

## Sediment Basin Water Monitoring - May 2018

Monitoring Location: POINT 1 - Sediment Basin Outlet

Licensee: Laing O'Rourke Australia Construction Pty Ltd  
 Premises: Woolgoolga to Ballina Pacific Highway Upgrade Project, Harwood NSW 2465  
 Licence No: 20713

| Portion / Section | Contractor | Basin Name/ Number         | Rainfall start date    | Rainfall end date | Rainfall total (mL) | Date of Treatment                   | Date of Discharge | Volume of Discharge (KL) | EPL water quality parameters |           |                 | Turbidity NTU<br>Limit - Varies per Contractor | Comments   |
|-------------------|------------|----------------------------|------------------------|-------------------|---------------------|-------------------------------------|-------------------|--------------------------|------------------------------|-----------|-----------------|--|--|
|                   |            |                            |                        |                   |                     |                                     |                   |                          | Oil & Grease                 | pH        | TSS (mg/L)      |  |  |
|                   |            |                            |                        |                   |                     |                                     |                   |                          | Nil                          | 6.5 – 8.5 | Limit ≤ 50 mg/L |  |  |
| Portion A S3      | SWC        | 50360                      | 18/04/2018             | 27/04/2018        | 46.6                | 1/05/2018                           | 1/05/2018         | 110                      | Nil                          | 7         | 34              | 24   | Released via basin spillway  |
| Portion A S3      | SWC        | 47020                      | 18/04/2018             | 27/04/2018        | 46.6                | 1/05/2018                           | 1/05/2018         | 550                      | Nil                          | 7.1       | 18              | 24   | Released via basin spillway  |
| Portion A S3      | SWC        | 47340                      | 18/04/2018             | 27/04/2018        | 46.6                | 1/05/2018                           | 1/05/2018         | 280                      | Nil                          | 6.7       | 41              | 24   | Released via basin spillway  |
| Portion A S3      | SWC        | 50360                      | Nil - Refer to comment |                   |                     | 11/05/2018                          | 11/05/2018        | 80                       | Nil                          | 7.5       | 8               | 30   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S3      | SWC        | 48610                      | Nil - Refer to comment |                   |                     | 11/05/2018                          | 11/05/2018        | 300                      | Nil                          | 7.5       | 12              | 30   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S3      | SWC        | 48780                      | Nil - Refer to comment |                   |                     | 11/05/2018                          | 11/05/2018        | 230                      | Nil                          | 7.4       | 1               | 24   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S3      | SWC        | 68700                      | Nil - Refer to comment |                   |                     | 11/05/2018                          | 11/05/2018        | 600                      | Nil                          | 8.3       | 26              | 50   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S3      | SWC        | 47710                      | Nil - Refer to comment |                   |                     | 12/05/2018                          | 12/05/2018        | 200                      | Nil                          | 7.2       | 8               | 27   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S3      | SWC        | 50010                      | Nil - Refer to comment |                   |                     | 10/05/2018                          | 10/05/2018        | 300                      | Nil                          | 7.7       | 2               | 24   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S3      | SWC        | 48010                      | Nil - Refer to comment |                   |                     | 12/05/2018                          | 14/05/2018        | 540                      | Nil                          | 7.2       | 4               | 24   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S3      | SWC        | 42690                      | Nil - Refer to comment |                   |                     | 22/05/2018                          | 22/05/2018        | 100                      | Nil                          | 6.9       | 3               | 20   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S3      | SWC        | 41340                      | Nil - Refer to comment |                   |                     | 23/05/2018                          | 23/05/2018        | 100                      | Nil                          | 7         | 1               | 20   | Released via basin spillway - released furthe water in preparation for rain event (well below designed capacity) |
| Portion A S4A     | BGC        | SB 77500 E                 | 29/04/2018             | 1/05/2018         | 0.023               | N/A                                 | 30/04/2018        | 1140                     | Nil                          | 8         | 17              | 16   | EAL test results were not included in April EPL Report   |
| Portion A S4A     | BGC        | SB 78450 W                 | 29/04/2018             | 1/05/2018         | 0.023               | N/A                                 | 30/04/2018        | 295                      | Nil                          | 7.35      | 23              | 24   | EAL test results were not included in April EPL Report   |
| Portion A S4A     | BGC        | SB GH4                     | 29/04/2018             | 1/05/2018         | 0.023               | N/A                                 | 30/04/2018        | 1751                     | Nil                          | 7.66      | 34              | 41   | EAL test results were not included in April EPL Report   |
| Portion A S4A     | BGC        | SB 75200 E                 | 29/04/2018             | 1/05/2018         | 0.023               | N/A                                 | 30/04/2018        | 498                      | Nil                          | 8.14      | 19              | 20   | EAL test results were not included in April EPL Report   |
| Portion A S4A     | BGC        | SB 77500 W                 | 8/05/2018              | 10/05/2018        | 0.0308              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (red)   |
| Portion A S4A     | BGC        | SB 7800                    | 8/05/2018              | 10/05/2018        | 0.0308              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (green)   |
| Portion A S4A     | BGC        | SB 78000                   | 8/05/2018              | 10/05/2018        | 0.0308              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (red)   |
| Portion A S4A     | BGC        | SB 77500 E                 | 8/05/2018              | 10/05/2018        | 0.0308              | 10/05/2018                          | 12/05/2018        | 1140                     | Nil                          | 7.84      |                 | 71.4   |  |
| Portion A S4A     | BGC        | SB 78450 W                 | 8/05/2018              | 10/05/2018        | 0.0308              | 10/05/2018                          | 11/05/2018        | 295                      | Nil                          | 7.14      | 35              | 55   |  |
