

## Appendix N Exceedance Report

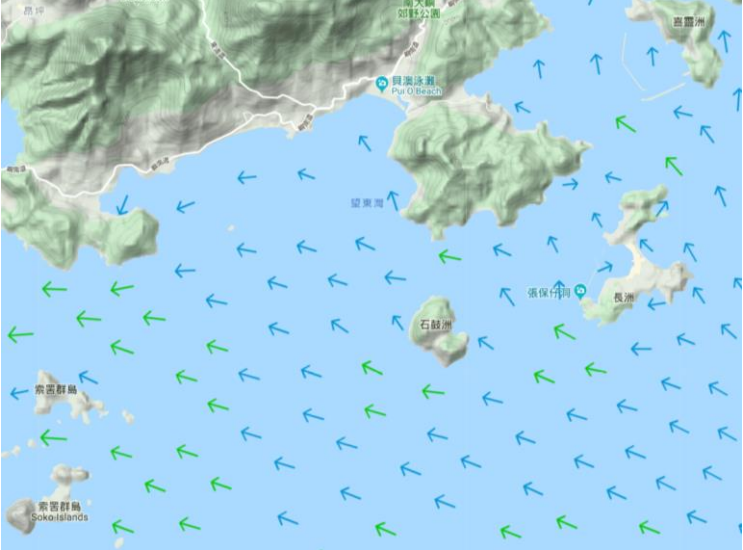
## Statistical Summary of Exceedances in the Reporting Period

Water Quality (Regular DCM)			
Location	Action Level	Limit Level	Total
B1	14	0	14
B2	15	0	15
B3	15	1	16
B4	14	0	14
CR1	15	0	15
CR2	20	0	20
F1A	14	0	14
H1	14	0	14
S1	13	0	13
S2A	17	0	17
S3	13	0	13
M1	19	0	19

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 Oct 2019 (Lab result received on 08 Oct 2019)		
Time	08:00 – 12:01 (Mid-Flood)		
Mid-Flood			
Monitoring Location	B3, B4, H1, CR1 & S3		
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
	8.0 mg/L (B3) 9.3 mg/L (B4) 8.2 mg/L (H1) 10.3 mg/L (CR1) 9.2 mg/L (S3)	6.0 mg/L (C1A) 5.8 mg/L (C2A)	7.0 mg/L (B1) 7.8 mg/L (B2) 5.5 mg/L (F1A) 4.5 mg/L (M1) 6.2 mg/L (CR2) 6.0 mg/L (S1) 7.2 mg/L (S2A)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 02/10 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the sand blanket, rock filling works, flattening the formation of caisson seawall and diving works.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B3 &amp; B4 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedances of these monitoring stations are deemed to be unrelated to the Project.</p> <p>H1 is located at downstream direction, CR1 is located at upstream direction and S3 is located close to the works location within the Project site while silt curtain checking was implemented on ESC-61 (16:33), ESC-62 (16:15), GD-851 (09:30), GD-853 (09:30), Cheung Kee No.10 (08:30) &amp; Kam Ying 8 (08:30) by the Contractor and</p>		

	<p>checking results showed that no deficiency of silt curtain was found on that day. As confirmed by the Contractor, UDL-2 was used to store slag materials.</p> <p>From MMO monitoring records on 02/10, MMO teams were arranged for three derrick barges (GD-853, GD-851 &amp; Cheung Kee No.10) and two DCM barges (ESC-61 &amp; ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. Kam Ying 8 was observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point.</p> <p>According to the field observation by sampling team &amp; Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site. It might suggest that the SS exceedance at H1, CR1 &amp; 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 02/10, where some sediments was observed around the edge of the cage of silt curtain on Kam Ying 8 at 11:00 am, yet the construction activity at Kam Ying 8 was conducted after the sampling event at CR1 &amp; S3 (08:38 am - 09:01 am), thus the situation of Kam Ying 8 was considered irrelevant to the exceedance event. According to the rationale in previous paragraphs, this observation might not contribute to the increase of the suspended solids recorded.</p>
<p>Actions taken / to be taken</p>	<p>Sediment accumulated on the edge of the silt curtain has been cleaned on 5 October 2019. The Contractor was reminded to clean it regularly to prevent falling 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&amp;A Manual.</p>
<p>Remarks</p>	<p>Current direction during mid-flood sampling on 02/10:</p>  <p>(Sourced from <a href="http://current.hydro.gov.hk/en/map.html">http://current.hydro.gov.hk/en/map.html</a>)</p>
<p>Prepared by</p>	<p>Polar Chan</p>
<p>Date</p>	<p>09 Oct 2019</p>

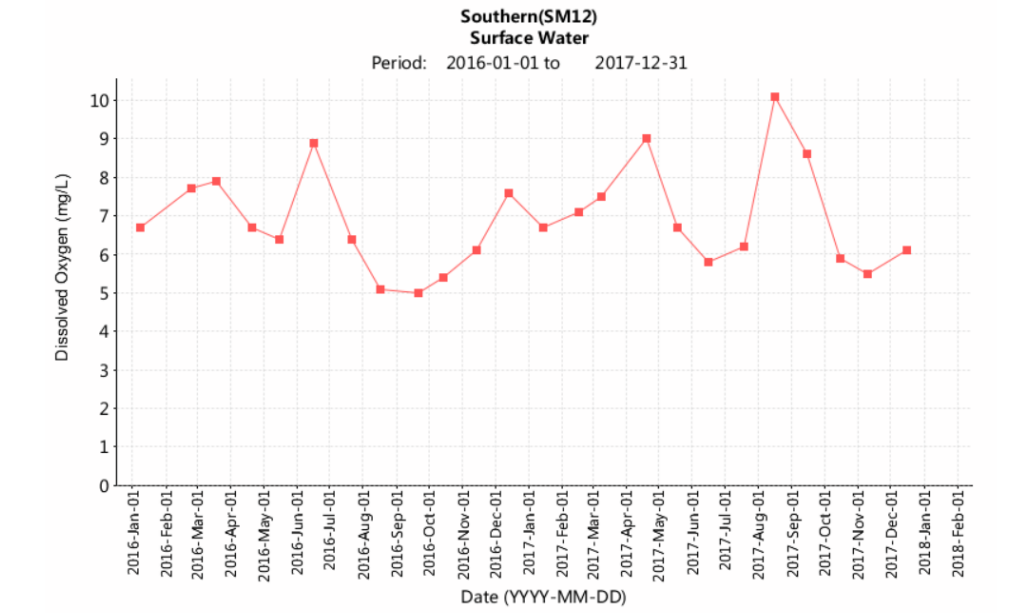
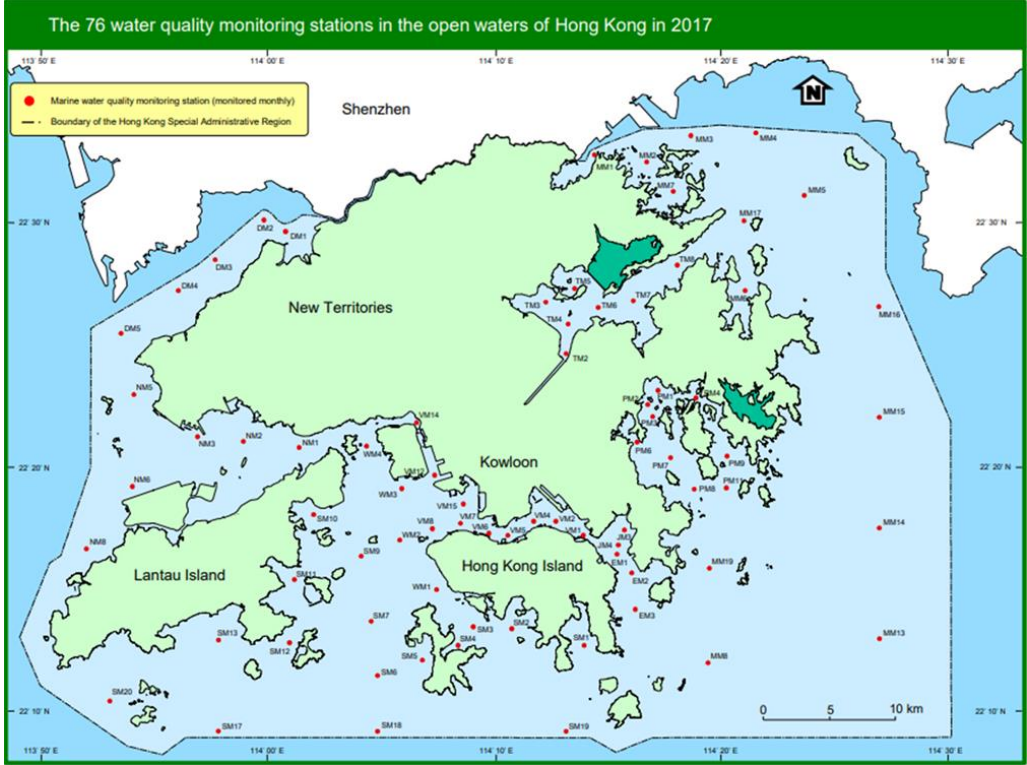
**Incident Report on Action Level or Limit Level Non-compliance**

Project	Integrated Waste Management Facilities, Phase 1		
Date	01 November 2019		
Time	08:07 – 11:37 (Mid-Flood) 13:39 – 17:09 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) with Exceedance	Control Stations	Impact Station(s) without Exceedance
	6.74 mg/L (B1) 6.68 mg/L (B2) 6.89 mg/L (B3) 6.83 mg/L (B4) 6.67 mg/L (F1A) 6.65 mg/L (H1) 6.71 mg/L (M1) 6.81 mg/L (CR1) 6.68 mg/L (CR2) 6.80 mg/L (S1) 6.65 mg/L (S2A) 6.76 mg/L (S3)	6.57 mg/L (C1A) 6.72 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	All monitoring stations including control stations (C1A & C2A) exhibited low and similar DO level.		
	By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.		
	By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 & SM13 in November 2016 & November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at		

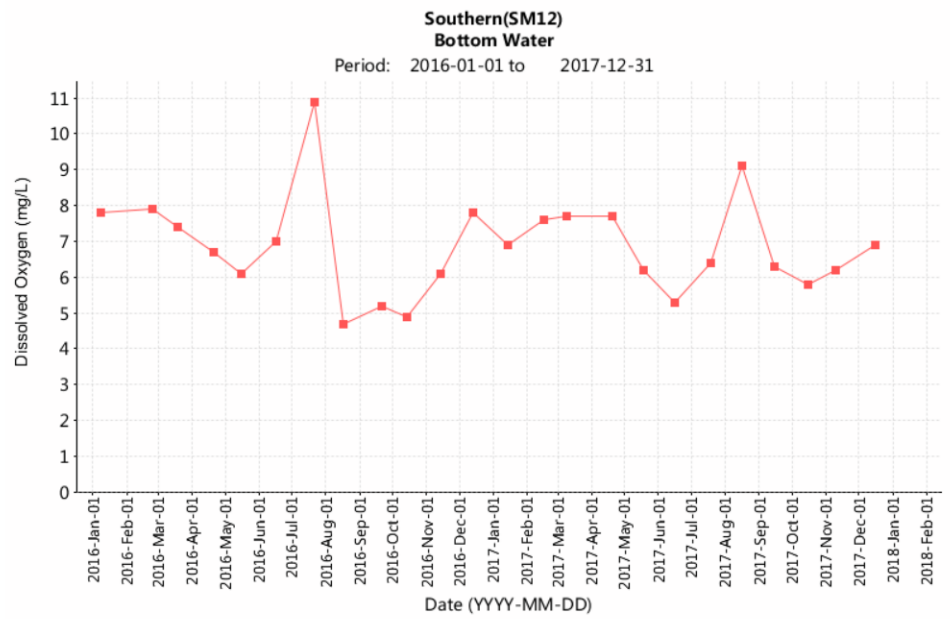
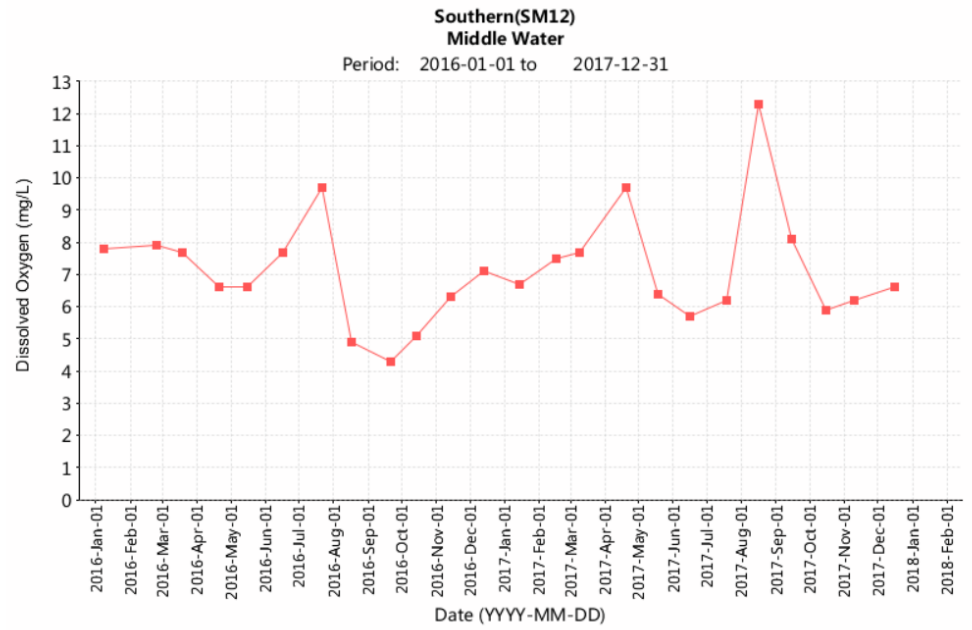
	the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at all monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.		
	Mid-Ebb		
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	6.55 mg/L (B1) 6.55 mg/L (B2) 6.54 mg/L (B3) 6.75 mg/L (B4) 6.65 mg/L (F1A) 6.65 mg/L (H1) 6.73 mg/L (M1) 6.80 mg/L (CR1) 6.70 mg/L (CR2) 6.70 mg/L (S1) 6.88 mg/L (S2A) 6.83 mg/L (S3)	6.62 mg/L (C1A) 6.80 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	<p>All monitoring stations including control stations (C1A &amp; C2A) exhibited low and similar DO level.</p> <p>By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.</p> <p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at all monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</p>		

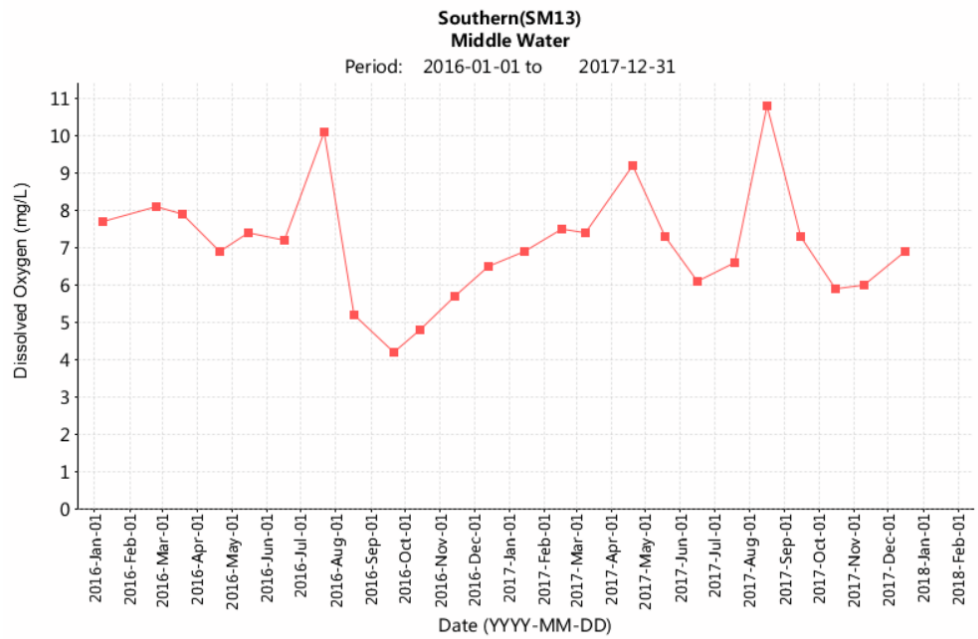
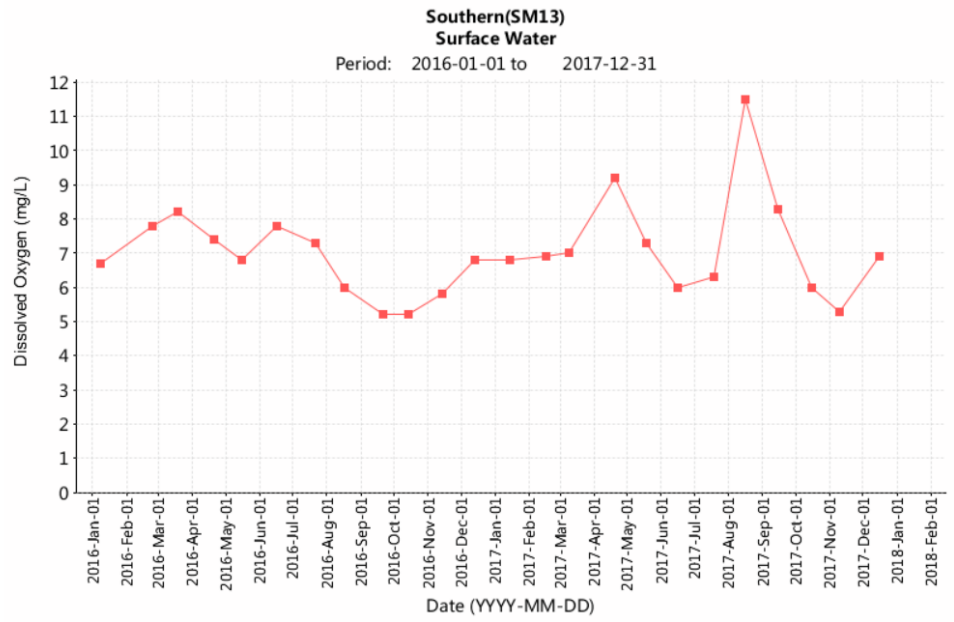
**Actions taken / to be taken** Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.

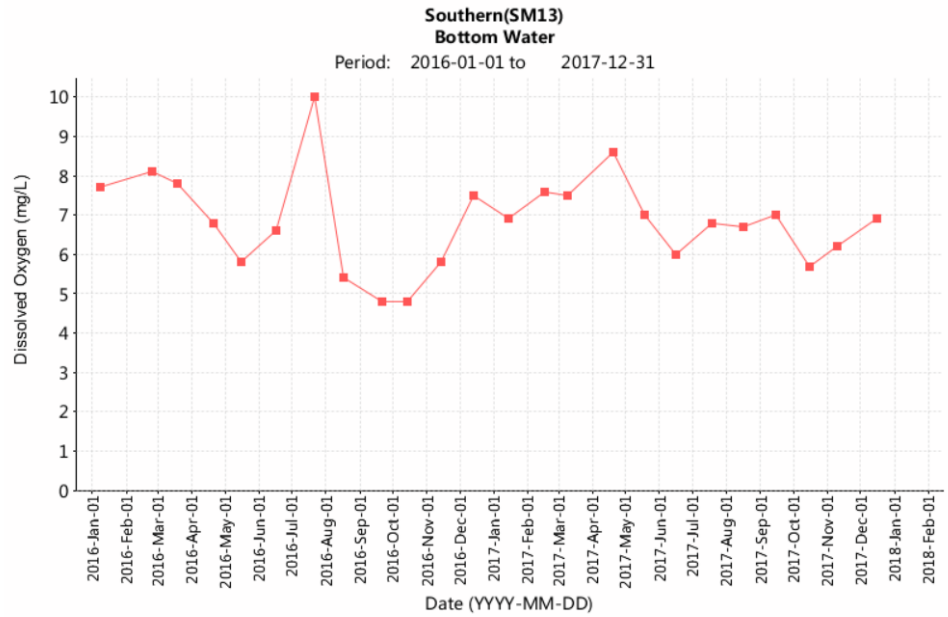
**Remarks** Supporting figures of the EPD water data:



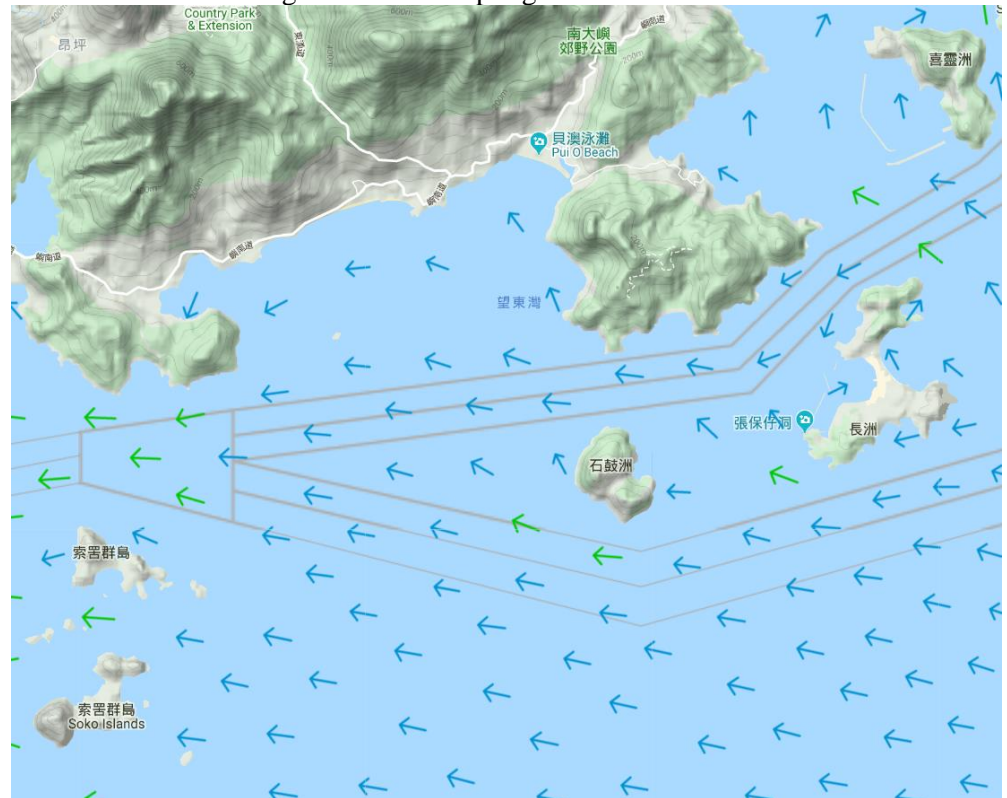




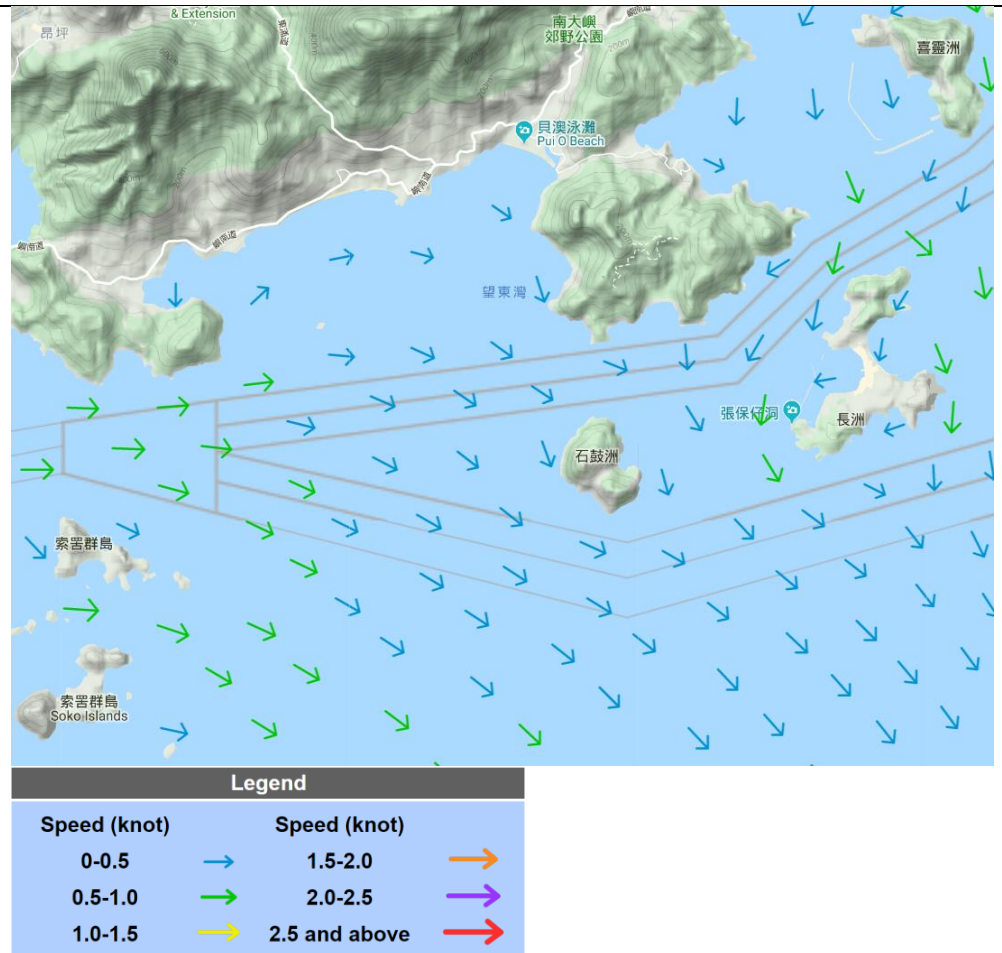




Current direction during mid-flood sampling on 01/11:



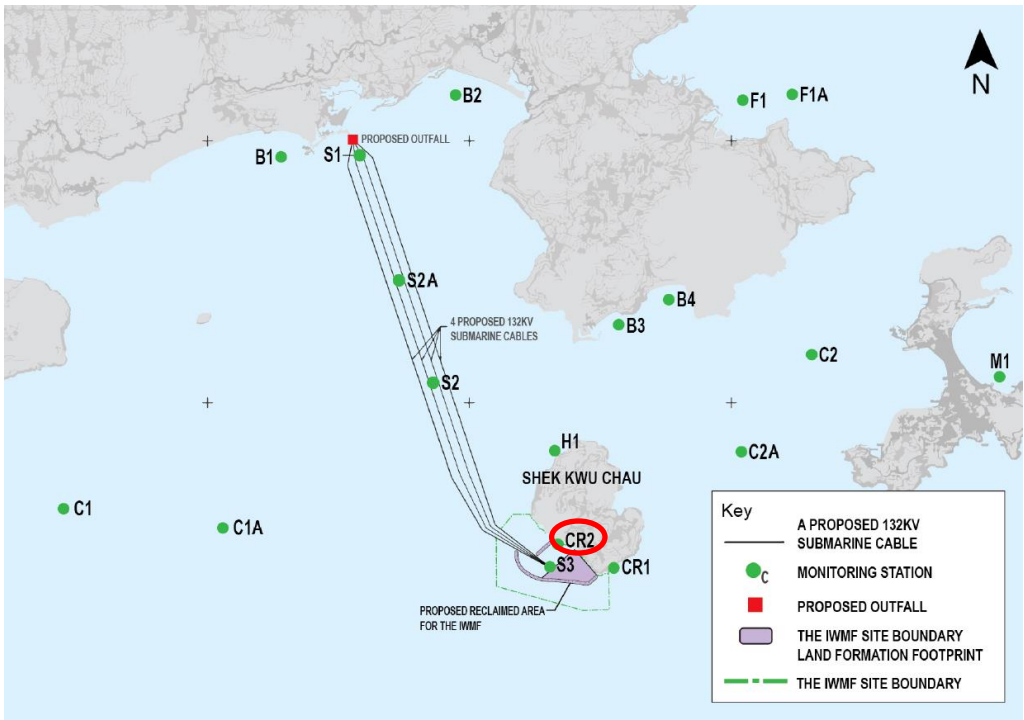
Current direction during mid-ebb sampling on 01/11:



(Sourced from <https://cd.epic.epd.gov.hk/EPICRIVER/marine/history/> and <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	05 November 2019

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

Project	Integrated Waste Management Facilities, Phase 1		
Date	01 Nov 2019 (Lab result received on 06 Nov 2019)		
Time	08:07 – 11:37 (Mid-Flood) 13:39 – 17:09 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	CR2 		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 12.8 mg/L (120% of C2A)		≥ 13.9 mg/L (130% of C2A)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	13.5 mg/L (CR2)	8.3 mg/L (C1A) 10.7 mg/L (C2A)	8.3 mg/L (B1) 10.8 mg/L (B2) 10.5mg/L (B3) 11.5 mg/L (B4) 12.2 mg/L (F1A) 10.5 mg/L (M1) 11.0 mg/L (H1) 12.7 mg/L (CR1) 8.8 mg/L (S1) 10.2 mg/L (S2A) 10.8 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 01/11 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the slag material, removal of temporary storage of surface rock, rock filling works, flattening G200 rockfill of caisson foundation, loading surface rock and levelling the sand blanket.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>CR2 is located close to the works location within the Project Site while silt curtain checking was implemented on FTB-19 (07:00), GD853 (07:00), 宏建 1 (19:45), 宏建</p>		

2 (07:00), 宏建 3 (07:00) & Cheung Kee No.10 (07:00) and checking results showed that no deficiency of silt curtain was found on that day.

From MMO monitoring records on 01/11, MMO teams were arranged for six derrick barges (永照 18, GD853, FTB-19, 宏建 1, 宏建 2 & Cheung Kee No.10) and two DCM barges (ESC-61 & ESC-62). No DCM main works scheduled on ESC-61 and ESC-62 were carried out with refer to the site diary on the that day. No slag material levelling work scheduled on 永照 18 was carried out with refer to the site diary on that day. 宏建 3 was observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point.

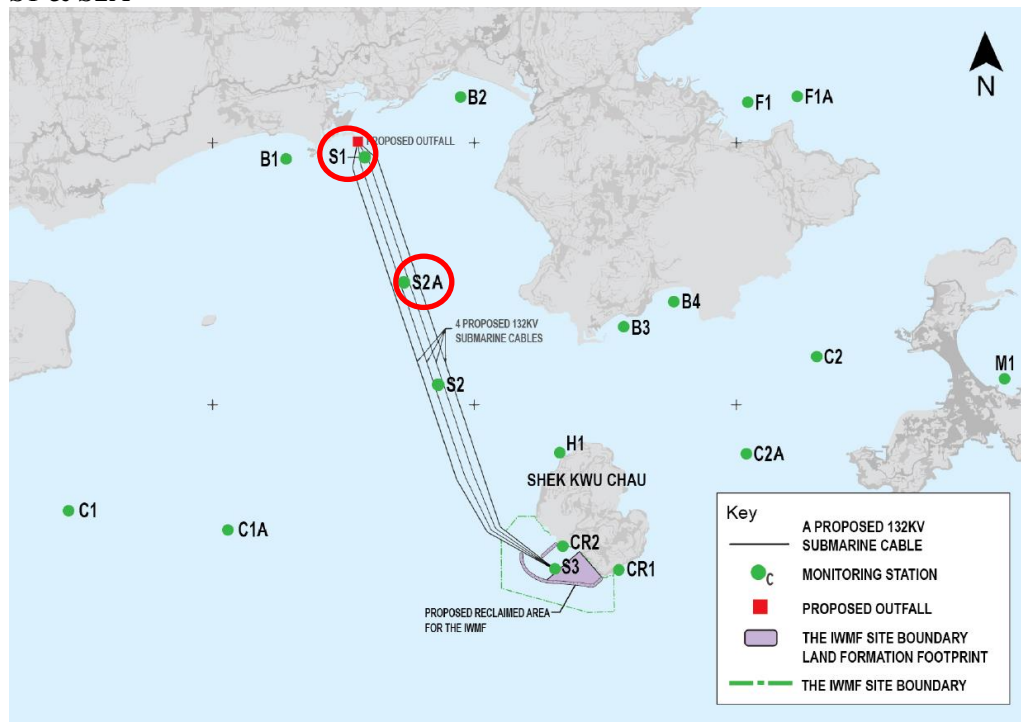
According to the field observation by sampling team & Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site. It might suggest that the SS exceedance at CR2 is deemed to be unrelated to the Project.

