# M7-M12 Integration Project

# Environment Protection Licence – Environmental Monitoring Data Report

October 2024

# Document Control

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# Document History and Status

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# Tables

# 1 Project summary

The M7 Motorway (Modification 6 Widening; SSI-663-Mod-6) (M7 Widening) and the M12 East package of the M12 Motorway project (SSI 9364) will be delivered together under what is referred to as the M7-M12 Integration project (the Project) (refer to Figure 1-1) by John Holland.

The M12 Motorway extends between the M7 Motorway at Cecil Hills and The Northern Road at Luddenham, over a distance of about 16 km. It will be delivered in multiple packages including the M12 West package, M12 Central package and M12 East package (this package is part of the M7-M12 Integration project). The M12 East package involves two components of work:

- Connecting Elizabeth Drive to the M12 Motorway and the upgrade of approximately two kilometres of Elizabeth Drive from east of Duff Road to 300 metres east of the M7 Motorway
- Providing a grade separated motorway to motorway connection between the M7 Motorway and M12 Motorway.

The M7 Widening project will enable the construction and operation of an additional lane in both directions within the existing median of the Westlink M7 for approximately 26 kilometres (km). Works will occur from about 140 metres (m) south of the Kurrajong Road overhead bridge at Prestons (southern end) to the Richmond Road interchange at Oakhurst/Glendenning (northern end), excluding widening through the Westlink M7/M4 Motorway (Light Horse) Interchange.

