



May Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq 15m	LA max	Lzpk	Lafmin	Laf10	Laf90	
Wave 2	4/05/2016	6:00	Whytes Lane West SR 2075	43.5	58.2					



June Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq 15m	LA max	Lzpk	Lafmin	Laf10	Laf90	
Wave 2	15/06/2016	12:43	Whytes Lane West SR 2075	42.4	59.9					

September Noise Monitoring



Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
			Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
23/09/2016	11:09am	2826 Pacific Highway, Tyndale Dwelling. SR DW1511	56.2	84.6	111.3	43.9	59	48.5	FKG activities at time of sample: Watercart, bobcat and dump truck Seymour Whyte activities at time of sample: 32 tn excavator, beeping machinery Construction noise audible: Yes Dominant noise source: Main highway traffic
23/09/2016	11:31am	2826 Pacific Highway, Tyndale Dwelling. SR DW1511	55.9	65	98.9	43.6	49.5	59	FKG activities at time of sample: Watercart, bobcat and dump truck Seymour Whyte activities at time of sample: 32 tn excavator, grader Construction noise audible: Yes Dominant noise source: Main highway traffic
26/09/2016	15:20	2826 Pacific Highway, Tyndale Dwelling. SR DW1511	54.1	72.3	104.6	45.5	57	49	FKG activities at time of sample: Unloading delivery trucks and spreading of materials (bobcat, roller, 8tn digger and loader) Seymour Whyte activities at time of sample: Continued topsoil stripping and site preparation (32tn excavator and grader) Construction noise audible: Yes Dominant noise source: Main highway traffic
26/09/2016	15:39	2826 Pacific Highway, Tyndale Dwelling. SR DW1511	53.1	67.5	96.8	44.1	56	48	FKG activities at time of sample: Delivery of DGB materials, roller, bobcat, 12tn excavator and loader. Spreading out haul road. Seymour Whyte activities at time of sample: Continued topsoil stripping and site preparation (32 tn excavator, grader) Construction noise audible: Yes Dominant noise source: Main highway traffic

November Noise Monitoring



Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
			Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
30/11/2016	11:55	Wave 5A - 961 Wooli Road	56.8	77.9		38.9	46.4	41.9	
	12:35	Wave 5A - 625 Tucabia-Tyndale Road	65.3	68.4		58.4	65.4	61.8	
Background Noise Monitoring									
19/11/2016	16:44	Wave 3 - South Tyndale - Marcus Property	56.9	74	105.8	42.6			Background Noise Monitoring DW1530. Dominant noise = highway traffic. No construction. Sample taken within property boundary
	16:26	Wave 3 - South Tyndale - DW1527 Caravan Park	56.9	77.1	110	43.6			Caravan park. Back ground monitoring. Dominant noise = pacific highway traffic. No construction.
	15:52	Wave 3 - South Tyndale - DW1534 Pink House Property	52.5	69.2	103.7	43.4			No construction. Background monitoring. Sample taken within property boundary. Dominant noise is highway traffic
	15:36	Wave 3 - South Tyndale - DW1535 Neighbours Property	53.2	71.5	106.4	46.9			No construction. Pacific highway traffic. Background monitoring. Sample taken within property boundary
5/12/2016	18:30	Wave 3 - Maclean Line Marking Works - Cameron St Residences	61.3	87.4	110.7	34			Evening monitoring. Noise observations during sample include traffic on Pacific Highway and traffic on Cameron St and this was the dominant noise source
	6:01	Wave 3 - Maclean Line Marking Works - Cameron St Residences	56.7	85.4	113.6	36.5			Noise observations during sample included Pacific highway traffic, traffic to Cameron St and bats roosting. Dominant noise source being road traffic
	22:04	Wave 3 - Maclean Line Marking Works - Cameron St Residences	54.4	75.9	100	29.6			Background measurement for Night (22:00 to 0:700) taken at Cameron St residences. Noise observations during sample was night insects, Pacific and Cameron St traffic
2/12/2016	12:20	Wave 3 - DW1624 Adjacent to Shark Creek site	53.2	80.3	108.5	27.7			Standard day time period. RBL set at 41. No construction activities at time of sample being collected
	17:28	Wave 3 - DW1624 Shark Creek	59.4	84.2	111.9	40.2			Approx. 4 cars in background = background noise. Sample taken from 241m from proposed works
Monitoring in response to complaint									
12/11/2016	11:35	Wave 3 - 2826 Pacific Highway Residence	60.4	71.1	95.5	38.6			Background noise sampling at sensitive receiver in response to complaint made to PC. No construction activities at time of sample collection. This sample to be used for determining RBL specific to this SR. dominant noise source at time of sample = Adjacent highway traffic (highway traffic at approx. 70% normal activity. Highway approx. 30m from dwelling.
	11:50	Wave 3 - 2826 Pacific Highway Residence	61.2	80	110.2	43.7			

14/11/2016	9:19	Wave 3 - 2826 Pacific Highway Residence	60.4	78.4	106.2	48.9			FKG construction activities same as for during Friday shift. Trucks entering/ leaving site and grader. Seymour White site moxys beign loaded on hill same as friday. Seymour White ripping materials at compound during Friday shift compelted and now being loaded out (1 x excavator and 1 x moxy)
	9:35	Wave 3 - 2826 Pacific Highway Residence	70.8	107.5	141.8	47.8			
Monitoring during construction									
5/12/2016	11:57	Wave 3 - Shark Creek	60.4	82.1	109.2	29.2			Operational monitoring during construction. Demo works at Sharks Creek. Jack hammering
	9:10	Wave 3 - South Tyndale - DW1527, DW1530	64.3	86.3	111.8	52.4			Measured Background Level = 56.9. During construction - clearing works located between 5a & 4a catchments. This result is over modeled RBL, but not more than 10dB over measured back ground level
	8:22	Wave 3 - South Tyndale - DW1527 & DW1530	58.1	70.5	95.7	51.7			Measured background level = (DW1534 = 52.1 and DW1535 = 53.2). Noise monitoring during construction - clearing works between 5a & 4a catchments. Results are more than 10dB over modeled RBL, but not more than 10dB over measured background level
	20:54	Wave 3 - Maclean Line Marking Works - Cameron Street	56.7	78.7	97	30.3			Result are above this NML, but are no more than 5db over the measured background level. Measured background level for eveing = 61.3db. These results during this sample are below the measured background level.
8/12/2016	20:06	Wave 3 - Maclean Line Marking Works - Cameron St Residences	50.5	70.4	110.7	40.3			Results is above this NL, but are no more than 5db over the measured background level. Measured background level for evening = 61.3 db. These results during this sample are below the measured background level. Dominant noise soure was traffic. Works not audible at this location.

December Noise Monitoring



Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
			Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
Background Noise Monitoring									
5/12/2016	18:30	Wave 3 - DW1709	61.3	87.4	110.7	34			Background OOHW evening - Maclean Interchange works
5/12/2016	6:01	Wave 3 - DW1709	56.7	85.4	113.6	36.5			Background OOHW night - Maclean Interchange works
5/12/2016	22:04	Wave 3 - DW1709	54.4	75.9	100	29.6			Background OOHW night - - Maclean Interchange works
2/12/2016	12:20	Wave 3 - DW1624	53.2	80.3	108.5	27.7			Background - Sharks Creek
Monitoring during construction									
5/12/2016	20:54	Wave 3 - DW1709	56.7	78.7	97	30.3			During works OOHW evening - Maclean Interchange works
8/12/2016	20:06	Wave 3 - DW1709	50.5	70.4	110.7	40.3			During works OOHW evening - Maclean Interchange works
5/12/2016	11:57	Wave 3 - DW1624	60.4	82.1	109.2	29.2			During construction (Demo) - Sharks Creek
5/12/2016	9:10	Wave 3 - DW134 and DW1535	64.3	86.3	111.8	52.4			During Construction - South Tyndale
5/12/2016	8:22	Wave 3 - DW1530 and DW1527	58.1	70.5	95.7	51.7			During Construction - South Tyndale

