

Table B1 *Summary Table of DO, Turbidity and SS Levels Recorded between 2 and 30 October 2015*

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
2015/10/2	Mid-Ebb	DS1	4.61	5.09	7.33	8.83
		DS2	4.60	5.23	7.50	9.53
		DS3	4.59	5.07	8.36	10.98
		DS4	4.61	5.13	8.67	10.22
		DS5	4.59	5.10	10.07	11.78
		US1	4.86	5.32	10.66	15.63
		US2	4.89	5.17	13.38	15.23
		MW1	4.51	4.97	5.12	6.63
	Mid-Flood	DS1	4.51	4.78	34.17	32.10
		DS2	4.61	4.82	50.91	26.33
		DS3	4.60	4.63	26.66	28.63
		DS4	4.59	4.66	28.43	31.43
		DS5	4.61	4.71	28.08	23.57
		US1	4.59	5.07	31.12	30.55
		US2	4.86	5.09	28.12	31.03
		MW1	4.89	4.75	10.51	13.50
2015/10/5	Mid-Ebb	DS1	5.84	6.08	5.44	6.77
		DS2	5.95	6.10	6.55	14.25
		DS3	5.67	6.09	7.32	9.47
		DS4	5.77	5.98	6.00	7.92
		DS5	6.19	6.18	5.45	5.47
		US1	5.58	5.66	8.15	9.78
		US2	5.61	5.66	8.28	9.42
		MW1	5.27	5.32	5.29	7.43
	Mid-Flood	DS1	5.39	5.71	7.43	7.27
		DS2	5.55	5.79	5.92	11.07
		DS3	5.61	5.70	5.94	7.45
		DS4	5.56	5.78	5.95	7.62
		DS5	5.52	5.85	6.32	8.55
		US1	5.62	5.90	11.03	12.97
		US2	5.82	5.97	7.14	9.22
		MW1	5.17	5.44	5.89	8.27
2015/10/7	Mid-Ebb	DS1	5.30	5.76	8.35	16.95
		DS2	5.52	5.79	6.67	6.98
		DS3	5.52	5.87	5.54	6.53
		DS4	5.54	5.83	5.05	5.73
		DS5	5.52	5.96	4.69	5.27
		US1	5.45	5.75	11.39	16.38
		US2	5.35	5.64	8.03	11.20
		MW1	5.06	5.73	3.79	4.58
	Mid-Flood	DS1	5.41	5.54	7.75	12.38
		DS2	5.50	5.98	5.99	5.93
		DS3	4.69	5.35	11.86	17.95
		DS4	4.80	5.32	8.76	8.47
		DS5	5.38	5.72	8.32	9.47
		US1	5.55	5.72	7.45	10.47
		US2	5.64	5.95	7.15	8.27
		MW1	5.13	5.25	8.45	8.18

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
2015/10/9	Mid-Ebb	DS1	4.93	5.34	9.99	13.78
		DS2	5.01	5.48	7.48	9.13
		DS3	5.06	5.82	5.58	9.67
		DS4	5.15	5.99	4.52	5.80
		DS5	5.10	6.07	4.54	8.98
		US1	5.12	5.32	17.56	6.15
		US2	4.96	5.29	10.14	6.68
		MW1	5.13	5.50	5.32	11.35
	Mid-Flood	DS1	5.10	5.49	16.38	11.68
		DS2	5.16	5.88	11.44	27.45
		DS3	4.76	5.41	14.19	12.82
		DS4	5.13	5.56	15.04	20.43
		DS5	5.41	5.95	10.08	23.80
		US1	5.98	6.36	5.07	9.25
		US2	5.23	6.18	10.94	11.33
		MW1	5.13	5.23	8.68	5.02
2015/10/12	Mid-Ebb	DS1	5.45	5.64	16.53	28.03
		DS2	5.54	5.43	13.49	23.43
		DS3	5.66	5.51	7.98	11.42
		DS4	5.76	5.69	7.35	8.62
		DS5	5.49	5.54	8.02	13.52
		US1	5.79	5.77	48.91	22.60
		US2	5.87	5.79	17.50	20.33
		MW1	5.28	5.31	7.04	10.23
	Mid-Flood	DS1	5.80	5.73	7.28	9.43
		DS2	5.75	5.73	17.32	17.73
		DS3	5.68	5.72	16.42	24.80
		DS4	5.62	5.69	16.22	20.63
		DS5	5.68	5.66	17.63	22.73
		US1	5.61	5.69	37.88	20.25
		US2	5.64	5.66	25.77	35.53
		MW1	5.33	5.35	15.45	21.28
2015/10/14	Mid-Ebb	DS1	5.69	5.71	9.94	15.82
		DS2	5.96	5.84	6.05	10.47
		DS3	5.75	5.85	5.79	8.00
		DS4	5.48	5.68	7.37	13.32
		DS5	5.54	5.71	7.83	9.57
		US1	5.72	5.78	16.02	28.58
		US2	5.58	5.70	10.99	10.90
		MW1	5.41	5.51	6.65	8.52
	Mid-Flood	DS1	5.66	5.64	15.79	25.92
		DS2	5.55	5.60	15.92	26.22
		DS3	5.41	5.52	18.18	25.40
		DS4	5.52	5.58	18.28	25.73
		DS5	5.43	5.53	29.62	31.77
		US1	5.70	5.65	20.89	26.47
		US2	5.74	5.61	20.01	24.80
		MW1	5.37	5.45	8.75	11.55

