

M7-M12 Integration project
Environment Protection Licence –
Environmental Monitoring Data Report

August 2024



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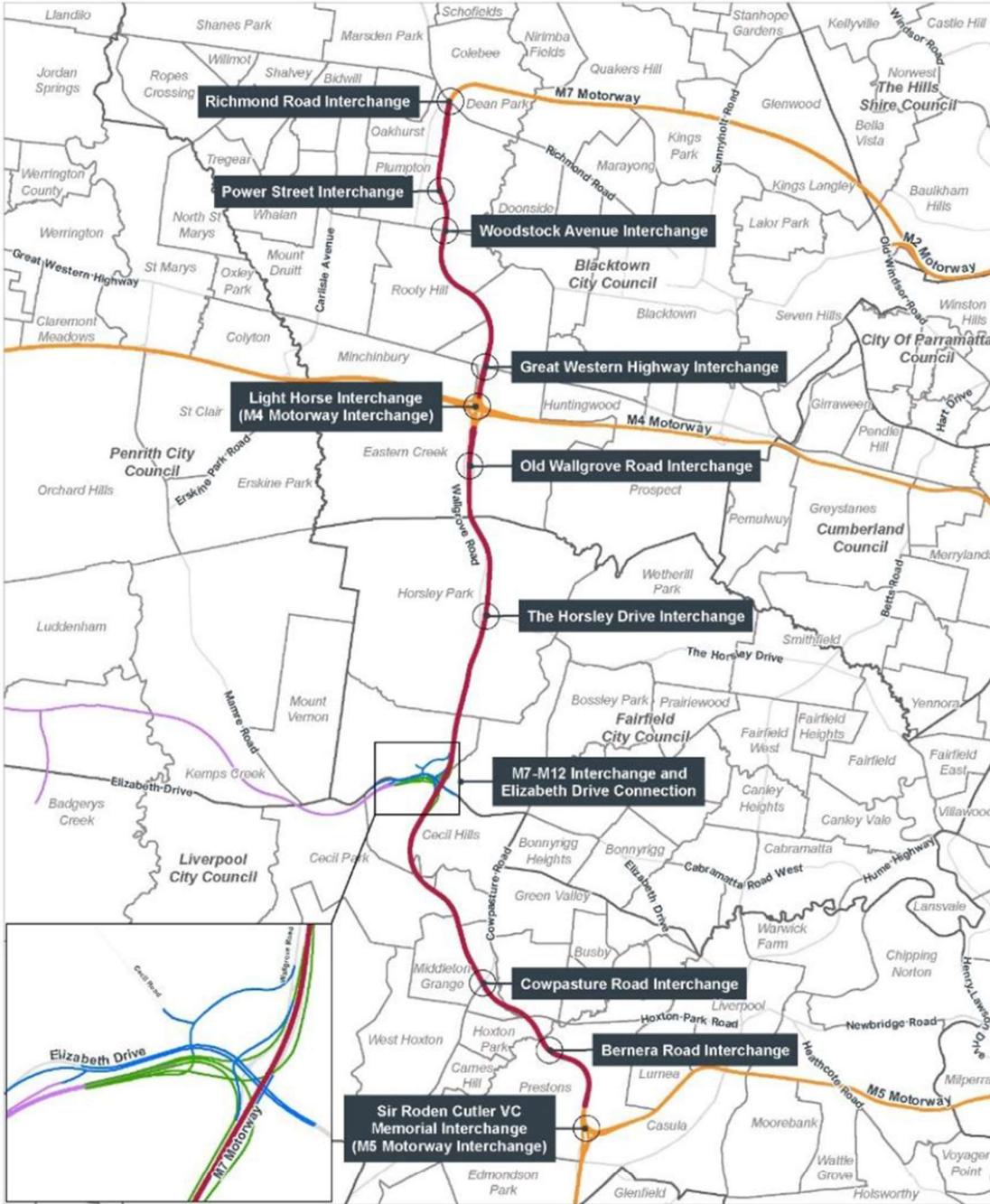
1 Project summary

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.