January 2017 Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
AFJV Harwood Portion E	9/01/2017	11:22am	16 River Street - Measured at Project Boundary (30m from dwelling)	57.7	76.6	96.9	46.4	60	49.5	Background monitoring at Project Boundary - 16 River St while demolition contractors on Crib Break. Passing traffic 63dB - 73dB for passing truck and dog
	9/01/2017	7:41am	16 River Street - Measured at Project Boundary (30m from dwelling)	60.1	75.5	99.9	49.1	61.5	52.6	Monitoring of Convent Property demolition. Highway and passing vehicles on River St also dominant noise sources. Passing traffic 65dB.
	13/01/2017	12:00pm	16 River Street - Measured at Project Boundary (30m from dwelling)	61.3	80	97	51.8	63.5	53.3	Highway and passing vehicles on River St also dominant noise sources. Passing traffic 66dB, Excavator 69dB and Demolition 74dB.
FKG Wave 3	30/01/2017	20:23	DW1688	64.4	83.6	111.4	34.1			Background OOHV evening - BP works
	31/01/2017	5:58	DW1688	64.7	79.9	105.8	42.4			Background OOHV night - BP works
	10/01/2017	14:05	DW1535	66.3	92	122	62.4			Resident requested - Background
	11/01/2017	8:13	DW1535	63.7	75.7	100.8	58.6			Resident requested - During works
	16/01/2017	12:56	IC1704	68.6	85.9	108.7	53.9			Background
	16/01/2017	14:18	DW1727	60.5	84.1	129.9	28.8			Background
	16/01/2017	14:18	DW1730	60.5	84.1	129.9	28.8			Background
	16/01/2017	9:00	DW1747	63.2	75.3	97.8	46.8			Background
	16/01/2017	9:17	DW1755	60.7	78	107.5	48			Background
	16/01/2017	13:43	DW1760	54.2	71.2	95.9	47.1			Background
	16/01/2017	13:59	DW1762	53.6	69.3	93.7	47.9			Background
	23/01/2017	13:59	DW1764	53.6	69.3	93.7	47.9			During works
	23/01/2017	12:30	DW1727	57.6	86.6	110.3	46.1			During works
	23/01/2017	12:30	DW1730	57.6	86.6	110.3	46.1			During works
	23/01/2017	11:25	DW1747	65.6	86.1	109.3	50.5			During works
23/01/2017	11:41	DW1755	62.1	79.8	102.6	52.7			During works	
23/01/2017	12:07	DW1760	56	75.7	105.6	47.4			During works	
18/01/2017	15:04	DW1624	69.4	83.6	112	59.4			During works	
9/01/2017	16:57	DW1624	47.3	76.6	1112.2	37.4			Background	
Seymour Whyte Wave 5a	18/01/2017	9:12	NCA1	61.1	72.4		57.4	60	58.8	Cicarda's & birds the dominant noise source. The existing Pacific Highway could be heard continuously. Grader travelled through site and a reversing beeper could be heard periodically
	18/01/2017	10:04	NCA3b	68.4	79		65.2	68.1	67	Cicarda's & birds were the dominant noise source. Reseident passed by once on local road and Plant could be very faintly heard in the background
	18/01/2017	11:07	NCA4a	69.4	72.5		65.6	69.5	67.5	Clearing and mulching works occurring adjacent to the property and could be heard. Cicarda's were also a continuous background noise. Predicted noise levels for mulching are 63 as referenced from table 7-4 NVMP
	18/01/2017	10:36	NCA4b	74.9	81.5		72	74.4	73.2	Cicarda's were the dominant noise source with the noise being ear piercing at times. Kookaburras were also heard nearby periodically. Plant could be heard faintly in the background. Noise levels recorded are not considered to be related to construction works

	18/01/2017	11:46	NCA5	58.4	68.3		39.5	57.3	50.9	Highway dominant noise source. Birds nesting in tree adjacent. Resident passed by once on local road. No construction noise could be heard
	18/01/2017	13:02	NCA5	54.9	76.2		41.8	50.6	47.1	Highway traffic & construction noise could be heard in background. Birds and cicarda's also present but not loud. 5x site vehicles passed by on Sheehy's Lane during this 15min period

February 2017 Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
FKG - Wave 3, Section 4	2/02/2017	13:39	DW1530	68.8	92.7	124.1	61.5	71.5	64.5	Complaint
FKG - Wave 3, Section 4	6/02/2017	10:42	DW1530	65.3	71.7	98.3	60.7	67	63.5	Complaint
FKG - Wave 3, Section 4	8/02/2017	11:05	DW1530	66.2	84.2	101.7	56.4	68	61.5	During works
FKG - Wave 3, Section 4	8/02/2017	14:22	DW1530	63.2	81.9	111.9	44.4	66.5	54	During works
FKG - Wave 3, Section 4	9/02/2017	16:14	DW1530	60.7	72.6	106.2	49.6	64	55	During works
FKG - Wave 3, Section 4	13/02/2017	21:33	DW1688	59.6	76.9	102.9	48.1	62	53	During works - EVENING
FKG - Wave 3, Section 4	15/02/2017	23:46	DW1688	59.3	78.9	107.2	51.9	62.5	54	During works - NIGHT
FKG - Wave 3, Section 4	15/02/2017	21:41	DW1688	58.3	78.5	106.2	49.5	62.5	52	During works - EVENING (shift 2 & 3 activities)
FKG - Wave 3, Section 4	15/02/2017	22:10	DW1688	59.5	77.5	104.2	49.9	63.5	51.5	During works - NIGHT
SWC - Section 3	19/02/2017	10:08	#813 - Tyndale, Highway haulage entry / exit	62.2	71.6		44.4			Pacific Highway traffic dominant Noise source. Sunday servicing crusher no Noise impacts
SWC - Section 3	19/02/2017	9:46	#813 - Tyndale, Between Highway / Carpark	55.4	64.9		43.8			Pacific Highway traffic dominant Noise source. Sunday servicing crusher no Noise impacts
Pacifico Harwood - Portion E	27/02/2017	12:53pm	19 James Creek Road (R1256)	49.243773	72		39			Below NML 55dB(A) No construction works occurring. Dominant Noise source was existing Highway Traffic.
Pacifico Harwood - Portion E	27/02/2017	1:25pm	40 Morpeth Street (R1396)	50.840579	68.7		41.7			Below NML 55dB(A) No construction works occurring. Dominant Noise source was School and existing highway.
Pacifico Harwood - Portion E	27/02/2017	1:56pm	8 Martin Road (R1283)	58.641176	83.3		43.9			Above NML 55dB(A) however Mulcher operating as part of RMS bridge maintenance works. No construction works occurring. Dominant Noise source was RMS works occurring on existing Harwood Bridge.
Pacifico Harwood - Portion E	27/02/2017	2:18pm	1 Petticoat Lane (R1331)	51.28	69.2		39.3			Below NML 55dB(A). No construction works occurring. Dominant Noise source was loud TV from inside Dwelling and Rooster in adjacent yard.

March 2017 Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
Pacifico Harwood	27/02/2017	12:53pm (28/03/17)	19 James Creek Road (R1256)	55.6	86.1		38.5	47.1	42.1	Just exceeding NML 55dB(A) Unable to hear construction work occurring at B4 culvert works. Dominant Noise source was existing Highway Traffic (approx 45.9dB)
Pacifico Harwood	27/02/2017	1:25pm (28/03/17)	40 Morpeth Street (R1396)	63.3	96.9		42	60.5	45.7	Above NML 55dB(A) Dominant Noise source was School (lunch time - kids playing), existing highway (52dB) and local traffic in Morpeth St (71dB). Site compound construction and welding of test pile were construction activities occasionally heard.
Pacifico Harwood	27/02/2017	1:56pm (28/03/17)	8 Martin Road (R1283)	55	87.5		39.6	51.6	44.5	Equal to NML 55dB(A) however unable to hear construction work occurring at Main Site Compound. Dominant Noise source was Highway (50dB) and local traffic (65dB)
Pacifico Harwood	27/02/2017	2:18pm (28/03/17)	1 Petticoat Lane (R1331)	50.2	71.5		41.8	51.1	44.9	Below NML 55dB(A). Construction works occurring at Main Site Compound and test pile welding. Other dominant noise sources included local traffic and residents in Petticoat Lane and highway (51dB)
FKG	1/03/2017	0700 to 1800	DW1530	57	75		42	59	48	During works. Results are averages over full day unattended monitoring (15 min intervals)
FKG	2/03/2017	0700 to 1800	DW1530	57	75		41	59	48	During works. Results are averages over full day unattended monitoring (15 min intervals)
FKG	3/03/2017	0700 to 1800	DW1530	57	75		41	58	48	During works. Results are averages over full day unattended monitoring (15 min intervals)
FKG	4/03/2017	0700 to 1130	DW1530	57	78		38	59	47	During works. Results are averages over full day unattended monitoring (15 min intervals)
Seymour Whyte	5/03/2017	12:43	Tyndale - Adjacent Aurthur residence	53.9	82.9		62.5	51.5	45.7	