Site tidiness in the present barges in the Project site were checked during weekly site inspection on 29/10, where some sediment was observed on the edge of 港龍 108 and a small part of silt curtain near the boarding area was observed floating up on ESC-62. However, according to the rationale in previous paragraphs, these observations might not contribute to the increase of the suspended solids recorded.

Mid-Ebb

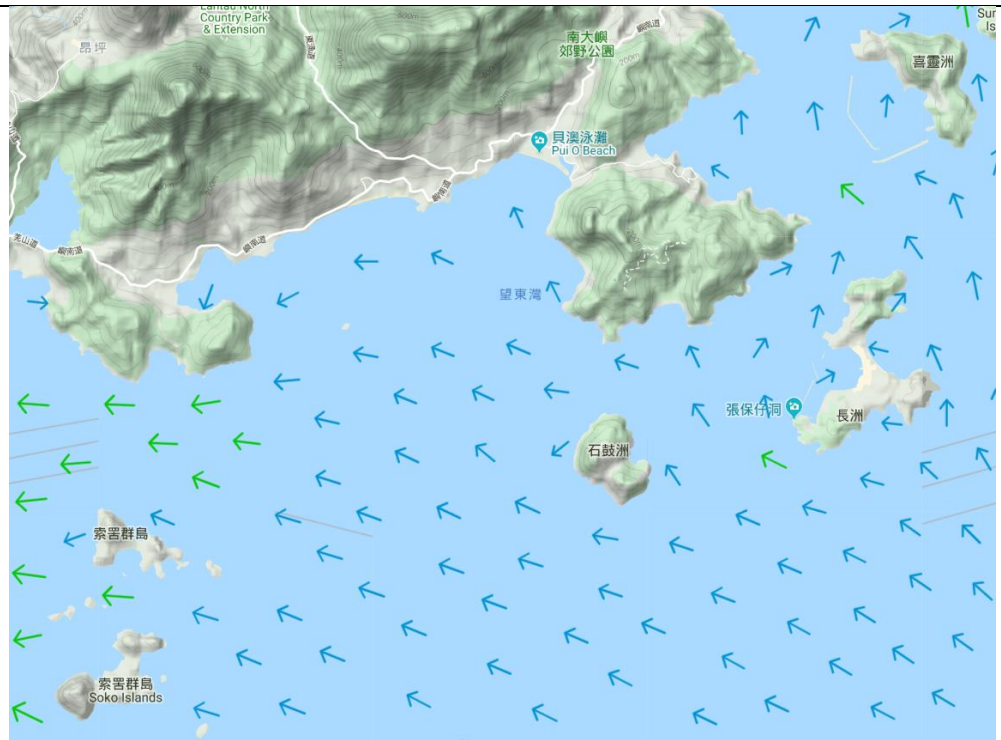
Monitoring Location

S1 & S2A



Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 14.6 mg/L (120% of C1A)		≥ 15.8 mg/L (130% of C1A)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	14.8 mg/L (S1) 14.7 mg/L (S2A)	12.2 mg/L (C1A) 11.7 mg/L (C2A)	13.8 mg/L (B1) 10.3 mg/L (B2) 11.3 mg/L (B3) 13.0 mg/L (B4) 14.3 mg/L (F1A) 12.8 mg/L (H1) 12.5 mg/L (M1)

			11.8 mg/L (CR1) 12.5 mg/L (CR2) 13.8 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 01/11 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the slag material, removal of temporary storage of surface rock, rock filling works, flattening G200 rockfill of caisson foundation, loading surface rock and levelling the sand blanket.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>S1 &amp; S2A are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedances of these monitoring stations are deemed to be unrelated to the Project.</p> <p>Silt curtain checking was implemented on FTB-19 (07:00), GD853 (07:00), 宏建 1 (19:45), 宏建 2 (07:00), 宏建 3 (07:00) &amp; Cheung Kee No.10 (07:00) and checking results showed that no deficiency of silt curtain was found on that day.</p> <p>From MMO monitoring records on 01/11, MMO teams were arranged for six derrick barges (永照 18, GD853, FTB-19, 宏建 1, 宏建 2 &amp; Cheung Kee No.10) and two DCM barges (ESC-61 &amp; ESC-62). No DCM main works scheduled on ESC-61 and ESC-62 were carried out with refer to the site diary on the that day. No slag material levelling work scheduled on 永照 18 was carried out with refer to the site diary on that day. 宏建 3 was observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point.</p> <p>According to the field observation by sampling team &amp; Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 29/10, where some sediment was observed on the edge of 港龍 108 and a small part of silt curtain near the boarding area was observed floating up on ESC-62. However, according to the rationale in previous paragraphs, these observations might not contribute to the increase of the suspended solids recorded.</p>		
Actions taken / to be taken	<p>Sediment accumulated on the edge of the barge has been cleaned up on 1 November 2019. The silt curtain on ESC-62 has been repaired on 1 November 2019. The Contractor was reminded to clean the accumulated sediment regularly to prevent falling into the sea and to keep the silt curtain in good condition &amp; position.</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&amp;A Manual.</p>		
Remarks	Current direction during mid-flood sampling on 01/11:		



Current direction during mid-ebb sampling on 01/11:



Legend			
Speed (knot)	Color	Speed (knot)	Color
0-0.5	Blue arrow	1.5-2.0	Orange arrow
0.5-1.0	Green arrow	2.0-2.5	Purple arrow
1.0-1.5	Yellow arrow	2.5 and above	Red arrow

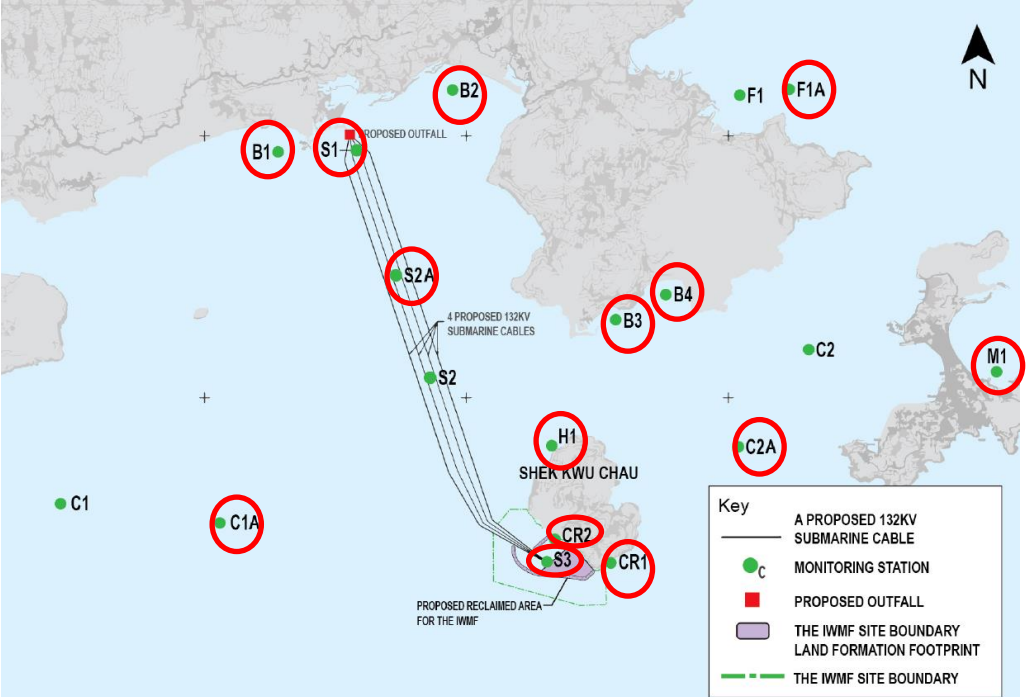
(Sourced from <http://current.hydro.gov.hk/en/map.html>)

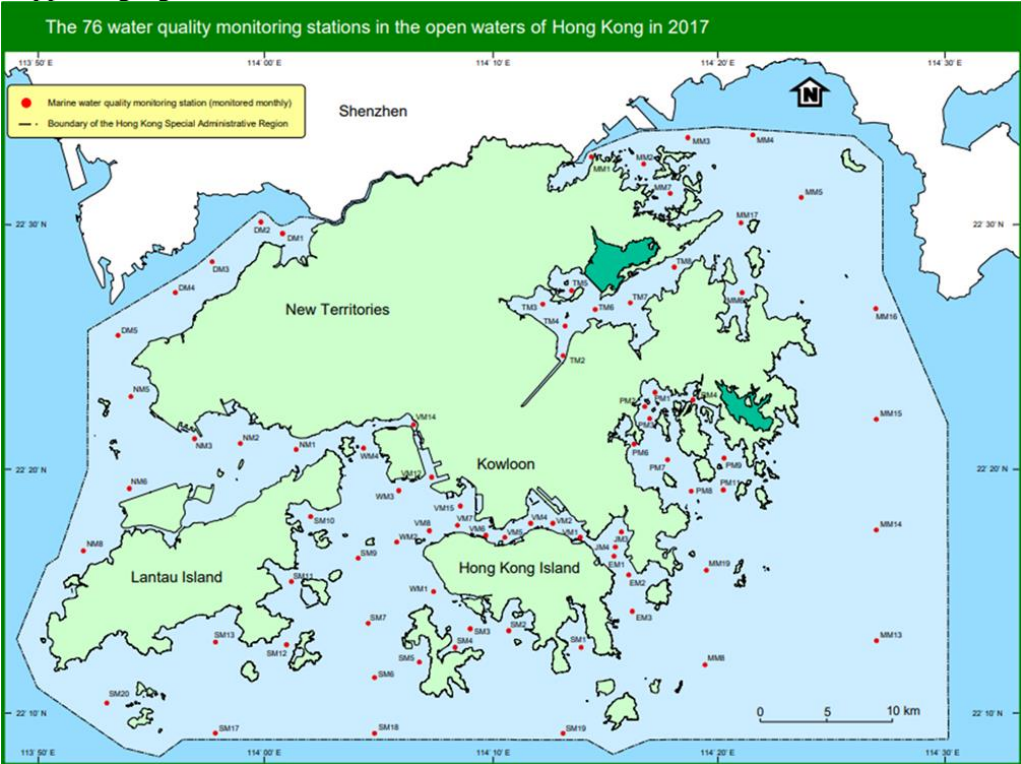
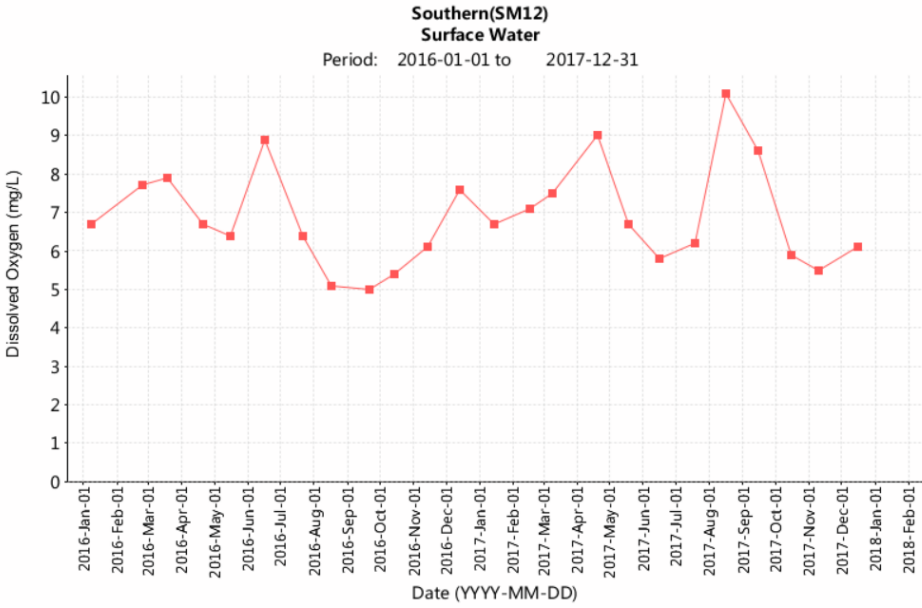
Prepared by	Polar Chan
Date	07 Nov 2019

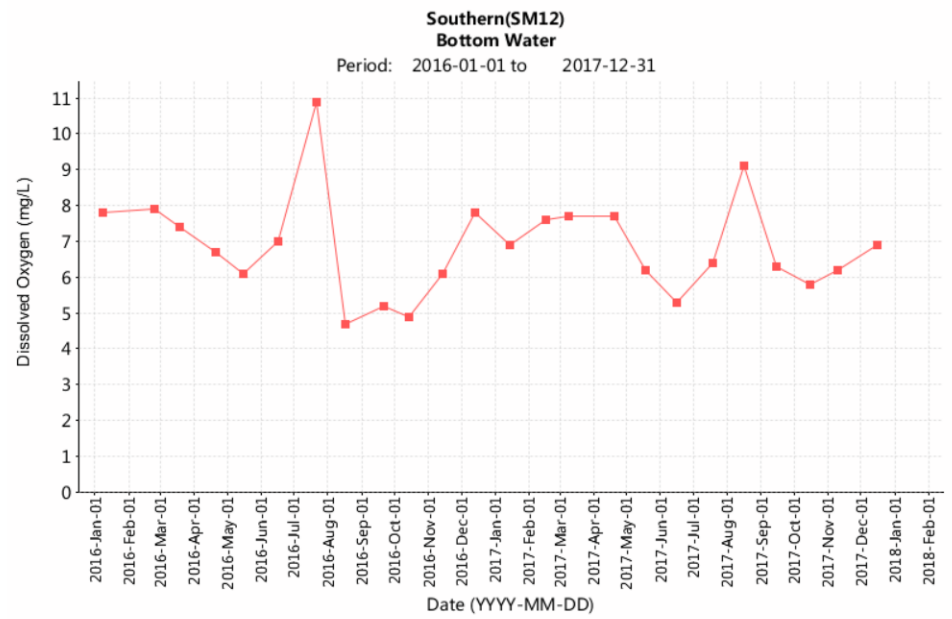
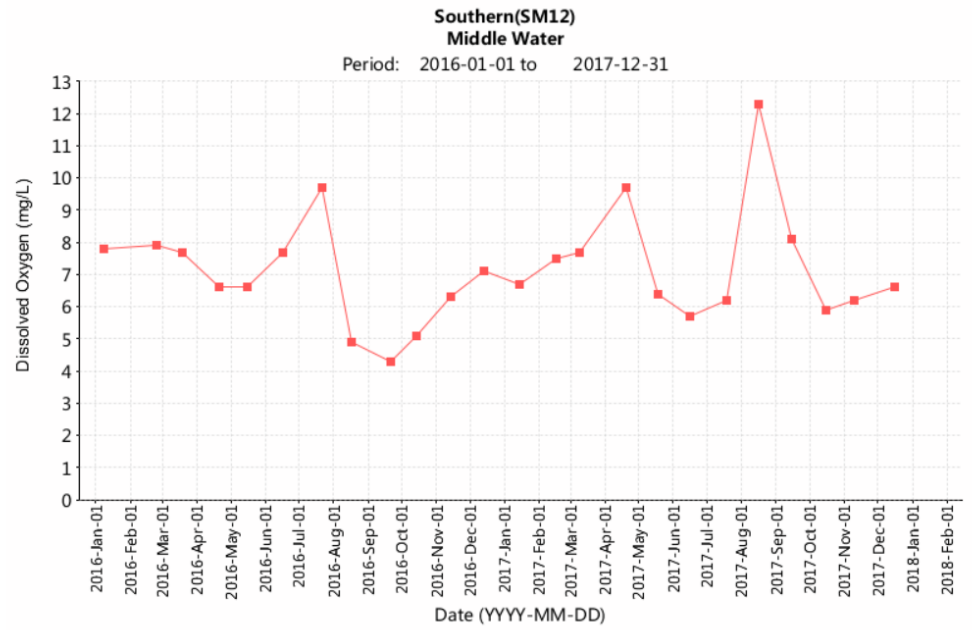


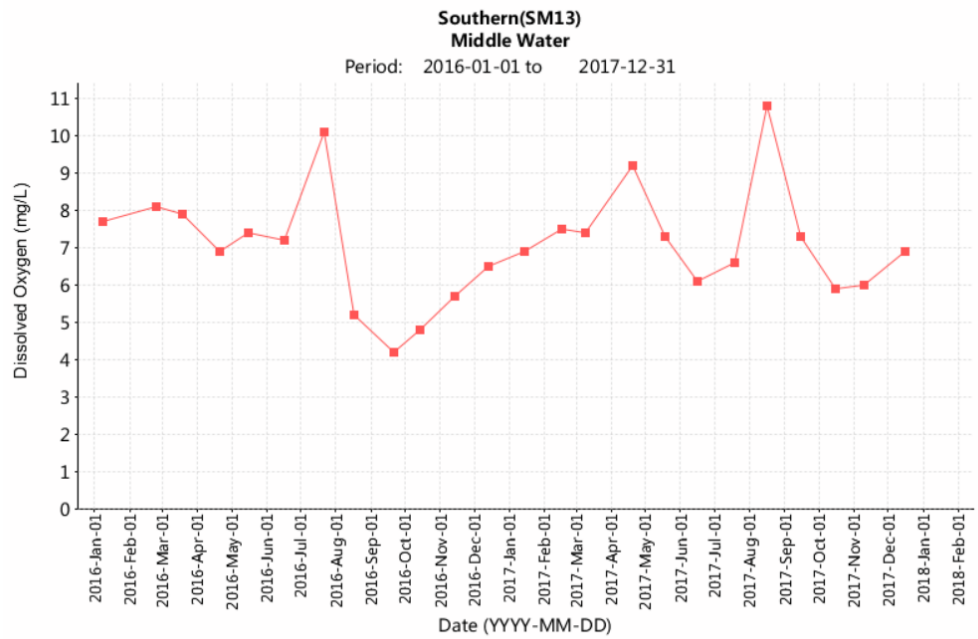
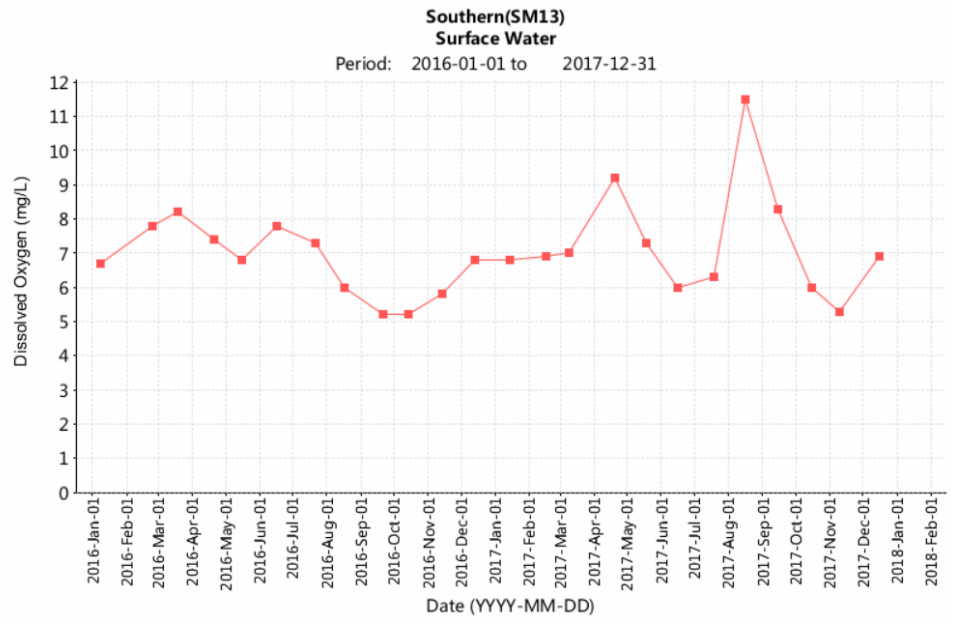
**Incident Report on Action Level or Limit Level Non-compliance**

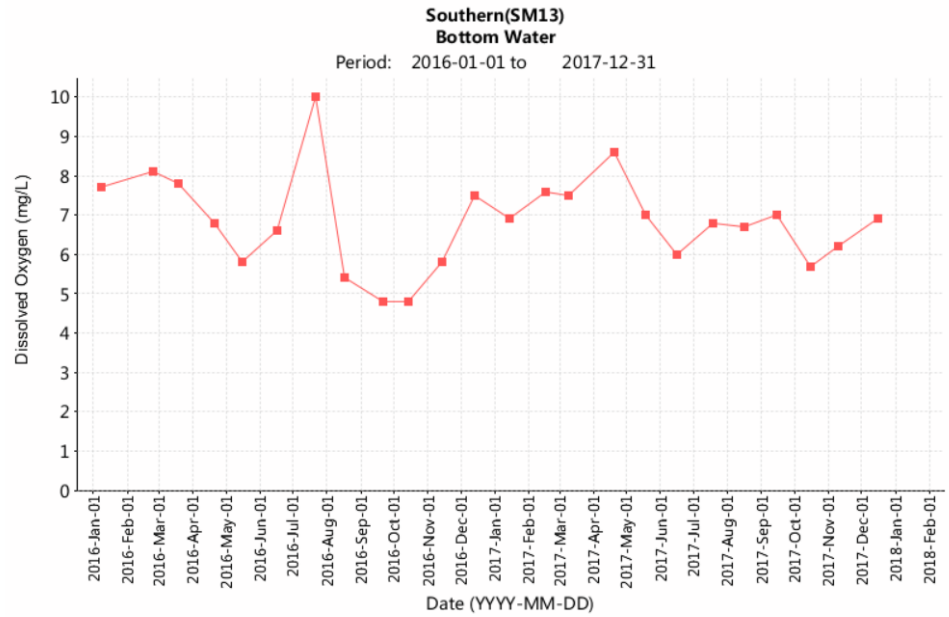
Project	Integrated Waste Management Facilities, Phase 1		
Date	05 November 2019		
Time	12:41 – 16:11 (Mid-Flood) 08:00 – 10:43 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) with Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.01 mg/L (B1) 6.91 mg/L (B2) 6.96 mg/L (B3) 6.79 mg/L (B4) 6.76 mg/L (F1A) 6.87 mg/L (H1) 6.70 mg/L (M1) 7.07 mg/L (CR1) 6.82 mg/L (CR2) 6.82 mg/L (S1) 6.78 mg/L (S2A) 6.86 mg/L (S3)	6.84 mg/L (C1A) 7.03 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	All monitoring stations including control stations (C1A & C2A) exhibited low and similar DO level.		
	By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.		
	By reviewing the DO monitoring data in November 2018 of the Project, the average DO level of each monitoring station is around 8 mg/L which is similar to the current DO level of each monitoring station.		

	<p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at all monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</p>		
	Mid-Ebb		
Monitoring Location	<p>B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A &amp; S3</p>  <p>The map shows the project site near Sher Kwu Chau. A proposed outfall is located near station S1. Four proposed 132KV submarine cables run from the site towards the west. Monitoring stations are marked with green dots and red circles. The IWMF site boundary is shown as a purple shaded area, and the land formation footprint is a dashed green line. A key in the bottom right corner defines the symbols: a solid line for the 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 land formation footprint, and a dashed green line for the IWMF site boundary.</p>		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.02 mg/L (B1) 6.84 mg/L (B2) 7.02 mg/L (B3) 6.96 mg/L (B4) 6.94 mg/L (F1A) 6.96 mg/L (H1) 6.96 mg/L (M1) 7.02 mg/L (CR1) 6.83 mg/L (CR2) 6.93 mg/L (S1) 6.80 mg/L (S2A) 6.96 mg/L (S3)	6.84 mg/L (C1A) 6.91 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	<p>All monitoring stations including control stations (C1A &amp; C2A) exhibited low and similar DO level.</p> <p>By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.</p> <p>By reviewing the DO monitoring data in November 2018 of the Project, the average DO level of each monitoring station is around 8 mg/L which is similar to the current</p>		

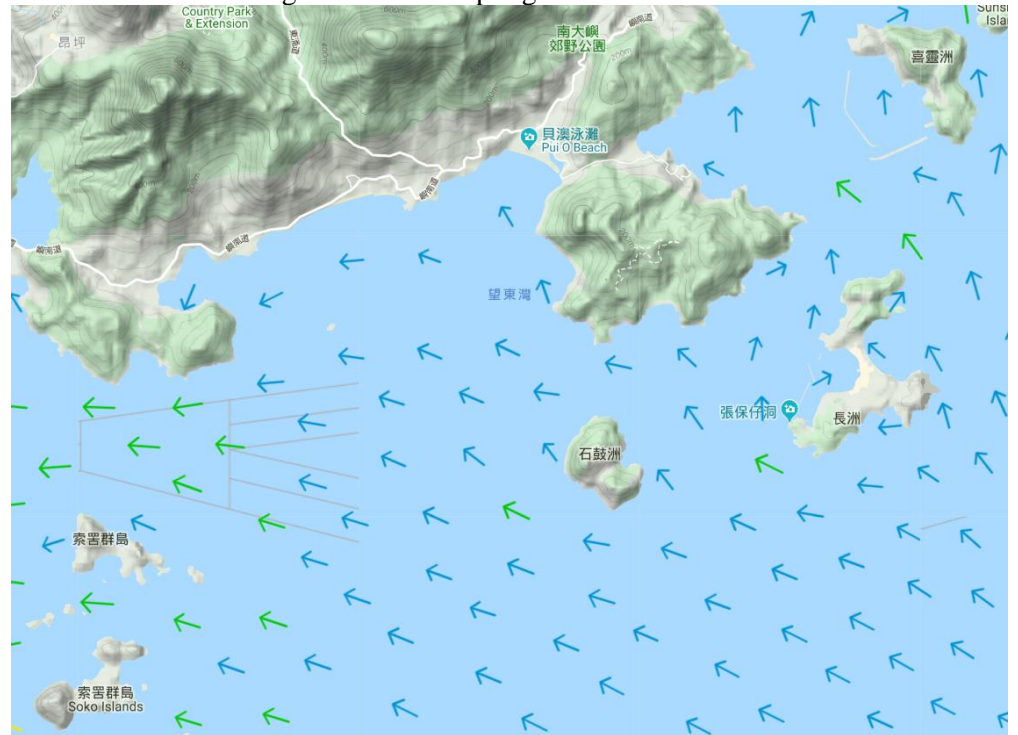
	<p>DO level of each monitoring station.</p> <p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at all monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</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&amp;A Manual.</p>																																																						
<p>Remarks</p>	<p>Supporting figures of the EPD water data:</p>  <p>The 76 water quality monitoring stations in the open waters of Hong Kong in 2017</p> <p><b>Southern(SM12) Surface Water</b>          Period: 2016-01-01 to 2017-12-31</p>  <table border="1"> <caption>Dissolved Oxygen (mg/L) for SM12</caption> <thead> <tr> <th>Date (YYYY-MM-DD)</th> <th>Dissolved Oxygen (mg/L)</th> </tr> </thead> <tbody> <tr><td>2016-Jan-01</td><td>6.8</td></tr> <tr><td>2016-Feb-01</td><td>7.8</td></tr> <tr><td>2016-Mar-01</td><td>8.0</td></tr> <tr><td>2016-Apr-01</td><td>6.8</td></tr> <tr><td>2016-May-01</td><td>6.5</td></tr> <tr><td>2016-Jun-01</td><td>9.0</td></tr> <tr><td>2016-Jul-01</td><td>6.5</td></tr> <tr><td>2016-Aug-01</td><td>5.2</td></tr> <tr><td>2016-Sep-01</td><td>5.0</td></tr> <tr><td>2016-Oct-01</td><td>5.5</td></tr> <tr><td>2016-Nov-01</td><td>6.2</td></tr> <tr><td>2016-Dec-01</td><td>7.5</td></tr> <tr><td>2017-Jan-01</td><td>6.8</td></tr> <tr><td>2017-Feb-01</td><td>7.2</td></tr> <tr><td>2017-Mar-01</td><td>7.5</td></tr> <tr><td>2017-Apr-01</td><td>9.0</td></tr> <tr><td>2017-May-01</td><td>6.8</td></tr> <tr><td>2017-Jun-01</td><td>6.0</td></tr> <tr><td>2017-Jul-01</td><td>6.2</td></tr> <tr><td>2017-Aug-01</td><td>10.0</td></tr> <tr><td>2017-Sep-01</td><td>8.5</td></tr> <tr><td>2017-Oct-01</td><td>6.0</td></tr> <tr><td>2017-Nov-01</td><td>5.5</td></tr> <tr><td>2017-Dec-01</td><td>6.2</td></tr> <tr><td>2018-Jan-01</td><td></td></tr> <tr><td>2018-Feb-01</td><td></td></tr> </tbody> </table>	Date (YYYY-MM-DD)	Dissolved Oxygen (mg/L)	2016-Jan-01	6.8	2016-Feb-01	7.8	2016-Mar-01	8.0	2016-Apr-01	6.8	2016-May-01	6.5	2016-Jun-01	9.0	2016-Jul-01	6.5	2016-Aug-01	5.2	2016-Sep-01	5.0	2016-Oct-01	5.5	2016-Nov-01	6.2	2016-Dec-01	7.5	2017-Jan-01	6.8	2017-Feb-01	7.2	2017-Mar-01	7.5	2017-Apr-01	9.0	2017-May-01	6.8	2017-Jun-01	6.0	2017-Jul-01	6.2	2017-Aug-01	10.0	2017-Sep-01	8.5	2017-Oct-01	6.0	2017-Nov-01	5.5	2017-Dec-01	6.2	2018-Jan-01		2018-Feb-01	
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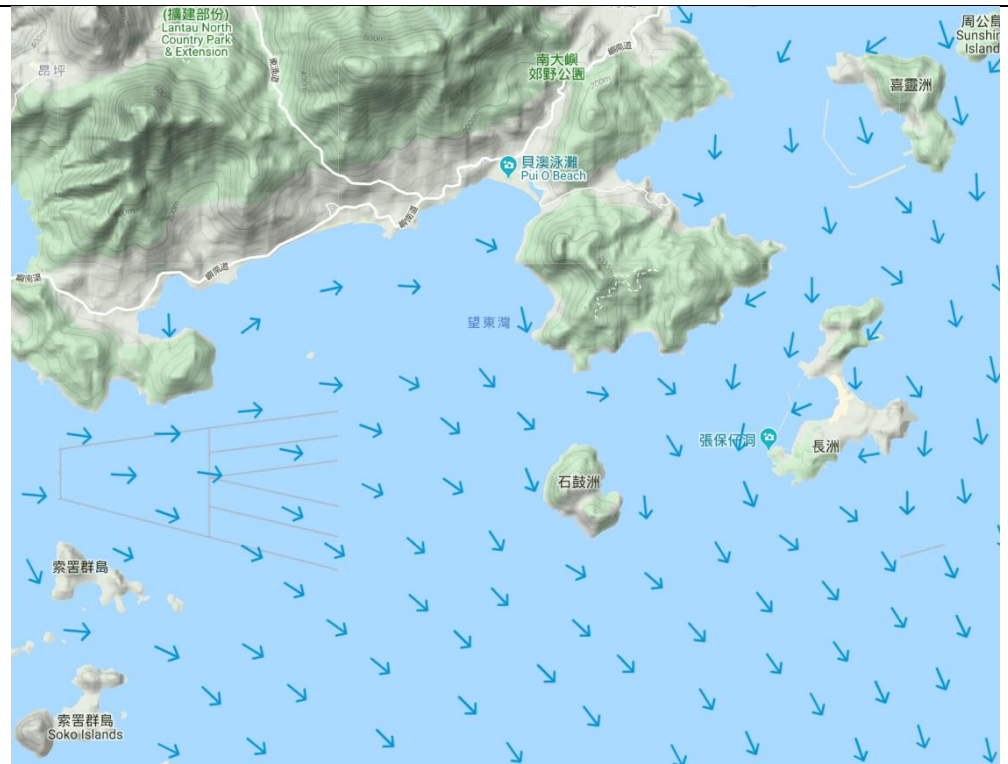




