

May 2018 Noise Monitoring



Licensee: Laing O'Rourke Australia Construction Pty Ltd

Premises: Woolgoolga to Ballina Pacific Highway Upgrade Project, Harwood NSW 2465

Licence No: 20713

Contractor	Type of Noise Monitoring - Monthly or OOHW	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHW noise monitoring)	Noise Monitoring Results						Comments
						Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
SWC, Portion A S3	Monthly	15/05/2018	11:51	2846 Pacific Highway Tyndale	51	59.2	71.2		42.0	56.7	47.6	Continuous highway traffic (counted in excess of 250 vehicles) on Pacific Highway. Bulk earthworks in Cut 30 occurring.
SWC, Portion A S3	Monthly	15/05/2018	12:14	2860 Pacific Highway Tyndale	51	57.2	70.6		48.2	56.2	52.8	Pacific Highway dominant noise source. Cut 30 operations (hammering, crusher, moxie) and excavator working in drain were the construction activities occurring at the time.
SWC, Portion A S3	Monthly	15/05/2018	13:55	165 Somervale Road	42	38.6	63.8		26.5	35.3	29.3	Vehicle movements and tracking dominant noise source. Unloading rock from moxies, truck and dog and light vehicle movements on the haul road are the construction activities occurring at the time.
SWC, Portion A S3	Monthly	15/05/2018	14:33	15 Tallowood Lane, Tucabia	42	51.5	72.8		36.1	50.2	42.6	Haul road traffic primary noise source. Other construction activities occurring at the time included: rock hammering in Cut 20, bridge construction noise (hammering, voices, drills), light vehicle movements, truck and dog movements.
SWC, Portion A S3	Monthly	15/05/2018	15:20	970 Wooli Road	42	48.2	64.2		31.4	38.9	35	Light vehicle movements on Wooli Road. Construction bridgeworks occurring.
SWC, Portion A S3	Monthly	15/05/2018	15:58	37 Old Six Mile Lane, Glenugie	42	48.5	59.6		41.4	47.9	45.4	Dogs barking x 3. Light vehicle traffic on Avenue Road. Dogs barking can be heard. Light vehicles in Cut 7 and Fill 8.
BGC, Portion A S4	Monthly	3/05/2018	10:21:00	9 Schwonberg Street, Townsend	43	51.3	73.7	80.8	42.0	52.9	46.8	Main noise source from existing highway by trucks and passing LV's. Reverse beepers/squarker sound in distance constantly. Birds calling to each other and chainsaw audible on street. Dog barks. Breaking noise from road train on existing highway.
BGC, Portion A S4	Monthly	3/05/2018	10:44:00	32 Jubilee Street, Townsend	43	67.3	84.5	96.8	47.8	71.3	56	Moxies travelling across Jubilee Street to northern side. LV's, HV's travelling along Jubilee Street. Traffic controllers talking nearby and their radio's sounding. Excavator loading moxy and moxy sounding horn. Birds calling and reverse beeper.
BGC, Portion A S4	Monthly	3/05/2018	11:18:00	127 Clyde Essex Drive, Gulmarrad	41	53.4	65.4	82.9	43.8	55.7	52.6	Noise from dozer, grader, trucks on highway construction. Reverse beeper in distance, grasshoppers buzzing and birds calling. Breaking noise from trucks on existing highway and machinery revving engines. Tree leaves rustle in wind.
BGC, Portion A S4	Monthly	9/05/2018	9:29:00	100 Byrons Lane, Tyndale	41	41.4	67.3	70.9	36.2	42.7	38	Main source of noise: Sugar cane rustling in wind. Sugar cane/tree leaves rustling in wind: 41.87dB, birds calling to each other: 39.57dB, LV driving/reverse beepers: 40.08dB, construction activities: 40.08dB
BGC, Portion A S4	OOHW	11/05/2018	6:01:00	McIntyres Ln entrance, Gulmarrad	33	62.4	86.9	90.4	35.4	54.6	50	Main source of noise: Existing highway traffic. Existing highway: 55.95dB, LV/Local Traffic: 79.3dB, Construction/Refuelling activities: 74.43 dB, Birds/Frogs: 55.27dB
BGC, Portion A S4	OOHW	11/05/2018	6:22:00	127 Clyde Essex Drive, Gulmarrad	33	56.1	65.2	83.6	37.8	58.7	52.1	Main source of noise coming from existing highway traffic/birds calling. Birds/Frogs: 57.22dB, Existing highway: 58dB, Refuelling: 58.3dB
BGC, Portion A S4	Monthly	18/05/2018	11:43:00	5 Jubilee Street, Townsend	43	63	78	102.3	50.6	67.1	53.3	Main source of noise from traffic on Jubilee St/ Existing highway, and construction activities. Traffic on Jubilee/existing highway: 66.36, birds/insects: 55.25, construction activities 58.55
BGC, Portion A S4	OOHW	24/05/2018	18:05:00	DP1088617 - 132 McIntyres Ln, Gulmarrad. 655m from OOHW	38	64.9	93	114	29.3	56.2	35.4	Main source of noise from crickets and frogs and vehicles travelling along McIntyres Road. Noise from OOHW not audible. Crickets/Frogs: 40.05dB, LV Vehicles: 69.58dB, Writing: 40.4dB.
BGC, Portion A S4	OOHW	28/05/2018	18:18:00	100 Byrons Lane, Tyndale	38	48.1	61	66.8	45.1	49.3	46.3	Main source of noise from existing highway, noise from OOH finishing works not audible. Existing highway traffic: 46.76dB, Construction Activities: 47.6dB.