April 2017 Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
FKG - Wave 3	During April	-	DW1530	n/a	n/a	n/a	n/a	n/a	n/a	Noise and vibration monitoring undertaken at DW1530 during April. The results of monitoring were not available at the time of this report (reviewed data is expected from 10 May 2017).
Pacifico - Portion E	26/04/2017	14.15	1 Petticoat Lane (R1331)	59.3	61.4		61.4	61.3	61.3	Above NML 55dB(A). Highway and existing harwood bridge were the dominant noise source. Windy monitoring conditions during monitoring. Closest construction activity occurring during monitoring was B2/B3 culvert installation and running generator. Local traffic and pets in petticoat lane were also dominant noise sources.
Pacifico - Portion E	26/04/2017	14.45	8 Martin Road (R1283)	57.9	80.1		45.9	56.4	48.8	Above NML 55dB(A). Unable to hear any construction activities occurring from monitoring location. Dominant Noise source was Highway and local traffic and sanblasting by RMS Bridge Maintenance works.
Pacifico - Portion E	26/04/2017	1500	40 Morpeth Street (R1396)	77.5	101.8		34.4	66	50.8	Above NML 55dB(A). Dominant Noise source was the Pacific Highway traffic and local traffic in Morpeth Street. Roads were wet due to recent rain. A tractor was being used by a local resident within Morpeth St which largely contributed to noise levels. Construction activities occurring during monitoring included B3 culvert installation, dumping of rock for access track and sed basin construction. Most construction noise could not be heard over highway traffic except for reversing alarms.
Pacifico - Portion E	26/04/2017	1530	19 James Creek Road (R1256)	58.9	87.2		47.7	54.6	50.6	Above NML 55dB(A). Dominant noise source was the Pacific Highway traffic and local traffic along James Ck rd. Roads were wet from recent rain. Construction activities occurring during monitoring was installation of soil wicks at B1 and construction of SW Compound
Seymour Whyte - Wave 5a	4/02/2017	10:12	813	57.1	65.3		44.6	55.8	50.1	
Seymour Whyte - Wave 5a	4/02/2017	10:51	830	60.3	82.8		43.2	58	48.7	
Seymour Whyte - Wave 5a	4/06/2017	14:51	813	58.5	88.1		77.5	56.3	53.2	
Seymour Whyte - Wave 5a	4/07/2017	9:50	813	58.5	88.1		47.1	57.7	53.9	
Seymour Whyte - Wave 5a	23/04/2017	10:34	813	55.3	84.9		42.2	53.8	47.7	

May 2017 Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring (24hr)	Location	Noise Monitoring Results						Comments
				Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
Portion E - AFHJV	17/05/2017	14:04	1 Petticoat Lane (R1331)	62.3	75.1		49.7	66.5	52.5	Above NML 55dB(A) however below predicted cumulative Laeq 15 min of 66dB(A) during temporary jetty piling within MaCR noise assessment. Piling was dominant noise source.
Portion E - AFHJV	17/05/2017	10:48	8 Martin Road (R1283)	62	78.7		47.9	65.7	53.6	Above NML 55dB(A) and predicted cumulative Laeq 15 min of 61dB(A) during temporary jetty piling within MaCR noise assessment. However, local traffic and highway were also dominant noise sources.
Portion E - AFHJV	17/05/2017	13:07	40 Morpeth Street (R1396)	59.8	76.1		50.7	62.4	54.1	Above NML 55dB(A), however below cumulative Laeq 15 min of 63dB(A) during temporary jetty piling within MaCR noise assessment. However, local traffic and highway were also dominant noise sources. Tractor also operating at agricultural store adjacent to monitoring location. Some construction activities also occurring at Main Site Compound associated with the construction of piling pad and set up of crane.
Portion E - AFHJV	17/05/2017	14:34	19 James Creek Road (R1256)	51	69.9		45	51.6	46.4	Below NML 55dB(A) and cumulative Laeq 15 min of 57dB(A) during temporary jetty piling within MaCR noise assessment. However, local traffic and highway were also dominant noise sources. Construction activities occurring during monitoring was operation of grader at B4/5 works
Wave 3 - FKG	Throughout May 2017	12:00	DW1530	TBA	TBA	TBA	TBA	TBA	TBA	Noise and vibration monitoring undertaken at DW1530 during May will be reported in June Report, with results pending from noise consultant.
Portion B - BMD	23/05/2017	8:00	9 Old Pacific Highway, Woombah, NSW	63.6	93.2		78.7			Noise monitoring following complaint. While noise monitoring results showed that the activity was above the noise management level, results were within the range predicted for the construction activity. Mitigation measures were in place in accordance with the environmental work method statement the works were being undertaken under.
Portion B - BMD	25/05/2017	18:08	Adjacent to Yamba Interchange (northbound on/off ramp)	57.9	70		50.5			Noise monitoring during extended hours work. Noise agreements were in place with nearby receivers to undertake these works.

Portion B - BMD	26/05/2017	7:43	40 Serpentine Channel North Bank Road, Chatsworth Island, NSW	51.8	72.1		43.7			<p>Noise monitoring following complaint.</p> <p>While noise monitoring results showed that the activity was above the noise management level, results were within the range predicted for the construction activity.</p> <p>Mitigation measures were in place in accordance with the environmental work method statement the works were being undertaken under and BMD are considering additional noise mitigation measures for future works that may affect this receiver.</p>
Wave 5A - Seymour Whyte	5/01/2017	14:17	15 Tallowood Lane	34.4	51.7		25.8	32.1	28.5	
Wave 5A - Seymour Whyte	5/10/2017	11:42	32 Old Six Mile Lane	48.7	75.7		39.6	46.9	43	
Wave 5A - Seymour Whyte	5/10/2017	10:37	970 Woolli Rd	42.6	59.6		26.7	34.5	29.2	
Wave 5A - Seymour Whyte	17/05/2017	13:12	2 Cakora St Tucabia	58.2	76.3		29.4	41.2	33.1	
Portion B - Davbridge	2/06/2017	18:00	Sensitive Receiver #1, Jacky Bulbin Road	52.3	58.9	81.7	43.2	54.7	48.9	Significant noise from Pacific Highway audible
Portion B - Davbridge	2/06/2017	18:19	Sensitive Receiver #1, Jacky Bulbin Road	54.1	78.3	93.1	39.9	55.7	47.6	As above. Concrete pour finished at 18:00, only cleanup of site occurring.
Portion B - Davbridge	18/06/2017	11:50	Sensitive Receiver #1, Jacky Bulbin Road	53.7	80.8	100	41.7	52.4	45.2	Significant noise from Pacific Highway audible. Pile hammering ceased.
Portion B - Davbridge	18/06/2017	13:12	Sensitive Receiver #1, Jacky Bulbin Road	52	86	100.3	45.6	54.7	48.6	As above. Pile hammering ceased.

June 2017 Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
Seymour Whyte	5/06/2017	14:51	2860 Pacific Highway, Tyndale	57.2	70.1		50.7	56.2	54.1	15 mins. As reponse to complaint
Seymour Whyte	8/06/2017	10:33	2860 Pacific Highway, Tyndale	57.8	84.3		40.3	57	53.8	8hrs. On going noise logging undertaken as response to complaint
Seymour Whyte	9/06/2017	7:26	2860 Pacific Highway, Tyndale	59	86.8		43.1	58.2	53.8	6hrs 27min. On going noise logging undertaken as response to complaint
Seymour Whyte	15/06/2017	9:56	2860 Pacific Highway, Tyndale	55.5	72.5		38	53.8	48.3	8hrs. On going noise logging undertaken as response to complaint
Seymour Whyte	16/06/2017	6:12	2860 Pacific Highway, Tyndale	57.3	83.5		41.1	56.5	52.6	10hrs. On going noise logging undertaken as response to complaint
Seymour Whyte	28/06/2017	8:47	2860 Pacific Highway, Tyndale	57.5	86.7		48.2	56.5	53.4	8hrs. On going noise logging undertaken as response to complaint
AFHJV	15/06/2017	2.03	1 Petticoat Lane (R1331)	83.1	97.7		49.9	88.1	54.5	Dominant during monitoring was marine impact piling. Above NML 55dB(A) and above predicted cumulative Laeq 15min of 73 dB(A) for bridge pile driving modelled within approved CCNVMP. Other noise sources included dog, wipper snipper which were at the start of the reading. Note: Respite periods are implemented for all impact piling works on project.
AFHJV	15/06/2017	2.25	8 Martin Road (R1283)	68.8	85.1		54.7	73.5	57.7	Construction noise being monitored was marine impact piling, however dominant noise source was Highway traffic and sanblasting by RMS Bridge Maintenance works (59dB). Above NML 55dB(A) however below above predicted cumulative Laeq 15min of 58 dB(A) for bridge pile driving modelled within approved CCNVMP.
AFHJV	20/06/2017	9.17	40 Morpeth Street (R1396)	74.1	86.3		52.2	78.5	62	Construction noise being monitored was marine impact piling, other dominant sources of noise was the Pacific Highway traffic and Shannon Bros - Agriculture. Above NML 55dB(A) and above predicted cumulative Laeq 15min of 64 dB(A) for bridge pile driving modelled within approved CCNVMP. Note: Respite periods are implemented for all impact piling works on project.
AFHJV	16/06/2017	2:16	91 James Creek Road (R1256)	59.2	82.4		44.3	62.6	48.4	Construction noise being monitored was marine impact piling, other dominant sources of noise was the Pacific Highway traffic and local traffic along Yamba Road. Paused monitoring for passing traffic passing (88dB). Above NML 55dB(A) and predicted cumulative Laeq 15min of 58 dB(A) for bridge pile driving modelled within approved CCNVMP.
BMD	26/06/2017	6:25pm	Lot 19 DP1095472 (Yamba Road)	58.6				59.2	57.5	Undertaken to verify accoustic level inaccordance with EPL Condition L5.2(d). Background noise was elevated due to traffic on road and Harwood Bridge. This adjacent traffic noise was the main influence throughout the noise monitoring period.
Georgiou	23/06/2017	2:45pm	87 Smith drive	53.5	65.1	95.6	37.8	56	48	Monthly monitoring
Georgiou	23/06/2017	3:35pm	55 Pimlico road	51.2	61.2	81.9	38.2	52.3	45.2	Monthly monitoring

