

Annex B

Water Quality Monitoring Results

Table B1 *Action and Limit Levels of Water Quality for Dredging, Disposal and Capping Activities at ESC CMP V*

| Parameter | Action Level | Limit Level |
|---|---|--|
| Dissolved Oxygen (DO) ⁽¹⁾ | <u>Surface and Mid-depth</u> ⁽²⁾ 5%-ile of baseline data for surface and middle layer = 3.76 mg L⁻¹ | <u>Surface and Mid-depth</u> ⁽²⁾ 1%-ile of baseline data for surface and middle layer = 3.11 mg L⁻¹ ⁽³⁾ |
| | and | and |
| | Significantly less than the reference stations mean DO (at the same tide of the same day) | Significantly less than the reference stations mean DO (at the same tide of the same day) |
| | <u>Bottom</u> 5%-ile of baseline data for bottom layers = 2.96 mg L⁻¹ | <u>Bottom</u> The average of the impact station readings are <2 mg/L⁻¹ |
| | and | and |
| | Significantly less than the reference stations mean DO (at the same tide of the same day) | Significantly less than the reference stations mean DO (at the same tide of the same day) |
| Depth-averaged Suspended Solids (SS) ^{(4) (5)} | 95%-ile of baseline data for depth average = 37.88 mg L⁻¹ | 99%-ile of baseline data for depth average = 61.92 mg L⁻¹ |
| | and | and |
| | 120% of control station's SS at the same tide of the same day | 130% of control station's SS at the same tide of the same day |
| Depth-averaged Turbidity (Tby) ^{(4) (5)} | 95%-ile of baseline data = 28.14 NTU | 99%-ile of baseline data = 38.32 NTU |
| | and | and |
| | 120% of control station's Tby at the same tide of the same day | 130% of control station's Tby at the same tide of the same day |

Notes:

- (1) For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- (2) The Action and Limit Levels for DO for Surface & Middle layers were calculated from the combined pool of baseline surface layer data and baseline middle layer data.
- (3) Given the Action Level for DO for Surface & Middle layers has already been lower than 4 mg L⁻¹, it is proposed to set the Limit Level at 3.11 mg L⁻¹ which is the first percentile of the baseline data.
- (4) "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
- (5) For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

Table B2 *Water Column Profiling Results for ESC CMP Vb in September 2020*

| Stations | Temp (°C) | Salinity (ppt) | Turbidity (NTU) | Dissolved Oxygen | | pH | Suspended Solids (mg L⁻¹) |
|-----------------------|----------------------|---------------------------|----------------------------|-------------------------|----------------------------|-----------|---|
| | | | | (%) | (mg L⁻¹) | | |
| WCP 1 (Downstream) | 29.01 | 25.88 | 9.51 | 77.88 | 5.19 | 7.99 | 7.35 |
| WCP 2 (Upstream) | 29.35 | 24.96 | 12.99 | 77.77 | 5.18 | 7.94 | 9.78 |
| WQO (Wet Season) | N/A | 22.47-27.48 [#] | N/A | N/A | >4 | 6.5-8.5 | 10.8 |

Note:

[#]Not exceeding 10% of natural ambient level which is the result obtained from the Reference Station.

Cell shaded yellow / red indicate value exceeding the Action/Limit levels.

Cell shaded grey indicate value exceeding the WQO.