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BMD S3 & 4	OOHW	5/05/2018	6:30:00	Norleys lane	33	47.2	56.8		35.1	50.4	41.5	Highway constant background hum at 49dB with occasional peaks to 55dB. Construction inaudible
BMD S3 & 4	OOHW	15/05/2018	6:17:00	Bostock rd.	29	47.3	77.6		29.4	41.3	34.3	Morning bird calls main background influence on record at 43dB with occasional peaks at 61dB. One only local traffic light vehicle at 77.4dB
BMD S3 & 4	OOHW	16/05/2018	6:30:00	200m north of A28 representative distance	33	39.3	46.8		33.6	41.6	38.7	Noise levels considerably lower than expected ; occasional hum from existing highway at 410dB. Construction inaudible
BMD S3 & 4	OOHW	29/05/2018	6:35:00	100m north of A24 representative distance	29	51.2	68.9		35.0	51.1	38.2	Other contractors vehicles driving on alignment main noise influence on record; light vehicles 52-58dB; watercart 68dB; bogie tipper 67dB. Background bird calls 40-45dB fairly constant throughout record. Concrete pump and works visible but only the occasional clang of metal audible at 45dB otherwise
BMD S3 & 4	OOHW	30/05/2018	6:30:00	Abutment B A34 Shark creek	33	42.9	60.2		35.6	45.4	39	Concrete pump set up only. Highway hum audible but not registering on meter. Morning bird calls main background influence on record 40-60dB. Construction
BMD S6	OOHW	15/05/2018	18:26:00	Chainage: 99150 40m from activity on worksite	34	62.2	84.6		43.3	64.4	47.9	Linemarking. Dominant noise source: Trucks on the Pacific Highway 66-67 (dBA). Laeq is reflecting background traffic noise and not construction noise. Lull in traffic 44(dBa). Adjusted Laeq 44 (dBA) at 40m adjusted to distance of nearest sensitive receiver 22.9 (dBA) 450m from source
BMD S6	Monthly	24/05/2018	13:00:00	1 Jackybulbin Road, Mororo	42	58.1	73.2		46.5	603	50.8	Dominant noise source: Oversize truck on Jackybulbin Road 72 (dBa), Pacific Highway traffic 63-64.4 (dBa) and bus turn around works 63.2(dBa). Potholing works at gate 102.7 55-63 (dBa). Background noise 47.4(dBa). NML = 52dB(A). Works at bus turn around bay are only temporary and will reduce noise levels in the vicinity once complete. Resident has been notified about these works being undertaken.
BMD S6	Monthly	24/05/2018	13:40:00	6530 Pacific Highway Jackybulbin	42	60.6	77.5		45.2	63.3	49.3	Highway traffic main influence on record with peaks up to 75.6(dBa). Reverse alarm audible but not registering above background. Birds 61.5(dBa). Construction works inaudible. NML = 52 dB(A)
CPB / C	OOHW	26/05/2018	7:27:00	CH141200 Eastern boundary. Dwelling 65m south east of monitoring location. Broadwater, New South Wales 2472. -29.024978, 153.432461	43	50.5						OOHW: Saturday 07:00 - 08:00
Quickway / D	OOHW	20/05/2018	9:15:00	106 Thurgates Lane Wardell NSW DP755691 28°56'56.2"S 153°25'58.2"E	60	46.9	49.9	50.1	38.8	48.9	42	Out of Hours Works Quickway Operations 1 x small generator 1 x light vehicle External 2 x private vehicles passing Multiple laughing kookaburra's throughout the monitoring process
Quickway / D	Monthly	21/05/2018	14:30:00	106 Thurgates Lane Wardell NSW DP755691 28°56'56.2"S 153°25'58.2"E	60	52	56.9	57.8	30.4	47.7	34.8	Quickway Operations / Monthly Deck curing operations with Lend Lease construction equipment Lend Lease Plant and Equipment 21 x light vehicles on haul rd 12 x heavy vehicles 1 x excavator tracking Quickway Plant and Equipment 1 x small generator for deck curing 3 x light vehicles External 2 x private vehicles passing