Current direction during mid-flood sampling on 05/11:



Current direction during mid-ebb sampling on 05/11:



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 <https://cd.epic.epd.gov.hk/EPICRIVER/marine/history/> and <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	06 November 2019

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

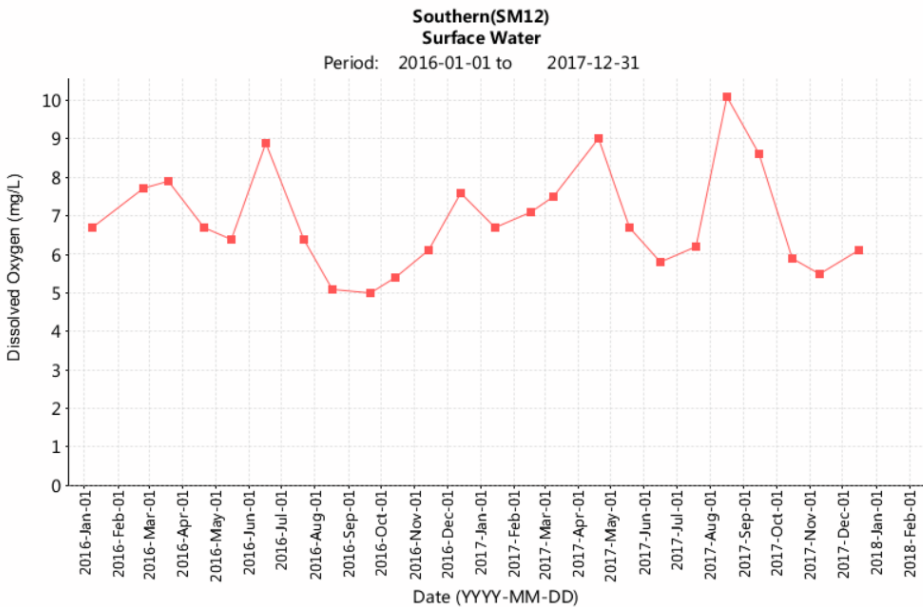
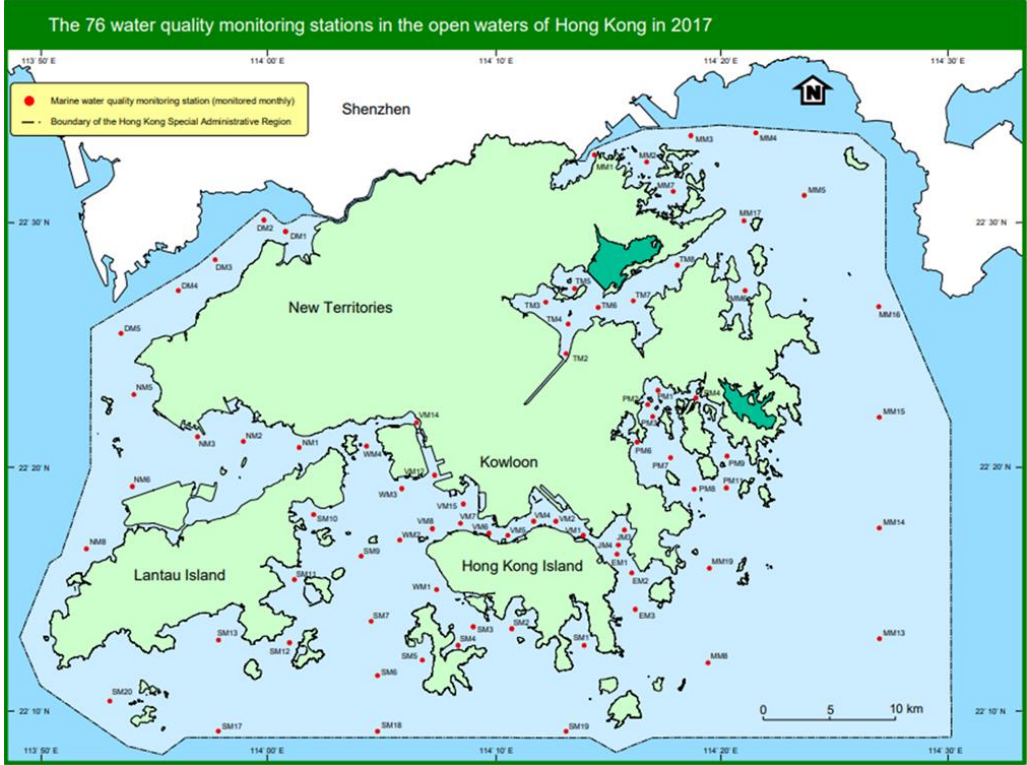
Project	Integrated Waste Management Facilities, Phase 1		
Date	07 November 2019		
Time	14:28 – 17:58 (Mid-Flood) 08:00 – 11:30 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) with Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.08 mg/L (B1) 6.96 mg/L (B2) 6.96 mg/L (B3) 6.89 mg/L (B4) 6.96 mg/L (F1A) 7.09 mg/L (H1) 6.93 mg/L (M1) 7.09 mg/L (CR1) 7.06 mg/L (CR2) 6.98 mg/L (S1) 6.98 mg/L (S2A) 6.99 mg/L (S3)	7.00 mg/L (C1A) 7.11 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	All monitoring stations including control stations (C1A & C2A) exhibited low and similar DO level.		
	By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.		
	By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 & SM13 in November 2016 & November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at		

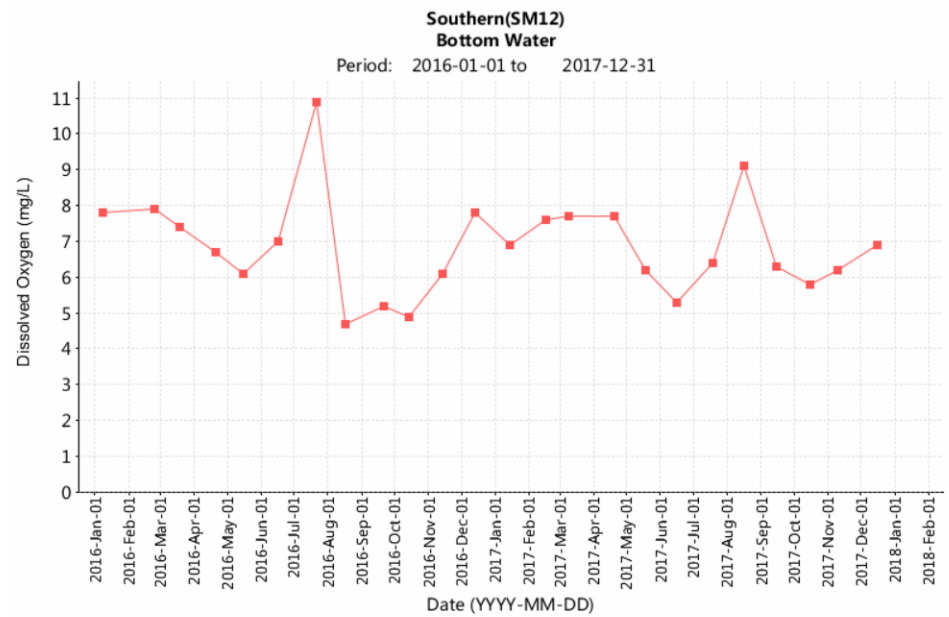
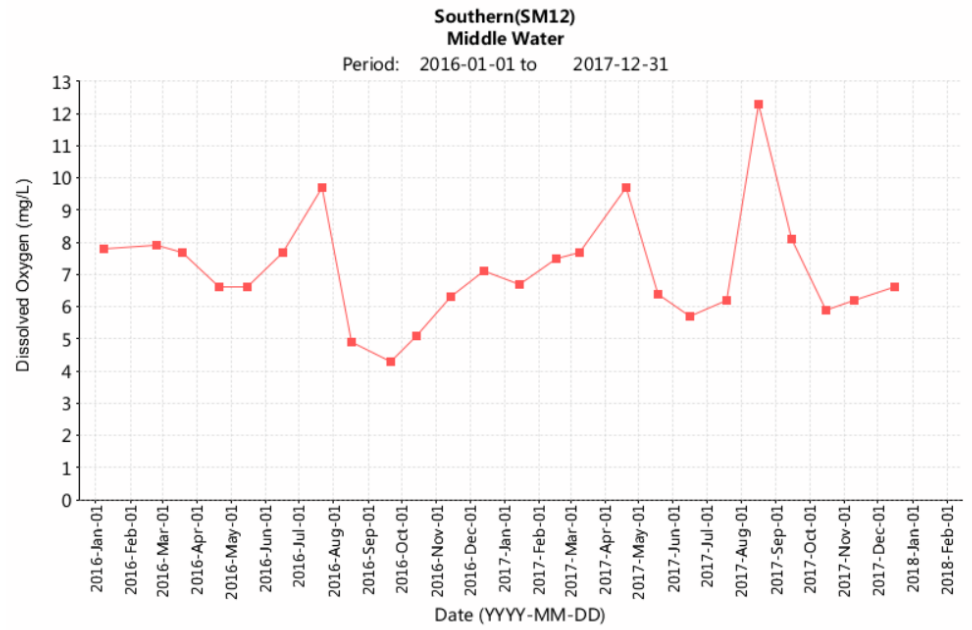


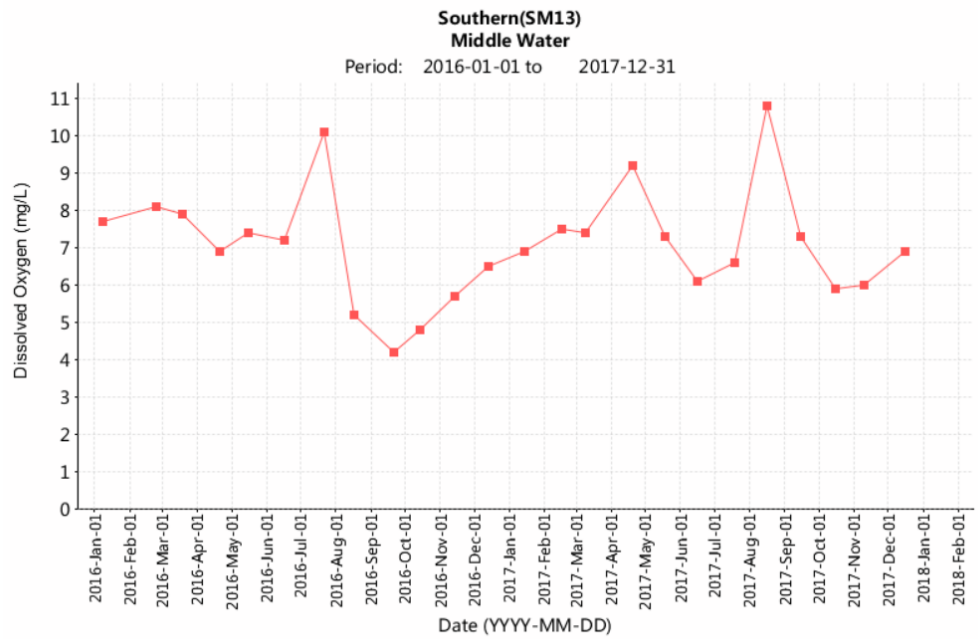
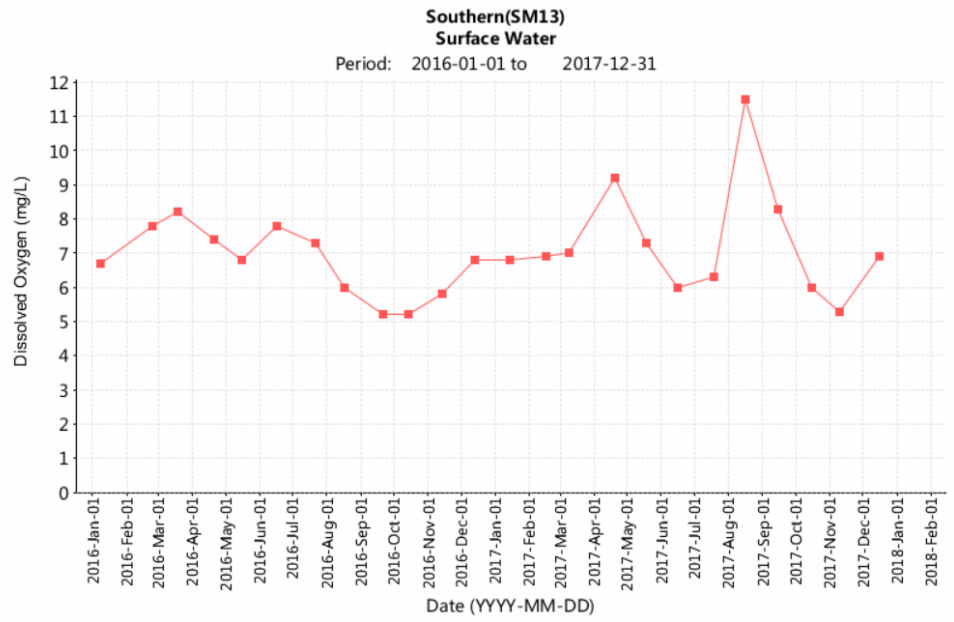
	the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at all monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.		
	Mid-Ebb		
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	6.85 mg/L (B1) 6.77 mg/L (B2) 6.93 mg/L (B3) 6.64 mg/L (B4) 6.69 mg/L (F1A) 6.75 mg/L (H1) 6.83 mg/L (M1) 6.64 mg/L (CR1) 6.64 mg/L (CR2) 6.66 mg/L (S1) 6.69 mg/L (S2A) 6.78 mg/L (S3)	6.59 mg/L (C1A) 6.68 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	<p>All monitoring stations including control stations (C1A &amp; C2A) exhibited low and similar DO level.</p> <p>By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.</p> <p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at all monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</p>		

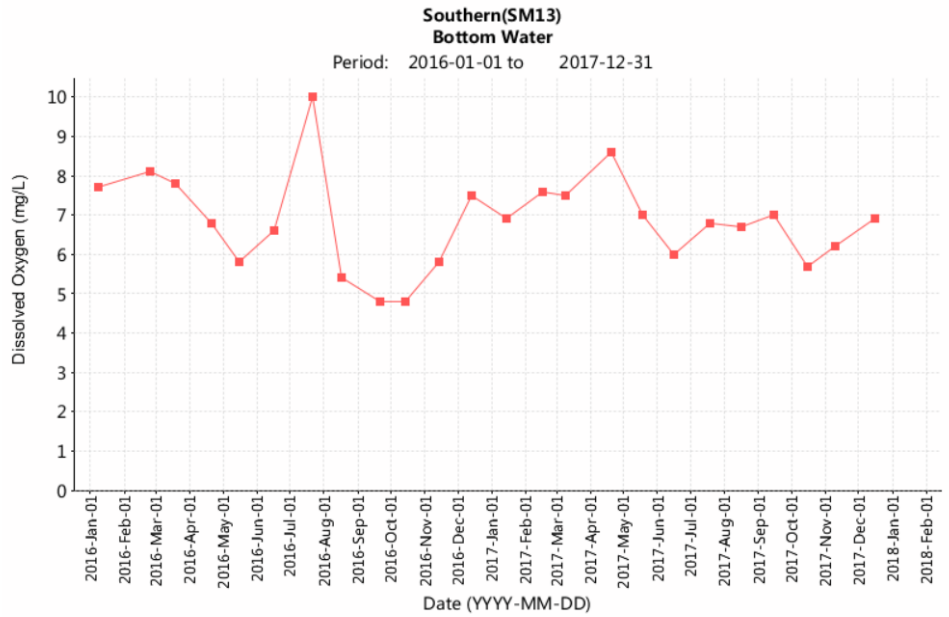
**Actions taken / to be taken** Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.

**Remarks** Supporting figures of the EPD water data:

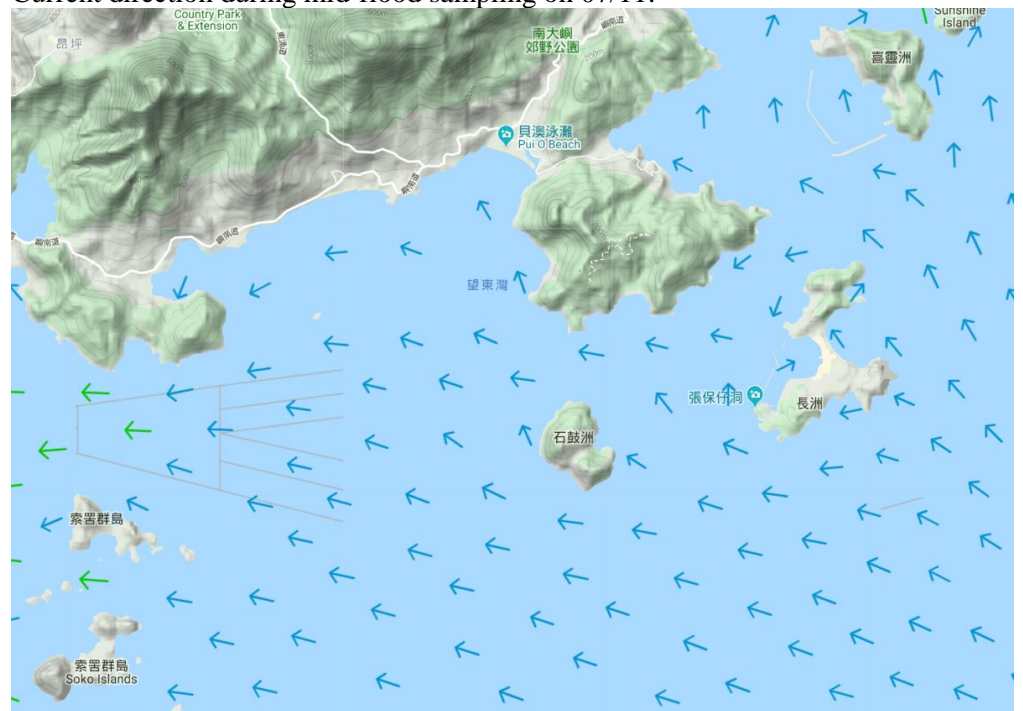




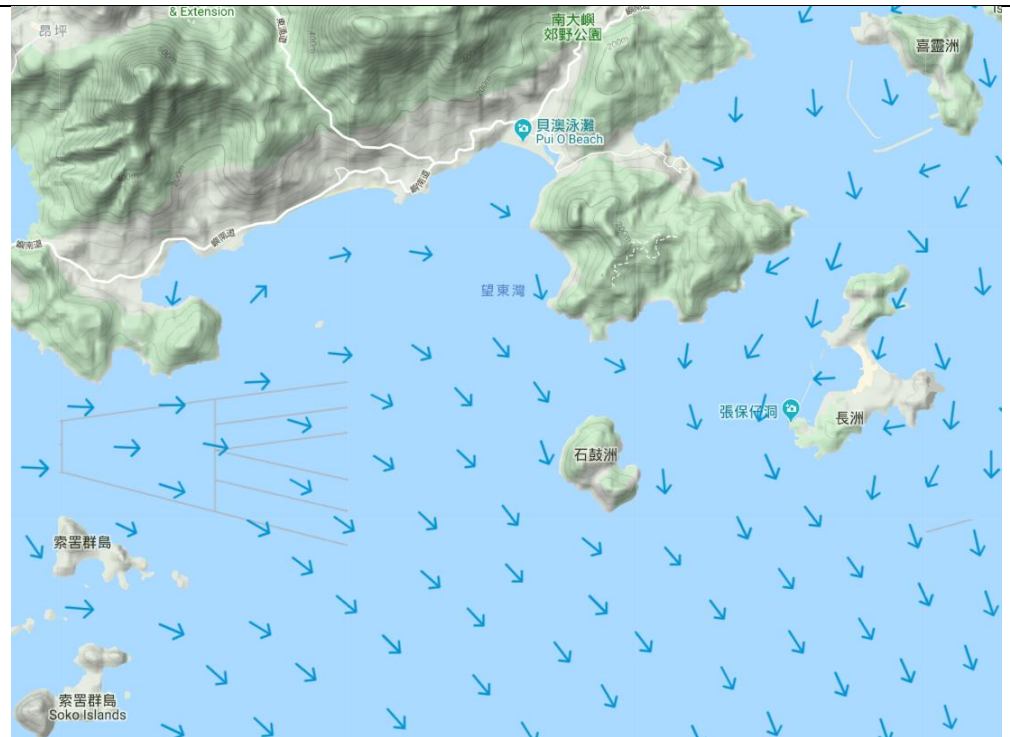




Current direction during mid-flood sampling on 07/11:



Current direction during mid-ebb sampling on 07/11:



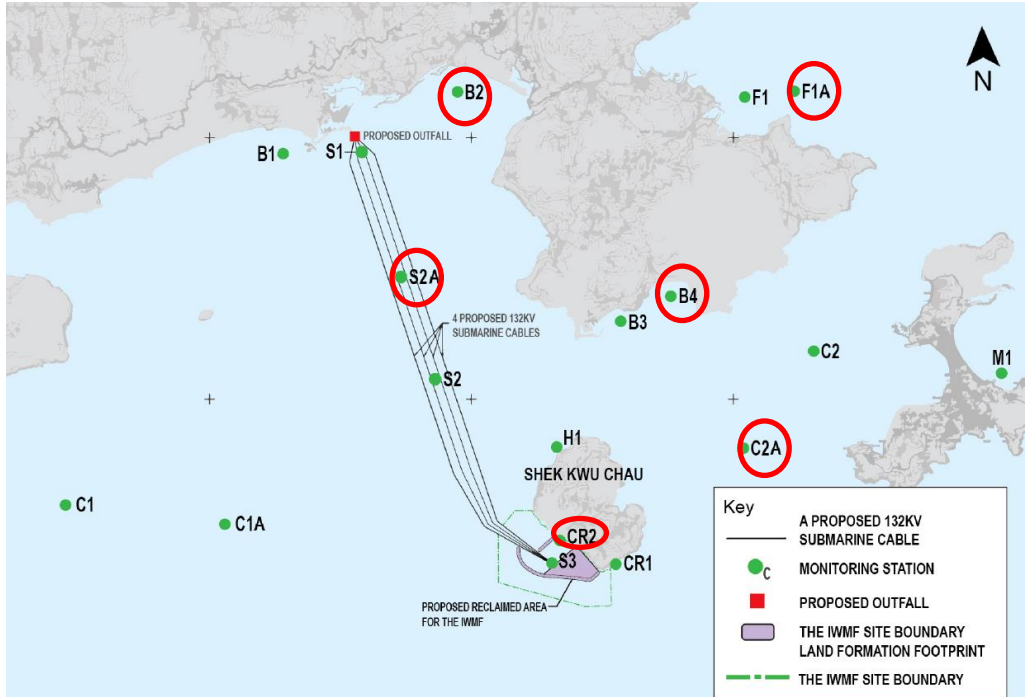
Legend			
Speed (knot)	→	Speed (knot)	→
0-0.5	→	1.5-2.0	→
0.5-1.0	→	2.0-2.5	→
1.0-1.5	→	2.5 and above	→

(Sourced from <https://cd.epic.epd.gov.hk/EPICRIVER/marine/history/> and <http://current.hydro.gov.hk/en/map.html>)

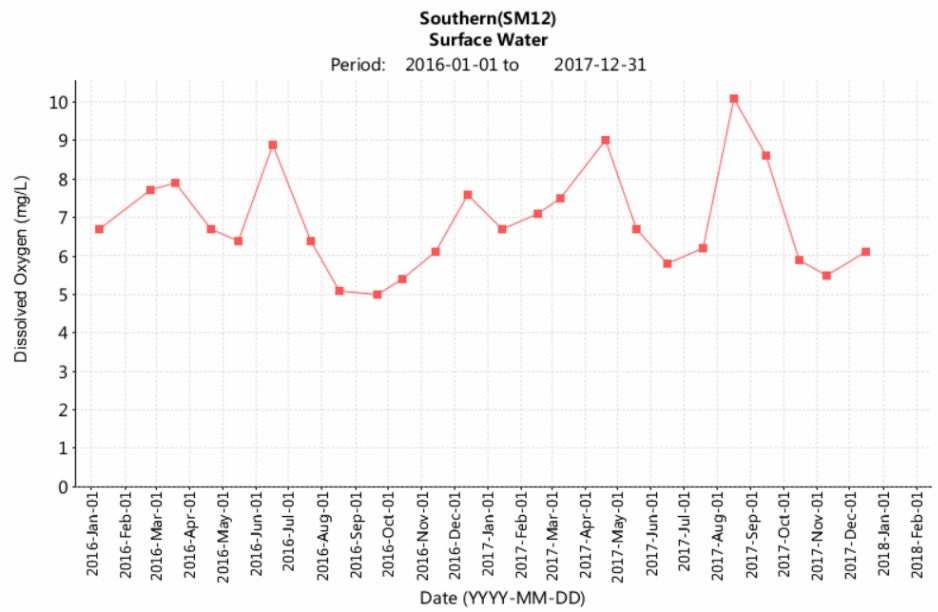
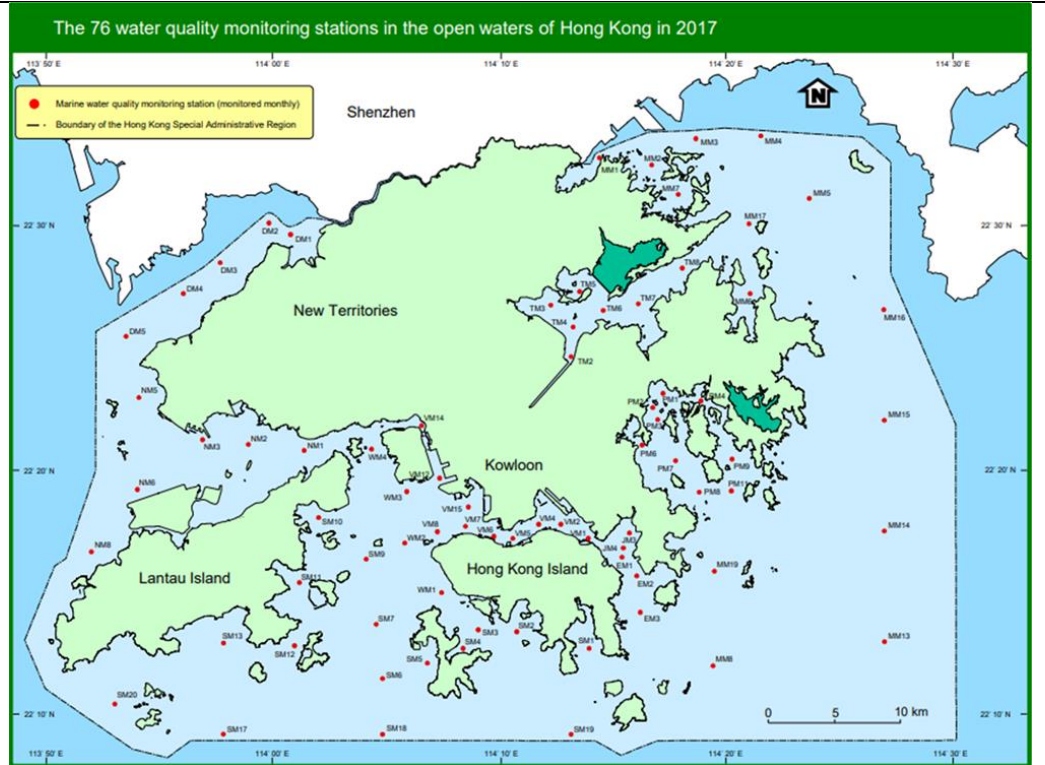
Prepared by	Polar Chan
Date	08 November 2019

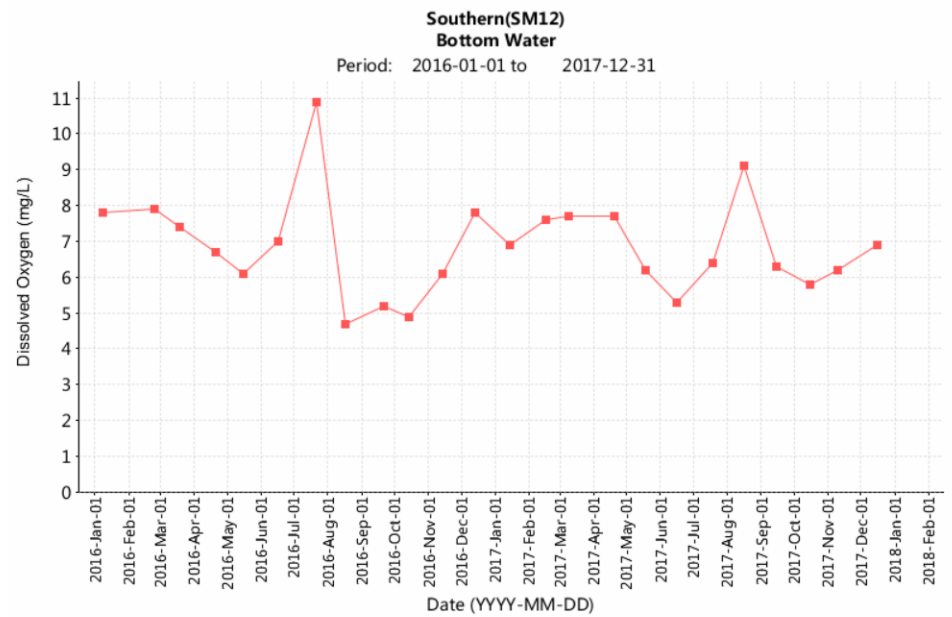
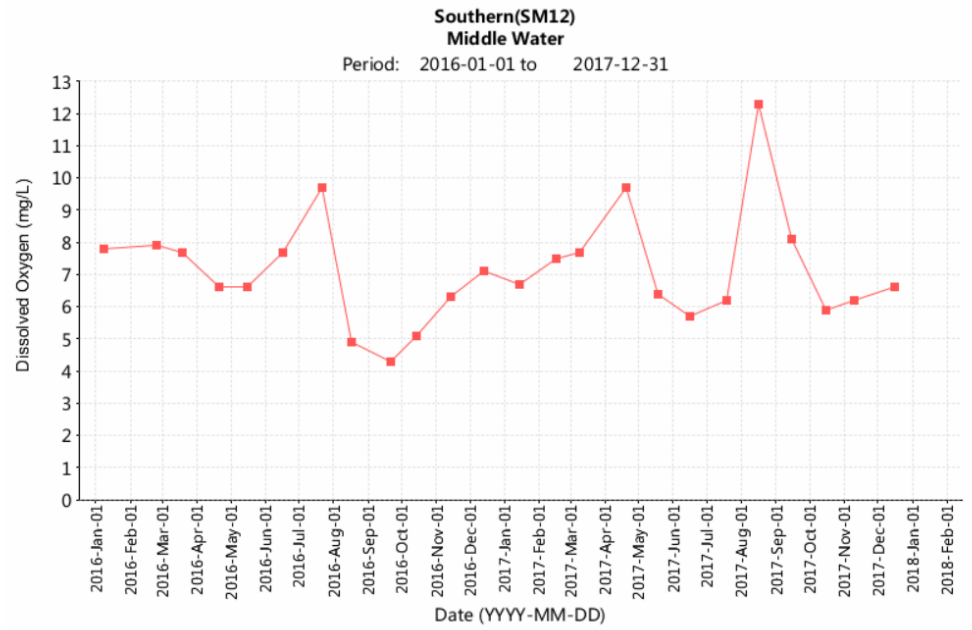
**Incident Report on Action Level or Limit Level Non-compliance**

