*Table B1 Summary Table of DO, Turbidity and SS Levels Recorded in October 2016*

| Sampling Date | Tidal Period | Station | Average DO Levels (mg/L) | | Average Turbidity Level (NTU) | Average SS Level (mg/L) |
|---|---|---|---|---|---|---|
| | | | Bottom | Surface and Mid Depth | | |
| 2016/10/03 | Mid-Ebb | DS1 | 5.81 | 5.68 | 9.35 | 12.03 |
| | | DS2 | 5.84 | 5.78 | 12.80 | 15.42 |
| | | DS3 | 5.83 | 5.75 | 17.56 | 19.60 |
| | | DS4 | 5.84 | 5.77 | 17.26 | 19.38 |
| | | DS5 | 5.91 | 5.83 | 13.27 | 18.98 |
| | | US1 | 5.72 | 5.65 | 15.27 | 9.98 |
| | | US2 | 5.71 | 5.65 | 23.98 | 19.75 |
| | | MW1 | 5.05 | 5.11 | 7.44 | 10.35 |
| | Mid-Flood | DS1 | 5.47 | 5.59 | 16.40 | 24.87 |
| | | DS2 | 5.44 | 5.56 | 23.10 | 24.22 |
| | | DS3 | 5.46 | 5.61 | 19.46 | 23.73 |
| | | DS4 | 5.63 | 5.66 | 13.34 | 21.93 |
| | | DS5 | 5.59 | 5.65 | 15.26 | 21.82 |
| | | US1 | 5.49 | 5.59 | 15.83 | 21.62 |
| | | US2 | 5.49 | 5.59 | 14.87 | 21.58 |
| | | MW1 | 5.02 | 5.08 | 8.03 | 12.33 |
| 2016/10/05 | Mid-Ebb | DS1 | 5.92 | 5.94 | 14.98 | 16.97 |
| | | DS2 | 6.02 | 6.05 | 9.00 | 8.18 |
| | | DS3 | 6.09 | 6.07 | 18.90 | 28.10 |
| | | DS4 | 6.08 | 6.09 | 13.09 | 19.73 |
| | | DS5 | 6.03 | 6.12 | 9.85 | 12.28 |
| | | US1 | 5.95 | 5.91 | 15.47 | 13.83 |
| | | US2 | 5.90 | 5.83 | 17.93 | 26.40 |
| | | MW1 | 5.01 | 5.10 | 5.27 | 7.23 |
| | Mid-Flood | DS1 | 5.81 | 5.74 | 9.44 | 13.00 |
| | | DS2 | 5.81 | 5.78 | 10.97 | 14.08 |
| | | DS3 | 5.68 | 5.71 | 8.63 | 10.72 |
| | | DS4 | 5.71 | 5.68 | 7.63 | 10.38 |
| | | DS5 | 5.74 | 5.70 | 7.38 | 7.15 |
| | | US1 | 5.82 | 5.80 | 8.27 | 11.42 |
| | | US2 | 5.79 | 5.79 | 9.10 | 12.75 |
| | | MW1 | 5.08 | 5.44 | 3.93 | 7.23 |
| 2016/10/07 | Mid-Ebb | DS1 | 5.51 | 6.19 | 3.55 | 4.62 |
| | | DS2 | 5.36 | 5.93 | 4.80 | 19.30 |
| | | DS3 | 5.80 | 6.37 | 3.02 | 4.25 |
| | | DS4 | 5.30 | 5.99 | 4.22 | 5.95 |
| | | DS5 | 5.56 | 6.35 | 3.48 | 5.98 |
| | | US1 | 6.00 | 6.28 | 2.40 | 3.37 |
| | | US2 | 5.96 | 6.27 | 2.71 | 4.05 |
| | | MW1 | 5.21 | 5.21 | 3.86 | 5.50 |
| | Mid-Flood | DS1 | 5.76 | 5.84 | 5.23 | 7.62 |
| | | DS2 | 5.82 | 5.83 | 7.66 | 12.98 |
| | | DS3 | 5.85 | 5.90 | 7.36 | 12.92 |
| | | DS4 | 5.82 | 5.88 | 7.25 | 9.47 |
| | | DS5 | 5.78 | 5.84 | 7.18 | 10.18 |
| | | US1 | 5.75 | 5.88 | 11.12 | 12.50 |
| | | US2 | 5.67 | 5.90 | 8.23 | 17.32 |
| | | MW1 | 5.21 | 5.26 | 3.97 | 5.50 |
| 2016/10/11 | Mid-Ebb | DS1 | 5.82 | 5.98 | 2.90 | 7.22 |
| | | DS2 | 5.83 | 5.91 | 2.08 | 3.82 |