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Quickway	Monthly	21/05/2018	16:20:00	302 Lumleys Lane Warddell NSW DP123430 28°55'38.9"S 153°26'38.5"E	60	52	53.8	54.7	51.0	52.5	51.4	Quickway Operations / Monthly Crane Operations installation of head stock, excavator installing rip rap with lend lease construction vehicles Lend Lease Plant and Equipment 16 x Heavy Vehicles 10 x Light Vehicle Quickway Plant and Equipment 1 x generator 15Kva 3 x light vehicles 1 x excavator 1 x 220T crane External 2 x private vehicles passing
LendLease / D	Monthly	11/05/2018	10:32:00	NMP05 (848 Pimlico Rd)	41	57.3	76.2	95.9	49.7	59.2	52.3	Wind- 3.1m/s, gusts up to 6.1m/s. Pacific Highway main contributing source. R2B not audible during reading.
LendLease / D	Monthly	11/05/2018	10:10:00	NMP06 (109 Meridian Drive)	41	43.2	63.1	91.7	35.7	45.8	38	Wind- mostly still, gusts up to 3.1m/s. Pacific Highway main contributing source. R2B not audible during reading.
LendLease / D	Monthly	11/05/2018	9:41:00	NMP07 (3 McAndrews Lane)	41	48.6	68.4	91.5	38.9	50.6	42.7	Wind- mostly still, gusts up to 4.1m/s. Pacific Highway main contributing source. Flight at 8:30. R2B only audible when dozer tracked on Abutment.
LendLease / D	Monthly	11/05/2018	9:19:00	NMP08 (55 Whytes Lane West)	41	44.1	56.3	93.8	37.7	46.4	41	Wind- mostly still, gusts up to 6m/s. Pacific Highway main contributing source. Flight at 7:30. R2B only audible when dozer tracked on Abutment.
LendLease / D	Monthly	11/05/2018	8:45:00	NMP09 (151 Uralba Rd)	41	61	83.1	98.3	41.7	55.9	44.1	Wind- mostly still, gusts up to 3.5m/s. Bruxner Highway main contributing source. 13 light vehicles used Uralba rd during reading. R2B not audible during reading.
LendLease / D	Monthly	21/05/2018	9:30:00	NMP01 (10950 Pacific Highway)	41	44.3	52.4	86.1	39.8	46	41.8	Wind- W @ 2.3m/s. Main contributing source Broadwater stockpile @ bearing 194. R2B not audible during reading. Some input from Pac Hwy.
LendLease / D	Monthly	21/05/2018	9:50:00	NMP02 (1184 Pacific Highway)	41	65.3	75.9	93.2	42.1	68.8	51.3	Wind- W @ 1m/s. Main contributing source Pac Hwy. 156 LVs 42 Trucks. R2B not audible during the reading.
LendLease / D	Monthly	21/05/2018	11:38:00	NMP03 (1202 Wardell Rd)	41	60.8	82.3	91.9	48.8	64.3	52.4	Wind- W @ 1m/s. R2B main contributing source. Fleet of scrapers running was main source. Other vehicles seen in area, excavator, watercarts, sweeper cart, fuel cart, moxys, truck and dogs, LVs. Some input from Wardell Rd. Truck and dogs accelerating back out onto Wardell rd contributing to reading. Reading was not above the modelled worst case levels.
LendLease / D	Monthly	21/05/2018	11:58:00	NMP04 (1175 Wardell Rd)	41	58.8	74.2	89	47.8	61.8	53.2	Wind- still. R2B main contributing source. Scrapers, moxys and exc working at 153050. Some input from Wardell rd (~20 LV during reading). Reading was not above the modelled worst case levels.
AFHJV / E	Monthly	14/05/2018	13:47:00	1 Petticoat Lane (R1331)	45	54.6	71.1	84.2	46.2	56.8	50.7	Below NML 55dB(A) and predicted cumulative LAeq 15min of 69dB(A) for transfloor construction and LAeq 15min of 71dB(A) for headstock construction within CCNVMP. Works occurring during monitoring were deck preparation works at Span 33 (51dB(A) when audible) and concrete pour for headstock 21 (48dB(A) when audible). The dominant noise source was Highway traffic (52dB(A)).
AFHJV / E	Monthly	14/05/2018	14:25:00	8 Martin Road (R1283)	45	55.4	63.8	85	50.8	57.2	53.1	Just above NML 55dB(A) and below the predicted cumulative LAeq 15 min of 57dB(A) for headstock construction within CCNVMP. Works occurring during monitoring was a marine concrete pour by use of concrete pump located on the Temporary Jetty (53dB(A)). Dominant noise source included local traffic and Pacific Highway traffic (52 – 56dB(A)).