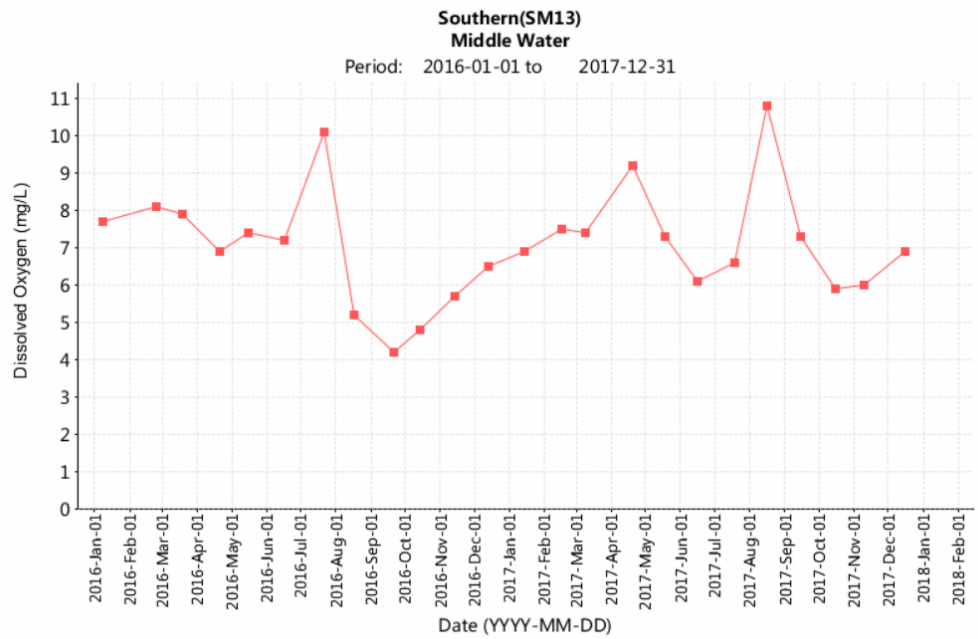
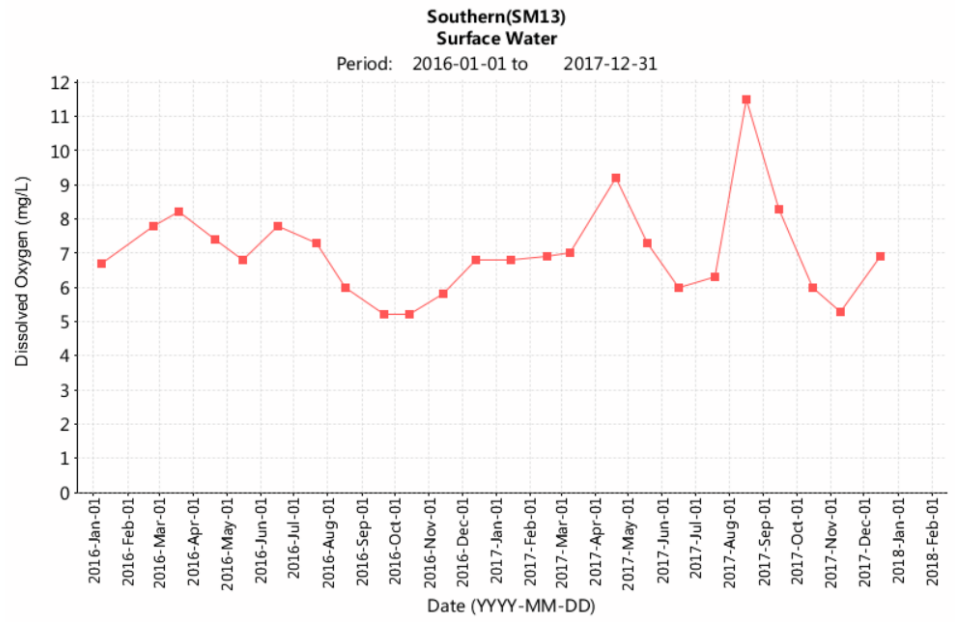
Project	Integrated Waste Management Facilities, Phase 1		
Date	09 November 2019		
Time	15:10 – 18:40 (Mid-Flood) 08:35 – 12:05 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, B3, C1A, M1, CR1, CR2, S1 & S2A		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) with Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.09 mg/L (B1) 6.97 mg/L (B2) 7.04 mg/L (B3) 7.13 mg/L (M1) 7.11 mg/L (CR1) 7.10 mg/L (CR2) 7.06 mg/L (S1) 7.08 mg/L (S2A)	7.05 mg/L (C1A) 7.14 mg/L (C2A)	7.14 mg/L (B4) 7.15 mg/L (F1A) 7.23 mg/L (H1) 7.14 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	Some monitoring stations (B1, B2, B3, M1, CR1, CR2, S1 & S2A) including control station (C1A) exhibited low and similar DO level.		
	<p>By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.</p> <p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</p>		
Mid-Ebb			

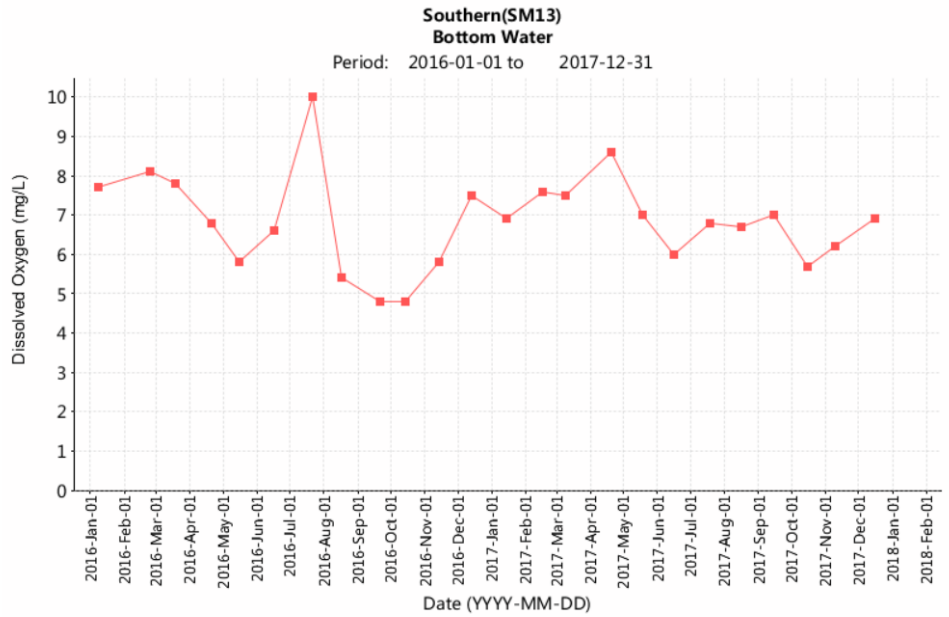
Monitoring Location	B2, B4, C2A, F1A, CR2 & S2A 		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.10 mg/L (B2) 7.13 mg/L (B4) 7.13 mg/L (F1A) 7.06 mg/L (CR2) 7.03 mg/L (S2A)	7.18 mg/L (C1A) 7.13 mg/L (C2A)	7.15 mg/L (B1) 7.20 mg/L (B3) 7.17 mg/L (H1) 7.17 mg/L (M1) 7.15 mg/L (CR1) 7.26 mg/L (S1) 7.14 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	Some monitoring stations (B2, B4, F1A, CR2 & S2A) including control station (C2A) exhibited low and similar DO level.		
	<p>By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.</p> <p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</p>		
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	Supporting figures of the EPD water data:		



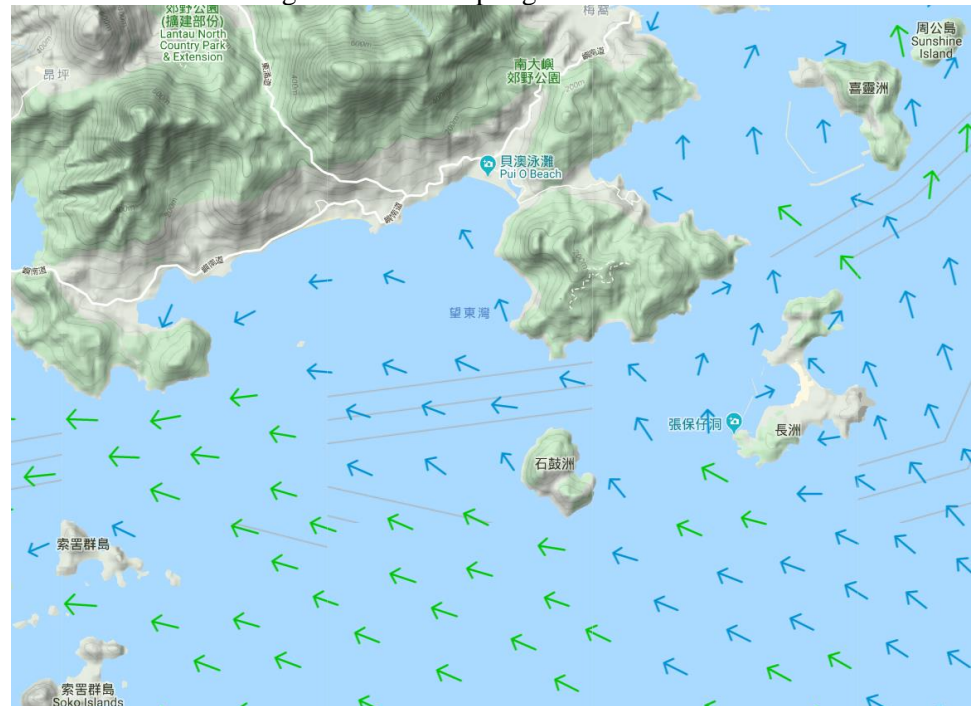




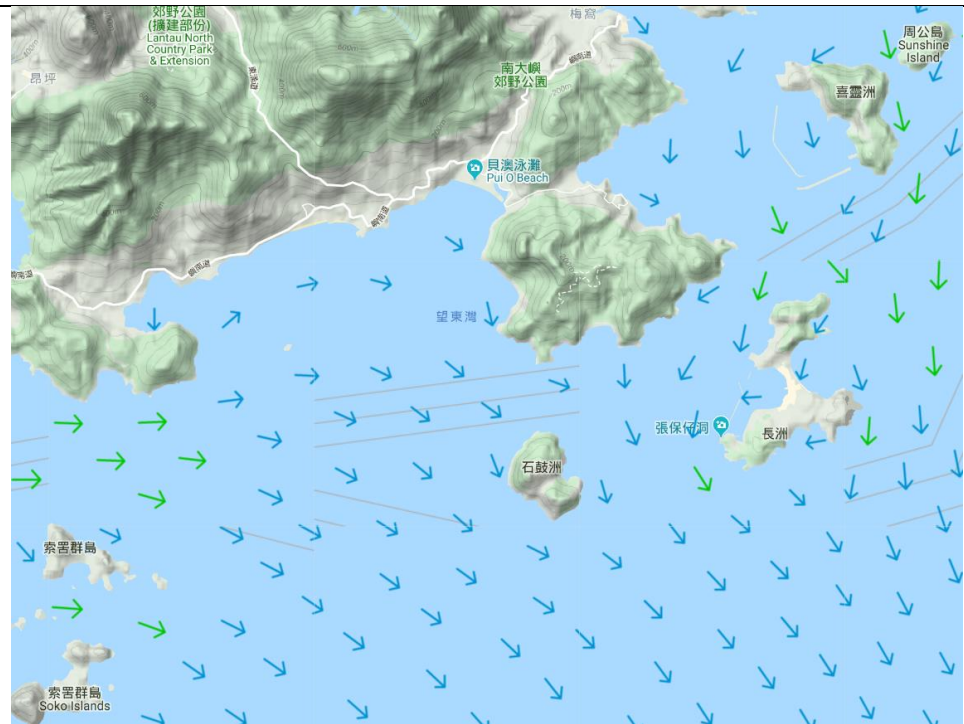




Current direction during mid-flood sampling on 09/11:



Current direction during mid-ebb sampling on 09/11:

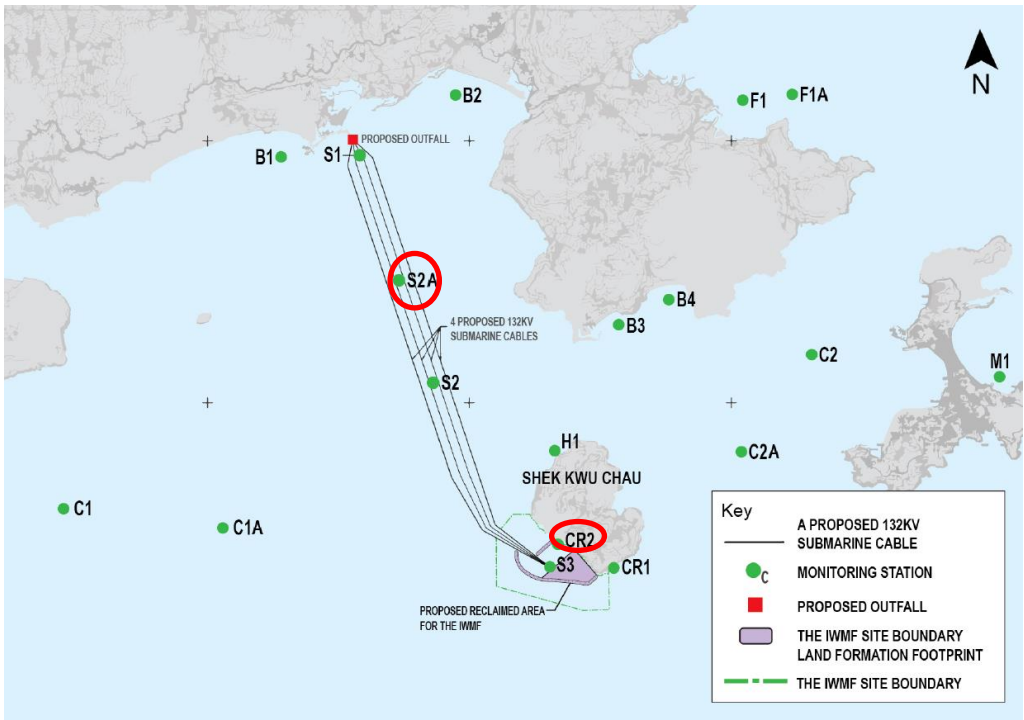


Legend			
Speed (knot)		Speed (knot)	
0-0.5	→	1.5-2.0	→
0.5-1.0	→	2.0-2.5	→
1.0-1.5	→	2.5 and above	→

(Sourced from <https://cd.epic.epd.gov.hk/EPICRIVER/marine/history/> and <http://current.hydro.gov.hk/en/map.html>)

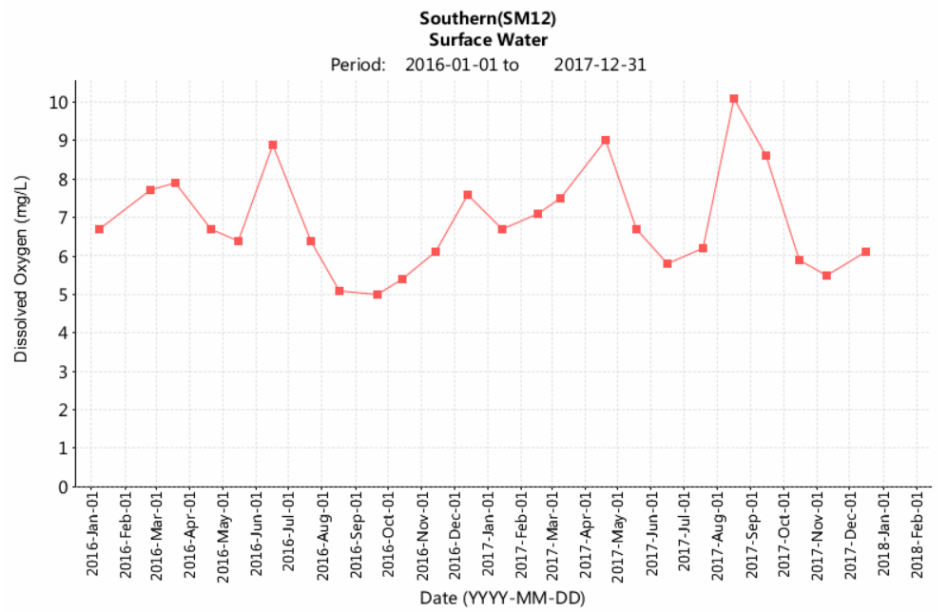
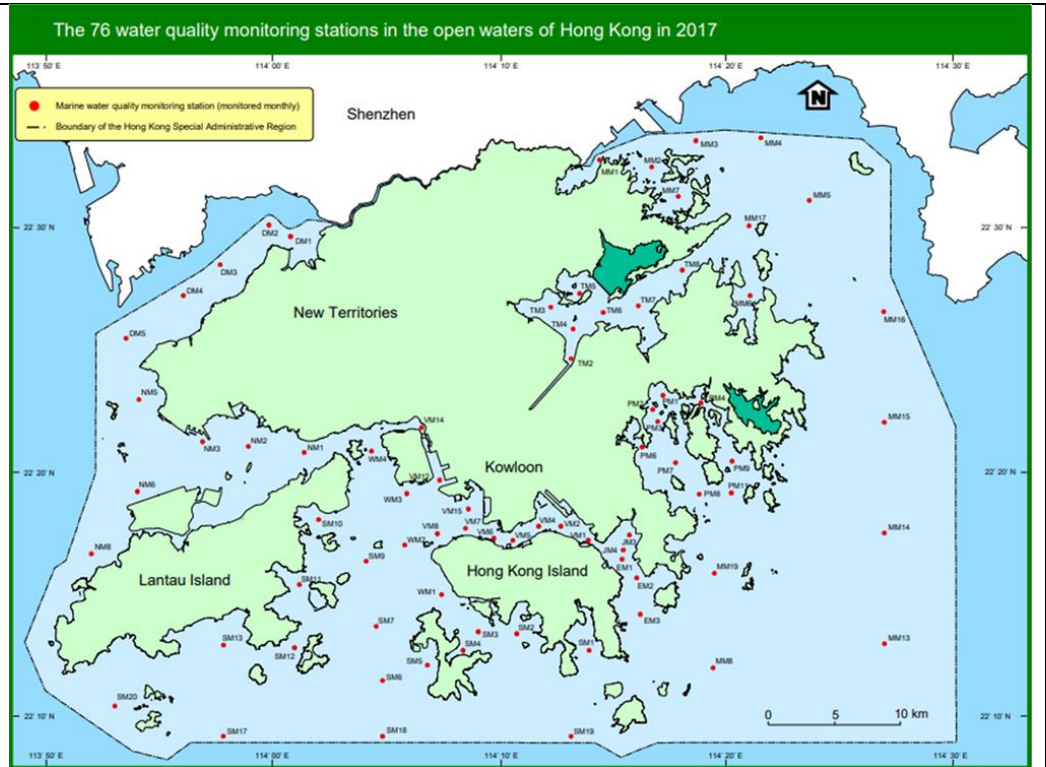
Prepared by	Polar Chan
Date	22 November 2019

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

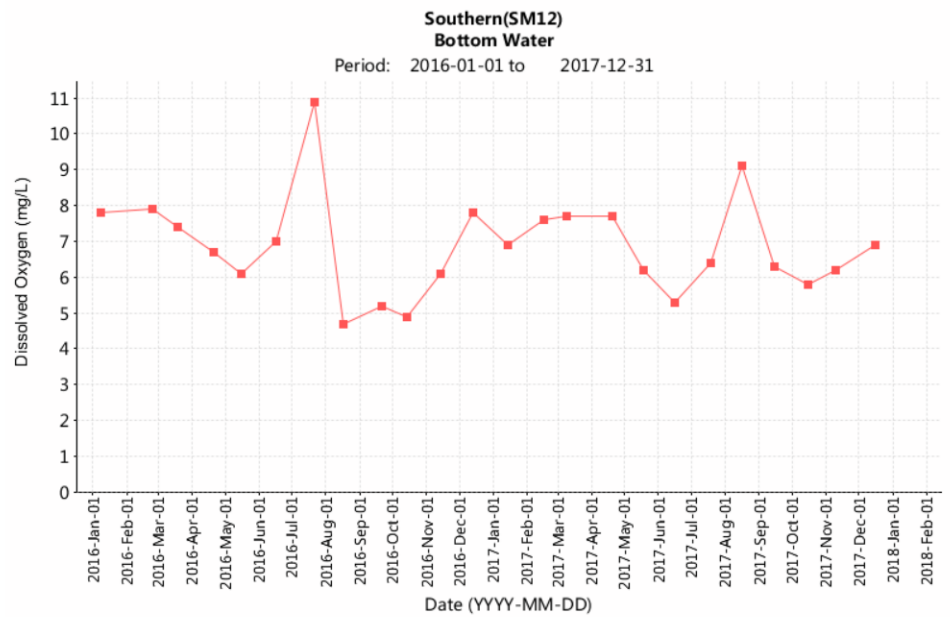
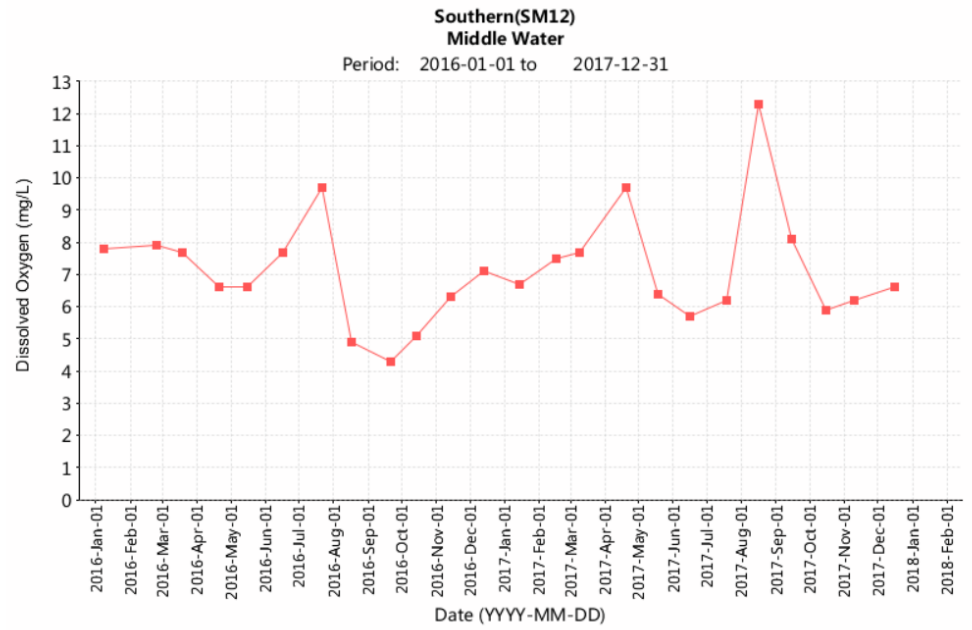
Project	Integrated Waste Management Facilities, Phase 1		
Date	11 November 2019		
Time	14:35 – 18:05 (Mid-Flood) 09:46 – 13:16 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	CR2 & S2A 		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) with Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.10 mg/L (CR2) 7.13 mg/L (S2A)	7.22 mg/L (C1A) 7.18 mg/L (C2A)	7.30 mg/L (B1) 7.20 mg/L (B2) 7.25 mg/L (B3) 7.25 mg/L (B4) 7.17 mg/L (F1A) 7.18 mg/L (H1) 7.18 mg/L (M1) 7.23 mg/L (CR1) 7.26 mg/L (S1) 7.22 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	Two monitoring stations CR2 & S2A exhibited similar DO level as control stations.  By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.  By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 & SM13 in November 2016 & November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.		

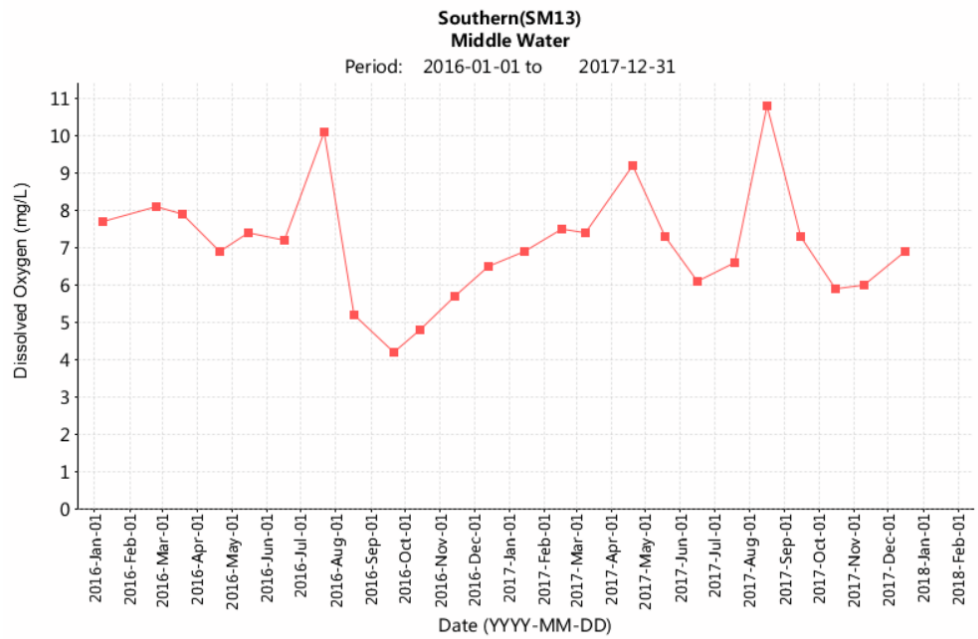
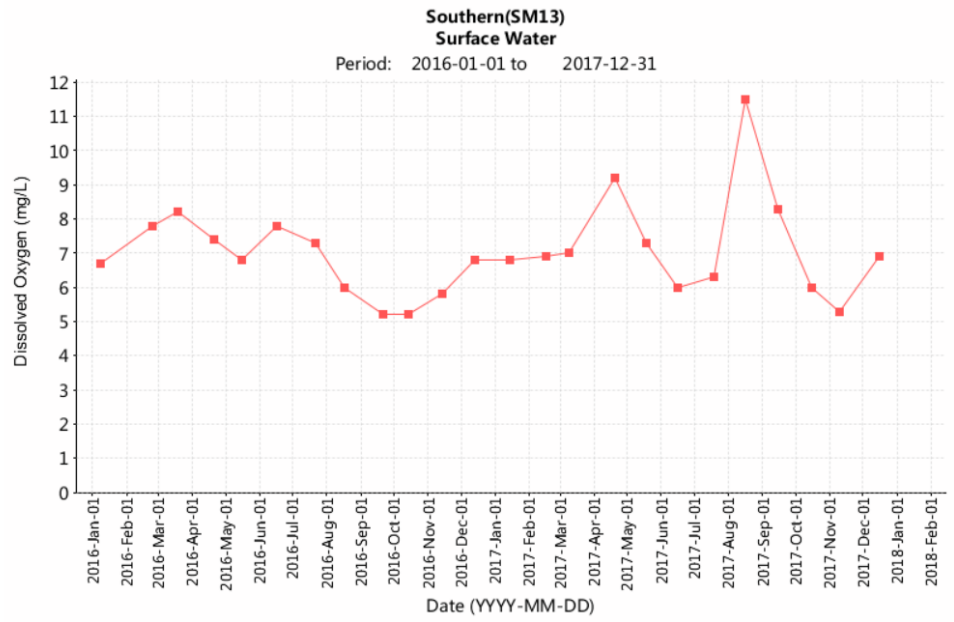
Mid-Ebb

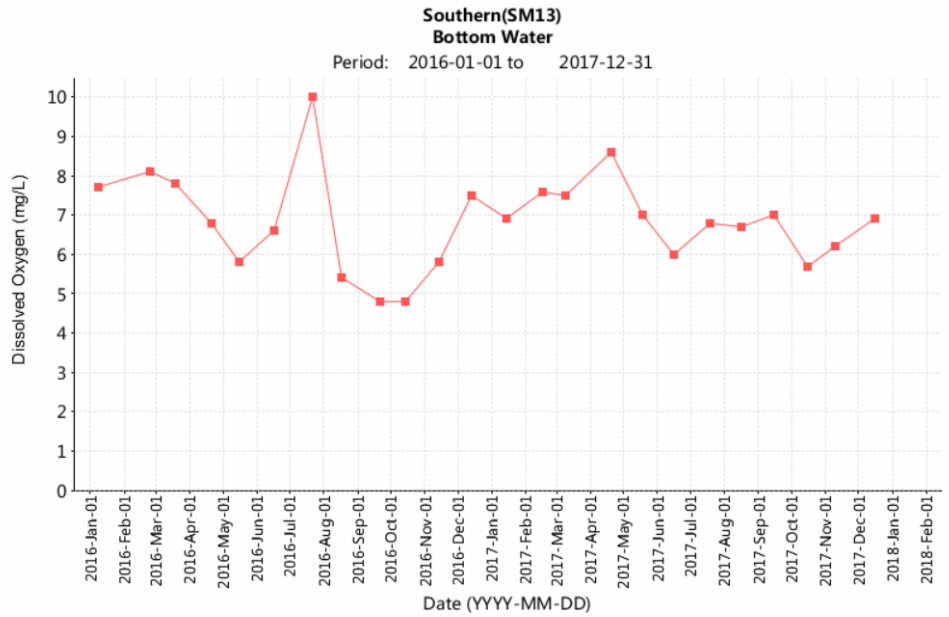
<p>Monitoring Location</p>			
<p>Parameter</p>	<p>Dissolved Oxygen (DO)</p>		
<p>Action &amp; Limit Levels</p>	<p>Action Level</p>		<p>Limit Level</p>
	<p>≤ 7.13 mg/L</p>		<p>≤ 4.00 mg/L</p>
<p>Measurement Level</p>	<p>Impact Station(s) of Exceedance</p>	<p>Control Stations</p>	<p>Impact Station(s) without Exceedance</p>
	<p>7.10 mg/L (H1) 7.11 mg/L (CR2)</p>	<p>7.24 mg/L (C1A) 7.14 mg/L (C2A)</p>	<p>7.19 mg/L (B1) 7.23 mg/L (B2) 7.29 mg/L (B3) 7.33 mg/L (B4) 7.24 mg/L (F1A) 7.19 mg/L (M1) 7.29 mg/L (CR1) 7.16 mg/L (S1) 7.14 mg/L (S2A) 7.16 mg/L (S3)</p>
<p>Possible reason for Action or Limit Level Non-compliance</p>	<p>Two monitoring stations H1 &amp; CR2 exhibited similar DO level as control stations.</p> <p>By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.</p> <p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</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&amp;A Manual.</p>		
<p>Remarks</p>	<p>Supporting figures of the EPD water data:</p>		



