

John Holland Gamuda Joint Venture
EPL Monthly Monitoring Report

Reporting Period: April 2024

Project	M1 Motorway Extension to Raymond Terrace – Black Hill to Tomago
Document No.	M1RTBH2T-JHGM-6003-EV-RPT-200029-EPL Monthly Monitoring Report
Revision Date	15/5/24

Document Approval

Rev	Date	Prepared by	Reviewed by	Approved by	Remarks
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1. Introduction

M12RT will extend the M1 Pacific Motorway from Black Hill to the Pacific Highway at Raymond Terrace,

about 15 kilometres, bypassing Beresfield, Hexham, and Heatherbrae (refer Figure 2-1). M12RT traverses the City of Newcastle and Port Stephens Council local government areas (LGAs). The suburbs of Beresfield, Tarro, Heatherbrae, and Raymond Terrace are located to the north of the Project, with Black Hill, Hexham and Tomago located to the south of the Project.

M12RT will provide a critical link in the National Land Transport Network, particularly for the coastal Sydney to Brisbane corridor. M12RT includes the following key features:

- Black Hill: connection to the M1 Pacific Motorway
- Tarro: connection and upgrade (six lanes) to the New England Highway between John Renshaw Drive and the existing Tarro interchange at Anderson Drive
- Tomago: connection to the Pacific Highway and Old Punt Road
- Raymond Terrace: connection to the Pacific Highway.
- A 2.6-kilometre viaduct over the Hunter River floodplain including new bridge crossings over the Hunter River, the Main North Rail Line, and the New England Highway
- Bridge structures over local waterways at Tarro and Raymond Terrace, and an overpass for Masonite Road in Heatherbrae
- Connections and modifications to the adjoining local road network
- Traffic management facilities and features
- Roadside furniture including safety barriers, signage, fauna fencing and crossings, and street lighting
- Adjustment of waterways, including at Purgatory Creek at Tarro and a tributary of Viney Creek
- Environmental management measures, including surface water quality control measures
- Adjustment, protection and/or relocation of existing utilities
- Walking and cycling considerations, allowing for existing and proposed cycleway route access
- Permanent and temporary property adjustments and property access refinements
- Construction activities, including establishment and use of temporary ancillary facilities, temporary access tracks, haul roads, batching plants, temporary wharves, soil treatment and environmental controls.

The M12RT delivery strategy includes construction via two collaborative Design and Construct (D&C)

contracts:

- A southern D&C contract (known as Black Hill to Tomago) to deliver the southern 10 kilometres of M12RT, with an interface located at Tomago
- A northern D&C contract (known as Heatherbrae Bypass) to deliver the northern 5 kilometres of M12RT.

The JHGA JV will deliver the southern contract.

package works.

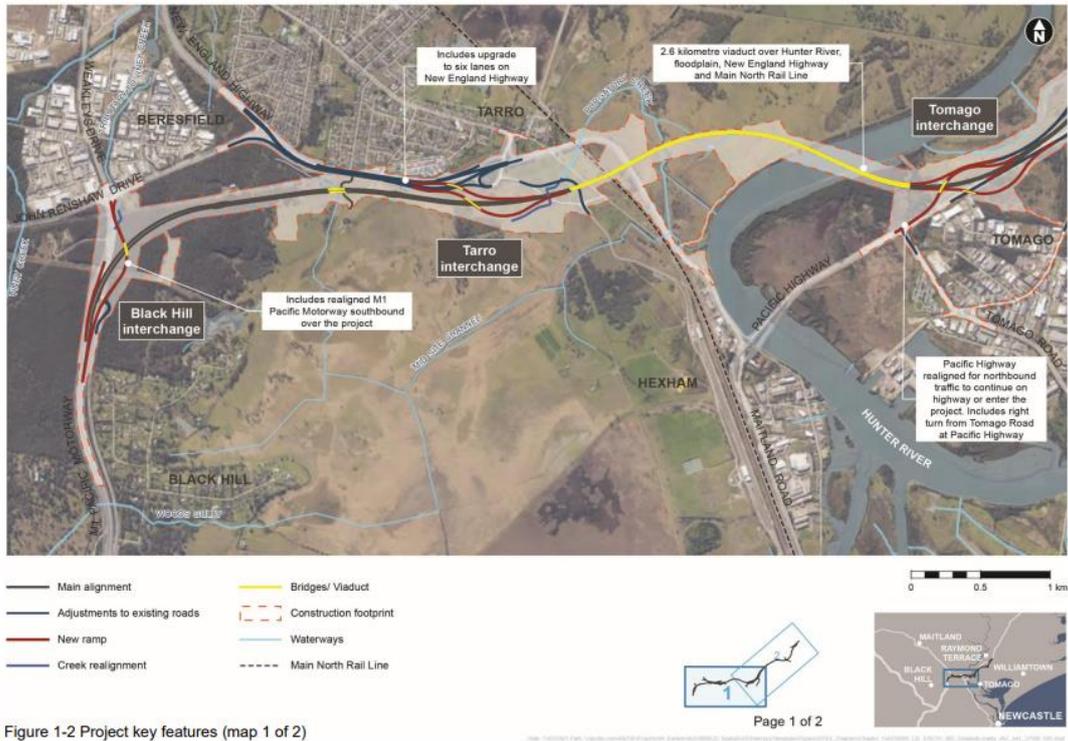


Figure 1 M12RT Project Overview – Southern Section (Source: M1 Pacific Motorway to Raymond Terrace EIS)