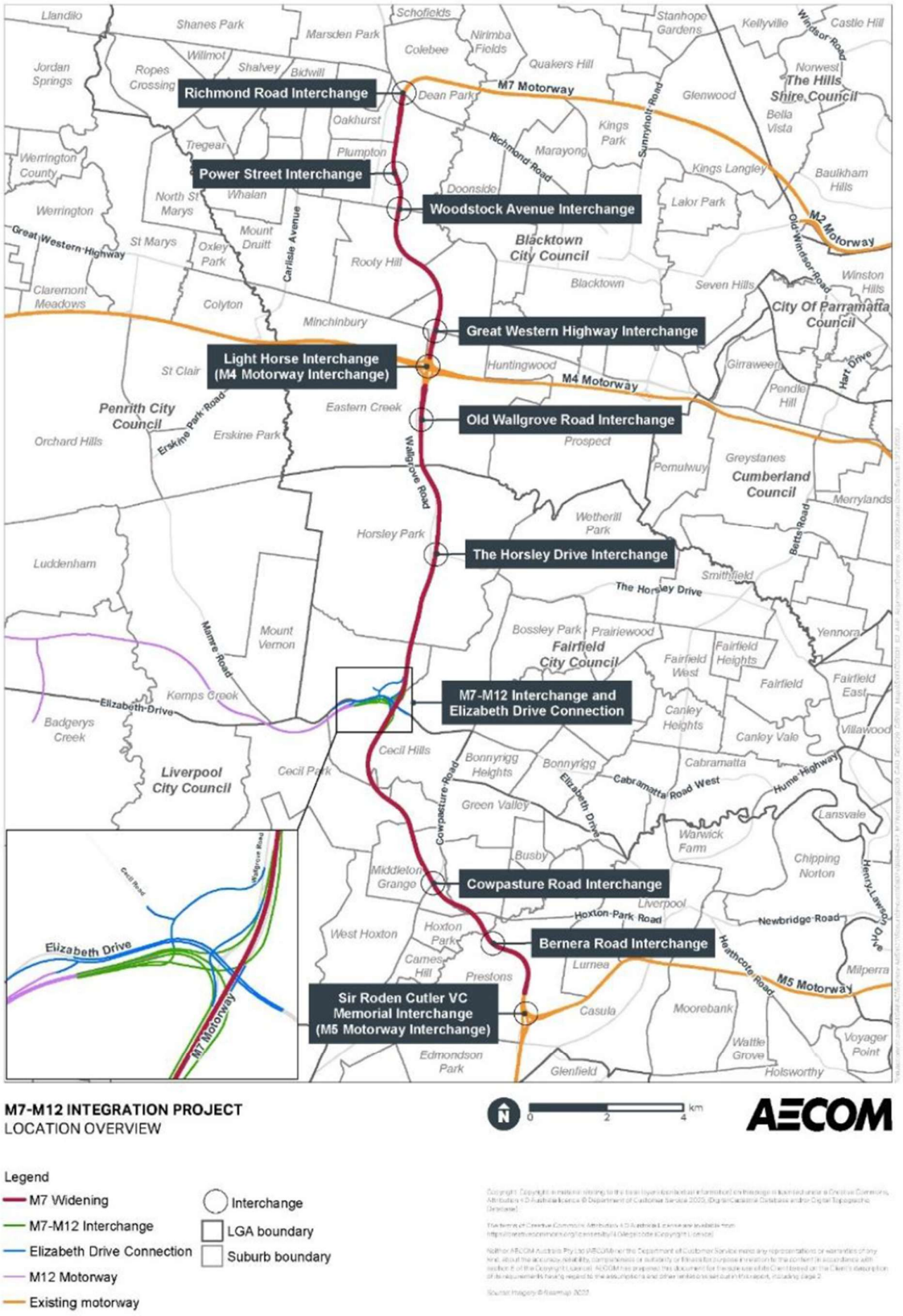


*Figure 1-1 M7-M12 Integration Project*

# 2 Environmental Protection Licence and Reporting Requirements

John Holland Pty Ltd obtained the Environment Protection Licence (EPL No. 21829) from the NSW Environment Protection Authority for the project. The licence is for road construction as defined under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act).

The licence describes monitoring and reporting requirements for the Works. The following report details environmental monitoring undertaken during the October 2024 monitoring period conducted in accordance with the EPL.

The EPL can be found by following the link below to the EPA's website: epa.nsw.gov.au

# 3 Noise and vibration monitoring

## 3.1 Noise monitoring

Noise monitoring was undertaken during the reporting period in accordance with the requirements of the M7M12 Construction Noise and Vibration Monitoring Program (M712UDC-JHGRP-M7A-EN-PLN-000074).

All works were deemed compliant as they complied with applicable criteria, monitoring was predominantly dominated by background noise sources such as local traffic and are detailed in Table 3-1.

*Table 3-1 Noise monitoring data*

| Location Description | Monitoring date | Monitoring period | NCA | Attended or Continuous | Parameter | Measured value dB(A) | Goals and targets dB(A) | Project OOHW Compliance | Comments/Field Observations |
|---|---|---|---|---|---|---|---|---|---|
| 1111-1114 Elizabeth Drive, Cecil Park | 02/10/2024 | Night | M12_NCA_35 | Attended | LAeq (15 min) | 56.5 | 46 | Compliant | The dominant noise source was traffic from Elizabeth Drive. Works were compliant with the PNL. JHG works compliant. |
| 1111-1114 Elizabeth Drive, Cecil Park | 03/10/2024 | Night | M12_NCA_35 | Attended | LAeq (15 min) | 51.4 | 46 | Compliant | The dominant noise source was traffic from Elizabeth Drive. Works were inaudible during monitoring period. JHG works compliant. |
| 15 Toulouse Street, Cecil Hills | 04/10/2024 | Day | M7_NCA_16 | Attended | LAeq (15 min) | 48.5 | 54 | Compliant | The dominant noise source was traffic from M7and background noise (birds, insects) Works were inaudible during monitoring period. JHG works compliant. |
| 98 Dobroyd Drive, Elizabeth Drive | 09/10/2024 | Night | M7_NCA_14 | Attended | LAeq (15 min) | 58.3 | 49 | Compliant | The dominant noise source was traffic from M7 and Dobroyd Drive. Works compliant with the PNL. JHG works compliant. |
| 185 Middleton Drive, Middleton Grange | 09/10/2024 | Night | M7_NCA_10 | Attended | LAeq (15 min) | 56 | 61 | Compliant | The dominant noise source was traffic from M7. Works compliant with the PNL. JHG works compliant. |
| 33 Isabel Street, Cecil Hills | 14/10/2024 | Night | TfNSW_NCA_16b | Attended | LAeq (15 min) | 56.5 | 68 | Compliant | The dominant noise source was associated with JHG works however works were compliant with the PNL. JHG works compliant. |
| 16 Isabel Street, Cecil Hills | 14/10/2024 | Night | TfNSW_NCA_16b | Attended | LAeq (15 min) | 48.9 | 68 | Compliant | The dominant noise source was associated with JHG works however works were compliant with the PNL. JHG works compliant. |
| 30 Bangalow Place, Howton Park | 14/10/2024 | Night | M7_NCA_08 | Attended | LAeq (15 min) | 46.5 | 44 | Compliant | The dominant noise source was traffic from M7. Works compliant with the PNL. JHG works compliant. |
| 9 Whitford Road, Hinchinbrook | 14/10/2024 | Night | M7_NCA_09 | Attended | LAeq (15 min) | 56.2 | 41 | Compliant | The dominant noise source was traffic from M7 and Hoxton Park Road. Works compliant with the PNL. JHG works compliant. |
| 98 Dobroyd Drive, Elizabeth Drive | 14/10/2024 | Night | M7_NCA_14 | Attended | LAeq (15 min) | 49 | 49 | Compliant | The dominant noise source was traffic from M7. Works compliant with the PNL. JHG works compliant. |
| 185 Middleton Drive, Middleton Grange | 14/10/2024 | Night | M7_NCA_10 | Attended | LAeq (15 min) | 52.3 | 61 | Compliant | The dominant noise source was traffic from M7. Works compliant with the PNL. JHG works compliant. |