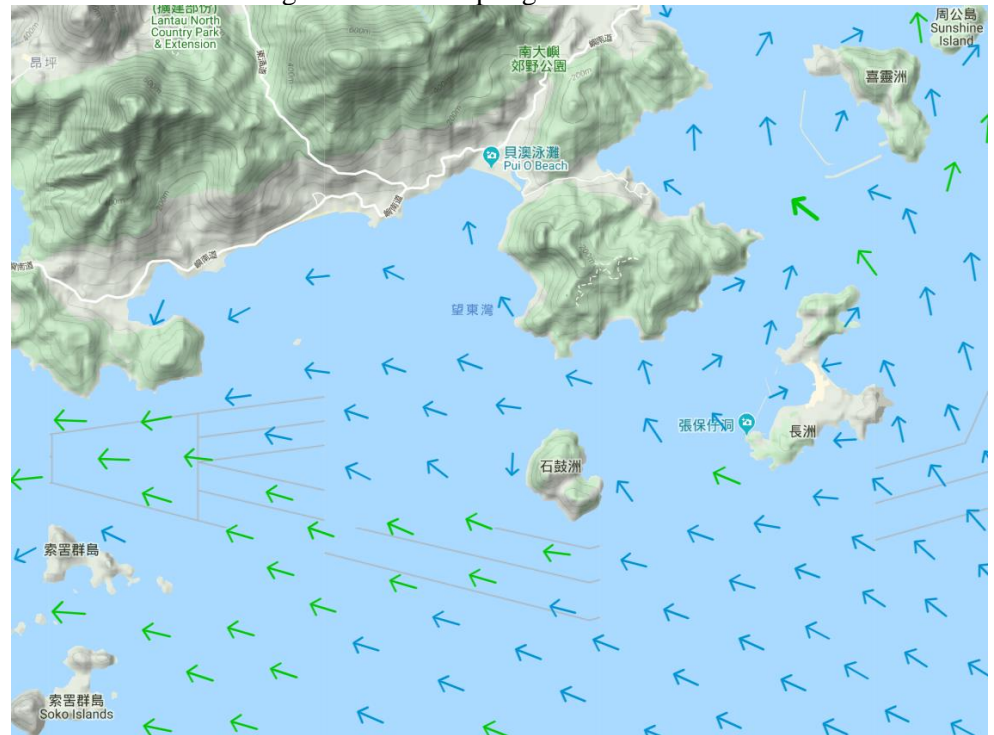




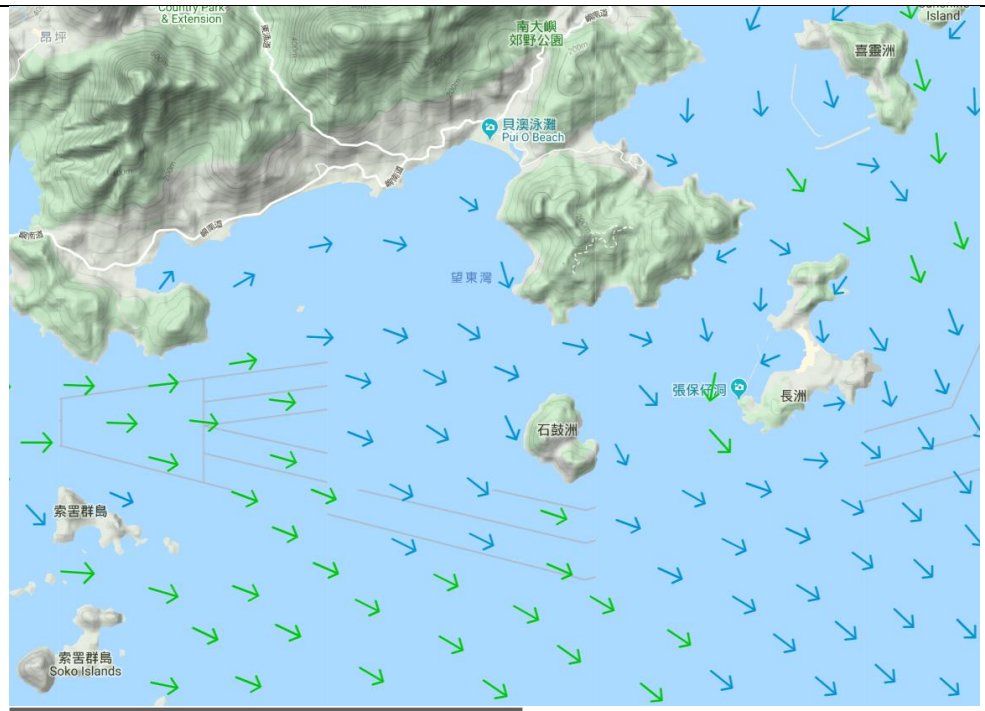




Current direction during mid-flood sampling on 11/11:



Current direction during mid-ebb sampling on 11/11:

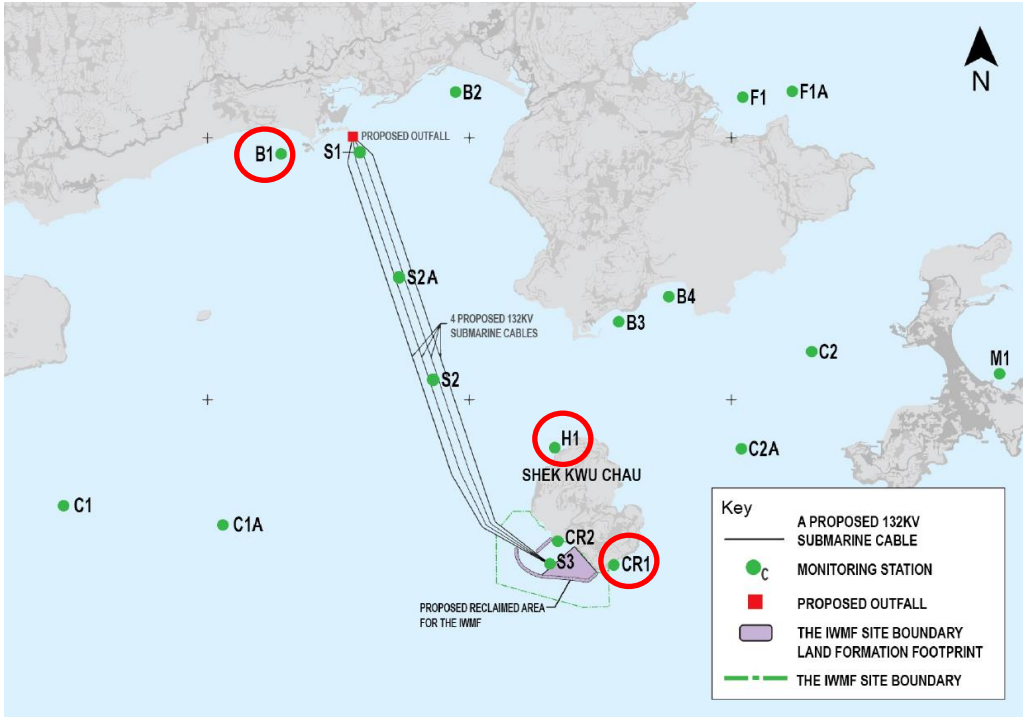


Legend			
Speed (knot)	Color	Speed (knot)	Color
0-0.5	Blue arrow	1.5-2.0	Orange arrow
0.5-1.0	Green arrow	2.0-2.5	Purple arrow
1.0-1.5	Yellow arrow	2.5 and above	Red arrow

(Sourced from <https://cd.epic.epd.gov.hk/EPICRIVER/marine/history/> and <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	29 November 2019

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

Project	Integrated Waste Management Facilities, Phase 1		
Date	11 Nov 2019 (Lab result received on 18 Nov 2019)		
Time	09:46 – 13:16 (Mid-Ebb) 14:35 – 18:05 (Mid-Flood)		
Mid-Ebb			
Monitoring Location	B1, H1 & 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
	9.0 mg/L (B1) 8.3 mg/L (H1) 8.2 mg/L (CR1)	6.3 mg/L (C1A) 5.8 mg/L (C2A)	7.8 mg/L (B2) 7.8 mg/L (B3) 6.8 mg/L (B4) 7.5 mg/L (F1A) 6.2 mg/L (M1) 7.0 mg/L (CR2) 6.8 mg/L (S1) 7.3 mg/L (S2A) 7.8 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 11/11 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the slag material, removal of temporary storage of surface rock, rock filling works, flattening G200 rockfill of caisson foundation, loading surface rock and levelling the sand blanket.  Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.  B1 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.		

H1 is located at upstream and CR1 is located at downstream to the Project site while silt curtain checking was implemented on GD853 (07:00), UDL-2 (07:00), 宏建 3 (07:00), 宏建 5 (07:00) & Cheung Kee No.10 (07:00) and checking results showed that no deficiency of silt curtain was found on that day.

From MMO monitoring records on 11/11, MMO teams were arranged for three derrick barges (Cheung Kee No.10, GD853 & UDL-2) and two DCM barges (ESC-61 & ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. 宏建 3 & 宏建 5 were observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point. No DCM main works scheduled in ESC-61 & ESC-62 were carried out with refer to the site diary on that day.

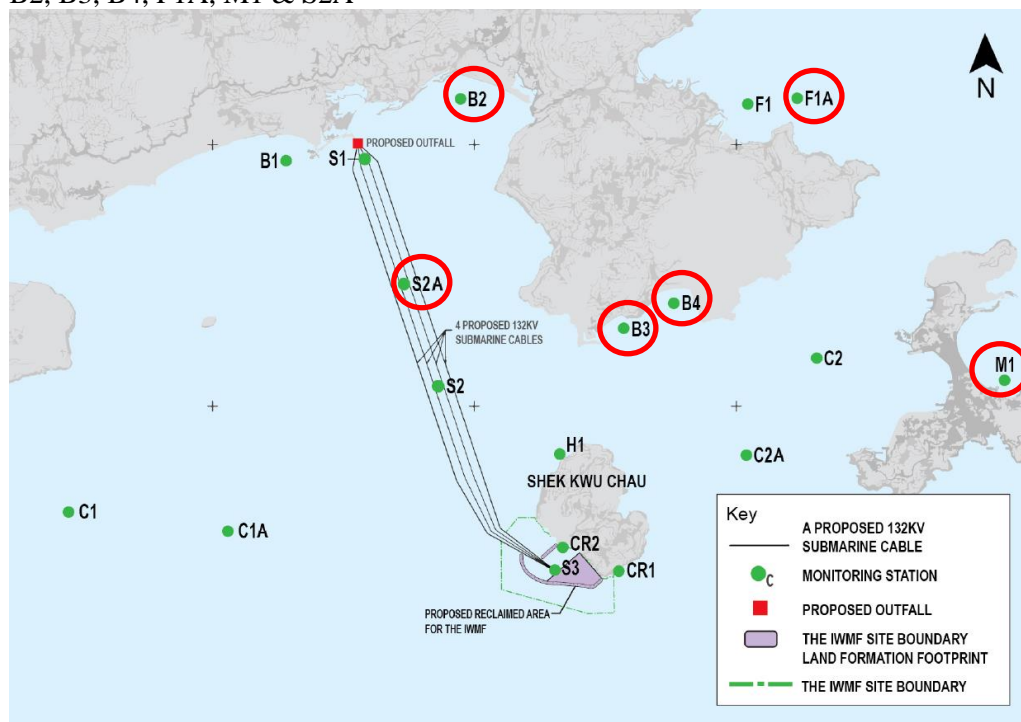
According to the field observation by sampling team & Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site. It might suggest that the SS exceedances at H1 and CR1 are deemed to be unrelated to the Project.

Weekly site inspection for Portion 1 (Shek Kwu Chau) was conducted on 04/11 but no boarding of barges within the Project site was made. For reference, site tidiness in the present barges in the Project site were checked during weekly site inspection on 12/11. No major observation of improper site practices that could contribute to the increase of the suspended solids recorded.

Mid-Flood

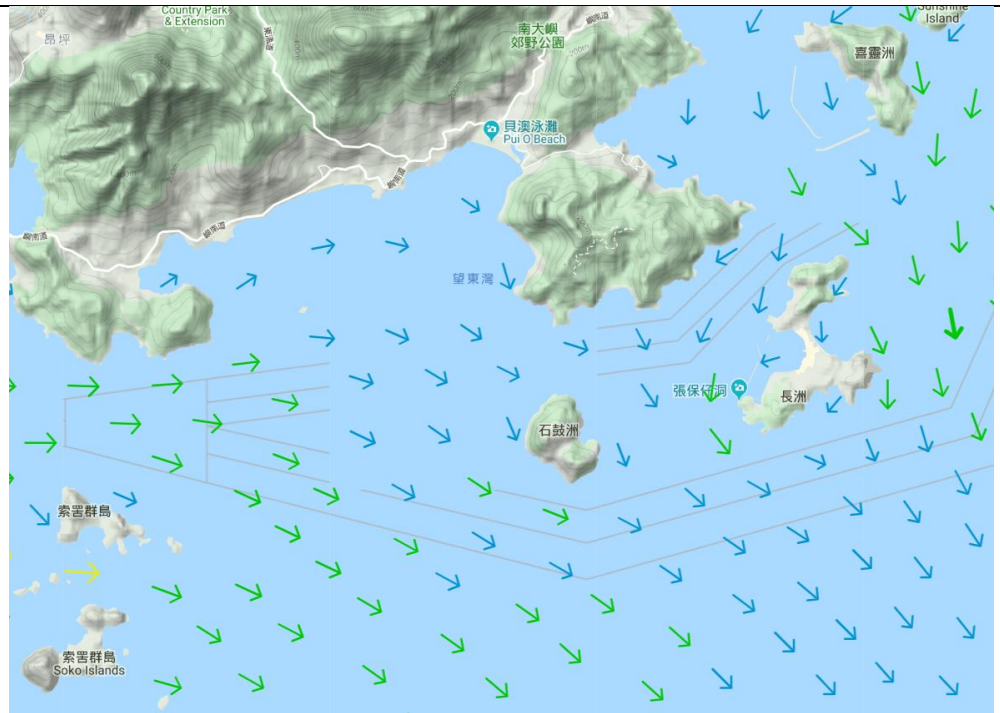
Monitoring Location

B2, B3, B4, F1A, M1 & S2A

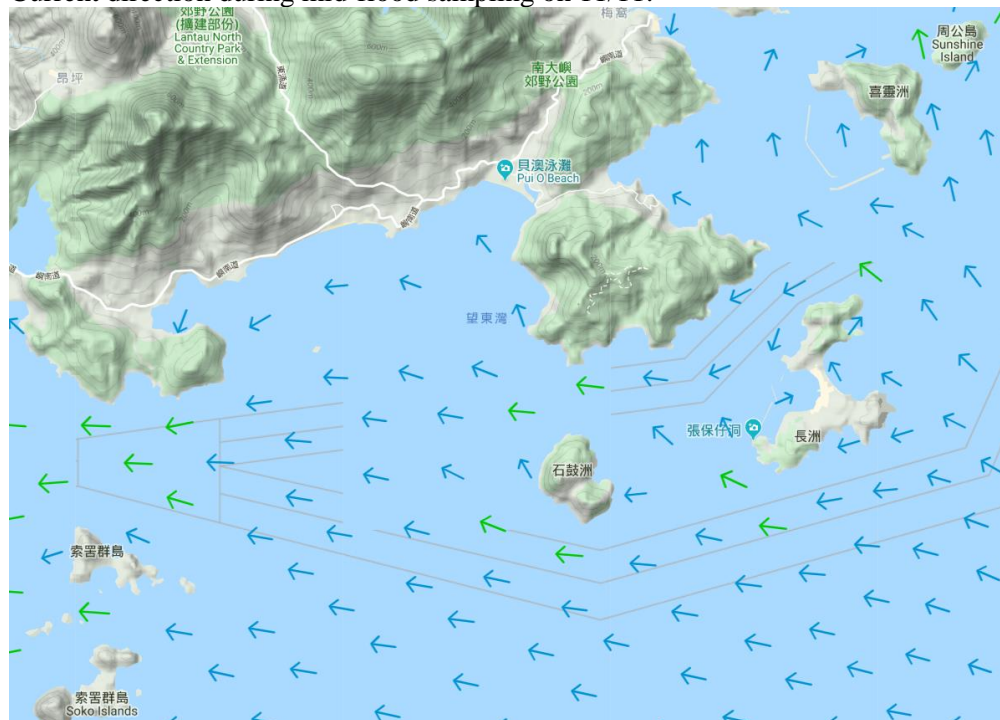


Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level	Limit Level	
	≥ 8.0 mg/L	≥ 10.0 mg/L	
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	8.8 mg/L (B2) 8.3 mg/L (B3) 8.8 mg/L (B4) 8.7 mg/L (F1A)	8.2 mg/L (C1A) 6.7 mg/L (C2A)	7.8 mg/L (B1) 7.8 mg/L (H1) 7.3 mg/L (CR1) 7.8 mg/L (CR2)

	8.8 mg/L (M1) 8.7 mg/L (S2A)		6.5 mg/L (S1) 6.8 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 11/11 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the slag material, removal of temporary storage of surface rock, rock filling works, flattening G200 rockfill of caisson foundation, loading surface rock and levelling the sand blanket.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B2, B3, B4, F1A, M1 &amp; S2A are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedances of these monitoring stations are deemed to be unrelated to the Project.</p> <p>Silt curtain checking was implemented on GD853 (07:00), UDL-2 (07:00), 宏建 3 (07:00), 宏建 5 (07:00) &amp; Cheung Kee No.10 (07:00) and checking results showed that no deficiency of silt curtain was found on that day.</p> <p>From MMO monitoring records on 11/11, MMO teams were arranged for three derrick barges (Cheung Kee No.10, GD853 &amp; UDL-2) and two DCM barges (ESC-61 &amp; ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. 宏建 3 &amp; 宏建 5 were observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point. No DCM main works scheduled in ESC-61 &amp; ESC-62 were carried out with refer to the site diary on that day.</p> <p>According to the field observation by sampling team &amp; Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site.</p> <p>Weekly site inspection for Portion 1 (Shek Kwu Chau) was conducted on 04/11 but no boarding of barges within the Project site was made. For reference, site tidiness in the present barges in the Project site were checked during weekly site inspection on 12/11. No major observation of improper site practices that could contribute to the increase of the suspended solids recorded.</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&amp;A Manual.</p>		
Remarks	<p>Current direction during mid-ebb sampling on 11/11:</p>		



Current direction during mid-flood sampling on 11/11:



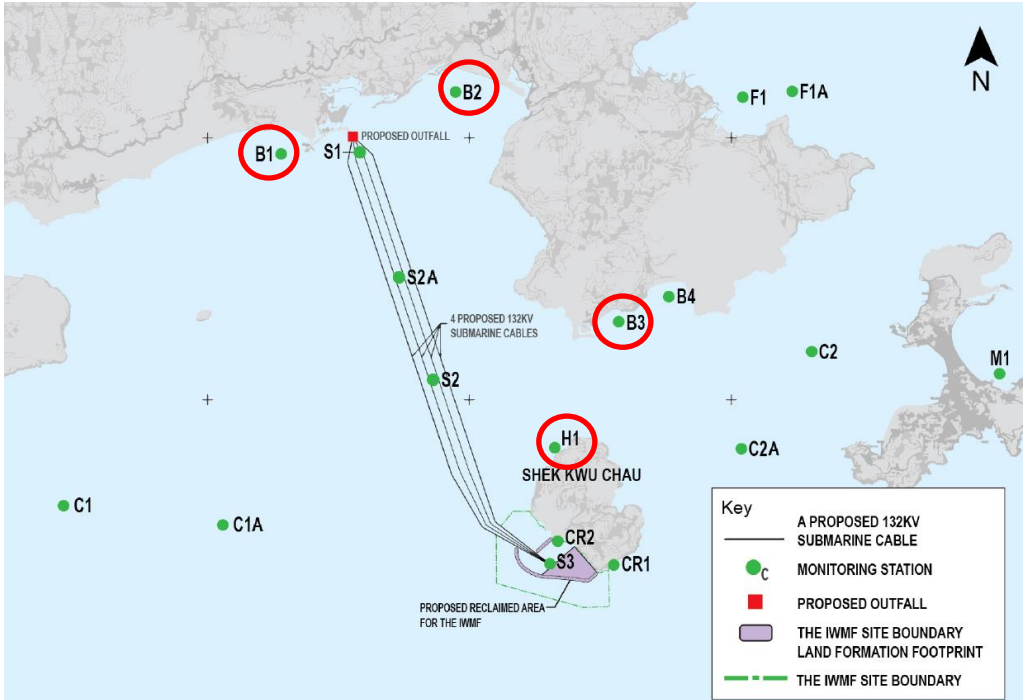
Legend			
Speed (knot)		Speed (knot)	
0-0.5	→	1.5-2.0	→
0.5-1.0	→	2.0-2.5	→
1.0-1.5	→	2.5 and above	→

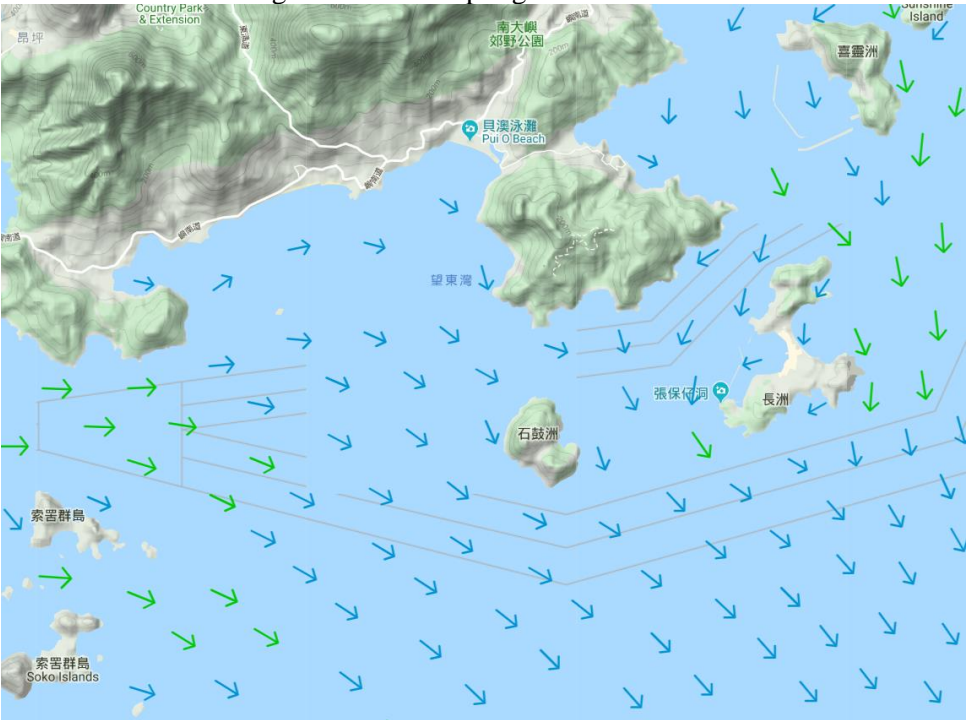
(Sourced from <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	21 Nov 2019



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

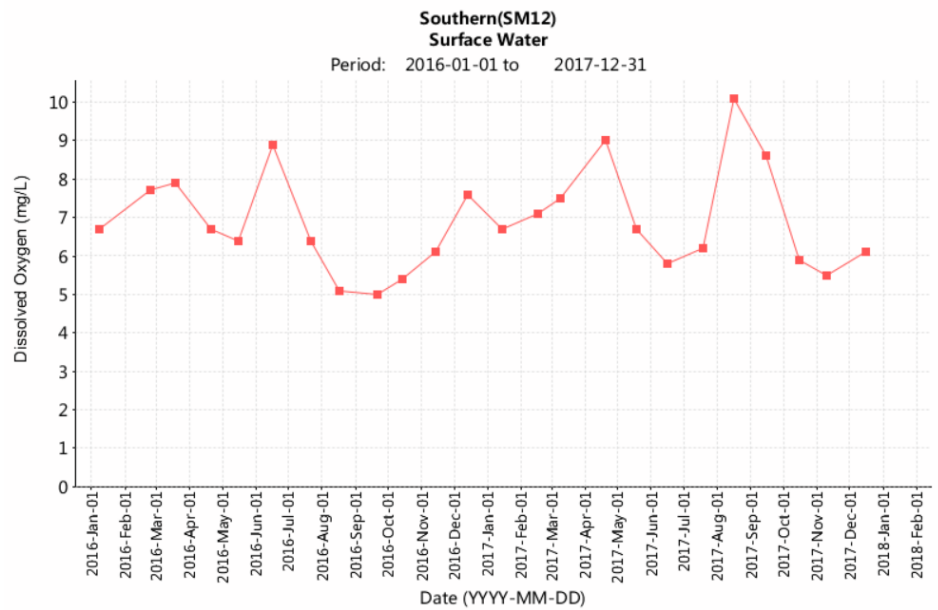
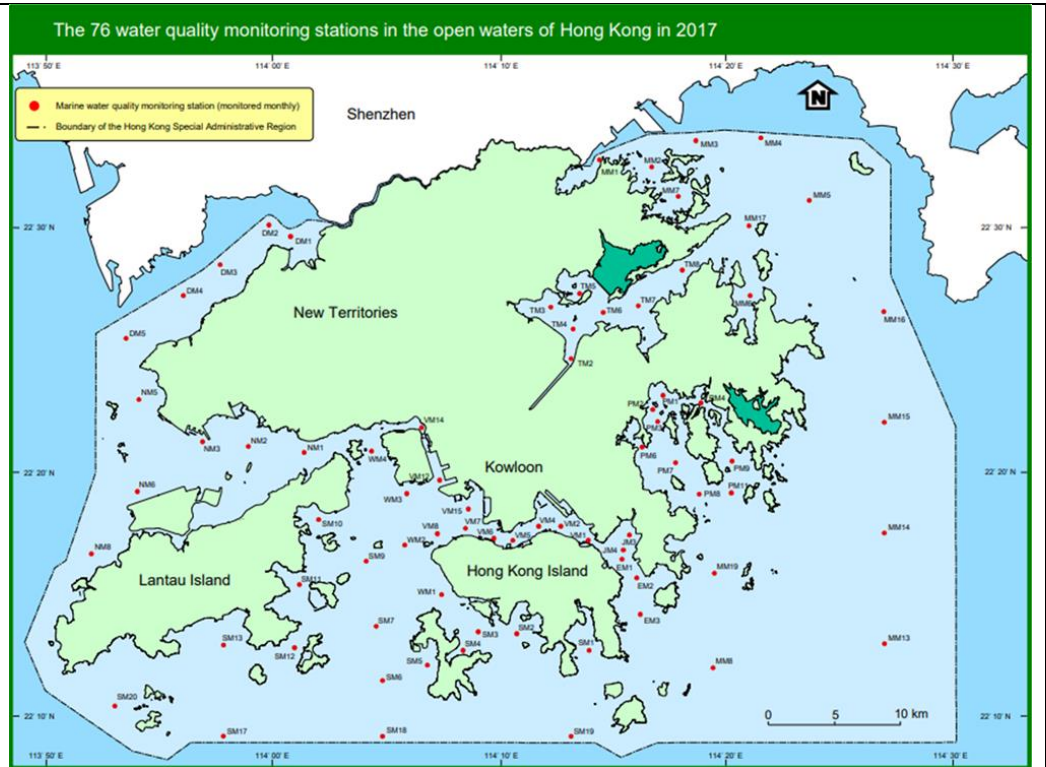
Project	Integrated Waste Management Facilities, Phase 1		
Date	13 Nov 2019 (Lab result received on 18 Nov 2019)		
Time	08:00 – 10:10 (Mid-Flood)		
Mid-Flood			
Monitoring Location	B1, B2, B3 & H1 		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.0 mg/L		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	8.8 mg/L (B1) 9.5 mg/L (B2) 8.3 mg/L (B3) 8.0 mg/L (H1)	5.0 mg/L (C1A) 5.2 mg/L (C2A)	6.0 mg/L (B4) 5.7 mg/L (F1A) 6.7 mg/L (M1) 6.5 mg/L (CR1) 6.5 mg/L (CR2) 6.0 mg/L (S1) 6.7 mg/L (S2A) 7.5 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 13/11 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the slag material, rock filling works, levelling the sand blanket, rock filling works, installation of caisson and loading surface rock.</p> <p>Dominating sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>B1, B2 &amp; B3 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedances of these monitoring stations are deemed to be unrelated to the Project.</p> <p>H1 is located at upstream direction to the Project site while silt curtain checking was implemented on ESC-62 (07:00), GD853 (07:00), 宏建 1 (07:00), 宏建 3 (07:00),</p>		

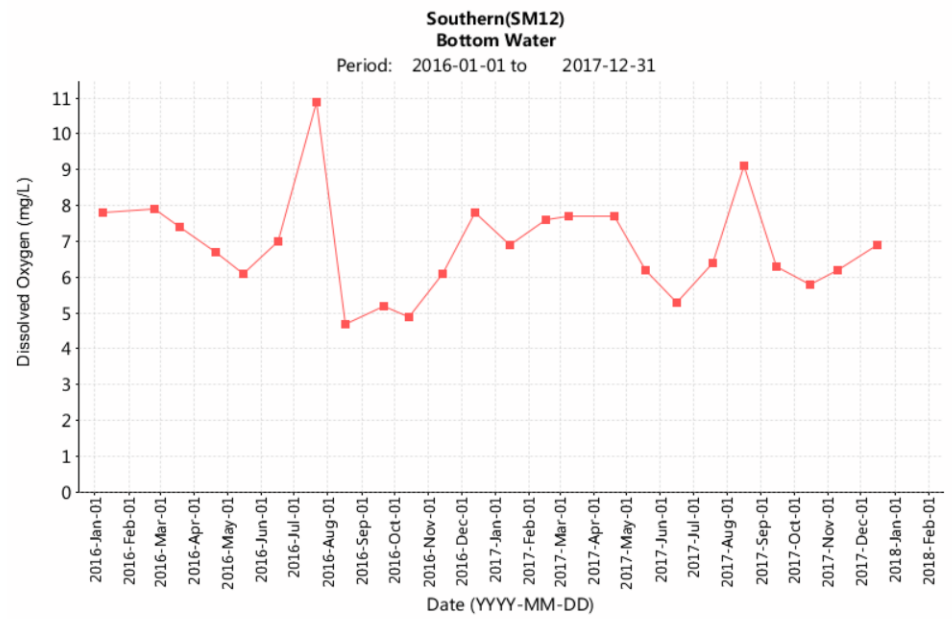
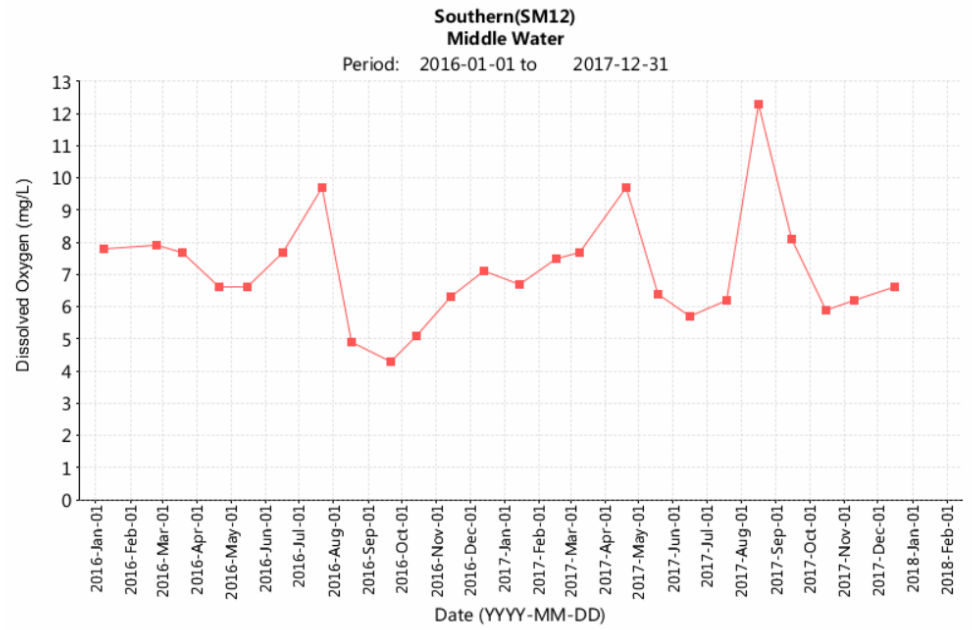
	<p>Cheung Kee No.10 (17:00) &amp; Kam Ying 8 (17:00) and checking results showed that no deficiency of silt curtain was found on that day. According to the site document provided by the Contractor, no works record of 宏建 2 &amp; 宏建 5 were stated in the site diary on that day.</p> <p>From MMO monitoring records on 13/11, MMO teams were arranged for three derrick barges (Cheung Kee No.10, GD853 &amp; Kam Ying 8) and two DCM barges (ESC-61 &amp; ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. 宏建 3, 宏建 1, 宏建 5, 宏建 2 &amp; UDL-2 were observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point. No DCM work scheduled in ESC-61 was carried out with refer to the site diary on that day. No slag material levelling work scheduled in UDL-2 was carried out with refer to the site diary on that day.</p> <p>According to the field observation by sampling team &amp; Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site. It might suggest that the SS exceedance at 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 12/11. No major observation of improper site practices that could contribute to the increase of the suspended solids recorded.</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&amp;A Manual.</p>																				
<p>Remarks</p>	<p>Current direction during mid-flood sampling on 13/11:</p>  <table border="1" data-bbox="472 1765 986 1951"> <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 <a href="http://current.hydro.gov.hk/en/map.html">http://current.hydro.gov.hk/en/map.html</a>)</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																		
0-0.5	Blue	1.5-2.0	Orange																		
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1.0-1.5	Yellow	2.5 and above	Red																		
<p>Prepared by</p>	<p>Polar Chan</p>																				
<p>Date</p>	<p>21 Nov 2019</p>																				