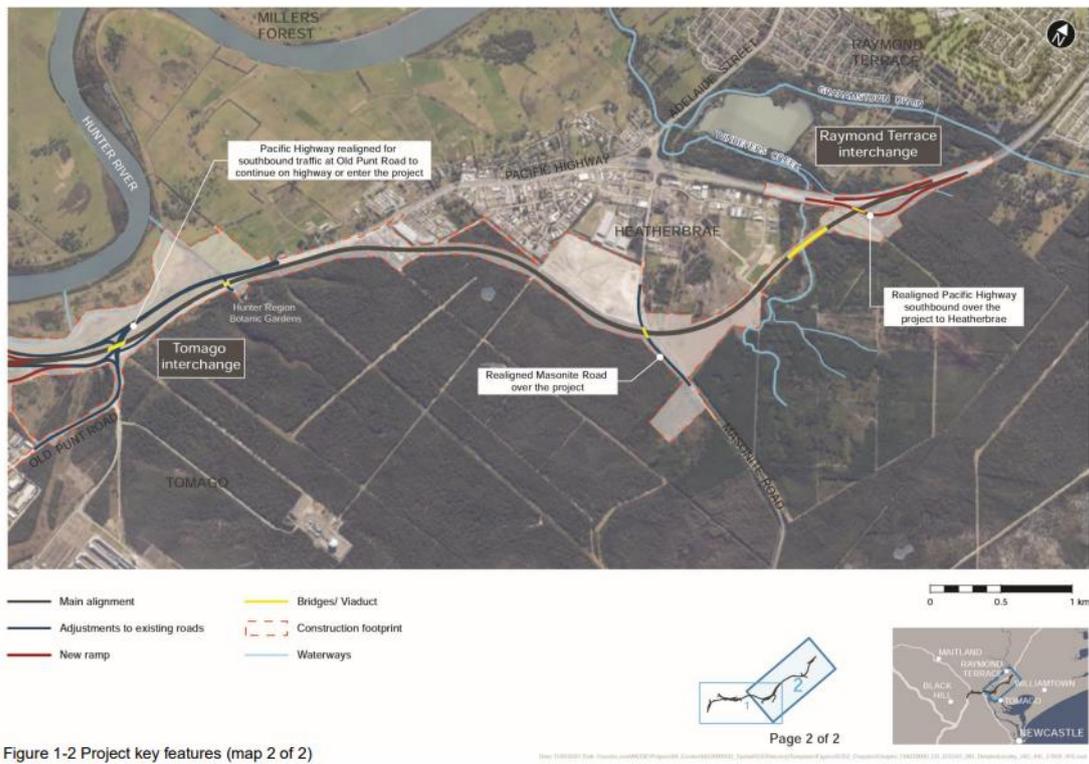


Figure 2 M12RT Project Overview – Northern Section (Source: M1 Pacific Motorway to Raymond Terrace EIS)

2. Environmental Protection Licence and Reporting Requirements

John Holland Gamuda JV obtained the Environment Protection Licence (EPL No. 21808) from the NSW Environment Protection Authority for the M1 Motorway Extension to Raymond Terrace – Black Hill to Tomago in September 2023. The licence is for construction works relating to 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 construction works, and specifically as they relate to:

- Water discharge limits
- Noise limits

The following report details environmental monitoring undertaken during this reporting month conducted in accordance with the EPL.

The EPL can be found by following the link below to the EPA's website:

[ViewPOEOLicence.aspx \(nsw.gov.au\)](http://ViewPOEOLicence.aspx (nsw.gov.au))

3. Water Monitoring

The following results were recorded for sampling of water within the water treatment plant at RZM (EPA Point 1 as per EPL Condition M2.2):