FKG	22/02/2017 to 04/03/2017	Continuous	DW1530 (Marcus)	50-55 to 61-64	-	-	-	-	-	From continuous noise monitoring Noise Report Wilkinson Murray (2017) "The noise measured from the unattended monitoring includes not only construction noise but also contribution from extraneous noise source in the area such as road traffic noise and live fowl. As such, a conservative approach has been taken assuming that the total LAeq (15min) measured noise level is due to construction activity associated with Tyndale South Works only. On this basis, the exceedance above the Noise Management Level ranges (maximum levels) between 10 and 16dB for any given 15-minute period. The levels measured and exceedances found are considered similar to other construction sites, including road projects along the Pacific Highway upgrade. It is further noted that the data collected on Sundays (during which time no works occurred) ranged from 48-65dBA, which is not inconsistent with the data collected during which works occurred." Note: More recent data is currently being analysed and will be provided in the next monthly report.
FKG	21/03/2017 to 04/04/2017	Continuous		48-53 to 64-67	-	-	-	-	-	As above.
FKG	05/04/2017 to 22/04/2017	Continuous		49-56 to 64-67	-	-	-	-	-	As above.
FKG	7/06/2017	20:53	DW1551 Tyndale	46.1	70.6	89.7	31	41.5	34	During Construction Evening noise monitoring at DW1551. Evening OOHW works for de-watering SB69620. activity noise not audible. Dominant noise source is Pacific Highway traffic
FKG	15/06/2017	20:58	DW1624 Shark Creek Road	50.2	72.2	98.3	35	47.5	37.5	Evening OOHW activity of 2 x lighting towers to Shark Creek Rd. Lighting towers set up at CH75150 on Shark Creek Rd either side of alignment width. Monitoring location is at nearest Sensitive Receiver - DW1624. "Noise of activity (lighting tower) not audible at sample monitoring location (resident DW1624). Dominant noise source is Pacific Highway traffic. This DW1624 is in catchment NCA-C. Pre-set Night OOHW NML (RBL + 5) = 38db(A)."
FKG	20/06/2017	20:00	DW1624 Shark Creek Road	39.5	70	93.9	26.5	38	28.5	Night OOHW activity of 2 x lighting towers to Shark Creek Rd. Lighting towers set up at CH75150 on Shark Creek Rd either side of alignment. Monitoring location is at nearest Sensitive Receiver - DW1624. "Noise of activity (lighting tower) not audible at sample monitoring location (resident DW1624). Dominant noise source is Pacific Highway traffic. This DW1624 is in catchment NCA-C. Pre-set Night OOHW NML (RBL + 5) = 38db(A)."

AFHJV	15/06/2017	2.03	1 Petticoat Lane (R1331)	83	98.6	51	88.1	54.7	Above NML 55dB(A) and above predicted cumulative LAeq 15 min of 73dB(A) during bridge pile driving within NVMP. Land impact piling was dominant noise source. Respite periods are in place.
AFHJV	15/06/2017	2.25	8 Martin Road (R1283)	53.1	71.07	43	55.5	48.2	Below NML 55dB(A) and predicted cumulative LAeq 15 min of 58dB(A) during bridge impact pile driving within NVMP. However, local traffic and highway were also dominant noise sources.
AFHJV	20/06/2017	9.17	40 Morpeth Street (R1396)	81.3	95.9	54.7	86.6	59.3	Above NML 55dB(A), and predicted cumulative LAeq 15 min of 64dB(A) during bridge impact pile driving within NVMP. Dominant noise source during piling was land piling. Respite periods are in place.
AFHJV	16/06/2017	2:16	91 James Creek Road (R1256)	50.1	72.6	41.8	52.5	45.2	Below NML 55dB(A) and predicted cumulative LAeq 15 min of 58dB(A) during bridge impact pile driving within NVMP. However, local traffic, Golding works and highway were also dominant noise sources. No marine piling occurred at time of monitoring.

July 2017 Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
Davbridge	2/07/2017	10.49	Sensitive Receiver #2, Jacky Bulbin	43.5	79.2	92.9	31.8	45	38	Cockrels and Birds dominant
Davbridge	2/07/2017	13.06	Sensitive Receiver #2, Jacky Bulbin	44.9	77.9	93.6	37.5	47.6	40.7	Cockrels and Birds dominant
Davbridge	9/07/2017	11.26	Sensitive Receiver #2, Jacky Bulbin	41.5	78.2	94.1	29.7	44.9	37.6	Birds, Cockrels and M1 dominant
Davbridge	9/07/2017	12.44	Sensitive Receiver #2, Jacky Bulbin	45.8	57.6	80.8	35.6	48	40.8	Birds, Cockrels and M1 dominant, Piling audible
Davbridge	16/07/2017	11.11	Sensitive Receiver #2, Jacky Bulbin	43.2	84.9	97.9	34.8	49.1	38.8	Cockrels, Dogs, Maintenance Works at resident #1. Davbridge Works at B10 not audible
Davbridge	16/07/2017	15.13	Sensitive Receiver #2, Jacky Bulbin	49.7	84.1	105.2	39.9	52.9	46.7	Cockrels, Dogs, M1 significantly louder. Davbridge Works at B10 not audible
Davbridge	30/07/2017	11.28	Sensitive Receiver #2, Jacky Bulbin	41.2	85.2	98.5	28.8	45.1	36.1	Birds, crickets, horses and cockrels
Davbridge	30/07/2017	14.39	Sensitive Receiver #2, Jacky Bulbin	37.7	76.3	101.8	27.9	47.4	32.8	Birds, crickets, horses and cockrels
Georgiou	25/07/2017	1:00pm	87 Smith drive	58.9	81.9	97.4	45.8	57.2	49.1	Monthly monitoring
Georgiou	25/07/2017	1:25pm	55 Pimlico road	56.7	79.7	96.7	43.6	55	46	Monthly monitoring
FKG	19/07/2017	15:20	Ferry Park	65	85	108	52.7	NR	NR	Busy Highway traffic, light traffic Cameron Street, construction activities occurring adjacent (behind) sensitive receptor - compactor, tipper truck and trailers, reverse beacons very audible compactor machine very audible, tail gate slamming on tipper when emptying load very loud, one cane train observed travelling past residence on Cameron Street.
FKG	18/07/2017	9:14	Ferry Park	64.1	75.5	96.4	55.9	NR	NR	Record taken by J. Grundy (FKG). Grader, pad foot roller, excavator, tipper trucks working adjacent to residence, reverse beacons/beepers on machines audible, busy Highway traffic, steady traffic on Cameron Street, three cane trains observed travelling past residence.
FKG	18/07/2017	12:07	Ferry Park	64	81.6	99.8	52.5	NR	NR	Record taken by J. Grundy (FKG). Busy Highway traffic, Cameron Street traffic busy, some bird whistling, construction activities occurring adjacent to sensitive receiver - semi tipper and trailer, excavator, crew trucks whipped sniper, roller.
FKG	17/07/2017	15:09	Ferry Park	68.2	83	101	53.3	NR	NR	Record taken by J. Grundy (FKG). Grader working adjacent to residence, reversing continually. Busy highway traffic and busy traffic on side road past residence. Two cane train/trucks observed travelling past residence.
FKG	17/07/2017	12:02	Ferry Park	65.5	84.2	97.4	45.3	NR	NR	Record taken by J. Grundy (FKG). Busy Highway traffic, grader working behind house reverse beacon very audible multiple times, no cane trains/trucks observed passing residence.
FKG	17/07/2017	9:14	Ferry Park	61.4	77.4	97.5	48	NR	NR	Record taken by J. Grundy (FKG). One cane train observed travelling past residence and one light truck, busy highway traffic, steady side road traffic, reversing beacons and machine noise audible from eastern side of existing works.
FKG	17/07/2017	11:56	Ferry Park	61.8	75.2	96.7	44.5	NR	NR	Record taken by J. Grundy (FKG). Steady Highway traffic, two cane trucks observed travelling past residence.
FKG	16/07/2017	10:01	Greenhills Cut 4-4 (representative)	46.6	68.3	98.6	38.2	NR	NR	Record taken by J. Grundy (FKG). Slight wind gusts carrying noise (otherwise plant was not audible), no line of sight to machines.