| Location Description | Monitoring date | Monitoring period | NCA | Attended or Continuous | Parameter | Measured value dB(A) | Goals and targets dB(A) | Project OOHW Compliance | Comments/Field Observations |
|---|---|---|---|---|---|---|---|---|---|
| 30 Bangalow Place, Hoxton Park | 15/10/2024 | Night | M7_NCA_08 | Attended | LAeq (15 min) | 43.7 | 44 | Compliant | The dominant noise source was traffic from M7 and Hoxton Park Road. Works compliant with the PNL. JHG works compliant. |
| 9 Whitford Road, Hinchinbrook | 15/10/2024 | Night | M7_NCA_09 | Attended | LAeq (15 min) | 60.1 | 41 | Compliant | The dominant noise source was traffic from M7 and Hoxton Park Road. Works compliant with the PNL. JHG works compliant. |
| 1 Pavesi Place, Hinchinbrook | 15/10/2024 | Night | M7_NCA_09 | Attended | LAeq (15 min) | 60.6 | 40 | Compliant | The dominant noise source was traffic from M7 and Wilson Road. Works compliant with the PNL. JHG works compliant. |
| 33 Isabel Street, Cecil Hills | 21/10/2024 | Day | TfNSW_NCA_16b | Attended | LAeq (15 min) | 53.1 | 74 | Compliant | The dominant noise source was traffic from Elizabeth Drive. Works compliant with the PNL. JHG works compliant. |
| 30 Bangalow Place, Hoxton Park | 28/10/224 | Night | M7_NCA_08 | Attended | LAeq (15 min) | 46.4 | 44 | Compliant | The dominant noise source was traffic from M7 and Hoxton Park Road. Works compliant with the PNL. JHG works compliant. |
| 31 Topnot Avenue, Hinchinbrook | 29/10/2024 | Night | M7_NCA_09 | Attended | LAeq (15 min) | 47.5 | 38 | Compliant | The dominant noise source was traffic from M7, Topnot Avenue and Hoxton Park Road. Works compliant with the PNL. JHG works compliant. |
| 7 Pavesi Place, Hinchinbrook | 29/10/2024 | Night | M7_NCA_07 | Attended | LAeq (15 min) | 46.4 | 44 | Compliant | The dominant noise source was traffic from M7, Carriageway and Wilson Road. Works compliant with the PNL. JHG works compliant. |
| 2073-2081 Elizabeth Drive, Cecil Park | 29/10/2024 | Day | TfNSW_NCA_35 | Attended | LAeq (15 min) | 65.2 | 68 | Compliant | The dominant noise source was traffic from Elizabeth Drive. Works were inaudible during monitoring period. JHG works compliant. |

Note:

1. LAeq (15min) - The A-weighted equivalent continuous (energy average) A-weighted sound pressure level over a 15-minute period.
2. dBA - Decibels using the A-weighted scale measured according to the frequency of the human ear.