| Portion A S4A     | BGC        | SB 78450 E                 | 8/05/2018              | 10/05/2018        | 0.0308              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (green)   |
| Portion A S4A     | BGC        | SB GH4                     | 8/05/2018              | 10/05/2018        | 0.0308              | 10/05/2018                          | 11/05/2018        | 1751                     | Nil                          | 7.58      | 32              | 68   |  |
| Portion A S4A     | BGC        | SB 76450                   | 8/05/2018              | 10/05/2018        | 0.0308              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (green)   |
| Portion A S4A     | BGC        | SB 76200                   | 8/05/2018              | 10/05/2018        | 0.0308              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (green)   |
| Portion A S4A     | BGC        | SB 75200 E                 | 8/05/2018              | 10/05/2018        | 0.0308              | 10/05/2018                          | 14/05/2018        | 498                      | Nil                          | 8.45      |                 | 21   |  |
| Portion A S4A     | BGC        | SB 75200 W                 | 8/05/2018              | 10/05/2018        | 0.0308              | 11/05/2018                          | 12/05/2018        | 213                      | Nil                          | 6.67      |                 | 60.4   |  |
| Portion A S4A     | BGC        | SB 75500                   | 8/05/2018              | 10/05/2018        | 0.0308              | 12/05/2018                          | 11/05/2018        | 327                      | Nil                          | 7.52      |                 | 60.1   |  |
| Portion A S4A     | BGC        | SB 69620 E                 | 8/05/2018              | 10/05/2018        | 0.0196              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (green)   |
| Portion A S4A     | BGC        | SB 68910                   | 8/05/2018              | 10/05/2018        | 0.0196              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (red)   |
| Portion A S4A     | BGC        | SB 69620 W                 | 8/05/2018              | 10/05/2018        | 0.0196              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (red)   |
| Portion A S4A     | BGC        | SB 69052                   | 8/05/2018              | 10/05/2018        | 0.0196              | N/A                                 | N/A               | N/A                      | N/A                          | N/A       | N/A             | N/A  | Basin is compliant (red)   |
| Portion B S5      | BMD        | IEB03                      | 18/04/2018             | 5/05/2018         | 65.8                | pre-dosed catchment and basin inlet | 3/05/2018         | 80                       | Nil                          | 6.95      |                 | 9.5  |  |
| Portion B S5      | BMD        | MC03                       | 18/04/2018             | 5/05/2018         | 65.8                | pre-dosed catchment and basin inlet | 3/05/2018         | 400                      | Nil                          | 7.49      | 11              | 26.1   |  |
| Portion B S5      | BMD        | MC01                       | 8/05/2018              | 9/05/2018         | 57                  | pre-dosed catchment and basin inlet | 9/05/2018         | 300                      | Nil                          | 7.54      |                 | 27.1   |  |
| Portion B S5      | BMD        | C1                         | 8/05/2018              | 9/05/2018         | 57                  | pre-dosed catchment and basin inlet | 10/05/2018        | 30                       | Nil                          | 7.59      | 11              | 22.1   |  |
| Portion B S5      | BMD        | MC03                       | N/A                    | N/A               | N/A                 | pre-dosed catchment and basin inlet | 15/05/2018        | 120                      | Nil                          | 7.52      |                 | 24.2   | below storage level discharged for de-silting operations   |
| Portion B S6      | BMD        | BMD-SB04                   | 7/05/2018              | 10/05/2018        | 24.2                |                                     | 9/05/2018         | 300                      | Nil                          | 6.58      | 12              | 12.7   | TSS/Turbidity correlation approved   |
| Portion B S6      | BMD        | BMD-SB05                   | 7/05/2018              | 10/05/2018        | 24.2                |                                     | 9/05/2018         | 400                      | Nil                          | 6.95      | 11              | 23.5   | TSS/Turbidity correlation approved   |
| Portion B S6      | BMD        | BMD-SB06                   | 7/05/2018              | 10/05/2018        | 24.2                |                                     | 12/05/2018        | 400                      | Nil                          | 7.78      | 11              | 21.7   | TSS/Turbidity correlation approved   |
| Portion B S6      | BMD        | BMD-SB04                   | 7/05/2018              | 10/05/2018        | 24.2                |                                     | 9/05/2018         | 200                      | Nil                          | 7.48      | 12              | 7  | TSS/Turbidity correlation approved   |
| Portion B         | Golding    | Castle Pad Basin           | 8/05/2018              | 11/05/2018        | 49.4                |                                     | 14/05/2018        | 650                      | Nil                          | 6.61      | 14              | 19.8   |  |
| Portion D         | LE         | Wardell Rd - 152800E       | 21/04/2018             | 26/04/2018        | 116.4               |                                     | N/A               | 27/04/2018               | 1417                         | Nil       | 6.5             | 24   |  |
| Portion D         | LE         | Cut 3 North - 148050W      | 21/04/2018             | 26/04/2018        | 116.4               |                                     | 26/04/2018        | 610                      | Nil                          | 6.5       | 21              |  | Self Floccing  |
| Portion D         | LE         | Monis - 149200E            | 21/04/2018             | 26/04/2018        | 116.4               |                                     | 26/04/2018        | 2611                     | Nil                          | 6.6       | 18              |  |  |
| Portion D         | LE         | Cut 3 South East - 147220E | 21/04/2018             | 26/04/2018        | 116.4               |                                     | 26/04/2018        | 862                      | Nil                          | 6.7       | 49              |  |  |
| Portion D         | LE         | Cut 3 South West - 147220W | 21/04/2018             | 26/04/2018        | 116.4               |                                     | 27/04/2018        | 1195                     | Nil                          | 6.5       | 48              |  |  |
| Portion D         | LE         | Cut 3 South East - 147220E | 28/04/2018             | 1/05/2018         | 34.4                |                                     | 2/05/2018         | 755                      | Nil                          | 7.2       | 16              |  |  |
| Portion D         | LE         | Cut 3 South West - 147220W | 28/04/2018             | 1/05/2018         | 34.4                |                                     | 2/05/2018         | 1180                     | Nil                          | 7.8       | 27              |  |  |