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
2015/10/16	Mid-Ebb	DS1	5.45	5.72	4.88	28.40
		DS2	5.49	5.79	4.59	28.13
		DS3	5.41	5.85	4.23	22.87
		DS4	5.72	5.87	4.20	12.63
		DS5	5.96	5.94	3.79	18.45
		US1	5.53	5.75	4.58	22.75
		US2	5.38	5.66	6.34	22.32
		MW1	5.45	5.66	3.97	20.53
	Mid-Flood	DS1	5.33	5.46	14.43	8.55
		DS2	5.32	5.42	12.42	7.87
		DS3	5.27	5.42	11.98	6.83
		DS4	5.30	5.43	12.38	7.32
		DS5	5.32	5.48	11.37	6.42
		US1	5.29	5.49	15.38	6.27
		US2	5.34	5.54	16.24	16.80
		MW1	5.28	5.35	9.90	6.75
2015/10/19	Mid-Ebb	DS1	5.45	5.74	4.30	8.58
		DS2	5.49	6.01	4.39	6.33
		DS3	5.41	5.99	4.99	6.15
		DS4	5.72	5.95	4.59	5.83
		DS5	5.96	6.23	3.46	5.53
		US1	5.53	5.83	3.74	9.85
		US2	5.38	5.95	3.59	5.42
		MW1	5.45	5.55	3.95	4.37
	Mid-Flood	DS1	5.33	5.53	9.54	16.63
		DS2	5.32	5.58	7.77	8.42
		DS3	5.27	5.57	6.23	8.22
		DS4	5.30	5.60	5.77	8.10
		DS5	5.32	5.82	4.76	7.30
		US1	5.29	5.81	8.42	10.15
		US2	5.34	5.98	7.60	20.50
		MW1	5.28	5.44	5.80	6.55
2015/10/21	Mid-Ebb	DS1	5.80	6.10	3.19	5.95
		DS2	5.93	5.94	2.99	5.32
		DS3	5.58	5.84	3.08	4.58
		DS4	5.53	5.78	2.66	4.67
		DS5	5.29	5.63	2.96	5.50
		US1	5.88	5.89	11.17	20.72
		US2	5.61	5.77	8.78	16.48
		MW1	5.73	5.91	1.75	10.00
	Mid-Flood	DS1	5.77	5.91	3.90	6.50
		DS2	5.66	5.85	4.64	6.45
		DS3	5.46	5.69	20.18	27.23
		DS4	5.61	5.99	8.51	16.83
		DS5	5.67	6.00	4.67	7.78
		US1	5.71	6.11	6.93	16.72
		US2	5.69	6.13	5.80	7.52
		MW1	5.55	5.76	4.74	6.98