FKG	16/07/2017	9:02	Ferry Park	61	75.5	98.8	45.6	NR	NR	Light traffic on Highway and light traffic up-hill past the residence towards Maclean.
FKG	16/07/2017	9:42	Ferry Park	44.5	66	97.2	35.9	NR	NR	Record taken by J. Grundy (FKG). Plant was not audible, no line of sight to machines.
FKG	16/07/2017	14:58	Ferry Park	61.4	74.5	97	49.3	NR	NR	Steady hwy traffic, coach cane truck and light vehicles down side road.
FKG	11/07/2017	16:03	DW1624 Shark Creek	52	76.9	94.8	34.6	NR	NR	Some vehicle traffic noise (three light vehicles) public vehicles travelling on Shark Creek Road adjacent to sampling location in addition to a site concrete truck departing site. The vehicle noise from the road was the source of the max and peak noise measurements (contributing to the LAeq). The work location was audible vehicles. No reversing or other alarms were recorded.
Seymour Whyte	3/07/2017	7:10	#813	57.8	75.3		39.8	56.9	52.6	On going noise logging undertaken as response to complaint
Seymour Whyte	4/07/2017	6:56	#813	57.2	84.9		42.5	55.7	52.1	On going noise logging undertaken as response to complaint
Seymour Whyte	5/07/2017	7:16	#813	56.9	76.8		44.2	55.6	51.6	On going noise logging undertaken as response to complaint
Seymour Whyte	25/07/2017	10:36	#831	58.3	75.2		46.5	56	51.9	Birds chirping continuously. Serviceman working nearby on service pit. Traffic on existing highway (med to high volume). Culvert & gate access works ongoing as well as cut 30. Highway under traffic management
Seymour Whyte	25/07/2017	13:44	#696	55.6	78		33.7	44.5	39.5	Traffic on Old Six Mile Lane. Planes flying around airport. Birds and frogs could be heard. Residents dog barked a few times. Excavator heard walking back and forth as part of the culvert upgrades on Avenue Road. Batch plant running and was quite loud at certain times. There is no predicted noise level during earthworks available for this receiver
Seymour Whyte	25/07/2017	14:22	#701	42.1	59.7		27.3	35.7	32.4	Could hear rollers working in the distance. Planes utilising nearby airspace. Heaps of birds chirping. Traffic using local road (med volume). As per Table 7-4 in NVMP predicted noisy levels at this receiver is 56
Seymour Whyte	25/07/2017	15:34	#742	48.1	57.1		41	47.3	45.6	Construction noise dominant noise source. Rollers and tracked machines. Squawkers quite loud. Resident home. As per Table 7-4 in NVMP predicted noisy levels at this receiver is 65
BMD	21/07/2017	8:05:00 AM	9 Old Pacific Highway, Woombah	56.1				57.1	55	
BMD	31/07/2017	6:18:00 PM	Chatsworth Road	52.7				56.9	42.2	
BMD	31/07/2017	10:05:00 AM	Chatsworth Road	52.9				43.7	41.6	

August 2017 Noise Monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	Noise Monitoring Results						Comments
				Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
Georgiou	3/08/2017	10:20	55 Pimlico road	48.1	72.3	89.6	41.8	50.1	43.9	Out of hours works
Georgiou	25/08/2017	11:55	87 Smith drive	59.4	87.9	96.4	44.8	58.2	49.9	Monthly monitoring
Georgiou	25/08/2017	12:30	55 Pimlico road	55.7	78.6	96.1	42.6	54.9	46.2	Monthly monitoring
BMD	14/08/2017	9:50	James Creek Road	68.7	105.9		43.3	55.5	46.9	Background sounds include pilling of harwood bridge
BMD	14/08/2017	10:05	Yamba Road	54.7	64.9		45.3	60.5	48.6	Background sounds include Highway traffic
BMD	14/08/2017	10:30	Morpeth Street	68				57.3	49.2	Background sounds include hwy traffic and birds
BMD	14/08/2017	10:50	Martins point road	55.9	77.1		50.1	57.4	53.3	Background sounds include hwy traffic boat and barges used in bridge construction
BMD	21/08/2017	12:00	Chatsworth Road	65.8	90.3		27.9	64.9	35.7	Several heavy vehicle passing, usually quiet road
BMD	21/08/2017	9:30	Old pacific Hwy	54.1	65.4		43.9	57.7	50.2	Background sounds Heavy vehicles working on nearby site
BMD	21/08/2017	11:00	Petticoat Lane	59.8	70.1		52.9	61.5	57.3	Background sounds include hwy traffic and bridge construction (no Piling)
BMD	21/08/2017	9:00	Mororo Road	71.1	86.5		54.8	7.3	60	Background sounds include Heavy traffic exiting haul road
FKG	31/08/2017	12:20	DW1663	46.7	75.4	96.9	37.6	48	41.5	Highway noise, birds and insects were the dominant noise sources. At 6:15 minute mark was some noise from construction and a silenced reversing alarm. A pad foot roller was noticeable at times at about 58 Laf. A piece of paper contacted the Noise meter at the 8:47 minute mark.
FKG	31/08/2017	11:47	DW1706	59.9	73.1	100.2	43	63.5	47	Dominant highway noise 60 to 63 Laf cars and 72 Laf for trucks travelling at 100 km/hr. Bird noise was also recorded. Construction noise was not perceptible where traffic was passing (the majority of the monitoring period). Occasional squawker alarm, horn/alarm was heard.
Davbridge	27/08/2017	11.07	Sensitive Receiver #2, Jackybulbin F	40.2	75.8	92.3	27	49.3	31.9	Birds overhead and background M1 noise
Davbridge	27/08/2017	13.09	Sensitive Receiver #2, Jackybulbin F	37.8	70.1	93.6	27.4	48.6	31.8	Bird noise

September 2017 Noise Monitoring



Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHV noise monitoring)	Noise Monitoring Results						Comments
					Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
Davbridge	17/09/2017	10:19	Sensitive Receiver #2, Jackybulbin Road	NCA G RBL (day) = 42 RBL (evening) = 42 RBL (night) - 34	38.4	74.3	95.5	30.6	52.3	33.4	Birds overhead and background M1 noise
Davbridge	17/09/2017	14:48	Sensitive Receiver #2, Jackybulbin Road	NCA G RBL (day) = 42 RBL (evening) = 42 RBL (night) - 34	37.8	72.9	94.3	32.1	47.8	34.9	Birds overhead and background M1 noise
BMD	4/09/2017	10:50	James Creek Road	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	60.0				55.8	48.6	Background influence; Birds, highway traffic & construction
BMD	4/09/2017	11:15	Morpeth Street	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	54.2	84.5		42.9	56.3	47.6	Background influence; Birds, highway traffic & construction
BMD	4/09/2017	11:50	Old Pacific Highway	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	55.6	93.5		43.2	61.0	47.7	Background influence; Highway traffic , birds
BMD	7/09/2017	15:05	10 Martin's Point Road	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	60.1	88.2		49.4	60.2	53.0	Background influence; highway traffic, bridge construction & birds
BMD	7/09/2017	15:24	Petticoat Lane	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	59.0	79.7		49.0	60.9	51.8	Background sounds; bridge construction & highway traffic
BMD	7/09/2017	15:52	Chatsworth Road	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	66.6	88.4		39.6	61.9	45.7	Background sounds; highway traffic & construction
BMD	7/09/2017	16:10	Chatswoth Road	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	62.8	92.4		42.9	54.8	47.8	Background sounds; highway traffic & construction
BMD	11/09/2017	13:30	Yamba Road	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	66.0	90.3		54.0	69.8	58.5	OOHW verification (prior to work comencing)
BMD	11/09/2017	22:10	Yamba Road	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	54.7	86.7		32.1	55.2	40.0	OOHW verification (during works)
BMD	18/09/2017	5:45	Iluka Road (LOT 5 DP263404)	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	70.2	92.9		41.0	77.6	44.5	OOHW verification (prior to work comencing)
BMD	18/09/2017	19:30	Iluka Road (LOT 5 DP263404)	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	54.7	81.4		44.6	58.6	46.5	OOHW verification (during works)

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHV noise monitoring)	Noise Monitoring Results						Comments
					Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
AFHJV	11/09/2017	14:03	1 Petticoat Lane (R1331)		51.6	75.2		41.2	52.9	44.8	Below NML 55dB(A) and below predicted cumulative LAeq 15 min of 66dB(A) during abutment works within NVMP. Rainbow lorikeets during monitoring was the dominant noise source.
AFHJV	11/09/2017	14:25	8 Martin Road (R1283)		48.1	66.9		39.3	50.7	43.5	Below NML 55dB(A) and below predicted cumulative LAeq 15 min of 52dB(A) during southern abutment works within NVMP. However, highway, local traffic and dog barking were also dominant noise sources.
AFHJV	11/09/2017	9:17	40 Morpeth Street (R1396)		49.5	65		41.1	52.3	45.3	Below NML 55dB(A), and predicted cumulative LAeq 15 min of 57dB(A) during southern abutment works. Dominant noise source Pacific Highway, local traffic and birds were dominant noise sources.
AFHJV	11/09/2017	2:16	91 James Creek Road (R1256)		48.8	67.8		41.6	51.1	45.3	Below NML 55dB(A) and predicted cumulative LAeq 15 min of 51dB(A) during southern abutment works. However, local traffic, B4/5 works and highway were dominant noise sources.
Georgiou	18/09/2017	23:05	55 Pimlico road		46.9	69.1	87.3	39.8	48	42	Out of hours works
Georgiou	22/09/2017	9:10	87 Smith drive		54	63	90.8	45.8	56	49	Monthly monitoring
Georgiou	22/09/2017	10:05	55 Pimlico road		57.2	81.3	97.2	44.2	58	48	Monthly monitoring

