ANNEX F

GRAPHICAL PRESENTATION OF MARINE WATER QUALITY MONITORING RESULTS

















































Annotations:

- Key marine-based activities of the Project undertaken for construction of BPPS Pipeline included:
 - i. pre-trenching works in terms of dredging operation in the vicinity of marine water quality monitoring stations under Group 3 on 24 April and 16 to 28 May 2021;
 - ii. pre-trenching works in terms of dredging operation in the vicinity of marine water quality monitoring stations under Group 7 on 28 to 20 April, 1 to 26, 30, 31 May and 1 to 12 June 2021;
 - iii. pre-trenching works in terms of dredging operation in the vicinity of marine water quality monitoring stations under Group 8 on 26 to 31 August, 1, 8 and 9 September 2021; and
 - iv. post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 5 on 18 to 30 September 2021.
- Key marine-based activities of the Project undertaken for construction of LPS Pipeline included:
 - i. pre-trenching works in terms of dredging operation in the vicinity of marine water quality monitoring stations under Group 2 on 1, 2 and 4 February 2021;
 - ii. de-burial works by mass flow excavator in the vicinity of marine water quality monitoring stations under Group 1 on 23, 26, 27 February, 5, 6, 13, 14 and 15 March 2021.
 - iii. post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 1 on 5, 6, 8 to 18 and 22 to 26 July 2021 ⁽¹⁾; and
 - iv. post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 2 on 8 to 16, 24 to 31 August, 1 to 8, 12 to 14 and 17 to 23 September 2021.
- Marine water quality monitoring was conducted at monitoring stations under Group 1 on 20, 22, 24, 26 February, 2, 6, 13, 15 March, 9, 12, 14, 16, 23 and 26 July 2021.
- Marine water quality monitoring was conducted at monitoring stations under Group 2 on 27, 29 January, 1, 3, 5 February, 9, 12, 14, 16, 25, 27, 30 August, 1, 3, 6, 8, 13, 17, 21 and 23 September 2021 ⁽²⁾.
- Marine water quality monitoring was conducted at monitoring stations under Group 3 on 23, 28 ⁽³⁾ April, 17, 19, 21, 24, 26 and 28 May 2021.
- Marine water quality monitoring was conducted at monitoring stations under Group 5 on 20, 22, 24, 27 and 29 September 2021.
- Marine water quality monitoring was conducted at monitoring stations under Group 7 on 28, 30 April, 3, 5, 7, 10, 12, 14, 17, 19, 21, 24, 26, 31 ⁽⁴⁾ May, 2, 4, 7, 9 and 11 June 2021.
- Marine water quality monitoring was conducted at monitoring stations under Group 8 on 26, 28, 31 August, 6 and 8 September 2021 ⁽⁵⁾.
- Weather conditions during the monitoring period ranged from fine to cloudy, with sea conditions ranged from calm to moderate. Detailed meteorological conditions can be referred to *Annex G of the associated Monthly EM&A Reports* for the reporting period.
- No special phenomena and/or other factors which might affect the monitoring results were observed and recorded during the monitoring period.

Notes:

- (3) Marine water quality monitoring was conducted under Group 3 on 28 April 2021 as a follow-up monitoring due to the cancellation of monitoring scheduled on 26 April 2021 for marine dredging operation at Cable Sterile Corridor for BPPS Pipeline.
- (4) Marine water quality monitoring during ebb tide on 31 May 2021 was cancelled due to the adverse weather at the time of monitoring event.
- (5) Monitoring stations, IM20A and IM21A, were occupied by oyster rafts and crane barge, respectively, during the monitoring events since 26 August 2021. Therefore, the monitoring stations were shifted to the nearest practicable locations.

⁽¹⁾ Preparation works for marine jetting operation (e.g. installation of cage-type silt curtain, anchoring activities, etc.) were undertaken on 5 and 6 July 2021 while marine jetting operation commenced since 8 July 2021.

⁽²⁾ Monitoring station, IM6, was occupied by a crane barge during the monitoring events since 27 August 2021. Therefore, the monitoring station was shifted to the nearest practicable location.
























































Annotations:

