

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

Parameters	Action	Limit				
Dissolved Oxygen (DO)	Surface and Middle Depth <sup>(2)</sup>	Surface and Middle Depth <sup>(2)</sup>				
in mg L <sup>-1</sup> (Surface, Middle & Bottom) <sup>(1)</sup>	5%-ile of baseline data for surface and middle layer = <b>3.76</b>	1%-ile of baseline data for surface and middle layer = <b>3.11</b> <sup>(3)</sup>				
	and	and				
	Significantly less than the reference station's mean DO (at the same tide of the same day)	Significantly less than the reference station's mean DO (at the same tide of the same day)				
	Bottom	Bottom				
	5%-ile of baseline data for surface and middle layer = <b>2.96</b>	The average of the impact station readings are < 2				
	and	and				
	Significantly less than the reference station's mean DO (at the same tide of the same day)	Significantly less than the reference station's mean DO (at the same tide of the same day)				
Suspended Solids (SS) in mg L <sup>-1</sup>	95%-ile of baseline data for depth- averaged = <b>37.88</b>	99%-ile of baseline data for depth- averaged = <b>61.92</b>				
(depth-averaged)(4)(5)	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				
Turbidity	95%-ile of baseline data = 28.14	99%-ile of baseline data = <b>38.32</b>				
in NTU	and	and				
(depth-averaged) <sup>(4)(5)</sup>	120% of control station's Turbidity at the same tide of the same day	130% of control station's Turbidity 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. Action and Limit Levels for DO for Surface and 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 and Middle layers has already been lower than 4 mg L<sup>-1</sup>, it is proposed to set the Limit Level at 3.11 mg L<sup>-1</sup> 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 June 2021

Station	Temp.	Salinity	<b>Turbidity</b>	<b>Dissolved Oxygen</b>		рН	Suspended Solids		
	(°C)	(ppt)	(NTU)	(%)	(mg L <sup>-1</sup> )		(mg L <sup>-1</sup> )		
WCP 1 (Downstream)	27.04	25.32	19.15	82.45	5.70	8.01	12.2		
WCP 2 (Upstream)	27.24	24.56	12.40	83.18	5.75	8.02	10.1		
WQO (Wet Season)	N/A	22.10 – 27.01#	N/A	N/A	>4	6.5 – 8.5	11.8		

#### Notes:

- 1. # Not exceeding 10% of natural ambient level which is the result obtained from the Reference Station.
- 2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
- 3. Cell shaded grey indicates value exceeding the WQO.

Table B3: In-situ Monitoring Results for Routine Water Quality Monitoring of ESC CMPs in June 2021

Station	Temp.	Salinity	Turbidity	Dissolve	рН	
	(°C)	(ppt)	(NTU)	(%)	(mg L <sup>-1</sup> )	
RFF (Reference)	27.06	24.30	5.88	98.07	6.82	8.10
IPF (Impact)	27.05	24.33	6.77	94.65	6.58	8.10
INF (Intermediate)	26.60	26.49	4.75	4.75 93.87		8.10
Ma Wan	25.54	30.75	4.53	68.36	4.70	7.98
WQO (Wet Season)	N/A	21.87 - 26.73 #	N/A	N/A	>4	6.5 - 8.5

#### Notes:

- 1. \*Not exceeding 10% of natural ambient level which is the result obtained from the Reference Station.
- 2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
- 3. Cell shaded grey indicates value exceeding the WQO.

Table B4: Laboratory Results for Routine Water Quality Monitoring of ESC CMPs in June 2021

Station	As	Cd	Cr	Cu	Pb	Hg	Ni	Ag	Zn	$NH_3$	TIN	BOD <sub>5</sub>	SS
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
RFF	2.97	<lor< td=""><td>0.96</td><td>34.09</td><td>1.23</td><td><lor< td=""><td>0.95</td><td><lor< td=""><td>47.08</td><td>0.07</td><td>0.64</td><td>1.56</td><td>10.5</td></lor<></td></lor<></td></lor<>	0.96	34.09	1.23	<lor< td=""><td>0.95</td><td><lor< td=""><td>47.08</td><td>0.07</td><td>0.64</td><td>1.56</td><td>10.5</td></lor<></td></lor<>	0.95	<lor< td=""><td>47.08</td><td>0.07</td><td>0.64</td><td>1.56</td><td>10.5</td></lor<>	47.08	0.07	0.64	1.56	10.5
IPF	2.21	<lor< td=""><td><lor< td=""><td>20.36</td><td>0.81</td><td><lor< td=""><td><lor< td=""><td><lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<></td></lor<></td></lor<></td></lor<></td></lor<>	<lor< td=""><td>20.36</td><td>0.81</td><td><lor< td=""><td><lor< td=""><td><lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<></td></lor<></td></lor<></td></lor<>	20.36	0.81	<lor< td=""><td><lor< td=""><td><lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<></td></lor<></td></lor<>	<lor< td=""><td><lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<></td></lor<>	<lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<>	31.16	0.07	0.60	1.45	13.4
INF	2.79	<lor< td=""><td>0.84</td><td>32.51</td><td>0.85</td><td><lor< td=""><td>0.81</td><td><lor< td=""><td>40.00</td><td>0.06</td><td>0.52</td><td>1.69</td><td>10.4</td></lor<></td></lor<></td></lor<>	0.84	32.51	0.85	<lor< td=""><td>0.81</td><td><lor< td=""><td>40.00</td><td>0.06</td><td>0.52</td><td>1.69</td><td>10.4</td></lor<></td></lor<>	0.81	<lor< td=""><td>40.00</td><td>0.06</td><td>0.52</td><td>1.69</td><td>10.4</td></lor<>	40.00	0.06	0.52	1.69	10.4
Ma Wan	2.98	<lor< td=""><td>0.80</td><td>11.85</td><td><lor< td=""><td><lor< td=""><td>1.03</td><td><lor< td=""><td>33.93</td><td>0.08</td><td>0.29</td><td>1.78</td><td>11.8</td></lor<></td></lor<></td></lor<></td></lor<>	0.80	11.85	<lor< td=""><td><lor< td=""><td>1.03</td><td><lor< td=""><td>33.93</td><td>0.08</td><td>0.29</td><td>1.78</td><td>11.8</td></lor<></td></lor<></td></lor<>	<lor< td=""><td>1.03</td><td><lor< td=""><td>33.93</td><td>0.08</td><td>0.29</td><td>1.78</td><td>11.8</td></lor<></td></lor<>	1.03	<lor< td=""><td>33.93</td><td>0.08</td><td>0.29</td><td>1.78</td><td>11.8</td></lor<>	33.93	0.08	0.29	1.78	11.8

 $\label{eq:wqo} WQO \mbox{ of TIN: } 0.5 \mbox{ mg/L} \\ Wet \mbox{ Season WQO of SS: } 11.8 \mbox{ mg/L} \\$ 

## Notes:

- 1. "<LOR" indicates the concentrations of metals and metalloids are below the limit of reporting.
- 2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
- Cell shaded grey indicates value exceeding the WQO.