October 2017 Noise Monitoring



Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHV noise monitoring)	Noise Monitoring Results						Comments
					Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
BMD	5/10/2017	19:45	Thompsons Rd	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	51	65.6		17.5	58	22.1	Barrier relocation from Yamba to Devils Pulpit
BMD	5/10/2017	18:45	James Creek Rd	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	56.3				50.8	42.1	Barrier relocation from Yamba to Devils Pulpit
BMD	9/10/2017	20:30	James Creek Rd	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	53.3	58.9		47.0	55.8	51.5	Asphalting on the new tie-in for the Yamba Diversion to the existing highway
BMD	9/10/2017	14:20	James Creek Rd	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	39.9	61.3		30.3	43.1	33.0	Asphalting on the new tie-in for the Yamba Diversion to the existing highway
BMD	12/10/2017	18:25	James Creek Rd	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	51.5	76.5		36.1	53.0	43.3	Verge installation at Yamba diversion south tie in
BMD	19/10/2017	21:30	Serpentine Channel Southbank Rd	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	51.9				48.3	44.9	Asphalting on the new tie-in for the Harwood Diversion to the existing highway
BMD	19/10/2017	19:15	Serpentine Channel Southbank Rd	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	50.3				50.1	45.7	Asphalting on the new tie-in for the Harwood Diversion to the existing highway
BMD	27/10/2017	22:30	James Creek Rd	NCA E RBL (Day) - 45 RBL (Evening) - 44 RBL (Night) - 39	48.3	70.4		20.7	54.0	39.7	Yellow line marking for the new asphalt tie-in
BMD	27/10/2017	21:17	Old Pacific Highway	NCA F RBL (Day) - 37 RBL (Evening) - 39 RBL (Night) - 35	54.8	65.7		43.2	60.0	47.2	Line marking for the upcoming works in the centre median
AFHJV	15/06/2017	2.03	1 Petticoat Lane (R1331)	45	56.3	70.2		49.2	58.7	52	Above NML 55dB(A) and below predicted cumulative LAeq 15 min of 71dB(A) during headstock works within NVMP. Formworks works were occurring at 25b pile. Other dominate noise sources included birds (61.1dB) and highway (56.7 dB)
AFHJV	15/06/2017	2.25	8 Martin Road (R1283)	45	50.2	69.7		43	55.5	46	Below NML 55dB(A) and below predicted cumulative LAeq 15 min of 57dB(A) during Headstock works within NVMP. Other dominant noise sources included birds (61.5dB(A)), local traffic (53.7dB(A)), residents in Martin Road (55.5dB(A)) and highway (61.dB(A))

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHV noise monitoring)	Noise Monitoring Results						Comments
					Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
AFHJV	20/06/2017	9:17	40 Morpeth Street (R1396)	45	54.1	79.5		43.2	55.9	47	Below NML 55dB(A), and predicted cumulative LAeq 15 min of 63dB(A) during headstock works. Dominant noise source birds (74dB), existing highway (65.2dB(A)) and local traffic in Morpeth St (49.9dB(A))
AFHJV	16/06/2017	2:16	35 James Creek Road (R1256)	45	52	60.7		47.9	53.5	50.3	Below NML 55dB(A) and above predicted cumulative LAeq 15 min of 51dB(A) during southern abutment works. Dominant noise source was local traffic (59.29dB(A), trucks passing on the Pacific Highway (53.69dB(A)) reversing alarm from southern abutment works (53.29dB(A)). Background noise (50.59dB(A))
Seymour Whyte Constructions	31/10/2017	0940 - 0955	2860 Pacific Highway Tynedale		58.6	69.9		48.9	56.7	52.6	Highway is dominant noise source. Construction beepers could be heard. Could hear birds, Old SWC compound being demolished. Works in cut 30 and fill 31 were being undertaken
Seymour Whyte Constructions	31/10/2017	1015 - 1030	625 Coldstream Road		43.5	53.6		31.7	41.7	38	Traffic on Coldstream road could be heard, reversing beepers, birds and LV's using Quarry road adjacent to access site
Seymour Whyte Constructions	31/10/2017	1440 - 1455	15 Tallowood Lane		55.9	72.5		50.1	55.1	53.4	AFS were observed working adjacent to receiver. Dogs on property were also barking for most part of the monitoring period. Crane, excavator, LV's and beeper were observed
Seymour Whyte Constructions	31/10/2017	1150 - 1205	37 Old Six Mile Lane		47.7	65.1		37.8	46	42.1	Multiple contractors working in the area for both W2B and the jail. Compound reversing beepers, batch plant, resident was heard talking and slamming doors and then left in vehicle half way through monitoring period
Seymour Whyte Constructions	31/10/2017	1314 - 1319	970 Woolli Road		48.2	64.8		40.3	46.5	43.5	Woolli traffic dominant noise source. Birds could be heard and dog barking in the distance
Seymour Whyte Constructions	31/10/2017	13:55 - 14:10	165 Somervale Road		44.7	74.3		44.7	42.4	38.3	Crickets and cicada's could be heard. Minimal construction related noise could be heard. Wind had picked up
Lendlease Engineering (Portion F)	19/10/2017	10:30	RRB-NMP01	42	65					51	Pacific Highway main contributing source. RRB not audible during recording
Lendlease Engineering (Portion F)	19/10/2017	7:30	RRB-NMP02	42	61					48	Pacific Highway main contributing source. RRB not audible during recording
Lendlease Engineering (Portion F)	19/10/2017	14:30	RRB-NMP03	42	49					40	Pacific Highway main contributing source. RRB not audible during recording
Georgiou	14/10/2017	14:00	55 Pimlico Road	NML – L10(15 min) 58.3dB	57.2	71.9	101.1	43.9	56	45	OOHV Works - Monthly
Georgiou	14/10/2017	13:30	83 Smith Drive	NML – L10(15min) 62.8dB	55.9	74.9	119.2	44.1	57	46	OOHV Works - Monthly
Georgiou	24/10/2017	14:15	55 Pimlico Road		59	80.9	122.7	42.4	55	44	Monthly Monitoring - Road noise - Farm truck passing
Georgiou	24/10/2017	14:45	83 Smith Drive		53.8	73.2	116.4	43.3	54	46	Monthly Monitoring
Lendlease Engineering (S 10 & 11)	26/10/2017	14:17	R2B-NMP01	41	46					41	Pc Hway main contributing source along with gusts of wind in sugar cane. 1 car passed. R2B not audible during reading
Lendlease Engineering (S 10 & 11)	26/10/2017	14:40	R2B-NMP02	41	64					54	Pc Hway main contributing source. Flight at 14:46. R2B not audible during reading
Lendlease Engineering (S 10 & 11)	26/10/2017	16:30	R2B-NMP03	36	44					41	Dozer operating at Wardell Rd. R2B main contributing source during reading
Lendlease Engineering (S 10 & 11)	26/10/2017	16:50	R2B-NMP04	36	45					41	Traffic on Wardell rd main contributing source. R2B not audible during reading
Lendlease Engineering (S 10 & 11)	26/10/2017	16:00	R2B-NMP05	41	53					45	Traffic from Pc Hway and Pimlico Rd main contributing sources. R2B not audible during reading
Lendlease Engineering (S 10 & 11)	26/10/2017	15:05	R2B-NMP06	41	38					34	Traffic from Pc Hway main contributing source. R2B not audible during reading
Lendlease Engineering (S 10 & 11)	26/10/2017	13:00	R2B-NMP07	41	50					44	Traffic from Pc Hway main contributing source. Flight at 13:10. R2B not audible during reading
Lendlease Engineering (S 10 & 11)	26/10/2017	12:38	R2B-NMP08	41	43					39	Traffic from Pc Hway main contributing source along with wind in sugar cane and birds. Flight at 12:43. R2B not audible during reading
Lendlease Engineering (S 10 & 11)	26/10/2017	12:00	R2B-NMP09	41	60					45	Traffic from Pc Hway main contributing source. Flight at 12:10. R2B not audible during reading
Davbridge	15/10/2017	10:02	Resident #2, Jackybulbin Road	42	43.3	75.6	95.9	33.8	58	39.1	Bird noise very dominant
Davbridge	15/10/2017	14:11	Resident #2, Jackybulbin Road	42	41.6	74.9	99.1	34.2	52.7	38.9	Bird noise dominant