| Sampling Date | Tidal Period | Station | Average DO Levels (mg/L) | | Average Turbidity Level (NTU) | Average SS Level (mg/L) |
|---|---|---|---|---|---|---|
| | | | Bottom | Surface and Mid Depth | | |
| | | DS3 | 5.83 | 5.84 | 2.39 | 4.68 |
| | | DS4 | 5.84 | 5.79 | 2.12 | 4.25 |
| | | DS5 | 5.86 | 5.84 | 2.17 | 4.63 |
| | | US1 | 5.82 | 6.11 | 2.30 | 4.73 |
| | | US2 | 5.78 | 5.98 | 2.91 | 5.30 |
| | | MW1 | 6.34 | 6.29 | 2.00 | 4.73 |
| | Mid-Flood | DS1 | 6.94 | 6.96 | 4.54 | 7.72 |
| | | DS2 | 7.05 | 7.15 | 5.85 | 9.52 |
| | | DS3 | 7.31 | 7.24 | 7.95 | 11.28 |
| | | DS4 | 7.26 | 7.32 | 6.55 | 10.20 |
| | | DS5 | 7.36 | 7.47 | 6.34 | 10.20 |
| | | US1 | 6.40 | 6.81 | 8.38 | 7.07 |
| | | US2 | 6.67 | 6.68 | 5.78 | 9.78 |
| | | MW1 | 6.04 | 6.20 | 2.48 | 4.97 |
| 2016/10/13 | Mid-Ebb | DS1 | 6.05 | 5.96 | 7.95 | 12.82 |
| | | DS2 | 5.86 | 5.83 | 7.92 | 9.18 |
| | | DS3 | 5.86 | 5.84 | 6.54 | 9.95 |
| | | DS4 | 5.84 | 5.85 | 6.12 | 9.37 |
| | | DS5 | 5.87 | 5.85 | 7.42 | 10.32 |
| | | US1 | 6.08 | 6.06 | 6.07 | 8.60 |
| | | US2 | 6.05 | 6.04 | 5.83 | 8.68 |
| | | MW1 | 5.69 | 5.70 | 7.40 | 12.95 |
| | Mid-Flood | DS1 | 6.30 | 6.29 | 6.09 | 10.75 |
| | | DS2 | 6.34 | 6.33 | 5.25 | 9.53 |
| | | DS3 | 6.38 | 6.42 | 4.28 | 7.07 |
| | | DS4 | 6.40 | 6.46 | 4.82 | 6.43 |
| | | DS5 | 6.35 | 6.46 | 5.51 | 8.82 |
| | | US1 | 6.23 | 6.19 | 8.80 | 11.90 |
| | | US2 | 6.13 | 6.12 | 14.22 | 21.75 |
| | | MW1 | 5.78 | 5.76 | 5.19 | 8.17 |
| 2016/10/15 | Mid-Ebb | DS1 | 6.00 | 6.10 | 8.26 | 9.38 |
| | | DS2 | 5.98 | 5.98 | 6.84 | 9.65 |
| | | DS3 | 5.99 | 5.98 | 8.13 | 10.83 |
| | | DS4 | 6.07 | 6.03 | 6.64 | 10.20 |
| | | DS5 | 6.13 | 6.10 | 6.68 | 9.28 |
| | | US1 | 6.01 | 6.08 | 6.18 | 8.45 |
| | | US2 | 6.02 | 6.12 | 7.49 | 10.28 |
| | | MW1 | 5.51 | 5.50 | 15.11 | 22.25 |
| | Mid-Flood | DS1 | 6.29 | 6.27 | 19.53 | 29.13 |
| | | DS2 | 6.27 | 6.27 | 19.74 | 31.30 |
| | | DS3 | 6.36 | 6.33 | 16.00 | 24.32 |
| | | DS4 | 6.45 | 6.46 | 15.96 | 18.12 |
| | | DS5 | 6.40 | 6.40 | 14.37 | 18.73 |
| | | US1 | 6.23 | 6.22 | 14.43 | 22.78 |
| | | US2 | 6.28 | 6.28 | 14.69 | 24.07 |
| | | MW1 | 5.56 | 5.55 | 10.25 | 10.65 |
| 2016/10/17 | Mid-Ebb | DS1 | 5.91 | 5.86 | 7.67 | 12.47 |
| | | DS2 | 5.84 | 5.78 | 6.00 | 8.63 |
| | | DS3 | 5.74 | 5.72 | 8.28 | 17.30 |
| | | DS4 | 5.66 | 5.65 | 5.71 | 18.80 |
| | | DS5 | 5.59 | 5.58 | 9.83 | 13.13 |
| | | US1 | 6.04 | 6.05 | 7.51 | 17.42 |
| | | US2 | 6.13 | 6.15 | 12.01 | 13.87 |