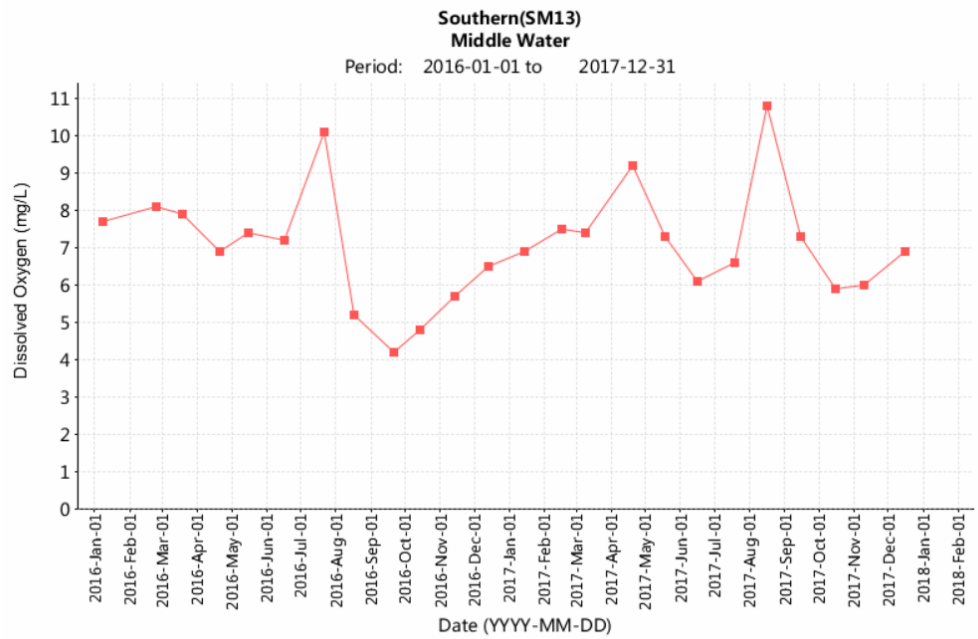
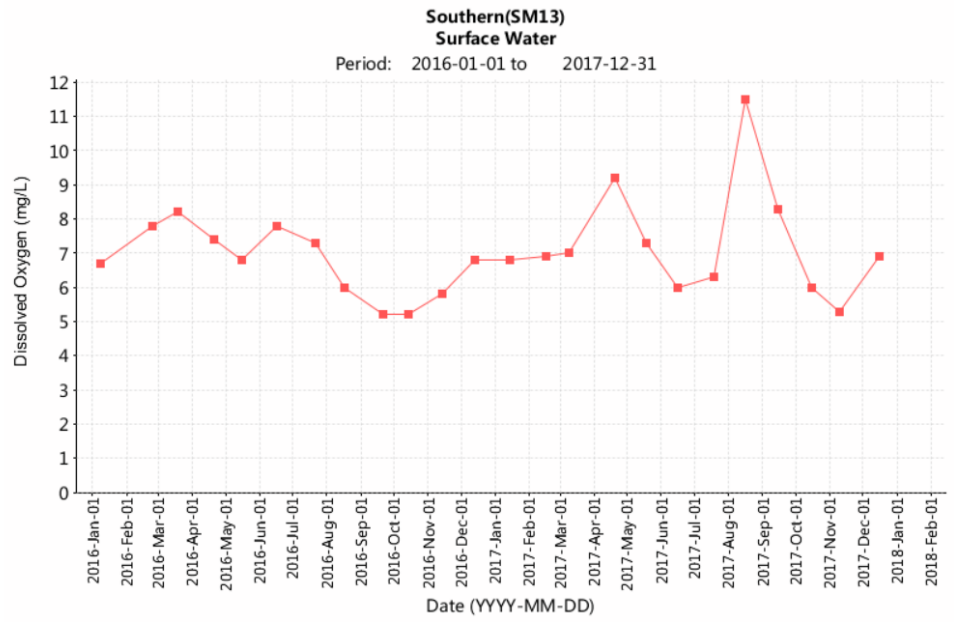
**Incident Report on Action Level or Limit Level Non-compliance**

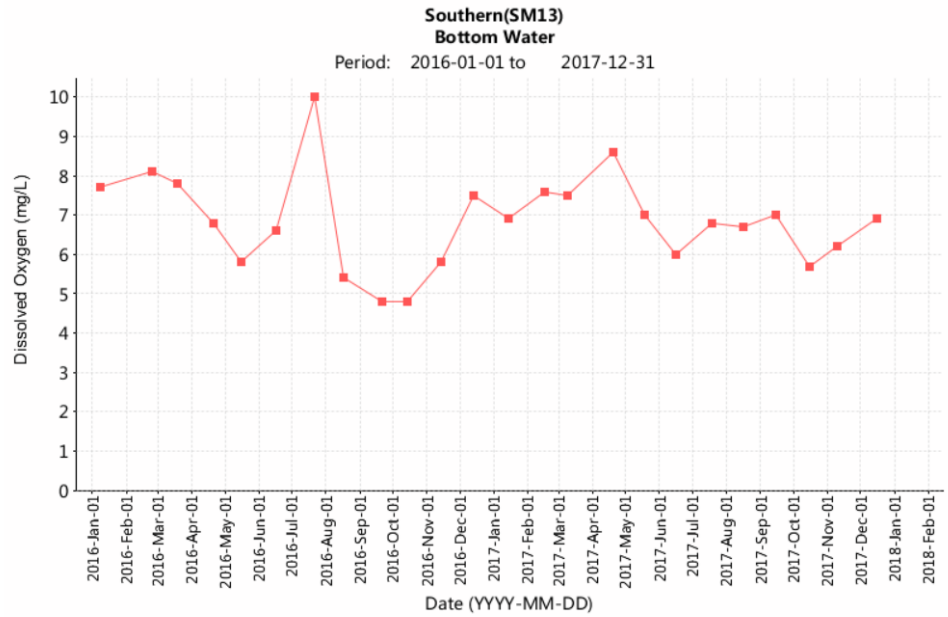
Project	Integrated Waste Management Facilities, Phase 1		
Date	18 November 2019		
Time	09:40 – 13:10 (Mid-Flood) 15:18 – 17:51 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) with Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.00 mg/L (B1) 7.02 mg/L (B2) 6.98 mg/L (B3) 6.97 mg/L (B4) 6.97 mg/L (F1A) 6.99 mg/L (H1) 7.04 mg/L (M1) 7.05 mg/L (CR1) 6.97 mg/L (CR2) 6.98 mg/L (S1) 7.08 mg/L (S2A) 6.96 mg/L (S3)	6.97 mg/L (C1A) 6.99 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	All monitoring stations including control stations C1A & C2A exhibited low and similar DO level.		
	By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.		
	By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 & SM13 in November 2016 & November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at		

	the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at all monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.		
	Mid-Ebb		
Monitoring Location	B3, F1A, H1, M1, CR1 & CR2		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.05 mg/L (B3) 7.13 mg/L (F1A) 7.05 mg/L (H1) 7.13 mg/L (M1) 7.11 mg/L (CR1) 7.12 mg/L (CR2)	7.15 mg/L (C1A) 7.13 mg/L (C2A)	7.26 mg/L (B1) 7.24 mg/L (B2) 7.17 mg/L (B4) 7.18 mg/L (S1) 7.21 mg/L (S2A) 7.17 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	Some monitoring stations including control station C2A exhibited low and similar DO level.		
	<p>By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.</p> <p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</p>		
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	Supporting figures of the EPD water data:		

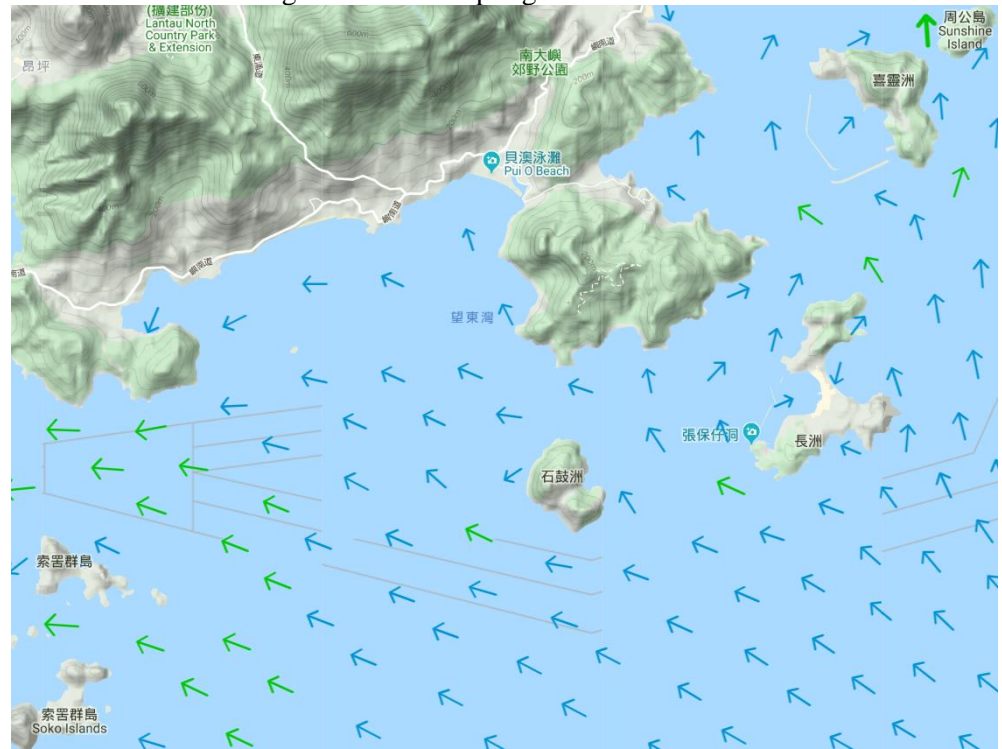






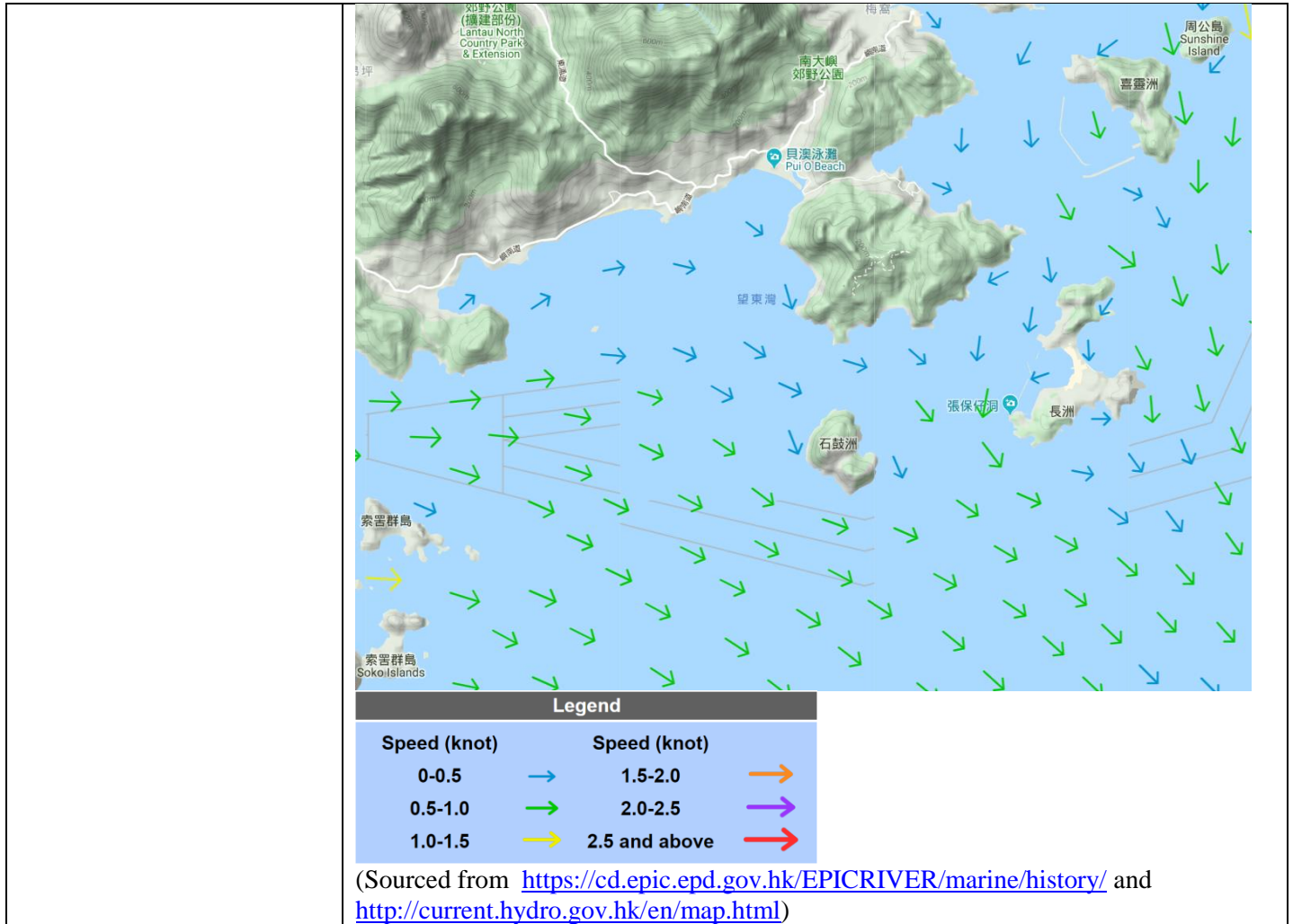


Current direction during mid-flood sampling on 18/11:



Current direction during mid-ebb sampling on 18/11:





Prepared by	Polar Chan
Date	29 November 2019

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

Project	Integrated Waste Management Facilities, Phase 1		
Date	20 Nov 2019 (Lab result received on 25 Nov 2019)		
Time	08:00 – 09:50 (Mid-Ebb) 12:20 – 15:50 (Mid-Flood)		
Mid-Ebb			
Monitoring Location	B3, B4, M1, CR1 & CR2		
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
	10.0 mg/L (B3) 8.0 mg/L (B4) 8.2 mg/L (M1) 8.8 mg/L (CR1) 8.0 mg/L (CR2)	5.3 mg/L (C1A) 5.3 mg/L (C2A)	7.3 mg/L (B1) 6.5 mg/L (B2) 3.7 mg/L (F1A) 4.0 mg/L (H1) 7.0 mg/L (S1) 7.5 mg/L (S2A) 7.3 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 20/11 include DCM main works, DCM sample coring for DCM main works, levelling the slag materials, cone penetration test, levelling the sand blanket, installation of caisson 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>B3, B4 &amp; M1 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedances of these monitoring stations are deemed to be unrelated to the Project.</p> <p>CR1 is located at downstream direction and CR2 is located close to the works location within the Project site while silt curtain checking was implemented on DL5 (16:30), GD853 (19/11 07:00), 宏建 3 (07:00), 宏建 5 (07:00) &amp; Cheung Kee No.10 (07:00)</p>		

and checking results showed that no deficiency of silt curtain was found on that day. As confirmed by the Contractor, GD-853 only carried out slag removal works before 7:00 a.m. on that day and no construction work were carried out after 07:00 due to swell affection. Therefore, the silt curtain of GD-853 was checked on 19/11 and no deficiency was found.

From MMO monitoring records on 20/11, MMO teams were arranged for four derrick barges (DL5, GD853, 宏建 3 & 宏建 5) and two DCM barges (ESC-61 & ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. Cheung Kee No.10 & UDL-2 were observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point. No DCM main works scheduled in ESC-61 & ESC-62 were carried out with refer to the site diary on that day. No slag material levelling work scheduled in UDL-2 was carried out with refer to the site diary on that day.

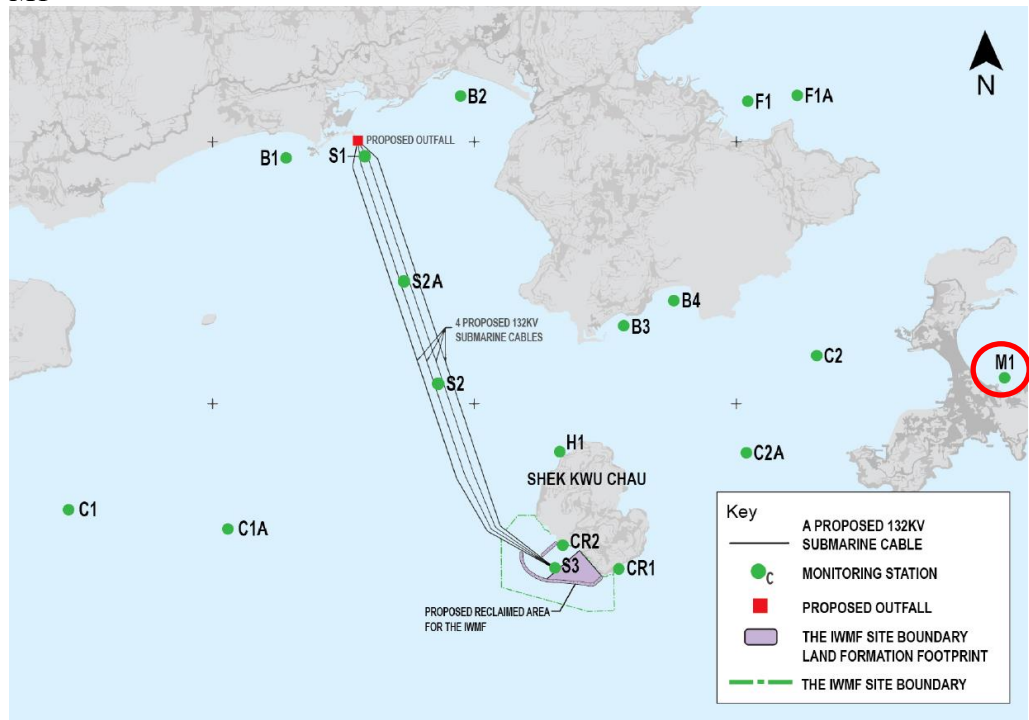
According to the field observation by sampling team & Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site. It might suggest that the SS exceedances at CR1 & CR2 are deemed to be unrelated to the Project.

Site tidiness in the present barges in the Project site were checked during weekly site inspection on 15/11 where small amount of sediment was found at the edge of UDL-2. However, according to the rationale in previous paragraphs, this observation might not contribute to the increase of the suspended solids recorded.

Mid-Flood

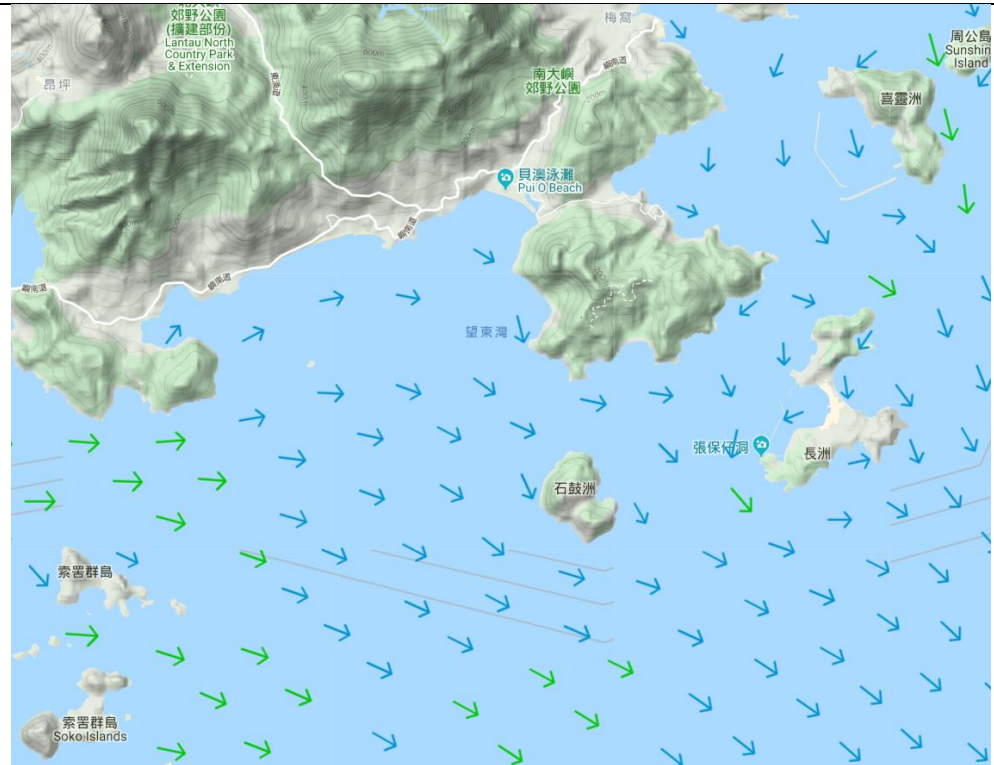
Monitoring Location

M1

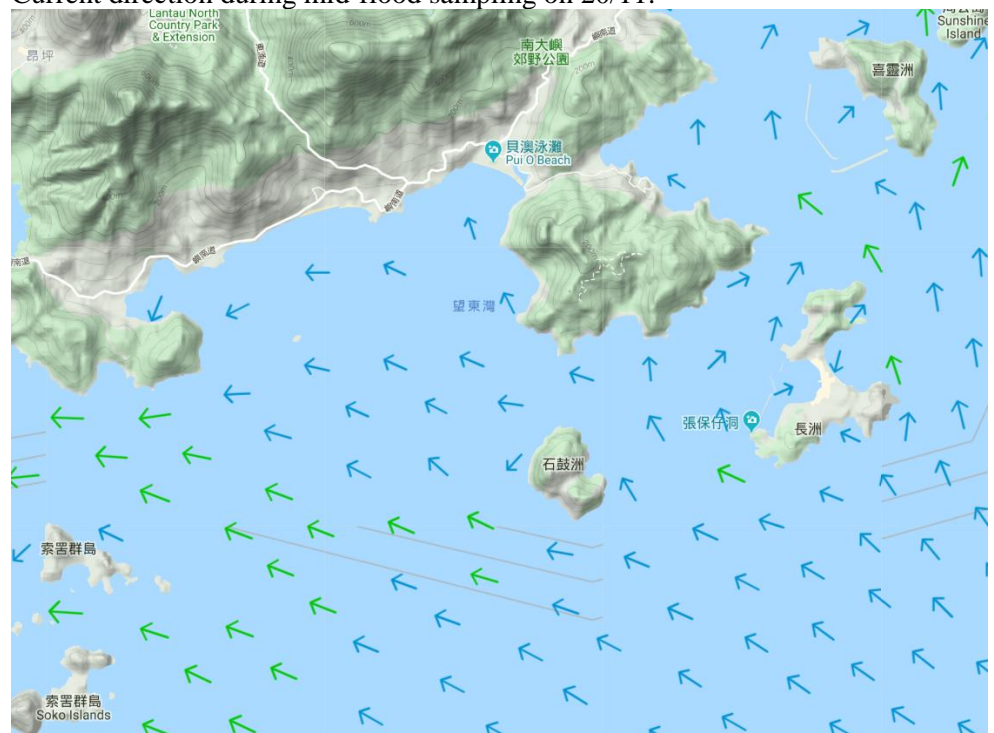


Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level	Limit Level	
	≥ 8.0 mg/L	≥ 10.0 mg/L	
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	8.8 mg/L (M1)	7.2 mg/L (C1A) 5.7 mg/L (C2A)	3.3 mg/L (B1) 3.5 mg/L (B2) 2.8 mg/L (B3)

			4.8 mg/L (B4) 4.2 mg/L (F1A) 3.3 mg/L (H1) 3.0 mg/L (CR1) 6.8 mg/L (CR2) 4.0 mg/L (S1) 2.5 mg/L (S2A) 2.8 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 20/11 include DCM main works, DCM sample coring for DCM main works, levelling the slag materials, cone penetration test, levelling the sand blanket, installation of caisson and rock filling works.</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 station is deemed to be unrelated to the Project.</p> <p>Silt curtain checking was implemented on DL5 (16:30), GD853 (19/11 07:00), 宏建 3 (07:00), 宏建 5 (07:00) &amp; Cheung Kee No.10 (07:00) and checking results showed that no deficiency of silt curtain was found on that day. As confirmed by the Contractor, GD-853 only carried out slag removal works before 7:00 a.m. on that day and no construction work were carried out after 07:00 due to swell affection. Therefore, the silt curtain of GD-853 was checked on 19/11 and no deficiency was found.</p> <p>From MMO monitoring records on 20/11, MMO teams were arranged for four derrick barges (DL5, GD853, 宏建 3 &amp; 宏建 5) and two DCM barges (ESC-61 &amp; ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. Cheung Kee No.10 &amp; UDL-2 were observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point. No DCM main works scheduled in ESC-61 &amp; ESC-62 were carried out with refer to the site diary on that day. No slag material levelling work scheduled in UDL-2 was carried out with refer to the site diary on that day.</p> <p>According to the field observation by sampling team &amp; Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 15/11 where small amount of sediment was found at the edge of UDL-2. However, according to the rationale in previous paragraphs, this observation might not contribute to the increase of the suspended solids recorded.</p>		
Actions taken / to be taken	<p>Sediment accumulated on the edge of UDL-2 has been cleaned up on 18 November 2019. The Contractor was reminded to clean the accumulated sediment regularly to prevent falling 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&amp;A Manual.</p>		
Remarks	<p>Current direction during mid-ebb sampling on 20/11:</p>		



Current direction during mid-flood sampling on 20/11:



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	28 Nov 2019

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

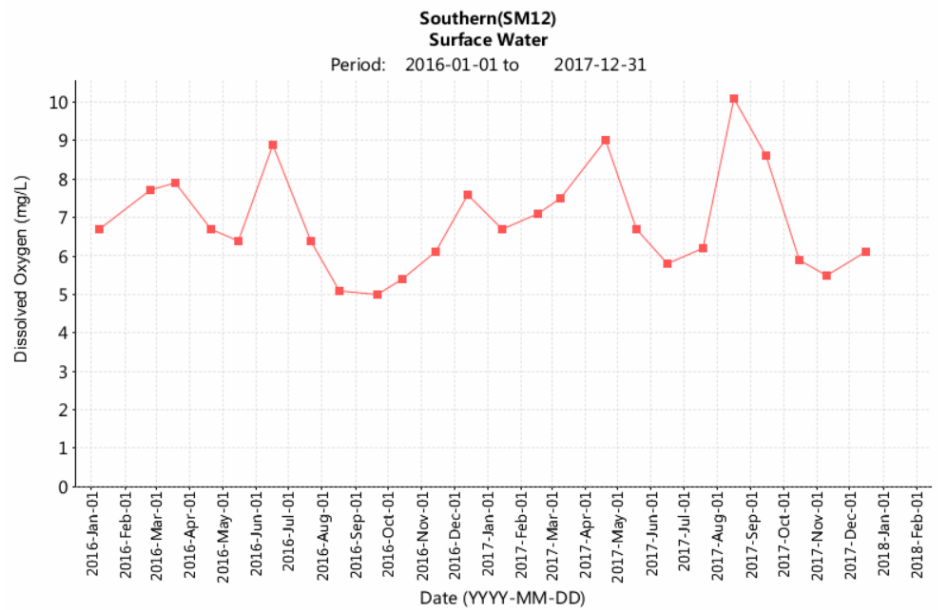
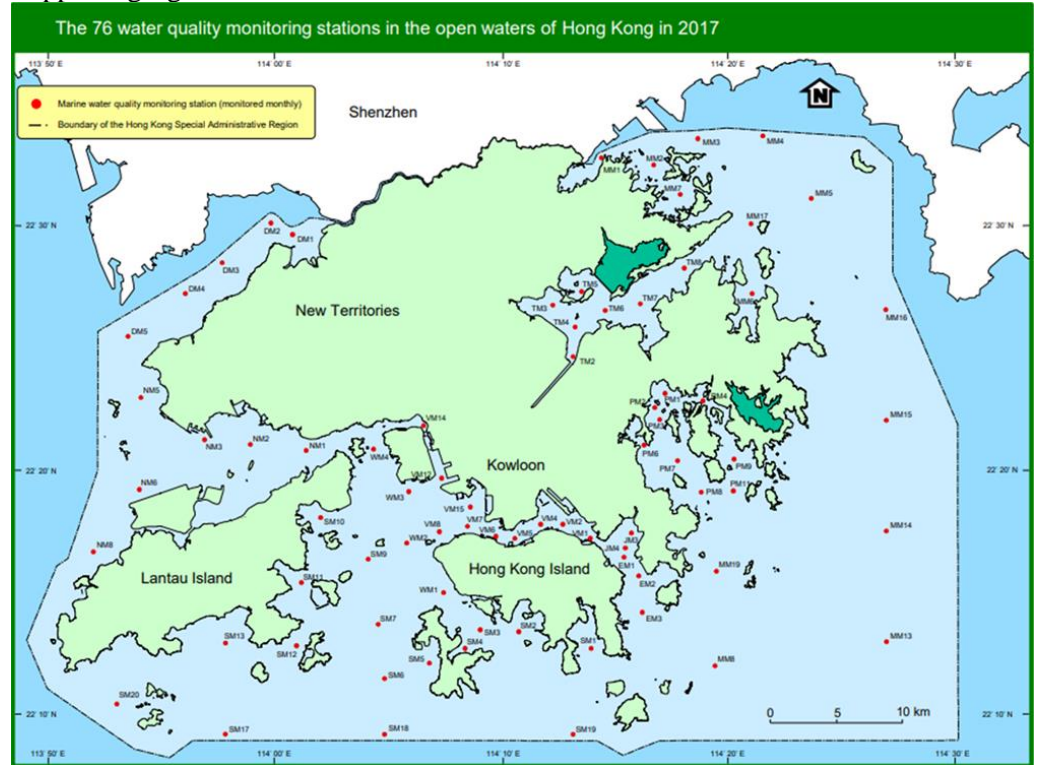
Project	Integrated Waste Management Facilities, Phase 1		
Date	22 November 2019		
Time	13:38 – 17:08 (Mid-Flood) 08:00 – 11:26 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) with Exceedance	Control Stations	Impact Station(s) without Exceedance
	6.99 mg/L (B1) 7.07 mg/L (B2) 6.97 mg/L (B3) 6.99 mg/L (B4) 7.00 mg/L (F1A) 7.07 mg/L (M1) 7.04 mg/L (CR1) 7.11 mg/L (CR2) 7.04 mg/L (S1) 7.06 mg/L (S2A) 6.95 mg/L (S3)	7.04 mg/L (C1A) 7.00 mg/L (C2A)	7.14 mg/L (H1)
Possible reason for Action or Limit Level Non-compliance	Most of monitoring stations (B1, B2, B3, B4, F1A, M1, CR1, CR2, S1, S2A & S3) including control stations C1A & C2A exhibited low and similar DO level.		
	By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.		
	By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 & SM13 in November 2016 & November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is		

	concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.		
	Mid-Ebb		
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	6.96 mg/L (B1) 6.92 mg/L (B2) 6.95 mg/L (B3) 6.82 mg/L (B4) 6.98 mg/L (F1A) 6.94 mg/L (H1) 6.91 mg/L (M1) 6.97 mg/L (CR1) 7.00 mg/L (CR2) 6.94 mg/L (S1) 6.92 mg/L (S2A) 6.97 mg/L (S3)	6.87 mg/L (C1A) 6.94 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	All monitoring stations including control stations C1A & C2A exhibited low and similar DO level.		
	By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.  By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 & SM13 in November 2016 & November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.		
Actions taken / to be taken	Examination of environmental performance of the Project will be continued during the		