## 3.2 Vibration monitoring

Vibration monitoring was undertaken during the reporting period in accordance with the requirements of the M7M12 Construction Noise and Vibration Monitoring Program (M712UDC-JHGRP-M7A-EN-PLN-000074).

All works were deemed compliant as they complied with applicable criteria and are detailed in Table 3-2.

*Table 3-2 Vibration monitoring data*

| Monitoring Location | Monitoring Date | Attended or Continuous Monitoring | Measured VDV ($m/s^{1.75}$) | VDV Target ($m/s^{1.75}$) | VDV Compliant | Measured PPV (mm/s) | PPV Target (mm/s) | PPV Compliant | Comments/ Field Observations |
|---|---|---|---|---|---|---|---|---|---|
| 19 Anjou Cot, Cecil Hills | 04/10/2024 | Attended | 0.08 | 0.4 | Compliant | 0.09 | 20 | Compliant | Works were monitored and found to be compliant with associated criteria |
| 33 Isabel Street, Cecil Hills | 21/10/2024 | Attended | 0.08 | 0.4 | Compliant | 0.12 | 20 | Compliant | Works were monitored and found to be compliant with associated criteria |
| 2073-2081 Elizabeth Drive, Cecil Park | 29/10/2024 | Attended | 0.18 | 0.4 | Compliant | 0.27 | 20 | Compliant | Works were monitored and found to be compliant with associated criteria |
| 2055-2059 Elizabeth Drive, Cecil Park | 29/10/2024 | Attended | 0.12 | 0.4 | Compliant | 0.19 | 20 | Compliant | Works were monitored and found to be compliant with associated criteria |

Note:

1. VDV – Vibration Dose Value
2. PPV – Peak Particle Velocity

# 4 Discharge Water Quality Monitoring

Offsite discharge occurred during October 2024 from sediment basins across the Project.

All discharges were compliant with the requirements of the project EPL (#21829) and are outlined in Table 4-1.

*Table 4-1 Sediment basin discharge monitoring data for October 2024*

| Location | Date | Analyte | Units | Limit | Result | Comments |
|---|---|---|---|---|---|---|
| SB08 | 01/10/224 | pH | pH | 6.5-8.5 | **8.05** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **25.4** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB14 | 02/10/2024 | pH | pH | 6.5-8.5 | **8.08** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **43.9** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB02 | 02/10/2024 | pH | pH | 6.5-8.5 | **7.73** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **16.8** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB11 | 03/10/2024 | pH | pH | 6.5-8.5 | **8.03** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **43** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB08 | 04/10/2024 | pH | pH | 6.5-8.5 | **8.44** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **10.8** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB03 | 04/10/2024 | pH | pH | 6.5-8.5 | **8.36** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **47.4** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB02 | 10/10/2024 | pH | pH | 6.5-8.5 | **7.51** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **17.9** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB14 | 11/10/2024 | pH | pH | 6.5-8.5 | **8.17** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **16.4** | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB15 | 11/10/2024 | pH | pH | 6.5-8.5 | **8.1** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **32.9** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB03 | 17/10/2024 | pH | pH | 6.5-8.5 | **8.19** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **49** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB14 | 17/10/2024 | pH | pH | 6.5-8.5 | **8.08** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **35.3** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB02 | 17/10/2024 | Ph | Ph | 6.5-8.5 | **8.06** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **48.8** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB11 | 21/10/2024 | pH | pH | 6.5-8.5 | **7.98** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **12.3** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB08 | 24/10/2024 | pH | pH | 6.5-8.5 | **8.48** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **43.6** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB02 | 28/10/2024 | pH | pH | 6.5-8.5 | **7.12** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **34.4** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB11 | 30/10/2024 | pH | pH | 6.5-8.5 | **7.84** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **25.9** | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Oil and grease | Visible | Not visible | **Not visible** | |
| SB03 | 30/10/2024 | pH | pH | 6.5-8.5 | **8.42** | Compliant with discharge criteria. |
| | | Turbidity | NTU | 50 | **33.5** | |
| | | Oil and grease | Visible | Not visible | **Not visible** | |