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AFHJV / E	Monthly	14/05/2018	14:05:00	40 Morpeth Street (R1396)	45	56.8	64.3	86.4	49.3	59.2	53.1	Above NML 55dB(A) and the predicted cumulative LAeq 15 min of 55dB(A) for trans floor construction within CCNVMP. However, the dominant noise source was the Pacific Highway traffic (57-60dB(A)). Construction works occurring during monitoring were landing trans floors with crane and green cutting (53dB(A)) and a marine concrete pour by use of concrete pump on the jetty (53dB(A)).
AFHJV / E	Monthly	14/05/2018	15:00:00	35 James Creek Road (R1256)	45	51.2	65.1	80.8	44.2	53.6	47.5	Below NML 55dB(A) and below predicted cumulative LAeq 15min of 55dB(A) for girder works within CCNVMP. Local traffic, Highway and birds were the dominant noise sources (52-54dB(A)). Construction works were not audible during monitoring. Works occurring during monitoring included scaffolding works. SEE Civil were also working on Portion B within southern abutment area (49dB(A)).
AFHJV / E	OOHW	4/05/2018	22:20:00	526 Yamba Road	53	54.2	64.8	83.8	44.0	57.9	47.1	Profiling Yamba Road with profiler, digger and traffic control. Pacific Highway was dominant noise source (55-62dB(A)).
AFHJV / E	OOHW	23/05/2018	6:35:00	26 Morpeth Street	55	56.2	71.3	83	46.6	58.9	50.1	Span 29 deck pour. Pacific Highway and local traffic along Morpeth Street were the dominant noise sources (55-60dB(A)). Deck pour (48-50dB(A)) was audible when there was no highway traffic.
AFHJV / E	OOHW	16/05/2018	6:53:00	4A petticoat Lane	56	62.1	74.1	87.9	50.1	60.6	55.4	Span 30 deck pour. Pacific highway was the dominant noise source (55-70dB(A)). Construction noise, such as occasional beeping from concrete agitators, was audible (55dB(A)) when there was little to no Pacific highway traffic.
AFHJV / E	OOHW	18/05/2018	6:49:00	16 River Street	58	68.9	77.1	97.1	66.6	69.6	67.7	Lifting girder from temporary jetty onto barge for marine delivery. Crane was underload and lifting girder for entire monitoring period of 11 mins. Noise levels recorded are distorted as project criteria is LAeq(15mins) and not 11mins. Construction noise was dominant noise source. When no Pacific Highway traffic, construction noise was 68-69dB(A). Heavy vehicles on Pacific Highway were audible over construction noise during monitoring (72dB(A)).
AFHJV / E	OOHW	26/05/2018	5:42:00	16 River Street	61	66.3	72.4	95.9	59.0	70.2	60.6	Girder delivery to temporary jetty by straddle carrier. Construction noise was the dominant noise source however heavy vehicles on the Pacific Highway were also audible. The straddle carrier at the closest monitoring location was 60 - 61dB(A) when little traffic on highway. When the straddle carriers were lifting the girder noise levels were approximately 66-71dB(A). This monitoring event captured the straddle carriers going over River Street and then reversing as the jetty was not totally clear and ready for girder. This would not typically occur.
LendLease / F	Monthly	18/05/2018	7:30:00	RRB-NMP01	42	68.9	82	101.6	48.0	72.9	55	RRB not audible during reading. Traffic main source of noise. Approx. 125 cars, 30 trucks and 5 cars towing. Birds in trees.
LendLease / F	Monthly	18/05/2018	8:29:00	RRB-NMP02	42	63.5	81.6	102.6	45.7	67.6	50.6	RRB not audible during reading. Traffic main source of noise. Approx. 82 cars, 23 trucks. Birds were constant through reading. A plane was also observed and music from an adjacent property was heard.
LendLease / F	Monthly	18/05/2018	8:00:00	RRB-NMP03	42	61.2	75.5	93.1	41.6	66.5	47.5	RRB not audible during reading. Traffic main source of noise. Approx. 51 cars, 5 trucks. Birds present. Construction heard from the CPB (SW direction)