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
2015/10/23	Mid-Ebb	DS1	5.97	6.39	4.79	8.83
		DS2	5.90	6.44	4.20	6.93
		DS3	5.98	6.61	5.02	6.77
		DS4	5.81	6.68	5.23	14.02
		DS5	5.69	6.50	4.73	5.98
		US1	5.82	6.23	9.99	6.07
		US2	5.86	6.30	3.86	6.80
		MW1	5.69	6.29	1.76	4.78
	Mid-Flood	DS1	5.74	6.34	4.20	8.07
		DS2	5.76	6.71	5.12	12.48
		DS3	5.75	6.66	9.11	11.67
		DS4	5.81	6.86	8.71	7.18
		DS5	5.65	6.88	8.85	15.30
		US1	6.32	8.47	3.53	3.00
		US2	6.26	7.62	5.17	10.25
		MW1	5.87	6.25	4.37	6.58
2015/10/26	Mid-Ebb	DS1	6.85	6.89	26.35	30.37
		DS2	6.78	6.94	28.44	28.18
		DS3	6.67	7.01	25.52	18.57
		DS4	6.63	6.96	22.15	25.07
		DS5	6.63	7.04	24.92	22.02
		US1	6.80	7.03	22.44	14.32
		US2	6.77	6.88	31.66	20.73
		MW1	6.55	6.65	5.79	15.30
	Mid-Flood	DS1	6.53	6.71	22.00	17.42
		DS2	6.47	6.59	40.48	33.78
		DS3	6.53	6.67	17.06	31.82
		DS4	6.40	6.63	19.49	31.32
		DS5	6.39	6.68	22.08	25.95
		US1	6.68	6.82	28.96	26.83
		US2	6.79	6.81	21.76	45.17
		MW1	6.38	6.47	12.88	23.88
2015/10/28	Mid-Ebb	DS1	6.38	6.45	24.27	22.30
		DS2	6.37	6.45	34.82	29.33
		DS3	6.32	6.43	40.08	26.90
		DS4	6.30	6.45	32.01	27.38
		DS5	6.18	6.39	38.83	24.42
		US1	6.36	6.42	41.85	32.58
		US2	6.34	6.40	18.81	26.43
		MW1	6.14	6.29	6.23	9.12
	Mid-Flood	DS1	6.33	6.30	14.59	26.30
		DS2	6.29	6.28	14.35	25.62
		DS3	6.21	6.31	7.63	13.17
		DS4	6.10	6.23	20.42	18.48
		DS5	6.09	6.24	24.44	17.75
		US1	6.26	6.43	28.88	25.85
		US2	6.30	6.38	37.43	39.17
		MW1	6.10	6.14	15.72	25.20

Sampling Date	Tidal Period	Station	Average DO Levels (mg/L)		Average Turbidity Level (NTU)	Average SS Level (mg/L)
			Bottom	Surface and Mid Depth		
2015/10/30	Mid-Ebb	DS1	6.07	6.17	8.80	14.52
		DS2	6.11	6.18	7.68	10.35
		DS3	6.20	6.29	5.35	6.83
		DS4	6.14	6.25	5.98	7.52
		DS5	6.18	6.24	6.48	4.30
		US1	6.02	6.10	12.01	17.90
		US2	6.05	6.10	11.33	14.37
		MW1	6.13	6.28	5.16	5.88
	Mid-Flood	DS1	6.03	6.09	27.80	41.50
		DS2	6.06	6.09	35.81	33.33
		DS3	6.04	6.08	26.54	35.87
		DS4	6.09	6.07	22.04	22.25
		DS5	6.07	6.07	23.81	23.14
		US1	6.20	6.18	19.84	21.96
		US2	6.22	6.23	12.64	20.00
		MW1	5.91	5.98	17.51	36.57

Notes:

1. Please refer to Table C2 below for the Action and Limit Levels for dredging activities.
2. Cell shaded yellow indicated value exceeding the Action Level criteria.
3. Cell shaded red indicated value exceeding the Limit Level criteria.

Table B2 *Action and Limit Levels of Water Quality for Dredging, Backfilling and Capping Activities at ESC CMPs*

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 B3 *Action and Limit Levels of Water Quality for Dredging, Backfilling and Capping Activities for SB CMPs*

Parameter	Action Level	Limit Level
Dissolved Oxygen (DO) ⁽¹⁾	<u>Surface and Mid-depth</u> ⁽²⁾ The average of the impact, WSR 45C and WSR 46 station readings are < 5%-ile of baseline data for surface and middle layer = 4.32 mg L⁻¹	<u>Surface and Mid-depth</u> ⁽²⁾ The average of the impact, WSR 45C and WSR 46 station readings are < 4 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)
	<u>Bottom</u> The average of the impact, WSR 45C and WSR 46 station readings are < 5%-ile of baseline data for bottom layers = 3.12 mg L⁻¹	<u>Bottom</u> The average of the impact station, WSR 45C and WSR 46 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) ^{(3) (4)}	The average of the impact, WSR 45C and WSR 46 station readings are > 95%-ile of baseline data for depth average = 21.60 mg L⁻¹	The average of the impact, WSR 45C and WSR 46 station readings are > 99%-ile of baseline data for depth average = 40.10 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) ^{(3) (4)}	The average of the impact, WSR 45C and WSR 46 station readings are > 95%-ile of baseline data = 25.04 NTU	The average of the impact, WSR 45C and WSR 46 station readings are > 99%-ile of baseline data = 32.68 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) "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
- (4) For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