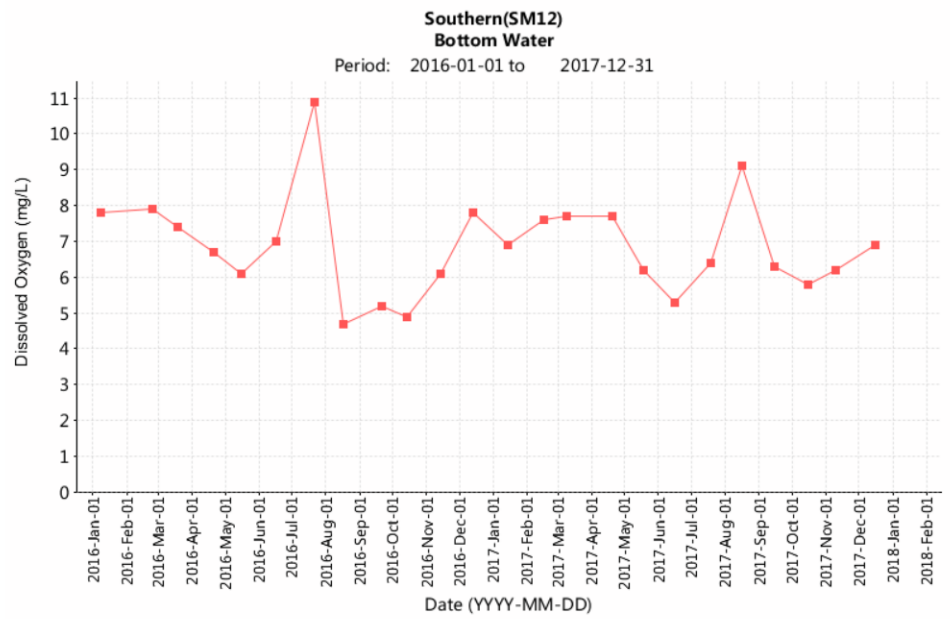
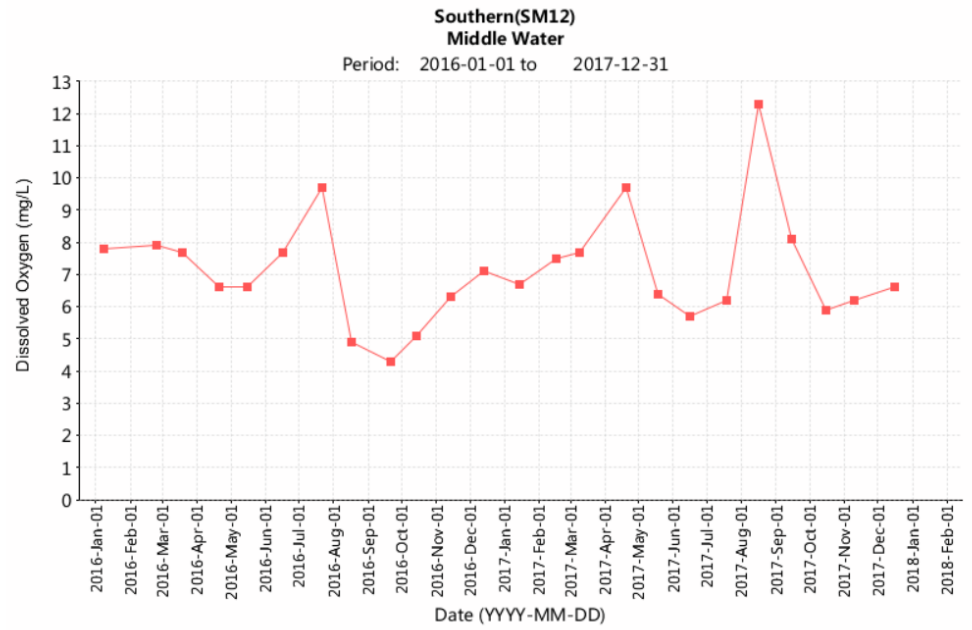
Remarks

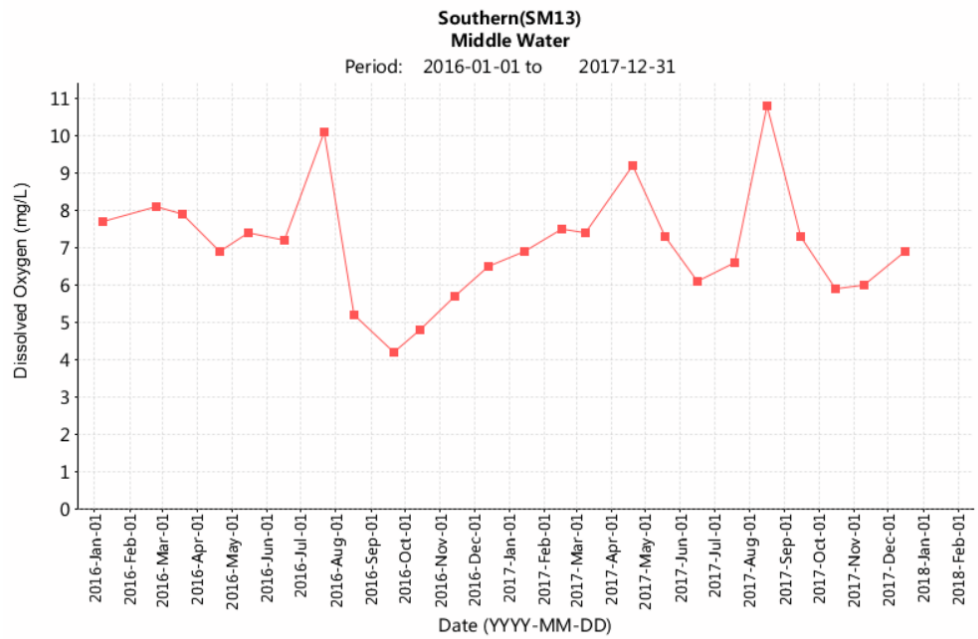
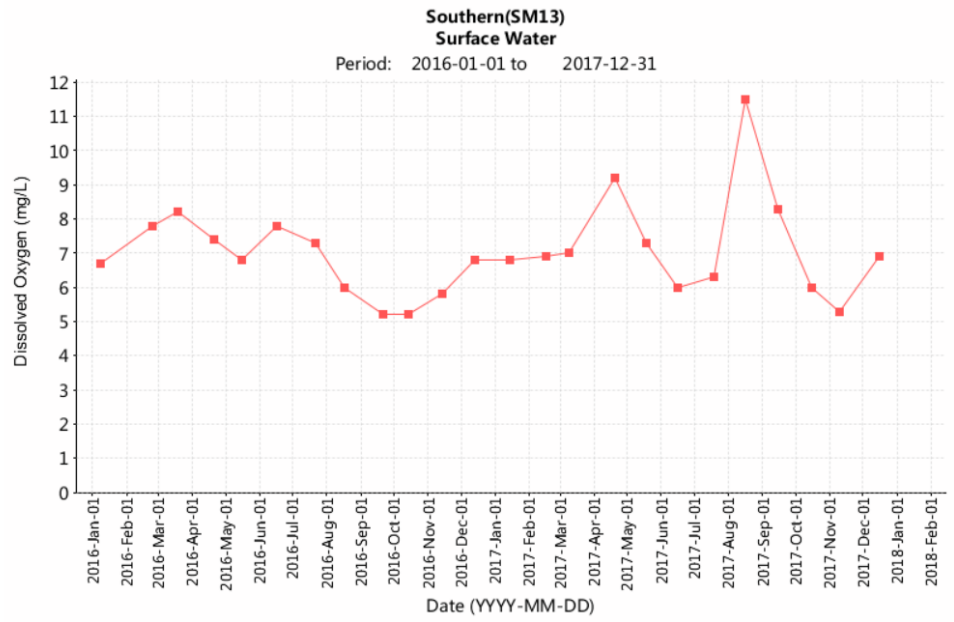
weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.

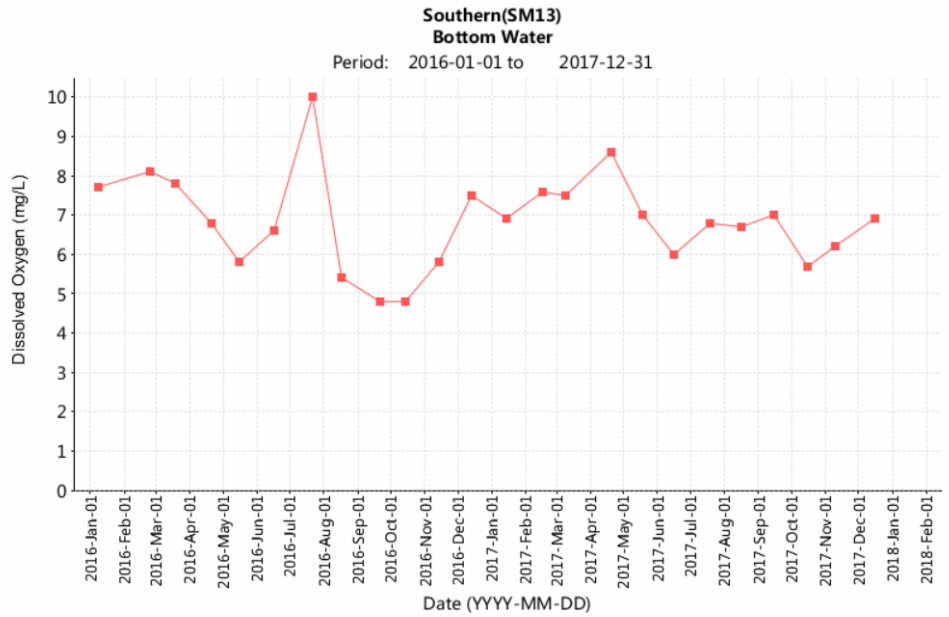
Supporting figures of the EPD water data:



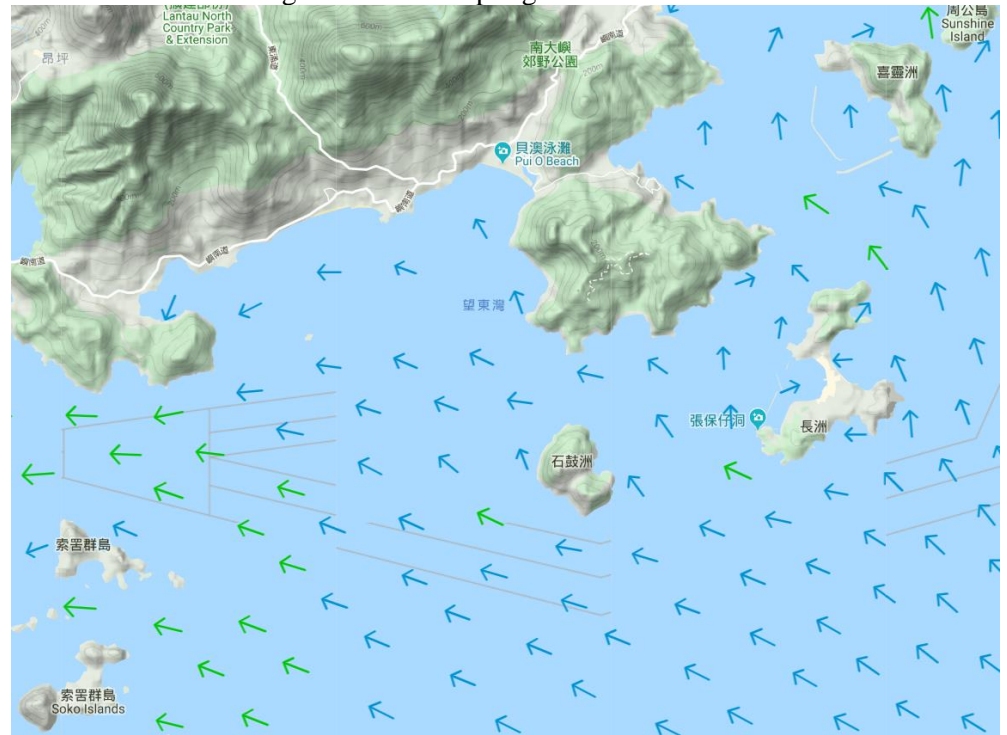




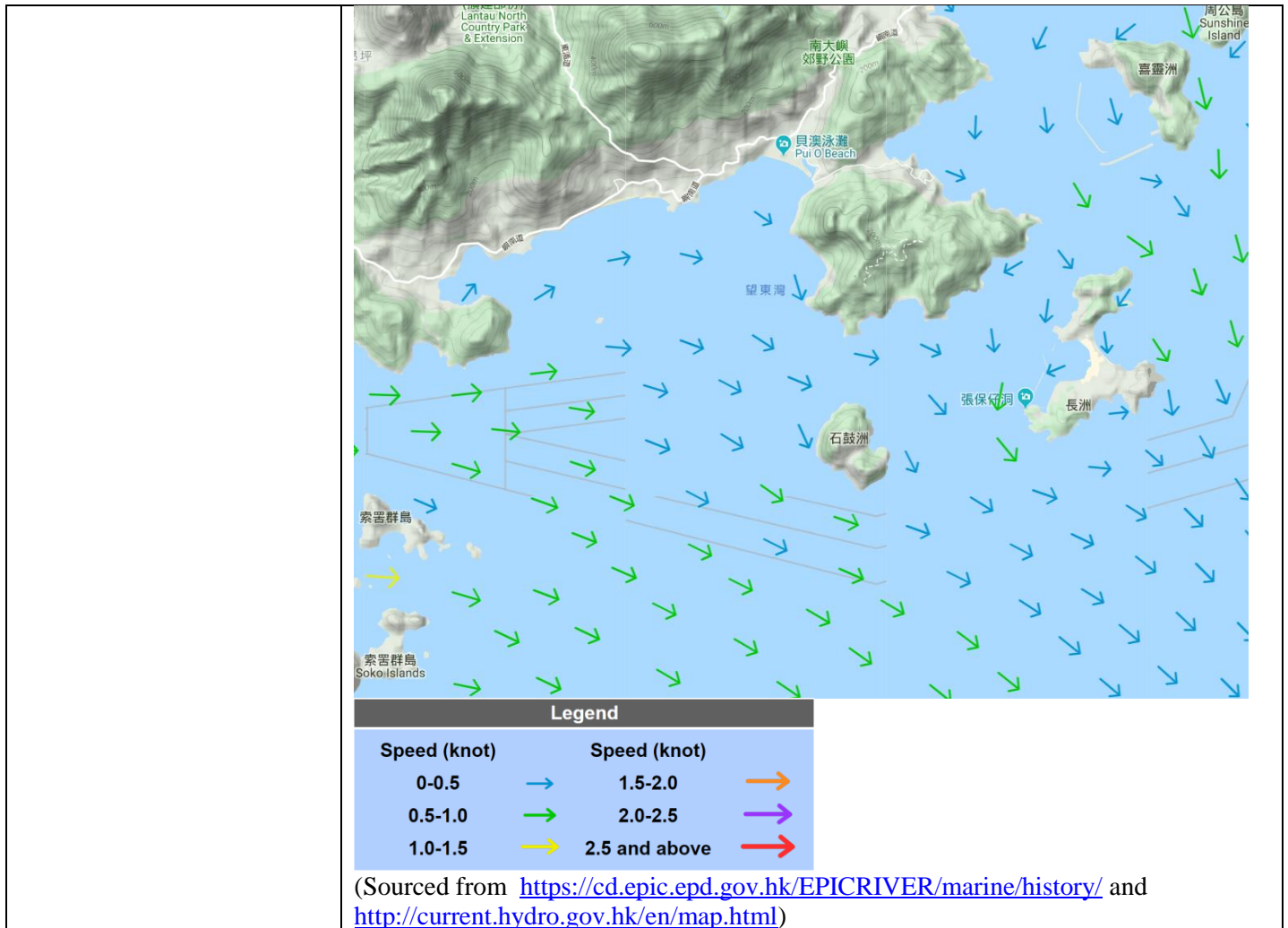




Current direction during mid-flood sampling on 22/11:



Current direction during mid-ebb sampling on 22/11:



Prepared by	Polar Chan
Date	29 November 2019

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

Project	Integrated Waste Management Facilities, Phase 1		
Date	22 Nov 2019 (Lab result received on 27 Nov 2019)		
Time	08:00 – 11:26 (Mid-Ebb) 13:38 – 17:08 (Mid-Flood)		
Mid-Ebb			
Monitoring Location	<p>M1</p> <p>The map shows the Shek Kwu Chau area with various monitoring stations marked with green dots. 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. Station M1 is circled in red.</p>		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 12.4 mg/L (120% of C1A)		≥ 13.4 mg/L (130% of C1A)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	13.2 mg/L (M1)	10.3 mg/L (C1A) 7.0 mg/L (C2A)	10.0 mg/L (B1) 11.3 mg/L (B2) 8.8 mg/L (B3) 9.5 mg/L (B4) 8.3 mg/L (F1A) 10.2 mg/L (H1) 8.7 mg/L (CR1) 6.3 mg/L (CR2) 8.0 mg/L (S1) 6.5 mg/L (S2A) 9.3 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 22/11 include DCM main works, DCM sample coring for DCM main works, levelling the slag materials, cone penetration test, levelling the sand blanket, installation of caisson, rock filling works and removal of concrete blocks.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast 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 station is deemed to be unrelated to the Project.</p>		

According to the field observation by sampling team & Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site.

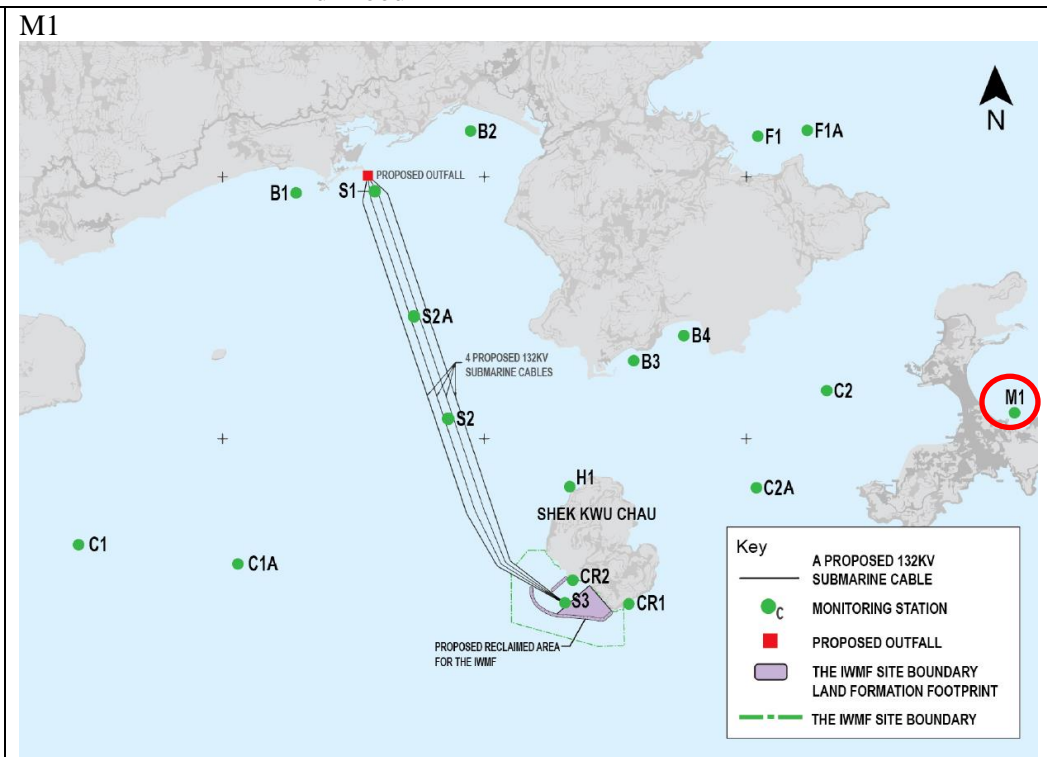
Silt curtain checking was implemented on ESC-61 (07:00), ESC-62 (07:00), GD851 (07:00), GD853 (07:00), UDL-2 (07:00), 宏建 1 (07:00), 宏建 3 (07:00), 志富 (07:00), DL-5 (12:00) & Cheung Kee No.10 (07:00) and checking results showed that no deficiency of silt curtain was found on that day.

From MMO monitoring records on 22/11, MMO teams were arranged for six derrick barges (Cheung Kee No.10, GD853, 宏建 1, GD851, DL-5, 志富) and two DCM barges (ESC-61 & ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. With reference to the site diary and observation by MMO, 宏建 3 was carrying the diving works, no marine mammal and water quality concerning activity was conducted. UDL-2 was working with GD853 as a pair with shared silt curtain, therefore, the MMO checking on construction activity of both UDL-2 and GD853 were conducted by MMO at once.

Site tidiness in the present barges in the Project site were checked during weekly site inspection on 19/11. No major observation of improper site practices that could contribute to the increase of the suspended solids recorded.

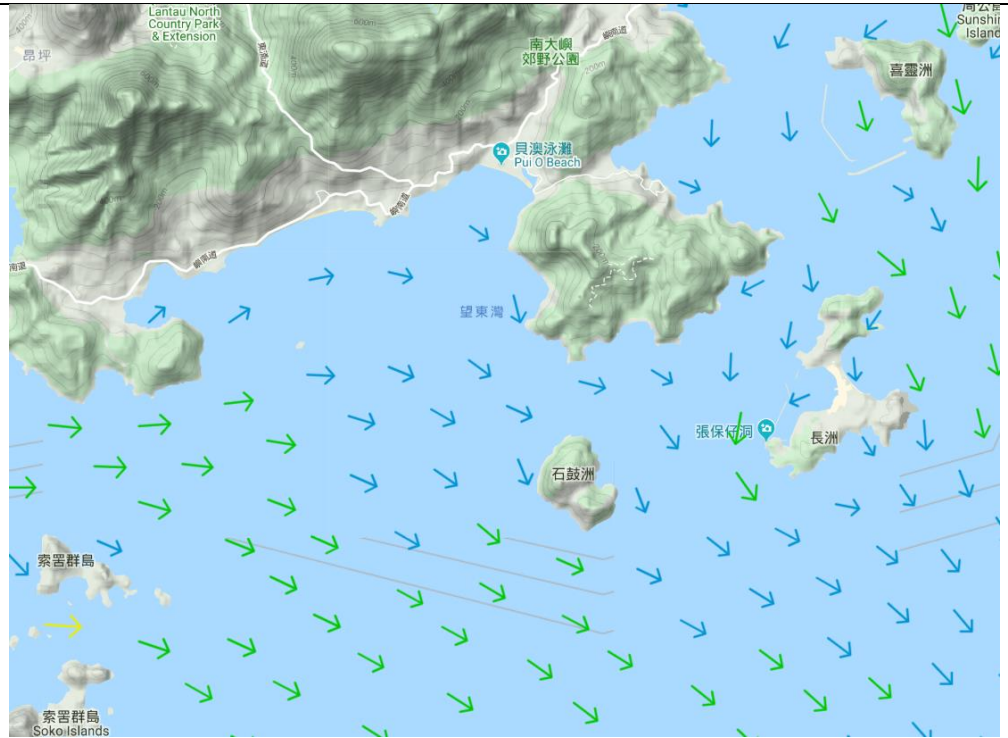
Mid-Flood

Monitoring Location

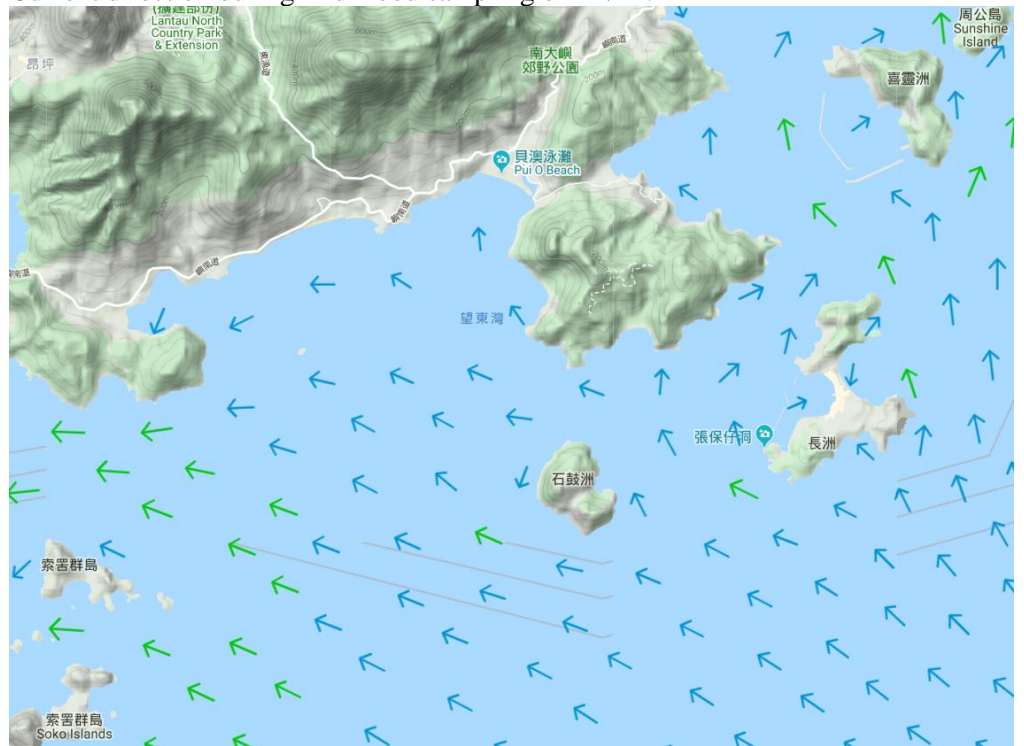


Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 12.2 mg/L (120% of C2A)		≥ 13.2 mg/L (130% of C2A)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	12.3 mg/L (M1)	9.7 mg/L (C1A) 10.2 mg/L (C2A)	7.0 mg/L (B1) 9.0 mg/L (B2) 9.8 mg/L (B3) 9.3 mg/L (B4) 8.8 mg/L (F1A) 8.7 mg/L (H1)

			10.5 mg/L (CR1) 10.5 mg/L (CR2) 11.5 mg/L (S1) 12.0 mg/L (S2A) 10.8 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 22/11 include DCM main works, DCM sample coring for DCM main works, levelling the slag materials, cone penetration test, levelling the sand blanket, installation of caisson, rock filling works and removal of concrete blocks.</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 station is deemed to be unrelated to the Project.</p> <p>According to the field observation by sampling team &amp; Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site.</p> <p>Silt curtain checking was implemented on ESC-61 (07:00), ESC-62 (07:00), GD851 (07:00), GD853 (07:00), UDL-2 (07:00), 宏建 1 (07:00), 宏建 3 (07:00), 志富 (07:00), DL-5 (12:00) &amp; Cheung Kee No.10 (07:00) and checking results showed that no deficiency of silt curtain was found on that day.</p> <p>From MMO monitoring records on 22/11, MMO teams were arranged for six derrick barges (Cheung Kee No.10, GD853, 宏建 1, GD851, DL-5, 志富) and two DCM barges (ESC-61 &amp; ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. With refer to the site diary, 宏建 3 was carrying the diving works. With reference to the site diary and observation by MMO, 宏建 3 was carrying the diving works, no marine mammal and water quality concerning activity was conducted. UDL-2 was working with GD853 as a pair with shared silt curtain, therefore, the MMO checking on construction activity of both UDL-2 and GD853 were conducted by MMO at once.</p> <p>Site tidiness in the present barges in the Project site were checked during weekly site inspection on 19/11. No major observation of improper site practices that could contribute to the increase of the suspended solids recorded.</p>		
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 22/11:		



Current direction during mid-flood sampling on 22/11:



Legend			
Speed (knot)	Color	Speed (knot)	Color
0-0.5	Blue arrow	1.5-2.0	Orange arrow
0.5-1.0	Green arrow	2.0-2.5	Purple arrow
1.0-1.5	Yellow arrow	2.5 and above	Red arrow

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

Prepared by	Polar Chan
Date	28 Nov 2019



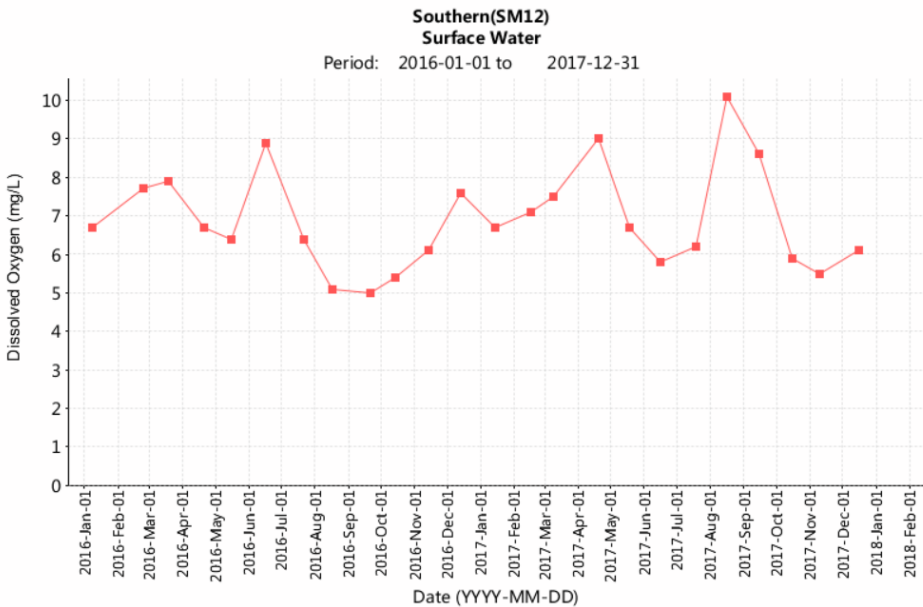
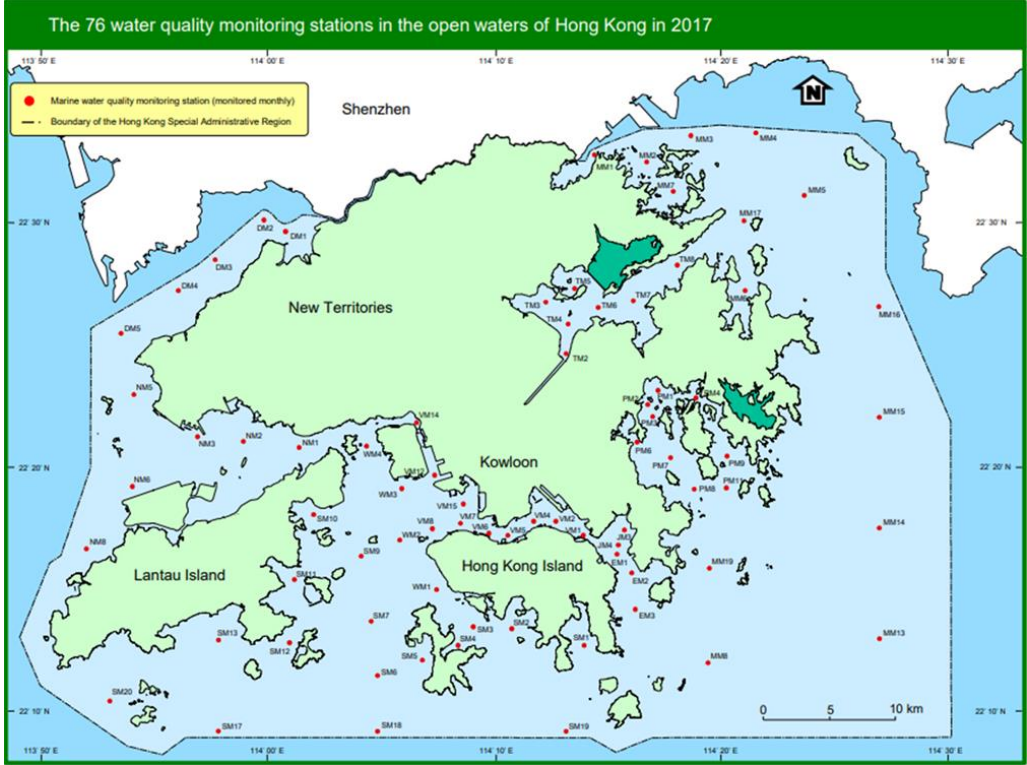
**Incident Report on Action Level or Limit Level Non-compliance**

