

Impact Water Quality Monitoring for Dredging Activities at ESC CMP Vd

| Sampling Date | Tide | Station | Time     | Depth | Depth (m) | Current Direction | Current Velocity (m/s) | Water Temp (°C) | Salinity (ppt) | D.O. Saturation (%) | D.O. (mg/L) | Turbidity (NTU) | pH   | SS (mg/L) |
|---------------|------|---------|----------|-------|-----------|-------------------|------------------------|-----------------|----------------|---------------------|-------------|-----------------|------|-----------|
| 2015/10/23    | ME   | MW1     | 0.328264 | B     | 19.1      | 39.9              | 0.48                   | 27.11           | 31.15          | 85.78               | 5.73        | 2.53            | 7.74 | 5.1       |
| 2015/10/23    | ME   | MW1     | 0.329063 | M     | 10.4      | 170.5             | 0.1                    | 27.08           | 30.46          | 88.44               | 5.93        | 1.31            | 7.8  | 5.0       |
| 2015/10/23    | ME   | MW1     | 0.329606 | T     | 1.2       | 87.1              | 0.56                   | 27.01           | 27.71          | 96.37               | 6.57        | 0.93            | 7.84 | 4.2       |
| 2015/10/23    | ME   | MW1     | 0.330475 | B     | 19.2      | 332               | 0.19                   | 27.12           | 31.49          | 84.69               | 5.64        | 3.8             | 7.81 | 4.9       |
| 2015/10/23    | ME   | MW1     | 0.331123 | M     | 10.5      | 41.8              | 0.26                   | 27.08           | 30.19          | 89.65               | 6.02        | 1.1             | 7.84 | 5.2       |
| 2015/10/23    | ME   | MW1     | 0.331759 | T     | 1.2       | 95.1              | 0.85                   | 27.02           | 27.73          | 97.37               | 6.64        | 0.89            | 7.87 | 4.3       |
| 2015/10/23    | ME   | US1     | 0.390602 | B     | 8.8       | 119.4             | 0.25                   | 27.04           | 29.41          | 86.69               | 5.85        | 15.85           | 7.88 | 9.7       |
| 2015/10/23    | ME   | US1     | 0.391123 | M     | 5.2       | 108.8             | 0.81                   | 27.08           | 28.86          | 87.4                | 5.92        | 11.37           | 7.88 | 5.5       |
| 2015/10/23    | ME   | US1     | 0.391667 | T     | 0.8       | 122.8             | 0.89                   | 27.1            | 25.9           | 96.52               | 6.64        | 1.3             | 7.88 | 2.9       |
| 2015/10/23    | ME   | US1     | 0.392361 | B     | 8.9       | 105.3             | 0.48                   | 27.03           | 29.49          | 85.82               | 5.79        | 17.38           | 7.88 | 10.1      |
| 2015/10/23    | ME   | US1     | 0.392894 | M     | 5.4       | 89.3              | 0.66                   | 27.08           | 28.89          | 86.97               | 5.89        | 12.54           | 7.88 | 5.3       |
| 2015/10/23    | ME   | US1     | 0.393333 | T     | 1.1       | 123.3             | 0.45                   | 27.17           | 26.77          | 94.43               | 6.46        | 1.51            | 7.87 | 2.9       |
| 2015/10/23    | ME   | US2     | 0.396597 | B     | 8         | 97.2              | 0.33                   | 27.12           | 29.36          | 87.17               | 5.88        | 6.55            | 7.85 | 8.0       |
| 2015/10/23    | ME   | US2     | 0.397141 | M     | 4.8       | 123               | 0.68                   | 27.15           | 28.91          | 88.04               | 5.95        | 3.65            | 7.86 | 5.6       |