- Key marine-based activities of the Project undertaken for construction of BPPS Pipeline included:
 - post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 3 on 3 to 7 and 10 to 16 December 2021, 1 to 4, 9 to 30 January, 3 to 10, 12 to 16, 18 to 24, 26, 28 February, 1 to 14 and 17 to 31 March, 1, 10 to 12, 25 to 26 and 29 to 30 April, and 1 to 16 May 2022;
 - post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 4 on 20, 24 to 28 November ⁽¹⁾, 23 to 31 December 2021 ⁽²⁾, 13 to 18 March, 4 to 9, 18 to 19 and 22 to 23 April 2022;
 - post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 5 on 1 to 4 ,18 to 30 October ⁽³⁾, 1, 4 to 7, 10 to 16 November, 3 to 8, 10 to 12, 17 to 19 and 21 to 22 December 2021 ⁽⁴⁾, 7 to 12 March 2022;
 - post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 6 on 24 to 31 December 2021 ⁽⁵⁾, 1 to 4, 7 to 12, 14 to 30 January and 24 to 26 March 2022;
 - post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 7 on 1 to 17 and 23 to 25 February 2022; and
 - post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 8 on 26 to 28 February and 1 to 22 March 2022.
- Key marine-based activities of the Project undertaken for construction of LPS Pipeline included:
 - post-trenching works in terms of jetting operation in the vicinity of marine water quality monitoring stations under Group 2 on 1 to 2 October, 5 to 6 November, 3 to 8, 24 and 25 December 2021 ⁽⁶⁾, 8 to 19, 23 to 26, 28 to 30 January, 4, 5, 9 to 14, 27, 28 February and 1 to 6 March 2022 ⁽⁷⁾.
- Marine water quality monitoring was conducted at monitoring stations i) under Group 2 on 2 October, 5 November, 3, 6 and 24 December 2021 ⁽⁷⁾; ii) under Group 3 on 3, 6, 10, 13 and 15 December 2021 ⁽⁸⁾; iii) under Group 4 on 24, 26 November, 27, 29 and 31 December 2021; iv) under Group 5 on 2, 4, 18, 20, 22, 25, 27, 29 October, 1, 5, 10, 12 and 15 November, 3, 6, 8, 10, 17 and 22 December 2021; and v) under Group 6 on 27, 29 and 31 December 2021.
- Marine water quality monitoring was conducted at monitoring stations i) under Group 2 on 10, 12, 14, 17, 19, 24, 26, 28 January, 4, 9, 11, 14, 28 February, 2, 4 and 7 March 2022 ⁽⁹⁾⁽¹⁰⁾; ii) under Group 3 on 3, 10, 12, 14, 17, 19, 21, 24, 26, 28 January, 2, 4, 7, 9, 11, 14, 16, 18, 21, 23, 25, 28 February, 2, 4, 7, 9, 11, 14, 21, 23, 25, 28 and 30 March 2022 ⁽¹⁰⁾⁽¹¹⁾⁽¹²⁾; iii) under Group 4 on 14 and 16 March 2022 ⁽¹³⁾; iv) under Group 5 on 9 and 11 March 2022; v) under Group 6 on 3, 7, 10, 12, 14, 17, 19, 21, 24, 26, 28, 31 January and 25 March 2022 ⁽¹⁴⁾; vi) under Group 7 on 2, 4, 7, 9, 11, 14, 16, 18, 21, 23, 25 and 28 February 2022 ⁽¹²⁾; and vii) under Group 8 on 28 February, 2, 4, 7, 9, 11, 14, 16 and 21 March 2022 ⁽¹³⁾.
- Marine water quality monitoring was conducted at monitoring stations i) under Group 3 on 1, 11, 25, 29 April, 2, 4, 6, 9, 11, 13 and 16 May 2022; (ii) under Group 4 on 4, 6, 8, 18 and 22 April 2022.
- Weather conditions during the monitoring period ranged from fine to rainy, with sea conditions ranged from calm to rough. Detailed meteorological conditions can be referred to *Annex G of the associated Monthly EM&A Reports* for the reporting period.
- No special phenomena and/or other factors which might affect the monitoring results were observed and recorded during the monitoring period.

Notes:

- (1) Preparation works for marine jetting operation in the vicinity of Adamasta Channel was undertaken on 20 November 2021.
- (2) Preparation works for marine jetting operation in the vicinity of Adamasta Channel was undertaken on 23 and 24 December 2021.
- (3) No marine jetting operation was undertaken between 5 and 17 October 2021, and marine WQM was resumed to be conducted since 18 October 2021.
- (4) No marine jetting operation was undertaken on 20 December 2021 and water quality monitoring was not conducted on 20 December 2021.
- (5) Preparation works for marine jetting operation in the vicinity of West of HKIA to Lung Kwu Chau was undertaken on 24 December 2021.
- (6) No marine jetting operation was undertaken on 8 December 2021 and water quality monitoring was not conducted on 8 December 2021.
- (7) Only preparation works for marine jetting operation were conducted between 8 and 19 January 2022.
- (8) Monitoring station, IM6, was occupied by a crane barge during the monitoring events since 27 August 2021. Therefore, the monitoring station was shifted to the nearest practicable location.
- (9) Marine water quality monitoring for Group 2 scheduled on 14 January 2022 was cancelled due to adverse weather.
- (10)Marine water quality monitoring for Group 2 and Group 3 scheduled on 11 February 2022 was cancelled as the sampling team had to arrange COVID-19 tests and conduct disinfection on the survey vessel on 10-11 February 2022 due to potential COVID-19 confirmed cases on the survey vessel.
- (11)Marine water quality monitoring for Group 3 scheduled on 7 February 2022 was cancelled due to adverse weather.
- (12) Marine water quality monitoring for Group 3 and Group 7 scheduled on 18 February 2022 was cancelled due to adverse weather.
- (13) Marine water quality monitoring for Group 3, Group 4 and Group 8 scheduled on 18 March 2022 was cancelled due to adverse weather.
- (14) Marine water quality monitoring was scheduled to be carried out on 31 January 2022 for the 24-hr marine jetting operation for 30 January 2022 which was completed during daytime period of the next day.






