November 2017 Noise Monitoring



Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHW noise monitoring)	Noise Monitoring Results						Comments
					Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
Lendlease Engineering (S10 & 11)	24/11/2017	17:40	NMP01	41	45					39	Construction not audible.
Lendlease Engineering (S10 & 11)	24/11/2017	17:20	NMP02	41	62					53	Construction not audible.
Lendlease Engineering (S10 & 11)	24/11/2017	16:55	NMP03	36	45.8					42	R2B main contributing source. Ex and 2 moxys, grader, water cart and small backhoe operating in area.
Lendlease Engineering (S10 & 11)	24/11/2017	16:40	NMP04	36	43					39.7	R2B main contributing source. Small excavator operating in area.
Lendlease Engineering (S10 & 11)	24/11/2017	16:25	NMP05	41	51					40	Construction not audible.
Lendlease Engineering (S10 & 11)	24/11/2017	16:10	NMP06	41	47					44	Construction not audible.
Lendlease Engineering (S10 & 11)	24/11/2017	15:40	NMP07	41	50					47	Construction not audible.
Lendlease Engineering (S10 & 11)	24/11/2017	15:15	NMP08	41	48.5					44.2	Construction not audible.
Lendlease Engineering (S10 & 11)	24/11/2017	14:49	NMP09	41	58.5					43.8	Construction not audible.
AFS	19/11/2017	9:15am	Shark Creek Road		37.7						Bird life noise background noise next to creek
Georgiou	15/11/2017	6:35am	83 Smith Drive	NCL - 54.7	52.4	74.9	100.3	44.2	52	46	OOHW Works - Monthly
Georgiou	15/11/2017	6:10am	55 Pimlico road	NCL - 51	50.6	71.2	97.3	41.2	49	42	OOHW Works - Monthly
Georgiou	16/11/2017	7:00pm	55 Pimlico Road	NCL - 58.3	57.7	73.9	104.2	42.6	57	44	OOHW Works - Monthly
Georgiou	16/11/2017	7:30pm	83 Smith Drive	NCL - 62.8	61.9	93.6	101.5	45.3	61	51	OOHW Works - Monthly
Georgiou	18/11/2017	2pm	83 Smith Drive	NCL - 62.8	60.3	91.9	99.8	45.7	59	49	OOHW Works - Monthly
Georgiou	18/11/2017	2:35pm	55 Pimlico road	NCL - 58.3	56.4	72.2	98.3	43.3	55	45	OOHW Works - Monthly
Georgiou	22/11/2017	10:35am	83 Smith drive	NCL - 62.8	58.4	71.5	102.9	44.9	58	47	Monthly monitoring
Georgiou	22/11/2017	11:05am	55 Pimlico road	NCL - 58.3	58.2	83.6	113.4	45.8	57	48	Monthly monitoring
Golding	14/11/2017	2015	Chatsworth Rd East Residence		54.5	63.8		47.5	56.7	50.9	Ambient reading prior to works commencing
Golding	14/11/2017	midnight	Chatsworth Rd East Residence		57.2	76.1		48.8	59.4	52.1	Several trucks used compression brakes. Trucks were public trucks, not associated with the works. Linemarking works werw being undertaken at the southern end of the job closest to the monitoring point at time of reading. High volume and ratio of public B-Doubles not associaed with the works during both reading times. Monitoring officer could not hear any noise from the works. No residents appeared to be home at time of monitoring.
Lendlease Engineering (Portion F)	4/11/2017	9:00	RRB-NMP01	42	58.9					46.8	Traffic on Highway, wind audible from trees near by. Bridge not audible during reading
Lendlease Engineering (Portion F)	4/11/2017	11:00	RRB-NMP02	42	58.6					51.7	Traffic on Highway, wind audible from trees near by. Bridge not audible during reading
Lendlease Engineering (Portion F)	4/11/2017	10:30	RRB-NMP03	42	54.8					46.7	Traffic on Highway, wind audible from trees near by. Bridge not audible during reading
BMD	8/11/2017	18:22	Serpentine channel southbank rd	39	47.1	67		39.6	50.2		Asphalt tie-in for Harwood Diversion North
BMD	14/11/2017	18:12	James creek road	44	41	61.8		35.3	43.1		Asphalt tie-in for Yamba Diversion South
BMD	14/11/2017	22:19	James creek road	39	47.9	56.2		37.5	50.6		Asphalt tie-in for Yamba Diversion South
BMD	27/11/2017	19:04	James creek road	44	44.6	56.4		33	44.6		Asphalting works at Yamba Diversion South
BMD	27/11/2017	22:00	James creek road	39	49.1	53.5		42.8	50.4		Asphalting works at Yamba Diversion South
BMD	29/11/2017	7.32am	Receiver 1529 Mororo Road	46	54	67.4		43.2	59		Monthly noise monitoring
BMD	29/11/2017	8.03amn	Receiver R1523 Iluka Road Wombah	37	45.8	80.4		36	47.9		Monthly noise monitoring

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHV noise monitoring)	Noise Monitoring Results						Comments
					Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
BMD	29/11/2017	8.45am	Receiver R1471 Old pacific Highway Wombah	37	52.9	68.1		43.4	56		Monthly noise monitoring
BMD	29/11/2017	12.45pm	Receiver R1461 Chatsworth Road	37	56.4	78.3		38.4	55.8		Monthly noise monitoring
BMD	29/11/2017	1.03pm	Receiver R1457 380 Chatsworth Road	37	57.9	81.7		38.7	59.2		Monthly noise monitoring
BMD	29/11/2017	1.35pm	Receiver R1438 Pacific highway Chatsworth	37	57.5	68.4		44.2	61.3		Monthly noise monitoring
BMD	29/11/2017	2.02pm	Receiver R1396 Morpeth st Harwood	45	56.5	72.6		47.6	59.5		Monthly noise monitoring
BMD	29/11/2017	2.24pm	Receiver R1283 10 Martins Point rd Harwood	45	57.9	79.7		44.1	56.6		Monthly noise monitoring
BMD	29/11/2017	2.46pm	Receiver R1331 petticoat lane Harwood	45	55.7	83.5		47.6	56.7		Monthly noise monitoring
BMD	29/11/2017	4.03pm	Receiver R1256 james Creek rd	45	43.8	64.2		34.7	45.3		Monthly noise monitoring
BMD	29/11/2017	4.20pm	Receiver 1271 532B Yamba road	45	58.6	66.5		49.6	61.1		Monthly noise monitoring
Davbridge	19/11/2017	8:21	Noise Sensitive Receiver #2	42	38.3	66.2	89.7	28.9	50.3	36.1	
Davbridge	19/11/2017	14:25	Noise Sensitive Receiver #2	42	38.6	69.2	97.4	32.8	46.7	36.5	
AFHJV	15/11/2017	9:12am	35 James Creek Road	45	50.8	66		44.6	52.4	47.4	Below NML 55dB(A) and predicted cumulative LAeq 15 min of 58dB(A) during bridge impact pile driving within NVMP. Dominant noise source was demucking at Pier 3B 65dB(A)
AFHJV	15/11/2017	9:55am	40 Morpeth Street	45	50.4	61.2		41.7	53.2	45.4	Construction noise being monitored was Northern abutment works, dominant sources of noise was the Pacific Highway traffic 59dB(A) and local traffic 57dB(A). Below NML 55dB(A) and above predicted cumulative LAeq 15min of 57 dB(A) for abutment works modelled within approved CCNVMP.
AFHJV	15/11/2017	10:18am	8 Martins Road	45	50.4	70.1		42.8	52.1	45.9	Construction noise being monitored was headstock, however dominant noise source was Pacific Highway traffic 53.7dB(A) and birds 67dB(A). Below NML 55dB(A) and predicted cumulative LAeq 15min of 57 dB(A) for headstocks modelled within approved CCNVMP.
AFHJV	15/11/2017	10:44am	1 Petticoat Lane	45	53.9	61.5		43.4	57.1	47.8	Below NML 55dB(A) and below predicted cumulative LAeq 15 min of 71dB(A) during headstock within NVMP. Sandblasting formwork headstock 59.3dB(A) was dominant noise source.