| 2015/10/23    | ME   | US2     | 0.397627 | T     | 1.2       | 132.2             | 0.73                   | 27.36           | 26.79          | 97.15               | 6.62        | 1.13            | 7.87 | 6.8       |
| 2015/10/23    | ME   | US2     | 0.398206 | B     | 8.2       | 64.1              | 0.37                   | 27.12           | 29.37          | 86.52               | 5.84        | 7.11            | 7.86 | 8.3       |
| 2015/10/23    | ME   | US2     | 0.398715 | M     | 5.1       | 89.5              | 0.9                    | 27.15           | 28.9           | 87.79               | 5.93        | 3.65            | 7.86 | 5.6       |
| 2015/10/23    | ME   | US2     | 0.399294 | T     | 1.1       | 102.4             | 1.1                    | 27.32           | 26.37          | 97.81               | 6.69        | 1.07            | 7.87 | 6.5       |
| 2015/10/23    | ME   | DS1     | 0.403924 | B     | 8.1       | 80.8              | 0.33                   | 27.06           | 28.95          | 88.98               | 6.02        | 7.15            | 7.86 | 16.2      |
| 2015/10/23    | ME   | DS1     | 0.404329 | M     | 5         | 126.5             | 0.44                   | 27.14           | 28.37          | 90.23               | 6.12        | 5.56            | 7.87 | 6.1       |
| 2015/10/23    | ME   | DS1     | 0.404884 | T     | 1.2       | 89.9              | 1.46                   | 27.27           | 25.89          | 98.57               | 6.76        | 1.08            | 7.87 | 3.9       |
| 2015/10/23    | ME   | DS1     | 0.40544  | B     | 7.5       | 105.1             | 0.75                   | 27.06           | 29.04          | 87.5                | 5.92        | 7.28            | 7.87 | 16.8      |
| 2015/10/23    | ME   | DS1     | 0.405868 | M     | 5.2       | 95.4              | 0.4                    | 27.09           | 28.7           | 88.3                | 5.98        | 6.55            | 7.87 | 6.0       |
| 2015/10/23    | ME   | DS1     | 0.4064   | T     | 1         | 126.2             | 0.68                   | 27.24           | 26.13          | 97.52               | 6.69        | 1.11            | 7.88 | 4.0       |
| 2015/10/23    | ME   | DS2     | 0.41022  | B     | 6         | 41.2              | 0.83                   | 27.05           | 28.98          | 86.91               | 5.88        | 8.27            | 7.86 | 15.0      |
| 2015/10/23    | ME   | DS2     | 0.410775 | M     | 4.3       | 58.1              | 0.99                   | 27.11           | 28.09          | 90.77               | 6.17        | 4.33            | 7.87 | 3.3       |
| 2015/10/23    | ME   | DS2     | 0.411215 | T     | 1.1       | 122.5             | 1.11                   | 27.17           | 25.68          | 98.88               | 6.8         | 0.95            | 7.88 | 2.4       |
| 2015/10/23    | ME   | DS2     | 0.411736 | B     | 6.1       | 85.5              | 0.28                   | 27.06           | 28.83          | 87.21               | 5.91        | 6               | 7.86 | 15.0      |
| 2015/10/23    | ME   | DS2     | 0.41228  | M     | 4.1       | 99.3              | 0.89                   | 27.12           | 28.16          | 90.9                | 6.17        | 3.94            | 7.87 | 3.5       |
| 2015/10/23    | ME   | DS2     | 0.412789 | T     | 1         | 118.1             | 1.05                   | 27.22           | 26.72          | 96.75               | 6.61        | 1.69            | 7.87 | 2.4       |