| Sampling Date | Tidal Period | Station | Average DO Levels (mg/L) | | Average Turbidity Level (NTU) | Average SS Level (mg/L) |
|---|---|---|---|---|---|---|
| | | | Bottom | Surface and Mid Depth | | |
| | | MW1 | 5.41 | 5.42 | 8.60 | 17.90 |
| | Mid-Flood | DS1 | 6.09 | 6.07 | 15.65 | 15.88 |
| | | DS2 | 6.11 | 6.09 | 15.57 | 20.52 |
| | | DS3 | 6.10 | 6.08 | 15.94 | 28.43 |
| | | DS4 | 6.12 | 6.11 | 12.90 | 27.98 |
| | | DS5 | 6.12 | 6.12 | 10.24 | 32.18 |
| | | US1 | 6.11 | 6.09 | 11.54 | 22.90 |
| | | US2 | 6.15 | 6.13 | 12.13 | 20.08 |
| | | MW1 | 5.43 | 5.40 | 19.61 | 27.68 |
| 2016/10/19 | Mid-Ebb | DS1 | 6.13 | 6.12 | 18.37 | 28.31 |
| | | DS2 | 6.16 | 6.13 | 12.10 | 21.88 |
| | | DS3 | 6.14 | 6.14 | 13.32 | 18.39 |
| | | DS4 | 6.14 | 6.14 | 18.81 | 27.88 |
| | | DS5 | 6.15 | 6.17 | 21.35 | 26.26 |
| | | US1 | 6.09 | 6.10 | 11.30 | 15.08 |
| | | US2 | 6.09 | 6.09 | 14.63 | 16.01 |
| | | MW1 | 5.69 | 5.70 | 5.73 | 9.74 |
| | Mid-Flood | DS1 | 6.17 | 6.15 | 14.24 | 21.10 |
| | | DS2 | 6.16 | 6.17 | 17.11 | 30.74 |
| | | DS3 | 6.14 | 6.15 | 18.18 | 28.43 |
| | | DS4 | 6.15 | 6.14 | 20.39 | 40.95 |
| | | DS5 | 6.13 | 6.12 | 13.75 | 25.61 |
| | | US1 | 6.19 | 6.18 | 14.56 | 21.96 |
| | | US2 | 6.20 | 6.20 | 12.94 | 20.45 |
| | | MW1 | 5.77 | 5.74 | 9.68 | 17.54 |
| 2016/10/24 | Mid-Ebb | DS1 | 5.53 | 5.72 | 6.52 | 8.55 |
| | | DS2 | 5.53 | 5.79 | 6.15 | 9.08 |
| | | DS3 | 5.53 | 5.71 | 6.70 | 8.97 |
| | | DS4 | 5.53 | 5.75 | 5.59 | 8.40 |
| | | DS5 | 5.60 | 5.78 | 5.89 | 6.73 |
| | | US1 | 5.58 | 5.80 | 7.00 | 9.67 |
| | | US2 | 5.59 | 5.77 | 8.44 | 8.60 |
| | | MW1 | 5.79 | 5.96 | 2.95 | 4.28 |
| | Mid-Flood | DS1 | 5.50 | 5.82 | 7.24 | 9.77 |
| | | DS2 | 5.48 | 5.90 | 6.86 | 10.40 |
| | | DS3 | 5.56 | 6.11 | 7.70 | 15.90 |
| | | DS4 | 5.66 | 6.36 | 6.68 | 6.30 |
| | | DS5 | 5.73 | 6.01 | 10.87 | 13.18 |
| | | US1 | 5.66 | 5.95 | 5.72 | 8.10 |
| | | US2 | 5.54 | 5.86 | 8.53 | 16.60 |
| | | MW1 | 5.42 | 5.71 | 5.68 | 11.20 |
| 2016/10/26 | Mid-Ebb | DS1 | 5.34 | 5.77 | 4.69 | 6.20 |
| | | DS2 | 5.38 | 5.84 | 4.33 | 6.48 |
| | | DS3 | 5.39 | 5.91 | 4.31 | 4.98 |
| | | DS4 | 5.34 | 5.82 | 4.64 | 3.03 |
| | | DS5 | 5.80 | 6.10 | 2.79 | 6.10 |
| | | US1 | 5.47 | 5.87 | 3.63 | 4.90 |
| | | US2 | 5.40 | 5.77 | 3.74 | 4.70 |
| | | MW1 | 5.48 | 5.65 | 2.78 | 3.90 |
| | Mid-Flood | DS1 | 5.25 | 5.78 | 8.55 | 12.07 |
| | | DS2 | 5.07 | 5.72 | 15.45 | 20.22 |
| | | DS3 | 5.24 | 5.68 | 9.92 | 12.15 |
| | | DS4 | 5.47 | 6.01 | 16.11 | 19.10 |