|           |       |                            |            |            |      |            |            |      |     |      |    |      |                                   |
|-----------|-------|----------------------------|------------|------------|------|------------|------------|------|-----|------|----|------|-----------------------------------|
| Portion D | LLE   | Montis - 149200E           | 28/04/2018 | 1/05/2018  | 34.4 | 2/05/2018  | 4/05/2018  | 2438 | Nil | 7.2  | 39 |      |                                   |
| Portion D | LLE   | Wardell Rd - 152800E       | 28/04/2018 | 1/05/2018  | 34.4 | N/A        | 4/05/2018  | 885  | Nil | 8.2  | 18 |      | Self Flocking                     |
| Portion D | LLE   | Cut 3 South East - 147220E | 7/05/2018  | 10/05/2018 | 36.2 | 10/05/2018 | 11/05/2018 | 162  | Nil | 7.8  | 7  |      |                                   |
| Portion D | LLE   | Montis - 149200E           | 7/05/2018  | 10/05/2018 | 36.2 | 10/05/2018 | 11/05/2018 | 1219 | Nil | 7.4  | 22 |      |                                   |
| Portion D | LLE   | Cut 3 North - 148050W      | 7/05/2018  | 10/05/2018 | 36.2 | 10/05/2018 | 11/05/2018 | 267  | Nil | 7.6  | 1  |      |                                   |
| Portion D | LLE   | Cut 3 South West - 147220W | 7/05/2018  | 10/05/2018 | 36.2 | 10/05/2018 | 11/05/2018 | 672  | Nil | 6.7  | 27 |      |                                   |
| Portion E | AFHJV | Sediment Basin 1           | 8/05/2018  | 9/05/2018  | 52.8 | 9/05/2018  | 10/05/2018 | 695  | Nil | 7.64 | 16 | 29.4 | TSS-NTU relationship not approved |
| Portion E | AFHJV | Sediment Basin 2           | 8/05/2018  | 9/05/2018  | 52.8 | 9/05/2018  | 10/05/2018 | 1324 | Nil | 8.4  | 20 | 37.5 |                                   |