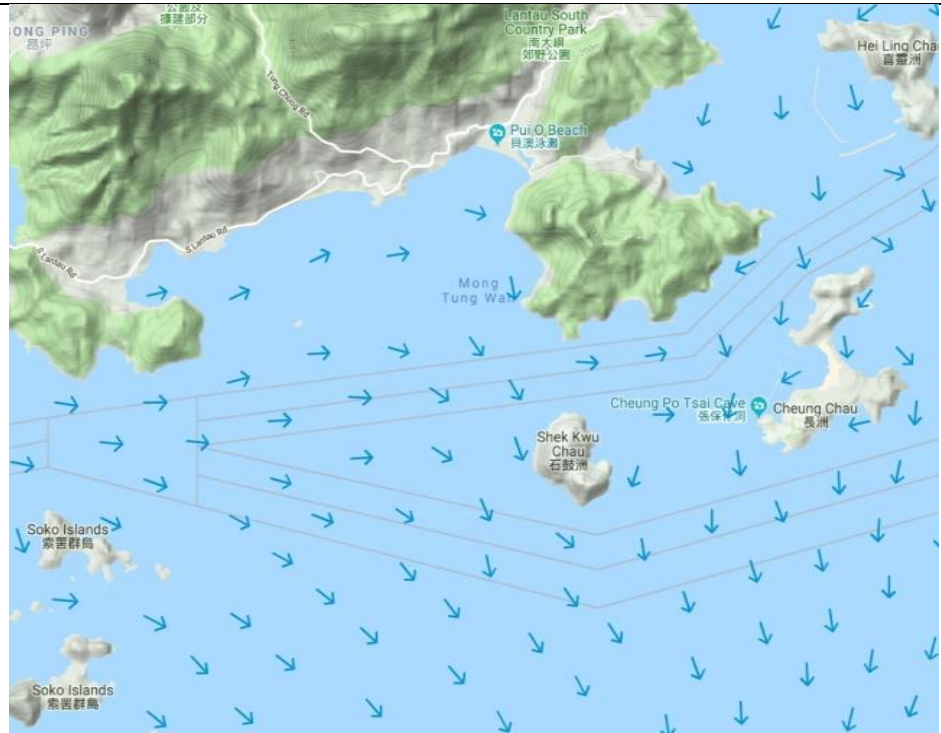
Prepared by	Polar Chan
Date	9 January 2019