| Sampling Date | Tidal Period | Station | Average DO Levels (mg/L) | | Average Turbidity Level (NTU) | Average SS Level (mg/L) |
|---|---|---|---|---|---|---|
| | | | Bottom | Surface and Mid Depth | | |
| | | DS5 | 5.64 | 6.19 | 11.63 | 17.32 |
| | | US1 | 5.26 | 5.88 | 12.37 | 16.73 |
| | | US2 | 5.46 | 5.85 | 12.79 | 18.77 |
| | | MW1 | 5.34 | 5.89 | 3.89 | 6.32 |
| 2016/10/28 | Mid-Ebb | DS1 | 5.22 | 5.46 | 5.38 | 5.50 |
| | | DS2 | 5.35 | 5.71 | 4.67 | 7.10 |
| | | DS3 | 5.42 | 5.82 | 3.94 | 6.45 |
| | | DS4 | 5.60 | 5.91 | 3.95 | 5.80 |
| | | DS5 | 5.51 | 5.99 | 4.75 | 7.20 |
| | | US1 | 5.48 | 5.75 | 3.77 | 7.92 |
| | | US2 | 5.62 | 5.69 | 4.59 | 6.15 |
| | | MW1 | 5.70 | 6.04 | 4.14 | 11.13 |
| | Mid-Flood | DS1 | 5.57 | 6.00 | 14.01 | 15.80 |
| | | DS2 | 5.43 | 5.75 | 13.33 | 28.42 |
| | | DS3 | 5.42 | 6.14 | 10.03 | 19.80 |
| | | DS4 | 5.51 | 6.18 | 17.07 | 29.82 |
| | | DS5 | 6.03 | 6.13 | 13.73 | 17.55 |
| | | US1 | 5.55 | 6.04 | 13.44 | 17.63 |
| | | US2 | 5.52 | 5.76 | 28.06 | 45.23 |
| | | MW1 | 5.72 | 6.56 | 3.29 | 5.13 |
| 2016/10/31 | Mid-Ebb | DS1 | 6.67 | 6.50 | 22.34 | 29.40 |
| | | DS2 | 6.56 | 6.45 | 12.06 | 16.67 |
| | | DS3 | 6.62 | 6.48 | 16.67 | 22.60 |
| | | DS4 | 6.60 | 6.50 | 13.00 | 19.32 |
| | | DS5 | 6.63 | 6.50 | 13.89 | 15.52 |
| | | US1 | 6.59 | 6.34 | 11.17 | 15.78 |
| | | US2 | 6.60 | 6.35 | 11.85 | 16.18 |
| | | MW1 | 5.98 | 6.00 | 5.75 | 11.78 |
| | Mid-Flood | DS1 | 6.15 | 6.11 | 9.58 | 12.33 |
| | | DS2 | 6.14 | 6.10 | 13.72 | 19.03 |
| | | DS3 | 6.16 | 6.08 | 8.62 | 13.28 |
| | | DS4 | 6.05 | 6.00 | 14.01 | 14.75 |
| | | DS5 | 5.91 | 5.90 | 6.83 | 8.60 |
| | | US1 | 6.19 | 6.16 | 9.45 | 14.52 |
| | | US2 | 6.28 | 6.23 | 9.54 | 14.98 |
| | | MW1 | 5.97 | 5.97 | 10.63 | 19.22 |