Table B4 *In-situ Monitoring Results for Routine Water Quality Monitoring of SB CMP in October 2015*

Sampling Period	Stations	Temp (°C)	Salinity (ppt)	Turbidity (NTU)	Dissolved Oxygen		pH
					(%)	(mg L ⁻¹)	(mg L ⁻¹)
October 2015	RFF (Reference)	26.92	26.50	13.31	81.93	5.64	7.82
	IPF (Impact)	27.01	27.67	9.34	80.68	5.50	7.80
	INF (Intermediate)	27.13	28.94	19.23	78.53	5.31	7.78
	Ma Wan	27.08	28.36	10.74	79.22	5.38	7.82
	Shum Shui Kok	26.93	27.28	14.12	81.40	5.57	7.83
	Tai Mo To	27.07	27.70	10.30	80.50	5.48	7.79
	Tai Ho Bay 1	26.85	26.82	9.82	81.66	5.61	7.80
	Tai Ho Bay 2	26.65	27.90	6.56	80.85	5.54	7.69
WQO		N/A	23.85 – 29.15 [#]	N/A	N/A	>4	6.5-8.5

Notes:

[#] Not exceeding 2°C of change of the results from the Reference Station.

[#]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.

Table B5 *Laboratory Results for Routine Water Quality Monitoring of SB CMP in October 2015*

Sampling Period	Stations	As (µg/L)	Cd (µg/L)	Cr (µg/L)	Cu (µg/L)	Pb (µg/L)	Hg (µg/L)	Ni (µg/L)	Ag (µg/L)	Zn (µg/L)	NH ₃ (mg/L)	TIN (mg/L)	BOD ₅ (mg/L)	SS (mg/L)
October 2015	RFF	<LOR	<LOR	<LOR	4.22	<LOR	<LOR	7.03	<LOR	20.57	0.04	0.71	0.81	21.73
	IPF	<LOR	<LOR	<LOR	2.75	<LOR	<LOR	7.74	<LOR	16.37	0.06	0.62	1.17	10.87
	INF	<LOR	<LOR	<LOR	3.20	<LOR	<LOR	10.49	<LOR	20.17	0.07	0.56	0.88	16.04
	Ma Wan	<LOR	<LOR	<LOR	2.61	<LOR	<LOR	10.27	<LOR	15.76	0.07	0.58	0.76	22.11
	Shum Shui Kok	<LOR	<LOR	<LOR	22.97	<LOR	<LOR	6.39	<LOR	35.37	0.03	0.67	2.90	21.61
	Tai Mo To	<LOR	<LOR	<LOR	6.89	<LOR	<LOR	11.35	<LOR	40.03	0.04	0.62	3.56	11.49
	Tai Ho Bay 1	<LOR	<LOR	<LOR	15.74	<LOR	<LOR	7.42	<LOR	37.45	0.05	0.71	1.01	22.56
	Tai Ho Bay 2	<LOR	<LOR	<LOR	14.67	<LOR	<LOR	5.96	<LOR	39.54	0.07	0.56	1.04	8.14

WQO of TIN: 0.5 mg/L

Wet Season WQO of SS : 11.6 mg/L

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

Cell shaded grey indicate value exceeding the WQO.

Table B6 *Water Column Profiling Results for SB CMP 2 in October 2015*

Stations	Temp (°C)	Salinity (ppt)	Turbidity (NTU)	Dissolved Oxygen		pH	Suspended Solids
				(%)	(mg L ⁻¹)	(mg L ⁻¹)	(mg L ⁻¹)
WCP 1 (Downstream)	26.72	28.56	5.87	82.36	5.62	7.84	7.25
WCP 2 (Upstream)	26.79	28.43	9.54	82.24	5.61	7.88	12.00
WQO (wet season)	N/A	25.65-31.27 [#]	N/A	N/A	>4	6.5-8.5	11.6

Note:

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

Cell shaded grey indicate value exceeding the WQO.