| 2015/10/23    | ME   | DS3     | 0.416481 | B     | 6         | 73.1              | 0.59                   | 27.08           | 28.49          | 87.44               | 5.93        | 12.42           | 7.84 | 9.4       |
| 2015/10/23    | ME   | DS3     | 0.416829 | M     | 3.8       | 94.6              | 0.56                   | 27.13           | 27.33          | 92.9                | 6.34        | 2.14            | 7.86 | 8.4       |
| 2015/10/23    | ME   | DS3     | 0.417326 | T     | 1         | 79.5              | 0.64                   | 26.98           | 24.76          | 99.94               | 6.93        | 0.85            | 7.87 | 2.6       |
| 2015/10/23    | ME   | DS3     | 0.417859 | B     | 5.7       | 96.2              | 0.73                   | 27.09           | 28.38          | 88.89               | 6.03        | 9.59            | 7.85 | 9.3       |
| 2015/10/23    | ME   | DS3     | 0.418345 | M     | 4.2       | 79.2              | 0.77                   | 27.12           | 27.62          | 92.17               | 6.28        | 4.27            | 7.86 | 8.2       |
| 2015/10/23    | ME   | DS3     | 0.418657 | T     | 0.9       | 75.1              | 0.59                   | 27.02           | 24.85          | 99.17               | 6.87        | 0.87            | 7.87 | 2.7       |
| 2015/10/23    | ME   | DS4     | 0.424919 | B     | 7         | 76.7              | 0.34                   | 27.07           | 28.85          | 84.07               | 5.69        | 11.42           | 7.83 | 13.0      |
| 2015/10/23    | ME   | DS4     | 0.425475 | M     | 4.9       | 93.5              | 0.63                   | 27.13           | 27.71          | 92.4                | 6.29        | 4.86            | 7.86 | 14.1      |
| 2015/10/23    | ME   | DS4     | 0.425938 | T     | 1.1       | 123.9             | 0.84                   | 26.93           | 24.18          | 101.19              | 7.05        | 0.82            | 7.89 | 14.9      |
| 2015/10/23    | ME   | DS4     | 0.426528 | B     | 6.4       | 31.9              | 0.39                   | 27.09           | 28.37          | 87.17               | 5.92        | 9.12            | 7.84 | 13.6      |
| 2015/10/23    | ME   | DS4     | 0.426991 | M     | 4.5       | 107               | 0.59                   | 27.14           | 27.51          | 91.97               | 6.27        | 4.31            | 7.86 | 13.7      |
| 2015/10/23    | ME   | DS4     | 0.427465 | T     | 1.2       | 93.1              | 0.79                   | 26.93           | 24.2           | 102.14              | 7.12        | 0.86            | 7.89 | 14.8      |
| 2015/10/23    | ME   | DS5     | 0.430799 | B     | 9.1       | 108.8             | 0.49                   | 27.06           | 29.04          | 83.77               | 5.67        | 8.49            | 7.82 | 8.5       |
| 2015/10/23    | ME   | DS5     | 0.431273 | M     | 5.6       | 99.3              | 0.54                   | 27.07           | 28.6           | 85.39               | 5.79        | 5.51            | 7.84 | 6.8       |
| 2015/10/23    | ME   | DS5     | 0.431794 | T     | 1         | 100.1             | 0.89                   | 26.98           | 24.26          | 102.9               | 7.16        | 0.87            | 7.9  | 2.9       |
| 2015/10/23    | ME   | DS5     | 0.4325   | B     | 8.9       | 108               | 0.71                   | 27.07           | 28.97          | 84.38               | 5.71        | 7.9             | 7.83 | 8.4       |
| 2015/10/23    | ME   | DS5     | 0.433067 | M     | 5.5       | 56.9              | 0.54                   | 27.09           | 28.28          | 87.07               | 5.91        | 4.68            | 7.85 | 6.5       |