Notes:

1. Please refer to Table B2 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) | Surface and Mid-depth (2)<br>5%-ile of baseline data for surface and middle layer = **3.76 mg $L^{-1}$**<br><br>and<br><br>Significantly less than the reference stations mean DO (at the same tide of the same day) | Surface and Mid-depth (2)<br>1%-ile of baseline data for surface and middle layer = **3.11 mg $L^{-1}$** (3)<br><br>and<br><br>Significantly less than the reference stations mean DO (at the same tide of the same day) |
| | Bottom<br>5%-ile of baseline data for bottom layers = **2.96 mg $L^{-1}$**<br><br>and<br><br>Significantly less than the reference stations mean DO (at the same tide of the same day) | Bottom<br>The average of the impact station readings are **<2 mg/$L^{-1}$**<br><br>and<br><br>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 $L^{-1}$**<br><br>and<br><br>120% of control station's SS at the same tide of the same day | 99%-ile of baseline data for depth average = **61.92 mg $L^{-1}$**<br><br>and<br>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**<br><br>and<br><br>120% of control station's Tby at the same tide of the same day | 99%-ile of baseline data = **38.32 NTU**<br><br>and<br><br>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 Water Column Profiling Results for ESC CMP Vd in October 2016*

| Stations | Temp (°C) | Salinity (ppt) | Turbidity (NTU) | Dissolved Oxygen (%) | Dissolved Oxygen ($mg\ L^{-1}$) | pH ($mg\ L^{-1}$) | Suspended Solids ($mg\ L^{-1}$) |
|---|---|---|---|---|---|---|---|
| WCP 1 (Downstream) | 27.41 | 20.47 | 3.07 | 98.00 | 6.91 | 7.80 | 4.23 |
| WCP 2 (Upstream) | 27.12 | 32.13 | 4.61 | 98.83 | 6.56 | 7.81 | 10.80 |
| WQO (Wet season) | N/A | 28.92 – 35.35# | N/A | N/A | >4 | 6.5-8.5 | 11.0 |

**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.

*Table B4 In-situ Monitoring Results for Routine Water Quality Monitoring of ESC CMPs in October 2016*

| Sampling Period | Stations | Temp (°C) | Salinity (ppt) | Turbidity (NTU) | Dissolved Oxygen (%) | Dissolved Oxygen ($mg\ L^{-1}$) | pH ($mg\ L^{-1}$) |
|---|---|---|---|---|---|---|---|
| October 2016 | RFE (Reference) | 28.42 | 28.24 | 8.94 | 89.09 | 5.92 | 7.81 |
| | IPE (Impact) | 28.59 | 28.52 | 9.61 | 92.26 | 6.10 | 7.86 |
| | INE (Intermediate) | 28.17 | 30.05 | 12.48 | 91.04 | 6.01 | 7.92 |
| | Ma Wan | 28.42 | 29.67 | 4.17 | 81.35 | 5.36 | 7.82 |
| | WQO | N/A | 25.42 – 31.07# | N/A | N/A | >4 | 6.5-8.5 |

**Notes:**
#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 ESC CMPs in October 2016*

| 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 2016 | RFE | 2.60 | <LOR | 0.50 | 1.11 | 0.67 | <LOR | 1.93 | <LOR | 10.25 | 0.08 | 0.61 | 1.14 | 13.79 |
| | IPE | 2.73 | <LOR | 1.51 | 0.50 | 0.68 | <LOR | 0.85 | <LOR | 9.39 | 0.05 | 0.55 | 1.66 | 11.57 |
| | INE | 3.04 | <LOR | 1.94 | 0.87 | 0.65 | <LOR | 0.56 | <LOR | 6.57 | 0.04 | 0.39 | 1.13 | 16.82 |
| | Ma Wan | 2.33 | <LOR | 0.50 | 0.50 | 0.50 | <LOR | 1.36 | <LOR | 7.09 | 0.14 | 0.59 | 1.09 | 11.11 |

WQO of TIN: 0.5 mg/L
Wet Season WQO of SS : 11.0 mg/L

**Notes:**
Cell shaded yellow / red indicate value exceeding the Action/Limit levels.
Cell shaded grey indicate value exceeding the WQO.