M7-M12 INTEGRATION PROJECT
LOCATION OVERVIEW



- Legend**
- M7 Widening
 - M7-M12 Interchange
 - Elizabeth Drive Connection
 - M12 Motorway
 - Existing motorway
 - Interchange
 - LGA boundary
 - Suburb boundary

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Source: Mapbox © OpenMap 2020

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 August 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
1111-1141 Elizabeth Drive, Cecil Park	02/08/2024	Day	TfNSW_NCA_35	Attended	LAeq (15 min)	64.2	72	Compliant	The dominant noise source was traffic on Elizabeth Drive. Works compliant with the PNL. JHG works compliant.
22 Rene Place, Cecil Hills	02/08/2024	Day	M12_NCA_16b	Attended	LAeq (15 min)	48	67	Compliant	The dominant noise source was background noise (local fauna). The works compliant with the PNL. JHG works compliant.
8 Derby Street, Rooty Hill	03/08/2024	Day	M7_NCA_25	Attended	LAeq (15 min)	61.8	59	Compliant	The dominant noise source was traffic on Derby Street and Woodstock Ave. Works compliant with the PNL. JHG works compliant.
15 Darice Place, Plumpton	03/08/2024	Evening	M7_NCA_28	Attended	LAeq (15 min)	63.2	69	Compliant	The dominant noise source was local traffic. Works compliant with the PNL. JHG works compliant.
132 Station Street, Rooty Hill	03/08/2024	Night	M7_NCA_26	Attended	LAeq (15 min)	59.1	60	Compliant	The dominant noise source was associated with JHG works however works were compliant with the PNL. JHG work compliant.
18 Cecil Road, Cecil Park	05/08/2024	Night	TfNSW_NCA_35	Attended	LAeq (15 min)	53	49.3	Compliant	The dominant noise source was traffic on Elizabeth Drive and Cecil Road. The works compliant with the PNL. JHG works compliant.
1111-1114 Elizabeth Drive, Cecil Park	05/08/2024	Night	TfNSW_NCA_35	Attended	LAeq (15 min)	59.9	58	Compliant	The dominant noise source was traffic on Elizabeth Drive. Works compliant with the PNL. JHG works compliant.
2-10 Kosovich Place, Cecil Park	05/08/2024	Night	M7_NCA_17	Attended	LAeq (15 min)	55.3	62	Compliant	The dominant noise source was associated with JHG works however works were compliant with the PNL. JHG work 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
2-10 Kosovich Place, Cecil Park	06/08/2024	Evening	M7_NCA_17	Attended	LAeq (15 min)	55.8	62	Compliant	The dominant noise source was local traffic. Works compliant with the PNL. JHG works compliant.
2-10 Kosovich Place, Cecil Park	06/08/2024	Night	M7_NCA_17	Attended	LAeq (15 min)	55.5	50	Compliant	The dominant noise source was local traffic. Works compliant with the PNL. JHG works compliant.
2-10 Kosovich Place, Cecil Park	07/08/2024	Night	M7_NCA_17	Attended	LAeq (15 min)	53.5	50	Compliant	The dominant noise source was local traffic. Works compliant with the PNL. JHG works compliant.
2-10 Kosovich Place, Cecil Park	07/08/2024	Night	M7_NCA_17	Attended	LAeq (15 min)	53.1	50	Compliant	The dominant noise source was local traffic. Works were compliant with the PNL. JHG works compliant.
2-10 Kosovich Place, Cecil Park	07/08/2024	Night	M7_NCA_17	Attended	LAeq (15 min)	56.1	50	Compliant	The dominant noise source was local traffic. Works were compliant with the PNL. JHG works compliant.
2-10 Kosovich Place, Cecil Park	07/08/2024	Night	M7_NCA_17	Attended	LAeq (15 min)	56.1	50	Compliant	The dominant noise source was local traffic. Works were compliant with the PNL. JHG works compliant.
18-20 Henrietta Close, Cecil Hills	08/08/2024	Day	M7_NCA_16	Attended	LAeq (15 min)	52.6	62	Compliant	The dominant noise source was associated with JHG works however works were compliant with the PNL. JHG work compliant.
26 Isabel Street, Cecil Hills	08/08/2024	Day	TfNSW_NCA_16b	Attended	LAeq (15 min)	53.8	74	Compliant	The dominant noise source was traffic on Elizabeth Drive and M7. Works compliant with the PNL. JHG works compliant.
132 Station Street, Rooty Hill	13/08/2024	Day	M7_NCA_26	Attended	LAeq (15 min)	57.3	59	Compliant	The dominant noise source was traffic on Woodstock Avenue. Works compliant with the PNL. JHG works compliant.
132 Station Street, Rooty Hill	13/08/2024	Night	M7_NCA_26	Attended	LAeq (15 min)	51.9	59	Compliant	The dominant noise source was traffic on Woodstock Avenue. 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
33 Isabel Street, Cecil Hills	13/08/2024	Night	TfNSW_NCA_16b	Attended	LAeq (15 min)	48.4	55	Compliant	The dominant noise source was traffic on Elizabeth Drive. Works compliant with the PNL. JHG works compliant.
1111-1114 Elizabeth Drive, Cecil Park	13/08/2024	Night	TfNSW_NCA_35	Attended	LAeq (15 min)	61.2	56	Compliant	The dominant noise source was traffic on Elizabeth Drive. Works compliant with the PNL. JHG works compliant.
26 Cecil Road, Cecil Park	15/08/2024	Day	TfNSW_NCA_35	Attended	LAeq (15 min)	57	70	Compliant	The dominant noise source was local traffic. Works compliant with the PNL. JHG works compliant.
2 Dexter Place, Plumpton	16/08/2024	Day	M7_NCA_25	Attended	LAeq (15 min)	48.4	52	Compliant	The dominant noise source was local traffic. Works compliant with the PNL. JHG works compliant.
145 Eskdale Street, Minchinbury	21/08/2024	Evening	M7_NCA_23	Attended	LAeq (15 min)	54.1	50	Compliant	The dominant noise source was traffic on the Great Western Highway. Works were inaudible during the monitoring period. JHG works compliant.
145 Eskdale Street, Minchinbury	21/08/2024	Night	M7_NCA_23	Attended	LAeq (15 min)	50	50	Compliant	The dominant noise source was traffic on the Great Western Highway. Works compliant with the PNL. JHG works compliant.
33 Isabel Street, Cecil Hills	21/08/2024	Night	TfNSW_NCA_16b	Attended	LAeq (15 min)	47	55	Compliant	The dominant noise source was traffic on Elizabeth Drive Works compliant with the PNL. JHG works compliant.
1111-1114 Elizabeth Drive, Cecil Park	21/08/2024	Night	TfNSW_NCA_35	Attended	LAeq (15 min)	58.6	59	Compliant	The dominant noise source was traffic on Elizabeth Drive Works compliant with the PNL. JHG works compliant.
37-73 Wallgrove Road, Cecil Park	21/08/2024	Night	TfNSW_NCA_35	Attended	LAeq (15 min)	66.5	56	Compliant	The dominant noise source was traffic on Wallgrove Road. Works compliant with the PNL. JHG works compliant.
9-17 Duff Road, Cecil Park	22/08/2024	Day	M12_NCA_04	Attended	LAeq (15 min)	65	59	Compliant	The dominant noise source was traffic on Elizabeth Drive and Duff