December 2017 Noise Monitoring



Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHV noise monitoring)	Noise Monitoring Results						Comments
					Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
BHAJV - Portion B Section 5	9/12/2017	5:15	49 Farlows Lane	49	25	47.6					Steel fixing work out of hours. No exceedances
BHAJV - Portion B Section 5	14/12/2017	5:00	49 Farlows Lane	49	40	95.7					Deck pour monitoring. Results affected by highway holiday traffic. No exceedances after removal of extraneous noise and no complaints from sensitive receptor
LLE - Portion F	11/12/2017	10:15	RRB-NMP01	42	59.7					49.6	RRB not audible during monitoring. Pacific Highway main contributing source with some input from nearby resident operating farming equipment.
LLE - Portion F	11/12/2017	11:15	RRB-NMP02	42	63.6					60.1	RRB not audible during monitoring. Pacific Highway main contributing source with some input from cicadas and wind in trees.
LLE - Portion F	11/12/2017	10:45	RRB-NMP03	42	58.4					54.3	RRB not audible during monitoring. Traffic on Evans Head Rd main contributing source with some input from nearby road works.
AFHJV - Portion E	6/12/2017	9:12am	35 James Creek Road		51.3	69		44.8	53.6	47.4	Below NML 55dB(A) and predicted cumulative LAeq 15 min of 57dB(A) during headstock within CCNVMP. Dominant noise source included local traffic and trucks on the Pacific Highway
AFHJV - Portion E	6/12/2017	9:55am	40 Morpeth Street		54	69.2		40.8	56.5	46.8	Construction activity being monitored was headstock construction, dominant sources of noise was the Pacific Highway traffic 63.6dB(A) and an angle grinder being used at 38 Morpeth St 66.4dB(A). LAeq 15mins was below NML 55dB(A) and predicted cumulative LAeq 15min of 63 dB(A) for headstock works modelled within approved CCNVMP
AFHJV - Portion E	6/12/2017	10:18am	8 Martins Road		50.2	62.8		37.4	54.3	40.8	Construction noise being monitored was headstock construction, however dominant noise source was Pacific Highway traffic 56.4dB(A). LAeq 15mins was below NML 55dB(A) and predicted cumulative LAeq 15min of 57 dB(A) for headstocks modelled within approved CCNVMP
AFHJV - Portion E	6/12/2017	10:44am	1 Petticoat Lane		53.9	74.1		45.6	56.5	49	Below NML 55dB(A) and predicted cumulative LAeq 15 min of 71dB(A) during headstock within CCNVMP. Local traffic 65.4dB(A), Crane movement 60dB (A) and a Rooster 59dB(A) were the dominant noise sources.
Georgiou	16/12/2017	2:10pm	83 Smith Drive	62.8	59.8	87.5	101.2	44.1	59	48	OOHW Works - Monthly
Georgiou	16/12/2017	2:45pm	55 Pimlico road	58.3	57.2	70.6	98.4	43.8	56	45	OOHW Works - Monthly
Georgiou	19/12/2017	6:40am	83 Smith Drive	54.7	51.3	75.1	101.6	43.9	52	45	OOHW Works - Monthly
Georgiou	19/12/2017	6:15am	55 Pimlico road	51	49.8	72.6	99.8	40.2	49	41	OOHW Works - Monthly
Georgiou	19/12/2017	7:10pm	55 Pimlico Road	58.3	58.1	75.8	105.1	43.2	58	43	OOHW Works - Monthly
Georgiou	19/12/2017	7:35pm	83 Smith Drive	62.8	60.5	89.1	102.5	44.9	60	50	OOHW Works - Monthly
Georgiou	19/12/2017	3:15pm	83 Smith drive	62.8	59.1	77.6	111.2	45.1	59	47	Monthly monitoring
Georgiou	19/12/2017	3:45pm	55 Pimlico road	58.3	57.6	71.5	101.4	44.6	57	46	Monthly monitoring
BMD	7/12/2017	12.40pm	Receiver 1271 532B Yamba road	45	56.2	79.3		46.0	58.6	50.2	Traffic noise constant throughout record 47-69dBa. Construction audible but not registering above background traffic
BMD	7/12/2017	1.15pm	Receiver R1396 Morpeth st Harwood	45	58.8	75.9		47.5	60.3	52.1	Highway traffic up to 74 dBa construction inaudible
BMD	7/12/2017	1.35pm	Receiver R1283 10 Martins Point rd Harwood	45	59.3	81.7		47.4	63.4	52.0	Highway constant background noise at 62-68dBa. Construction audible but not registering above background

Contractor	Date of noise monitoring	Time of Noise Monitoring	Location	RBL (for OOHV noise monitoring)	Noise Monitoring Results						Comments
					Laeq	Lafmax	Lzpk	Lafmin	Laf10	Laf90	
BMD	8/12/2017	4.20pm	Receiver 1529 Mororo Road	39	53.8	85.7		43.0	54.6	46.9	Highway traffic up to 53 dBA construction inaudible. Excavator at Mororo 52dBA
BMD	7/12/2017	6.40pm	Receiver R1256 James Creek rd	44	46.2	70.8		37.8	47.8	40.2	OOHV Monitoring - Yamba Diversion Cows bellowing 46dBA; bird calls 41-57dBA; local traffic 56dBA. Highway audible but not registering on meter. Construction inaudible.
BMD	7/12/2017	10.20pm	Receiver R1256 James Creek rd	39	44.9	63.6		39.2	46.6	41.8	OOHV Monitoring - Yamba Diversion Highway and Yamba road main influence on record; construction inaudible
BMD	11/12/2017	9.50am	Receiver R1256 James Creek rd	45	46.6	72.2		34.7	47.5	37.3	Local traffic 65dBA; chainsaw on adjoining property 47-50dBA; bird calls 60-70dBA
BMD	11/12/2017	6.30pm	34 Fishers lane	39	41.1	63.6		33.4	43.4	36.5	OOHV Monitoring - Pacific Widening Bird calls 42-49dBA; traffic on highway audible at 44dBA. Construction inaudible
BMD	12/12/2017	7.25am	Receiver R1331 petticoat lane Harwood	45	57.2	77.4		45.8	59.7	49.5	Reverse alarm from bridgeworks (not BMD) 65-71dBA; highway constant background noise at 60dBA; banging of timber/metal (not BMD) 55-60dBA
BMD	12/12/2017	1.10pm	Receiver R1523 Old pacific Highway Wombah	37	44.3	62.6		39.6	46.1	42.0	Traffic on pacific hwy and Iluka road main background noise at 44dBA
BMD	12/12/2017	1:48pm	R1471 Old Pac Hwy	37	52.8	67.6		43.2	55.8	49.1	Construction audible - excavation 54-59dB, water cart, reverse alarms 53dB. Trucks on hwy 51dB. Ducks, chickens, dog barking - 59dB.
BMD	14/12/2017	6.55pm	34 Fishers lane	39	50.7	82.3		37.9	45.6	40.3	OOHV Monitoring - Pacific Widening Bird calls up to 70dBA; highway constant hum at 45dBA; local traffic up to 75dBA. Construction inaudible
BMD	14/12/2017	10.10pm	34 Fishers lane	35	46.7	67.1		40.3	48.2	44.0	OOHV Monitoring - Pacific Widening Highway traffic mainly trucks main influence on record at 54dBA. Construction inaudible
BMD	15/12/2017	1.00pm	R1461 Chatsworth Road, Chatsworth	37	57.1	79		45.5	55.2	49.4	Highway traffic (50-52dB), noise from pad foot roller within Golding embankment works north of Clarence River (50-52dB); AFS reverse alarm and saw cutting/grinder (49-52dB); cars on Chatsworth Rd (72.5dB) dominant noise
BMD	15/12/2017	2.00pm	R1438 Pacific Hwy, Chatsworth	37	42.7	77.6		49.6	60.2	52.7	Construction noise inaudible. Laeq calculated as LA90 minus 10 = 42.7dB. Pacific Hwy traffic dominant noise source (53-56dB). Cicadas calling (55-60dB)
LendLease S10 & 11	21/12/2017	11:15	NMP01	41	45.9					44.1	Not audible. Farming activity in cane fields running firemans pump was main contributing source along with highway.
LendLease S10 & 11	21/12/2017	11:45	NMP02	41	60					49.8	Not audible. Highway traffic main contributing source.
LendLease S10 & 11	21/12/2017	12:05	NMP03	41	57					53.6	R2B main contributing source. Equipment viewed operating in the area 3 excavators, 2 Moxys, 2 dozers, 2 scrapers, 1 roller, 2 water carts. Some input from Wardell Rd.
LendLease S10 & 11	21/12/2017	12:30	NMP04	41	52.2					46.3	R2B main contributing source. Equipment viewed operating in the area 1 excavator, 1 dozer.
LendLease S10 & 11	21/12/2017	13:05	NMP05	41	N/A						Unable to take accurate reading due to resident mowing lawn at monitoring location.
LendLease S10 & 11	21/12/2017	13:25	NMP06	41	48.6					46	R2B main contributing source from mulcher operating in the area.
LendLease S10 & 11	21/12/2017	13:50	NMP07	41	54					48.9	Not audible. Highway traffic main contributing source.
LendLease S10 & 11	21/12/2017	14:20	NMP08	41	49.6					45	Not audible. Highway traffic main contributing source.
LendLease S10 & 11	21/12/2017	14:45	NMP09	41	51					44.2	Not audible. Highway traffic main contributing source.