| 2015/10/23    | ME   | DS5     | 0.4336   | T     | 1         | 98.4              | 0.75                   | 26.97           | 24.33          | 102.4               | 7.12        | 0.94            | 7.89 | 2.8       |
| 2015/10/23    | MF   | DS1     | 0.623264 | B     | 7.9       | 289.9             | 0.1                    | 27.18           | 29.53          | 86.08               | 5.8         | 5.92            | 7.91 | 10.6      |
| 2015/10/23    | MF   | DS1     | 0.623785 | M     | 5         | 268.4             | 0.54                   | 27.17           | 29             | 86.43               | 5.84        | 4.55            | 7.92 | 8.9       |
| 2015/10/23    | MF   | DS1     | 0.62434  | T     | 0.9       | 264.4             | 0.61                   | 27.5            | 25.79          | 105.25              | 7.2         | 1.77            | 7.98 | 5.0       |
| 2015/10/23    | MF   | DS1     | 0.624907 | B     | 8.1       | 293.7             | 0.3                    | 27.17           | 29.78          | 84.26               | 5.67        | 5.46            | 7.91 | 10.4      |
| 2015/10/23    | MF   | DS1     | 0.62559  | M     | 5.1       | 283.3             | 0.51                   | 27.17           | 29.09          | 86.23               | 5.82        | 4.7             | 7.92 | 8.7       |
| 2015/10/23    | MF   | DS1     | 0.626123 | T     | 1         | 295.3             | 0.42                   | 27.35           | 27.37          | 95.64               | 6.5         | 2.8             | 7.95 | 4.8       |
| 2015/10/23    | MF   | DS2     | 0.629352 | B     | 8.1       | 270.3             | 0.47                   | 27.2            | 29.71          | 86.14               | 5.79        | 11.18           | 7.91 | 26.5      |
| 2015/10/23    | MF   | DS2     | 0.629745 | M     | 4.8       | 299.2             | 0.42                   | 27.2            | 29.26          | 85.96               | 5.79        | 3.79            | 7.92 | 6.5       |
| 2015/10/23    | MF   | DS2     | 0.630185 | T     | 1.1       | 321.2             | 0.6                    | 27.67           | 24.5           | 111.37              | 7.65        | 1.25            | 8.03 | 4.3       |
| 2015/10/23    | MF   | DS2     | 0.630764 | B     | 7.9       | 147.2             | 0.35                   | 27.22           | 29.89          | 85.23               | 5.72        | 9.41            | 7.92 | 27.1      |

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|            |    |     |          |   |      |       |      |       |       |        |      |       |      |      |
|------------|----|-----|----------|---|------|-------|------|-------|-------|--------|------|-------|------|------|
| 2015/10/23 | MF | DS2 | 0.631377 | M | 4.8  | 264.6 | 0.61 | 27.21 | 29.34 | 86.49  | 5.83 | 3.71  | 7.93 | 6.1  |
| 2015/10/23 | MF | DS2 | 0.631782 | T | 1    | 41.1  | 0.36 | 27.63 | 24.76 | 110.08 | 7.55 | 1.36  | 8.03 | 4.4  |
| 2015/10/23 | MF | DS3 | 0.641007 | B | 23.1 | 239.3 | 0.36 | 27.25 | 29.82 | 84.99  | 5.71 | 19.89 | 7.93 | 18.5 |
| 2015/10/23 | MF | DS3 | 0.641806 | M | 12.8 | 86.9  | 0.41 | 27.22 | 29.54 | 85.24  | 5.73 | 8.14  | 7.93 | 10.6 |
| 2015/10/23 | MF | DS3 | 0.642477 | T | 1.2  | 302.6 | 0.44 | 27.62 | 24.9  | 109.43 | 7.5  | 1.42  | 8.03 | 5.6  |
| 2015/10/23 | MF | DS3 | 0.643391 | B | 22.9 | 295.6 | 0.38 | 27.25 | 29.78 | 86.07  | 5.78 | 16.87 | 7.93 | 18.8 |
| 2015/10/23 | MF | DS3 | 0.644051 | M | 12.6 | 314.8 | 0.64 | 27.24 | 29.26 | 86.94  | 5.86 | 7     | 7.94 | 11.0 |