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LendLease / F	OOHW	10/05/2018	6:39:00	R8 - 10770-10840 Pacific Highway, Broadwater Noise monitoring undertaken for concrete pour	41	74.5					58	RRB not audible during reading. Traffic main source of noise. Approx. 125 cars, 30 trucks and 5 cars towing. Birds in trees.
LendLease / F	OOHW	26/05/2018	6:56:00	R9 - 10695 Pacific Highway, Broadwater Noise monitoring undertaken for	41	70.1	88.7	108	42.3	72.5	46	RRB not audible during reading. Traffic main source of noise. Approx. 67 cars, 15 trucks and 7 cars towing. Birds in trees and frogs croaking.
Georgiou / G	OOHW	17/05/2018	6:10:00	83 Smith Drive	54.7	53.2	74.6	110.2	41.9	52	43	
Georgiou / G	OOHW	17/05/2018	6:30:00	55 Pimlico road	51	50.2	70.4	108.2	40.8	49	41	
Georgiou / G	OOHW	19/05/2018	13:50:00	83 Smith Drive	62.8	60.4	84.1	119.4	41.3	59	47	
Georgiou / G	OOHW	19/05/2018	14:15:00	55 Pimlico road	58.3	56.2	82.1	115.4	34.8	55	44	
Georgiou / G	Monthly	21/05/2018	13:30:00	55 Pimlico road	58.3	55.4	72.3	113.5	30.3	55	43	
Georgiou / G	Monthly	21/05/2018	13:55:00	83 Smith Drive	62.8	61.2	86.2	120.9	42.4	61	46	