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
									Road. Works compliant with the PNL. JHG works compliant.
11 Rene Place, Cecil Park	26/08/2024	Day	NCA_16b	Attended	LAeq (15 min)	48.8	71	Compliant	The dominant noise source was associated with JHG works however works were compliant with the PNL. JHG works compliant.
19-21 Burley Road, Horsley Park	27/08/2024	Night	M7_NCA_18	Attended	LAeq (15 min)	48.3	45	Compliant	The dominant noise source was background noise (crickets and traffic from M7). Works were inaudible during monitoring period. JHG works compliant.
763-783 Wallgrove Road, Horsley Park	28/08/2024	Night	M7_NCA_21	Attended	LAeq (15 min)	74.1	60	Compliant	The dominant noise source was from traffic on Wallgrove Road. Works compliant with the PNL. 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
1111-1141 Elizabeth Drive, Cecil Park	02/08/2024	Attended	0.10	0.4	Compliant	0.15	20	Compliant	Works were monitored and found to be compliant with associated criteria.
22 Rene Place, Cecil Hills	02/08/2024	Attended	0.05	0.4	Compliant	0.07	20	Compliant	Works were monitored and found to be compliant with associated criteria.
18-20 Henrietta Close, Cecil Hills	09/08/2024	Attended	0.09	0.4	Compliant	0.14	20	Compliant	Works were monitored and found to be compliant with associated criteria.
26 Isabel Street, Cecil Hills	09/08/2024	Attended	0.06	0.4	Compliant	0.09	20	Compliant	Works were monitored and found to be compliant with associated criteria.
26 Isabel Street, Cecil Hills	15/08/2024	Attended	0.11	0.4	Compliant	0.17	20	Compliant	Works were monitored and found to be compliant with associated criteria.
24 Haleuka Crescent, Plumpton	16/08/2024	Attended	0.23	0.4	Compliant	0.64	20	Compliant	Works were monitored and found to be compliant with associated criteria.
9-17 Duff Road, Cecil Park	22/08/2024	Attended	0.08	0.4	Compliant	0.12	20	Compliant	Works were monitored and found to be compliant with associated criteria.
1 Maria Look Grove, Oakhurst	23/08/2024	Attended	0.25	0.4	Compliant	0.52	20	Compliant	Works were monitored and found to be compliant with associated criteria.
11 Rene Place, Cecil Hills	26/08/2024	Attended	0.10	0.4	Compliant	0.15	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 August 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 August 2024