Pollutant	Date Sampled	Result (mg/L)
2,4,6-trichlorophenol	16/4/24	<1.0
2,4 Dichlorophenol	16/4/24	<1.0
2-Chlorophenol	16/4/24	<1.0
Benzene	16/4/24	<1
Cadmium	16/4/24	<0.0001
Total Chromium	16/4/24	<0.001
Chromium III	16/4/24	<0.001
Chromium VI	16/4/24	<0.001
Copper	16/4/24	<0.001
Lead	16/4/24	<0.001
Napthalene	16/4/24	<5
Nickel	16/4/24	0.002
Zinc	16/4/24	<0.005
o-Xylene	16/4/24	<2.0
Pentachlorophenol	16/4/24	<2.0
Phenol	16/4/24	<1.0
TPH>C10-C40 (sum) Fraction (TRH)	16/4/24	<50
TRH>C10-C36 (sum) Fraction (TPH)	16/4/24	<20
Oil and Grease	16/4/24	<5

Cleanwater discharge occurred from 2 sediment basins after an 85mm rain event in April. The following discharge water results were recorded:

Sediment Basin Number	Discharge Point Number	Date	Water Quality Monitoring Result		
			Turbidity (NTU)	pH	Oil/Grease
3	BH2T_2	15/04/2024	46.2	7.47	No
		16/04/2024	25	7.48	No
		17/04/2024	45	7.33	No
		18/04/2024	48	7.67	No
		23/04/2024	48.7	7.17	No
		24/04/2024	49.4	7.8	No
		26/04/2024	26.4	7.02	No
12	BH2T_10	29/04/2024	19.5	7.21	No
		15/04/2024	2.5	7.57	No
		16/04/2024	46.3	7.42	No
		24/04/2024	3.6	7.39	No

4. Noise Monitoring

Noise monitoring was undertaken during the April 2024 reporting period. Construction noise monitoring results were above NML in most cases however due to background noise levels (heavy continuous traffic M1/New England Hwy/Pacific Hwy/Tomago Road) and inaudibility of construction noise at sensitive receivers were generally compliant during this period. Where the predicted noise level was exceeded, this was result of extraneous activities (traffic passing etc). Construction noise was in line with the predicted levels. Table 3 contains detailed noise monitoring results.

Table 2. Noise monitoring results

Monitoring Location (Noise Catchment Area, Street, Suburb)	Date	Time	Attended or Continuous Monitoring	Parameter	Goal/Target dB(A)	Actual dB(A)	Comments
NCA03 [REDACTED]	23/4/24	10:14	Attended	Laeq 15 minute	76	71.8	Compliant. Constant flow of traffic along Weakleys Dr. No audible noise from site construction works.
NCA01B [REDACTED]	23/4/24	9:00	Attended	Laeq 15 minute	47	52.4	Non-compliant - Heavy traffic flow New England Highway between receiver and Project site. No audible noise from site construction works.
NCA01A [REDACTED]	23/4/24	11:31	Attended	Laeq 15 minute	61	53.0	Compliant - Heavy traffic noise on M1. No audible noise from site construction works.
NCA02 [REDACTED]	23/4/24	9:40	Attended	Laeq 15 minute	75	68.5	Compliant - Heavy traffic noise along Enterprise Drive. No audible noise from site construction works.
NCA04A [REDACTED]	23/4/24	10:54	Attended	Laeq 15 minute	61	75.6	Non-compliant - Heavy traffic noise New England Highway. No audible noise from site construction works.
NCA04B [REDACTED]	23/4/24	12:44	Attended	Laeq 15 minute	55	63	Non-compliant - Heavy traffic noise along New England Highway. Constant construction noise from excavator conducting tree clearing along New England Highway.

NCA06 [REDACTED]	23/4/24	14:29	Attended	Laeq 15 minute	48	56.2	Non-compliant – Vehicle movements along Lawson Avenue, train movements along rail line and noise people passing. No audible noise from site construction works.
NCA05B [REDACTED]	23/4/24	14:03	Attended	Laeq 15 minute	51	66.5	Non-compliant – Vehicle movements along Anderson Dr. No audible noise from site construction works.
NCA05A [REDACTED]	23/4/24	13:11	Attended	Laeq 15 minute	65	51.6	Compliant – Vehicle movements along New England Highway. No audible noise from site construction works.
NCA07 [REDACTED]	24/3/24	15:56	Attended	Laeq 15 minute	53	60.6	Non-compliant – Vehicle movements along New England Highway. Monitoring occurred 200m closer to construction works as to not disturb 1 Woodlands CI resident.
NCA08 [REDACTED]	24/4/24	10:03	Attended	Laeq 15 minute	51	79.5	Non-compliant – Vehicle movements along New England Highway. No audible noise from site construction works.

NCA09 [REDACTED]	23/4/24	15:29	Attended	Laeq 15 minute	62	70.6	Non-compliant - Heavy traffic noise along Tomago Rd. No audible noise from site construction works.
NCA14A [REDACTED] [REDACTED]	23/4/24	15:53	Attended	Laeq 15 minute	64	69.7	Non-compliant – Vehicle movements along Pacific Highway. No audible noise from site construction works.