| 2015/10/23 | MF | DS3 | 0.644769 | T | 1    | 329.1 | 0.3  | 27.71 | 24.81 | 110.36 | 7.56 | 1.33  | 8.03 | 5.5  |
| 2015/10/23 | MF | DS4 | 0.648032 | B | 10   | 273.1 | 0.2  | 27.22 | 30.2  | 86.74  | 5.81 | 21.98 | 7.92 | 11.4 |
| 2015/10/23 | MF | DS4 | 0.648646 | M | 6    | 302.6 | 0.52 | 27.26 | 28.15 | 91.85  | 6.22 | 4.34  | 7.95 | 5.5  |
| 2015/10/23 | MF | DS4 | 0.64963  | T | 1    | 5     | 0.54 | 27.76 | 24.54 | 109.74 | 7.52 | 1.48  | 8.02 | 4.8  |
| 2015/10/23 | MF | DS4 | 0.650266 | B | 10   | 297   | 0.76 | 27.23 | 30.09 | 86.6   | 5.81 | 18.77 | 7.93 | 11.2 |
| 2015/10/23 | MF | DS4 | 0.650822 | M | 5.9  | 321.1 | 0.44 | 27.25 | 28.28 | 91.26  | 6.18 | 4.4   | 7.96 | 5.3  |
| 2015/10/23 | MF | DS4 | 0.651331 | T | 1    | 330.5 | 0.28 | 27.76 | 24.54 | 109.76 | 7.52 | 1.26  | 8.02 | 4.9  |
| 2015/10/23 | MF | DS5 | 0.656285 | B | 10.2 | 255.6 | 0.35 | 27.22 | 30.35 | 83.14  | 5.57 | 21.42 | 7.92 | 16.1 |
| 2015/10/23 | MF | DS5 | 0.656968 | M | 6.1  | 334.7 | 0.55 | 27.28 | 28.52 | 91     | 6.15 | 3.78  | 7.94 | 22.1 |
| 2015/10/23 | MF | DS5 | 0.657581 | T | 1.1  | 316.9 | 0.41 | 27.76 | 24.37 | 110.29 | 7.57 | 1.46  | 8.01 | 7.8  |
| 2015/10/23 | MF | DS5 | 0.658275 | B | 10.4 | 299.3 | 0.44 | 27.22 | 30.24 | 85.42  | 5.72 | 21.26 | 7.92 | 16.2 |
| 2015/10/23 | MF | DS5 | 0.658947 | M | 6.4  | 277.3 | 0.27 | 27.3  | 28.1  | 91.64  | 6.21 | 3.77  | 7.95 | 21.5 |
| 2015/10/23 | MF | DS5 | 0.659444 | T | 0.9  | 348.3 | 0.52 | 27.77 | 24.31 | 110.45 | 7.58 | 1.39  | 8.02 | 8.1  |
| 2015/10/23 | MF | US1 | 0.669398 | B | 8.1  | 267   | 0.83 | 27.22 | 29.12 | 97.73  | 6.59 | 5.16  | 8    | 4.2  |
| 2015/10/23 | MF | US1 | 0.669907 | M | 5.1  | 265.6 | 0.26 | 27.61 | 26.52 | 123.98 | 8.43 | 1.65  | 8.1  | 1.0  |
| 2015/10/23 | MF | US1 | 0.670394 | T | 1.1  | 136.7 | 0.46 | 27.71 | 25.16 | 125.54 | 8.58 | 1.37  | 8.1  | 4.0  |
| 2015/10/23 | MF | US1 | 0.670972 | B | 8    | 230.9 | 0.63 | 27.15 | 29.69 | 89.71  | 6.04 | 9.71  | 7.94 | 4.0  |
| 2015/10/23 | MF | US1 | 0.671516 | M | 5    | 264.1 | 0.25 | 27.59 | 26.27 | 122.11 | 8.31 | 1.95  | 8.09 | 1.0  |
| 2015/10/23 | MF | US1 | 0.672025 | T | 1    | 69.3  | 0.26 | 27.71 | 25.06 | 125.3  | 8.57 | 1.31  | 8.09 | 3.8  |
| 2015/10/23 | MF | US2 | 0.675104 | B | 6.9  | 186.5 | 0.47 | 27.17 | 29.46 | 90.52  | 6.1  | 10.42 | 7.94 | 11.6 |
| 2015/10/23 | MF | US2 | 0.675984 | M | 4.5  | 264.4 | 1.16 | 27.33 | 27.92 | 104.51 | 7.08 | 3.94  | 8    | 12.5 |
| 2015/10/23 | MF | US2 | 0.676481 | T | 0.8  | 283.5 | 0.71 | 27.57 | 26.54 | 124.35 | 8.46 | 2.07  | 8.07 | 7.1  |
| 2015/10/23 | MF | US2 | 0.677292 | B | 6.9  | 276.5 | 0.13 | 27.25 | 28.84 | 95.17  | 6.42 | 7.05  | 7.96 | 11.2 |
| 2015/10/23 | MF | US2 | 0.677766 | M | 4.6  | 267.7 | 0.49 | 27.34 | 27.95 | 104.15 | 7.05 | 4.23  | 8.01 | 12.1 |
| 2015/10/23 | MF | US2 | 0.67853  | T | 1.1  | 288.4 | 0.51 | 27.42 | 27.36 | 116.01 | 7.87 | 3.32  | 8.06 | 7.0  |
| 2015/10/23 | MF | MW1 | 0.718194 | B | 19.1 | 328.2 | 0.33 | 27.13 | 31.58 | 87.62  | 5.84 | 5.69  | 7.97 | 8.4  |
| 2015/10/23 | MF | MW1 | 0.718831 | M | 10.4 | 73.4  | 0.21 | 27.17 | 31.23 | 89.97  | 6    | 4.93  | 7.98 | 6.7  |
| 2015/10/23 | MF | MW1 | 0.719433 | T | 0.9  | 96.4  | 0.26 | 27.2  | 30.45 | 94.62  | 6.34 | 2.26  | 7.99 | 4.8  |
| 2015/10/23 | MF | MW1 | 0.720255 | B | 18.9 | 260.2 | 0.41 | 27.14 | 31.52 | 88.42  | 5.89 | 6.75  | 7.97 | 8.1  |
| 2015/10/23 | MF | MW1 | 0.720868 | M | 10.6 | 80.9  | 0.45 | 27.17 | 31.21 | 90.21  | 6.02 | 4.79  | 7.98 | 6.4  |
| 2015/10/23 | MF | MW1 | 0.721481 | T | 0.8  | 111.8 | 0.05 | 27.22 | 29.73 | 98.57  | 6.62 | 1.79  | 8    | 5.1  |