Location	Date	Analyte	Units	Limit	Result	Comments
SB08	02/08/2024	pH	pH	6.5-8.5	8.26	Compliant with discharge criteria.
		Turbidity	NTU	50	6.1	
		Oil and grease	Visible	Not visible	Not visible	
SB01	02/08/2024	pH	pH	6.5-8.5	7.61	Compliant with discharge criteria.
		Turbidity	NTU	50	18.4	
		Oil and grease	Visible	Not visible	Not visible	
SB02	05/08/2024	pH	pH	6.5-8.5	7.08	Compliant with discharge criteria.
		Turbidity	NTU	50	19.5	
		Oil and grease	Visible	Not visible	Not visible	
SB14	06/08/2024	pH	pH	6.5-8.5	7.38	Compliant with discharge criteria.
		Turbidity	NTU	50	49.2	
		Oil and grease	Visible	Not visible	Not visible	
SB10	07/08/2024	pH	pH	6.5-8.5	7.15	Compliant with discharge criteria.
		Turbidity	NTU	50	23.2	
		Oil and grease	Visible	Not visible	Not visible	
SB10	12/08/2024	pH	pH	6.5-8.5	7.8	Compliant with discharge criteria.
		Turbidity	NTU	50	42.7	
		Oil and grease	Visible	Not visible	Not visible	
SB02	12/08/2023	pH	pH	6.5-8.5	7.41	Compliant with discharge criteria.
		Turbidity	NTU	50	19.7	
		Oil and grease	Visible	Not visible	Not visible	
SB02	16/08/2024	pH	pH	6.5-8.5	7	Compliant with discharge criteria.
		Turbidity	NTU	50	28.8	

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		Oil and grease	Visible	Not visible	Not visible	
SB02	16/08/2024	pH	pH	6.5-8.5	7.09	Compliant with discharge criteria.
		Turbidity	NTU	50	6.7	
		Oil and grease	Visible	Not visible	Not visible	
SB08	20/08/2024	pH	pH	6.5-8.5	8.34	Compliant with discharge criteria.
		Turbidity	NTU	50	49.7	
		Oil and grease	Visible	Not visible	Not visible	
SB10	20/08/2024	pH	pH	6.5-8.5	7.91	Compliant with discharge criteria.
		Turbidity	NTU	50	20.9	
		Oil and grease	Visible	Not visible	Not visible	
SB10	26/08/2024	pH	pH	6.5-8.5	7.63	Compliant with discharge criteria.
		Turbidity	NTU	50	6	
		Oil and grease	Visible	Not visible	Not visible	