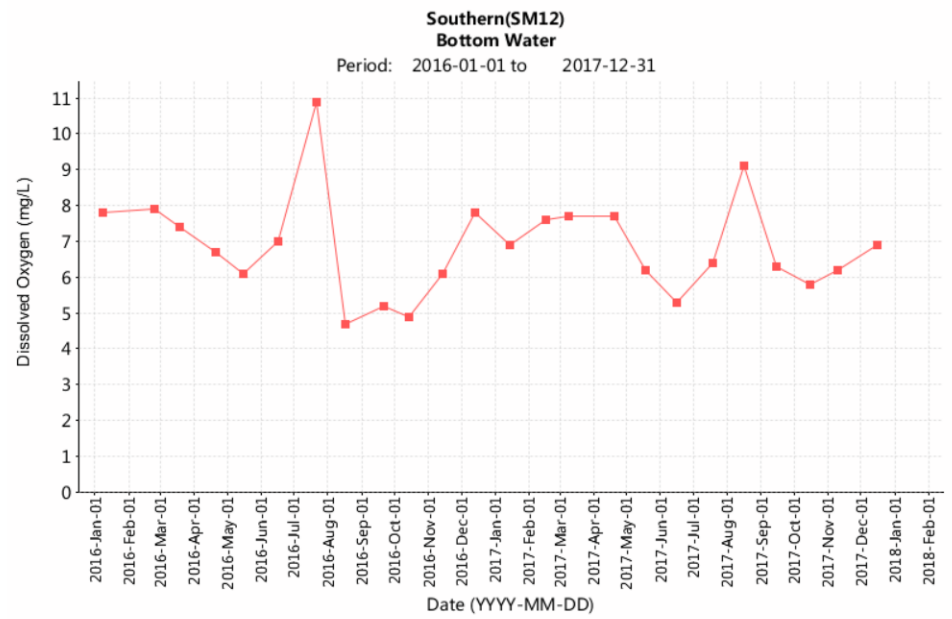
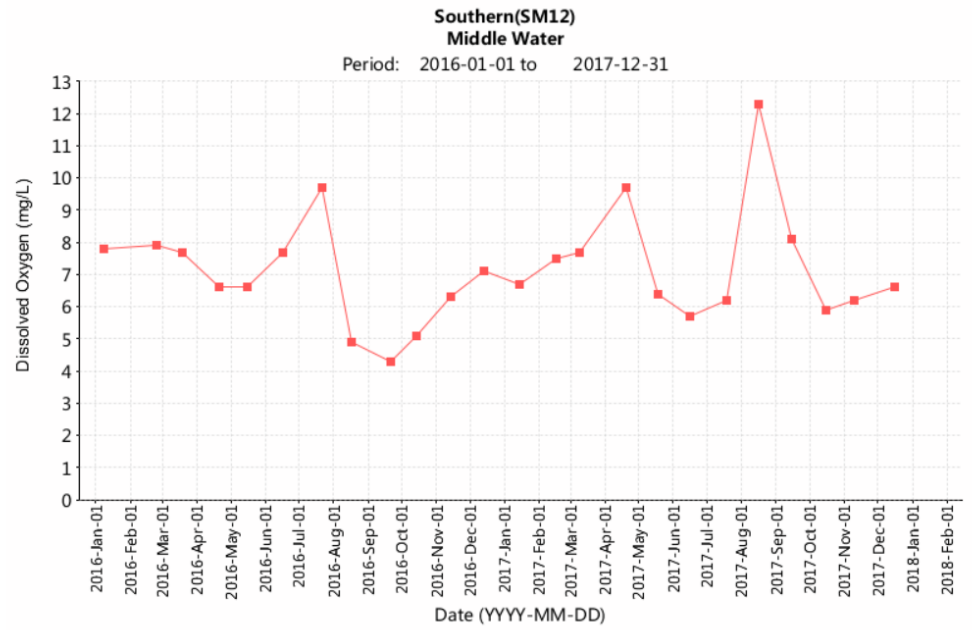
Project	Integrated Waste Management Facilities, Phase 1		
Date	25 November 2019		
Time	15:20 – 18:50 (Mid-Flood) 09:31 – 13:01 (Mid-Ebb)		
Mid-Flood			
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) with Exceedance	Control Stations	Impact Station(s) without Exceedance
	7.01 mg/L (B1) 6.92 mg/L (B2) 7.08 mg/L (B3) 7.02 mg/L (B4) 6.92 mg/L (F1A) 6.97 mg/L (H1) 6.93 mg/L (M1) 6.99 mg/L (CR1) 7.00 mg/L (CR2) 7.01 mg/L (S1) 7.05 mg/L (S2A) 6.98 mg/L (S3)	7.04 mg/L (C1A) 7.01 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	All monitoring stations including control stations C1A & C2A exhibited low and similar DO level.		
	By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.		
	By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 & SM13 in November 2016 & November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at		

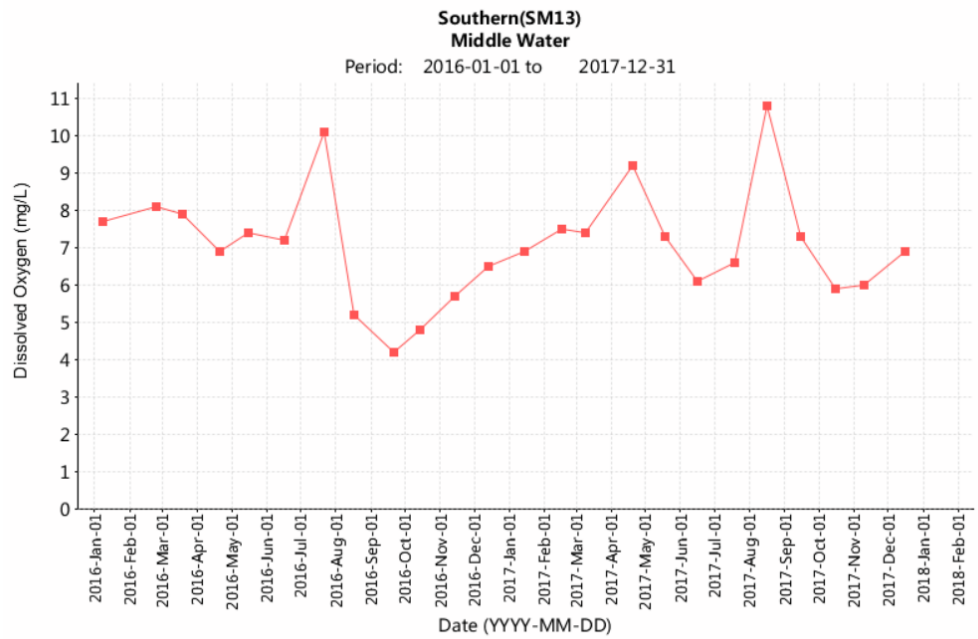
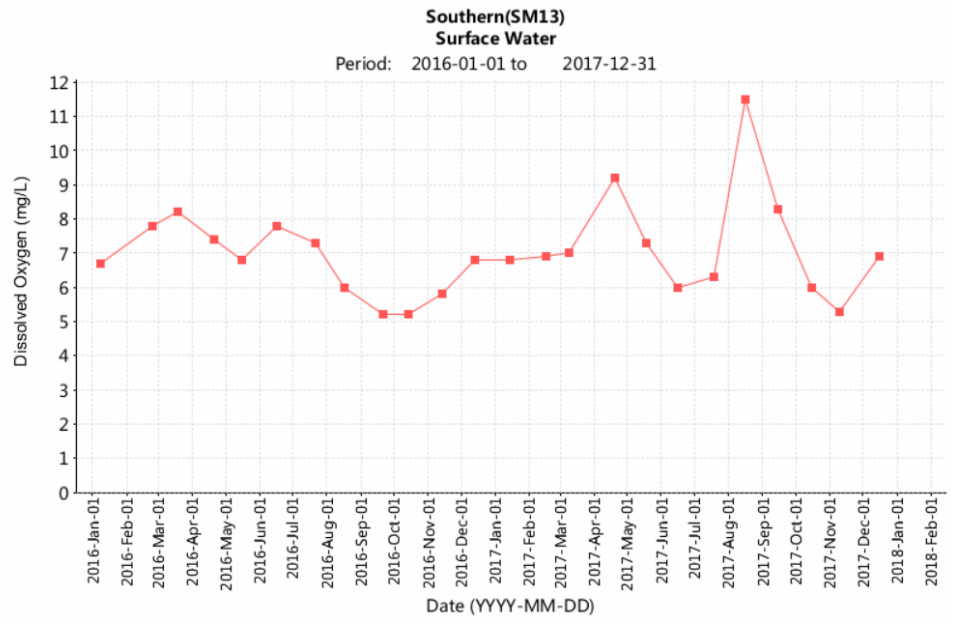
	the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.		
	Mid-Ebb		
Monitoring Location	B1, B2, B3, B4, C1A, C2A, F1A, H1, M1, CR1, CR2, S1, S2A & S3		
Parameter	Dissolved Oxygen (DO)		
Action & Limit Levels	Action Level		Limit Level
	≤ 7.13 mg/L		≤ 4.00 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	6.94 mg/L (B1) 6.98 mg/L (B2) 6.91 mg/L (B3) 7.08 mg/L (B4) 7.10 mg/L (F1A) 7.05 mg/L (H1) 6.95 mg/L (M1) 7.02 mg/L (CR1) 7.01 mg/L (CR2) 7.06 mg/L (S1) 7.00 mg/L (S2A) 7.05 mg/L (S3)	7.01 mg/L (C1A) 7.06 mg/L (C2A)	
Possible reason for Action or Limit Level Non-compliance	All monitoring stations including control stations C1A & C2A exhibited low and similar DO level.		
	<p>By reviewing the DO monitoring data in November 2018 of the Project, a seasonal fluctuation of DO level was observed in surrounding waters.</p> <p>By reviewing the available data from EPD, the DO level of marine water monitoring stations SM12 &amp; SM13 in November 2016 &amp; November 2017 is also below Action Level (7.13 mg/L) during dry season. Considering the absence of distinct low DO at the impact stations near to the Project Site and plausible seasonal factor, it is concluded that exceedance of Action level of DO at these monitoring stations are related to surrounding weather conditions and deemed to be unrelated to the Project.</p>		

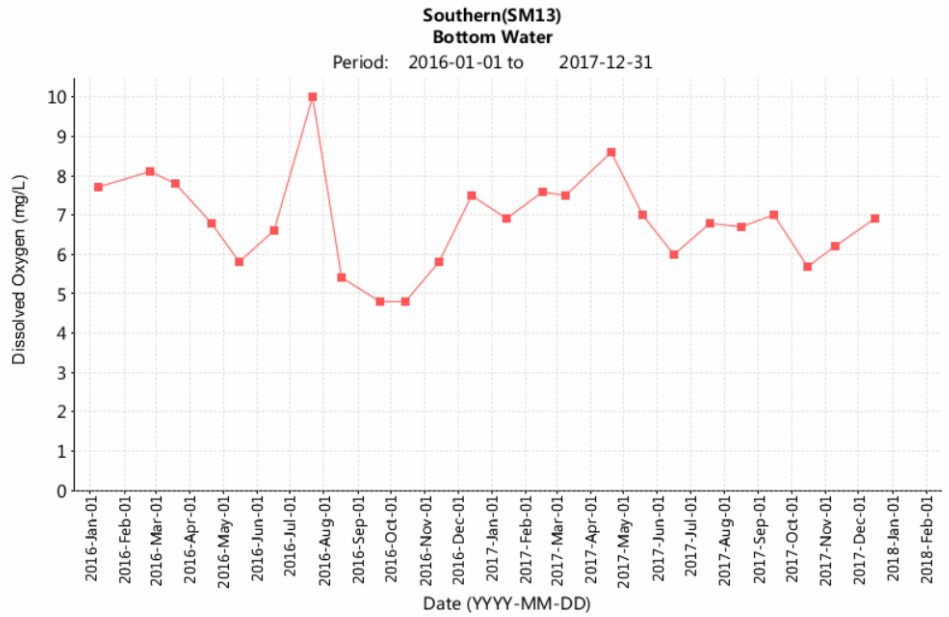
**Actions taken / to be taken** Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.

**Remarks** Supporting figures of the EPD water data:

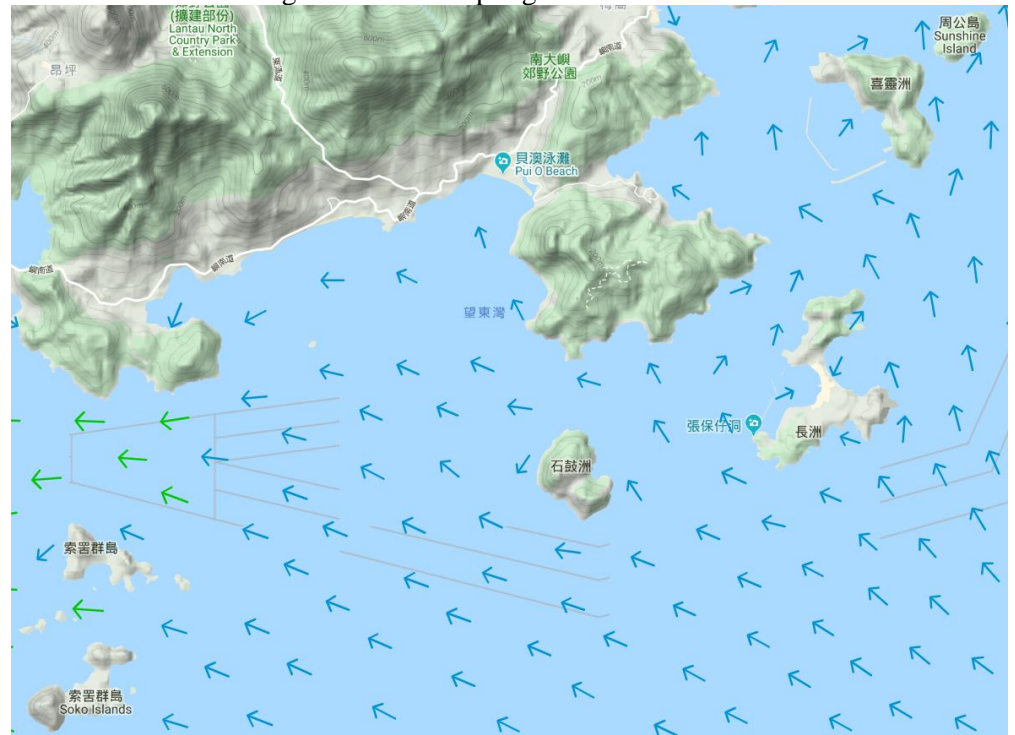




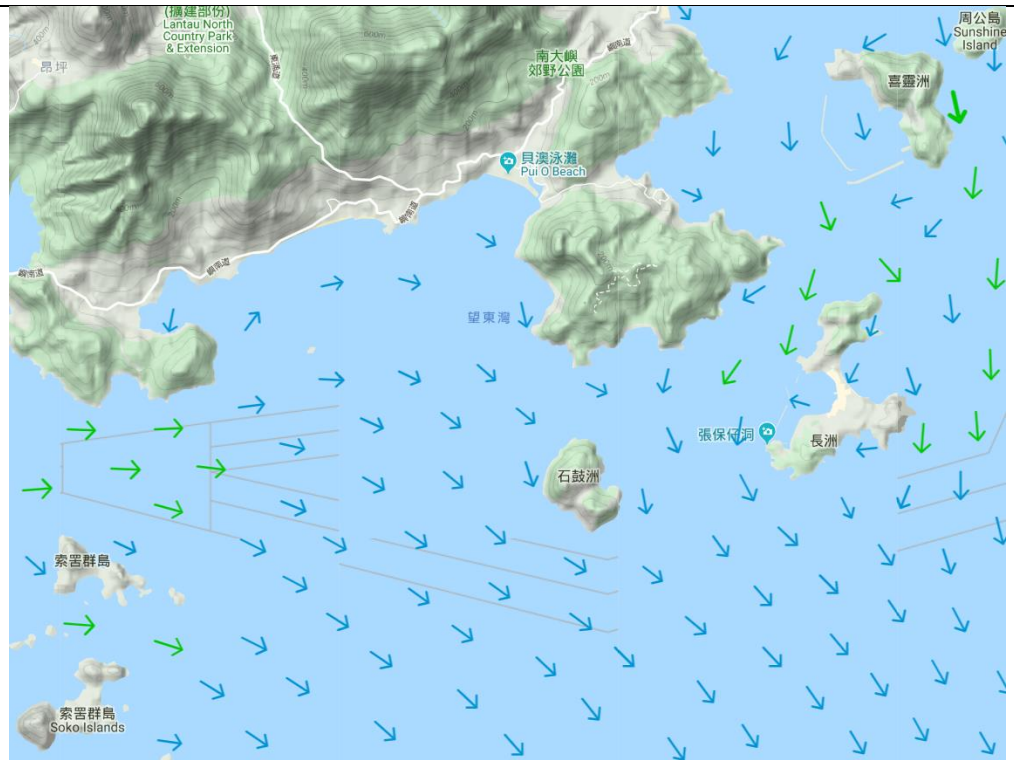




Current direction during mid-flood sampling on 25/11:



Current direction during mid-ebb sampling on 25/11:



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 <https://cd.epic.epd.gov.hk/EPICRIVER/marine/history/> and <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Polar Chan
Date	29 November 2019

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

Project	Integrated Waste Management Facilities, Phase 1		
Date	25 Nov 2019 (Lab result received on 28 Nov 2019)		
Time	09:31 – 13:01 (Mid-Ebb)		
Monitoring Location	Mid-Ebb S2A & S3		
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
	8.2 mg/L (S2A) 8.2 mg/L (S3)	6.3 mg/L (C1A) 5.5 mg/L (C2A)	6.5 mg/L (B1) 4.8 mg/L (B2) 5.0 mg/L (B3) 5.0 mg/L (B4) 6.2 mg/L (F1A) 4.7 mg/L (H1) 7.8 mg/L (M1) 7.7 mg/L (CR1) 7.0 mg/L (CR2) 7.3 mg/L (S1)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 25/11 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the sand blanket, removal of temporary storage of surface rock, laying sand blanket, rock filling works, installation of caisson and loading surface rock.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>S2A 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>		



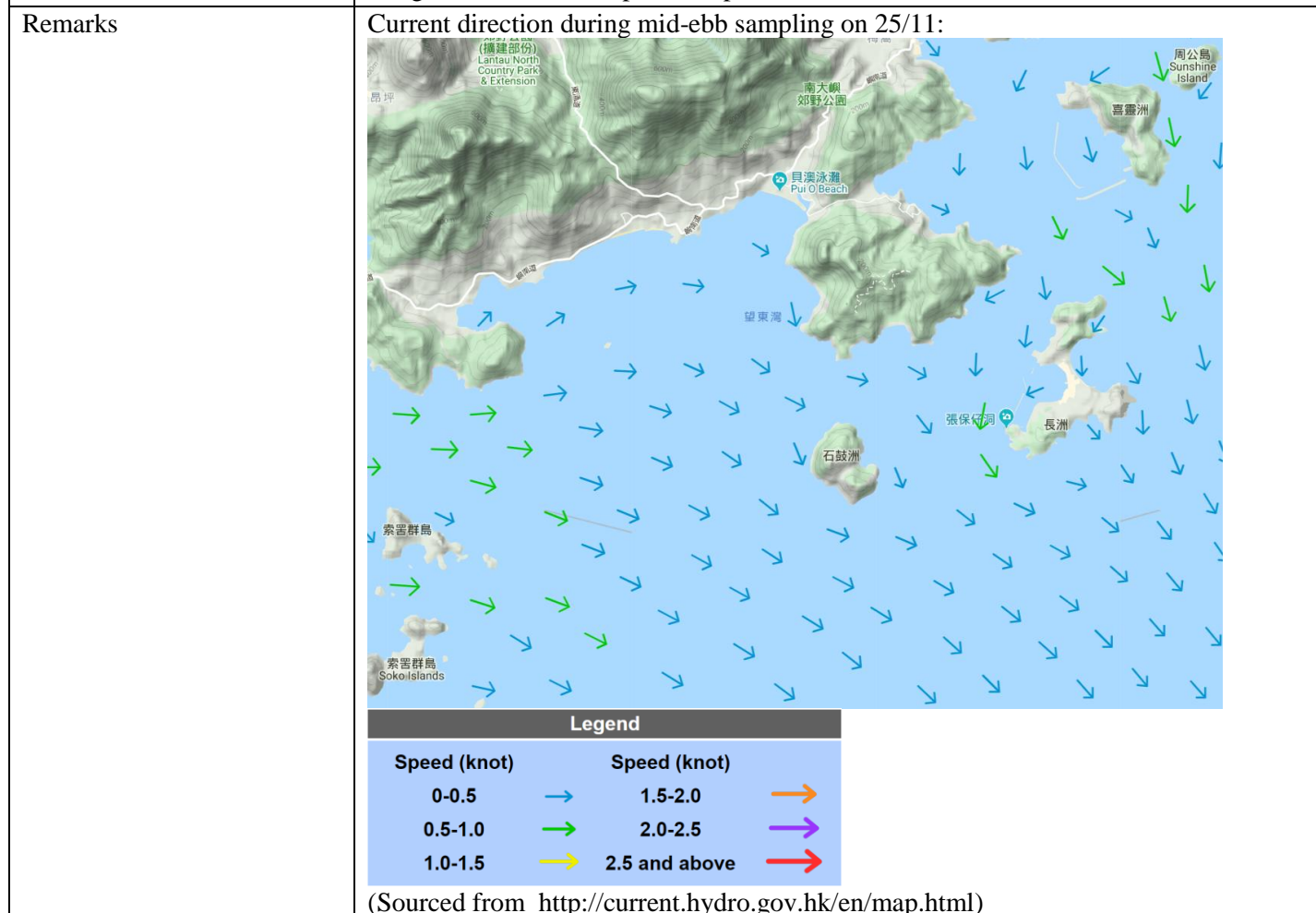
S3 is located close to the works location within the Project site while silt curtain checking was implemented on ESC-62 (09:00), GD851 (07:00), 宏建 2 (07:00), 宏建 3 (07:00), Cheung Kee No.10 (07:00) & Kam Ying 8 (07:00) and checking results showed that no deficiency of silt curtain was found on that day.

From MMO monitoring records on 25/11, MMO teams were arranged for four derrick barges (GD851, 宏建 2, Cheung Kee No.10, Kam Ying 8) and two DCM barges (ESC-61 & ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. 宏建 3 was observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point. No DCM main work scheduled in ESC-61 was carried out with refer to the site diary on that day.

According to the field observation by sampling team & Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site. It might suggest that SS exceedance at S3 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 19/11. No major observation of improper site practices that could contribute to the increase of the suspended solids recorded.

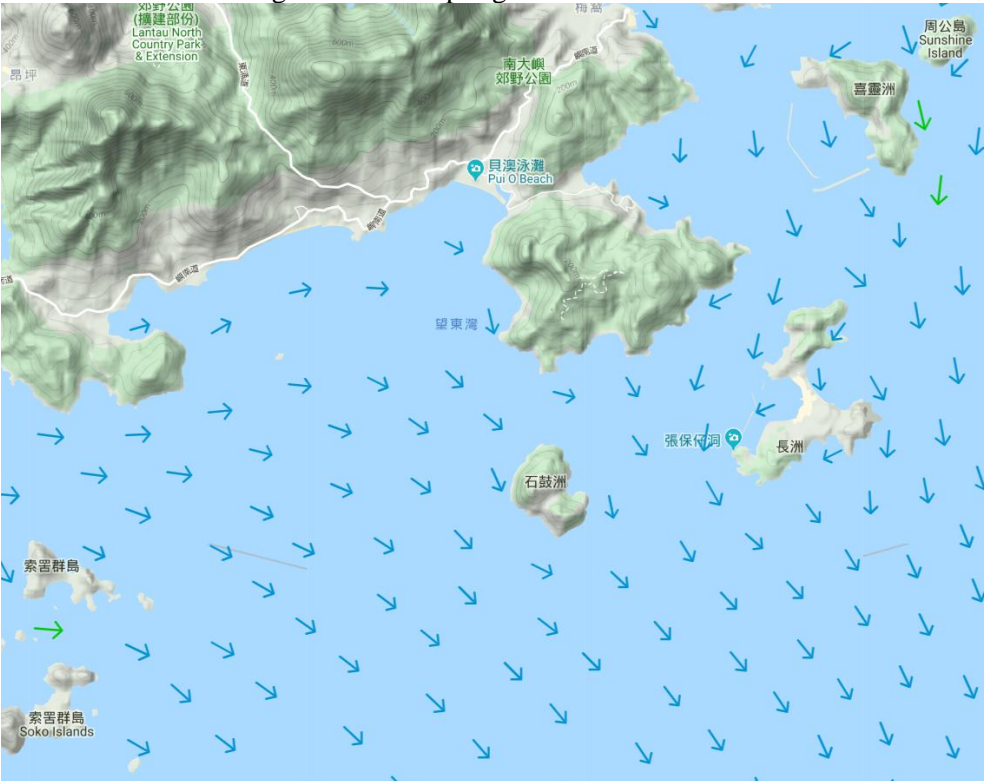
**Actions taken / to be taken**  
 Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is reminded to implement all applicable mitigation measures as per the Updated EM&A Manual.



Prepared by	Polar Chan
Date	5 Dec 2019

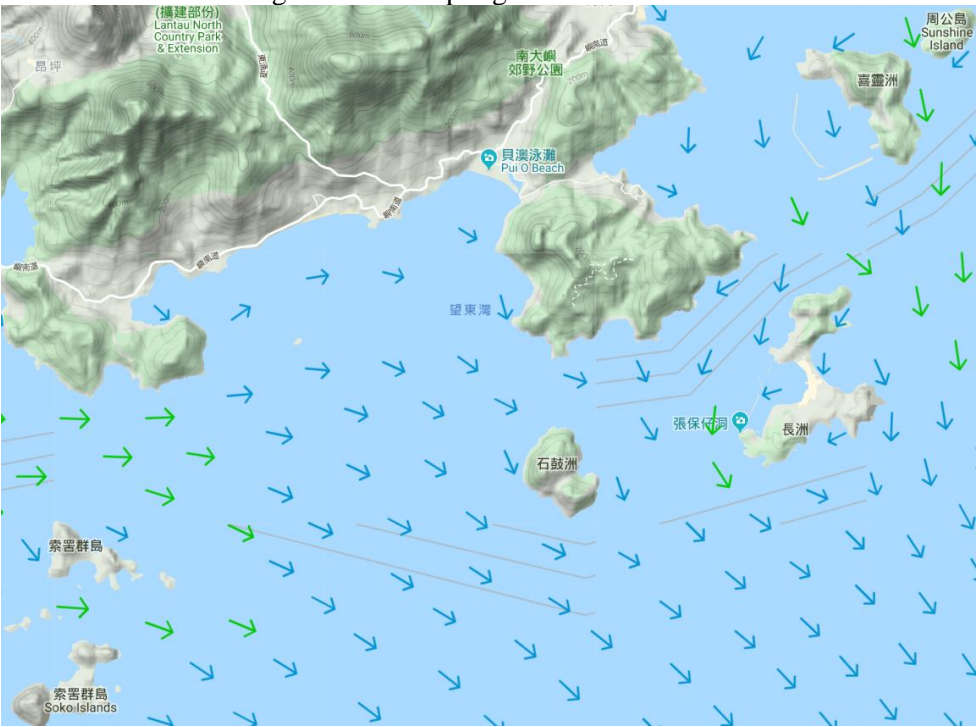
**Incident Report on Action Level or Limit Level Non-compliance**

Project	Integrated Waste Management Facilities, Phase 1		
Date	27 Nov 2019 (Lab result received on 02 Dec 2019)		
Time	11:12 – 14:42 (Mid-Ebb)		
Monitoring Location	Mid-Ebb		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 19.4 mg/L (120% of C1A)		≥ 21.0 mg/L (130% of C1A)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	20.0 mg/L (CR2)	16.2 mg/L (C1A) 19.0 mg/L (C2A)	12.0 mg/L (B1) 16.8 mg/L (B2) 13.5 mg/L (B3) 14.0 mg/L (B4) 19.2 mg/L (F1A) 15.5 mg/L (H1) 11.5 mg/L (M1) 17.5 mg/L (CR1) 17.3 mg/L (S1) 17.3 mg/L (S2A) 10.8 mg/L (S3)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 27/11 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the sand blanket, removal of temporary storage of surface rock, laying sand blanket, levelling the slag material, rock filling works, installation of caisson, loading surface rock and levelling G75 rockfill material of caisson foundation.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>CR2 is located close to the works location within the Project site while silt curtain checking was implemented on GD853 (07:00), 永照 18 (07:00) &amp; 宏建 3 (07:00) and</p>		

	<p>checking results showed that no deficiency of silt curtain was found on that day.</p> <p>From MMO monitoring records on 27/11, MMO teams were arranged for three derrick barges (GD851, GD853, 永照 18) and two DCM barges (ESC-61 &amp; ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. 宏建 3 was observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point. No DCM main works scheduled in ESC-61 &amp; ESC-62 were carried out with refer to the site diary on that day. No sand blanket levelling work scheduled in GD851 was carried out with refer to the site diary on that day.</p> <p>According to the field observation by sampling team &amp; Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site. It might suggest that SS exceedance at CR2 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 26/11. No major observation of improper site practices that could contribute to the increase of the suspended solids recorded.</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&amp;A Manual.</p>								
<p>Remarks</p>	<p>Current direction during mid-ebb sampling on 27/11:</p>  <p>Legend</p> <table border="1" data-bbox="472 1742 986 1928"> <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 <a href="http://current.hydro.gov.hk/en/map.html">http://current.hydro.gov.hk/en/map.html</a>)</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>06 Dec 2019</p>								

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

Project	Integrated Waste Management Facilities, Phase 1		
Date	29 Nov 2019 (Lab result received on 05 Dec 2019)		
Time	12:37 – 16:07 (Mid-Ebb)		
Monitoring Location	Mid-Ebb		
Monitoring Location	M1, CR2 & S3		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 11.0 mg/L (120% of C1A)		≥ 11.9 mg/L (130% of C1A)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	11.2 mg/L (M1) 11.5 mg/L (CR2) 11.3 mg/L (S3)	9.2 mg/L (C1A) 9.2 mg/L (C2A)	9.3 mg/L (B1) 9.8 mg/L (B2) 9.3 mg/L (B3) 9.0 mg/L (B4) 9.0 mg/L (F1A) 9.8 mg/L (H1) 10.7 mg/L (CR1) 9.5 mg/L (S1) 9.5 mg/L (S2A)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 29/11 include DCM main works, DCM sample coring for DCM main works, cone penetration test, levelling the sand blanket, removal of temporary storage of surface rock, dredging, levelling the slag material, rock filling works, installation of caisson, loading slag materials, loading surface rock, un-install steel gates of caisson and laying sand blanket.</p> <p>Dominating sea current direction was found to be from Northwest to Southeast 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 station is deemed to be unrelated to the Project.</p>		

	<p>CR2 &amp; S3 are located close to the works location within the Project site while silt curtain checking was implemented on GD851 (07:00), GD853 (07:00), 宏建 1 (07:00), 宏建 3 (07:00) &amp; 永照 18 (07:00) and checking results showed that no deficiency of silt curtain was found on that day.</p> <p>From MMO monitoring records on 29/11, MMO teams were arranged for two derrick barges (GD851 &amp; 永照 18) and two DCM barges (ESC-61 &amp; ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. 宏建 1, 宏建 3 &amp; GD853 were observed with no finding (no site deficiency and no potential source of SS) by the MMO at lookout point. No DCM main works scheduled in ESC-61 &amp; ESC-62 were carried out with refer to the site diary on that day.</p> <p>According to the field observation by sampling team &amp; Marine Mammal Observer team during sampling event, no silt plume was observed in the Project site. It might suggest that SS exceedances at CR2 &amp; 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 26/11. No major observation of improper site practices that could contribute to the increase of the suspended solids recorded.</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&amp;A Manual.</p>
<p>Remarks</p>	<p>Current direction during mid-ebb sampling on 29/11:</p>  <p>(Sourced from <a href="http://current.hydro.gov.hk/en/map.html">http://current.hydro.gov.hk/en/map.html</a>)</p>
<p>Prepared by</p>	<p>Polar Chan</p>
<p>Date</p>	<p>06 Dec 2019</p>