Interim Incident Report on Action Level or Limit Level Non-compliance

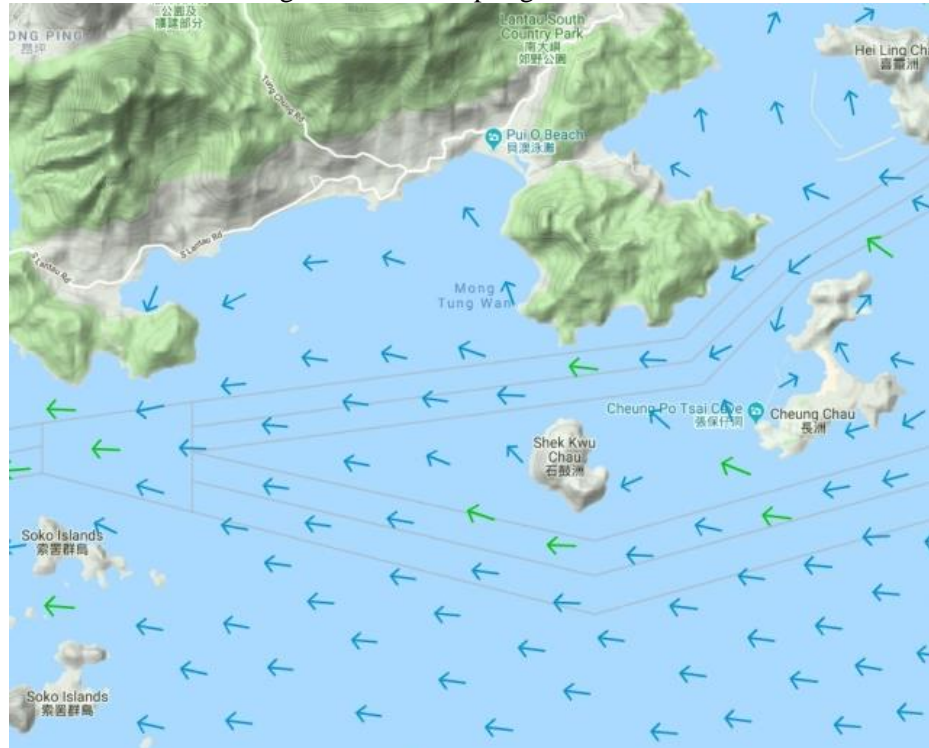
Project	Integrated Waste Management Facilities, Phase 1		
Date	31 December 2018 (Lab result received on 09 January 2019)		
Time	08:00 – 09:30 (Mid-Ebb) 12:31 – 16:00 (Mid-Flood)		
Mid-Ebb			
Monitoring Location	S1 & S2 		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 13.2 mg/L (120% of C1)		≥ 14.3 mg/L (130% of C1)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	16.0 mg/L (S1) 15.5 mg/L (S2)	11.0 mg/L (C1) 8.8 mg/L (C2)	9.3 mg/L (B1) 9.0 mg/L (B2) 9.5 mg/L (B3) 10.8 mg/L (B4) 11.3 mg/L (F1) 9.5 mg/L (H1) 10.3 mg/L (M1) 11.2 mg/L (CR1) 9.5 mg/L (CR2) 11.5 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>From MMO monitoring records on 31/12, two DCM barges (ESC-61 & ESC-62) and two dumb lighters (Shun Tat D12 & FTB 19) were in operations on that day while no deficiency of silt curtain was found before the start of construction activity.</p> <p>Silt curtain checking was implemented by the Contractor and checking results showed no deficiency of silt curtain was found on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/12, where was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</p>		
Actions taken / to be taken	Asking the Contractor to provide more information.		

Mid-Flood

<p>Monitoring Location</p>	<p>B1, B2 & B4</p> 		
<p>Parameter</p>	<p>Suspended Solid (SS)</p>		
<p>Action & Limit Levels</p>	<p>Action Level $\geq 13.8 \text{ mg/L}$ (120% of C2)</p>		<p>Limit Level $\geq 15.0 \text{ mg/L}$ (130% of C2)</p>
<p>Measurement Level</p>	<p>Impact Station(s) of Exceedance 16.0 mg/L (B1) 15.8 mg/L (B2) 16.3 mg/L (B4)</p>	<p>Control Stations 11.2 mg/L (C1) 11.5 mg/L (C2)</p>	<p>Impact Station(s) without Exceedance 11.8 mg/L (B3) 12.2 mg/L (F1) 13.3 mg/L (H1) 10.8 mg/L (M1) 7.8 mg/L (CR1) 11.8 mg/L (CR2) 12.5 mg/L (S1) 13.0 mg/L (S2) 12.0 mg/L (S3)</p>
<p>Possible reason for Action or Limit Level Non-compliance</p>	<p>From MMO monitoring records on 31/12, two DCM barges (ESC-61 & ESC-62) and two dumb lighters (Shun Tat D12 & FTB 19) were in operations on that day while no deficiency of silt curtain was found before the start of construction activity.</p> <p>Silt curtain checking was implemented by the Contractor and checking results showed no deficiency of silt curtain was found on that day.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 27/12, where was no major observation of improper site practice that might contribute to the increase in SS level was observed during the inspection.</p>		
<p>Actions taken / to be taken</p>	<p>Asking the Contractor to provide more information.</p>		
<p>Remarks</p>	<p>Current direction during mid-ebb sampling on 31/12:</p>		



Current direction during mid-flood sampling on 31/12:



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	09 January 2019