

## July 2019 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	OOHW	17/07/2019	6:27	100 Byrons Lane, Tyndale	38 NML	48.3	72.5		42.5	47.5	45.2	Predicted level 61.5 see separate report attached
SWC	OOHW	17/07/2019	6:47	100 Byrons Lane, Tyndale	38 NML	51.9	57		44	51.8	49.5	Predicted level 61.5 see separate report attached
SWC	OOHW	24/07/2019	4:40	165 Sommervale Road, Tucabia	34 NML	43.4	51		21.4	41.1	24.2	Predicted level 41.8. see separate report attached
SWC	Quarterly	24/07/2019	9:32	2860 Pacific Highway, Tyndale	51 NML	58.1	77.9		43.6	60.3	49.4	Landowners chicken and highway dominant noise source constantly fluctuating Roosters up to 73 dBA constantly fluctuating Minimal background (bird & Hwy) with mainline works 45dBA constantly fluctuating
SWC	Quarterly	24/07/2019	10:15	566 Coldstream road, Tyndale	42 NML	43.9	57.6		37.8	46.2	40.9	Approved noise level 54dBA as per the Ancillary Facility Approval General background noise from batch plant & Passing vehicles on Tyndale Tucabia Rd 44-53dBA constantly fluctuating Vehicle entering the property 50dBA once Minimal background with batch at full noise 39 Dog barking 47dBA initially 1min Truck tipping at batch 52dBA 3times
SWC	Quarterly	24/07/2019	11:00	15 Tallowood Lane, Tucabia	42 NML	41.6	58.8		28.6	44.4	31.1	Minimal construction noise 2 trucks passing 54dBA Birds nearby 51-55dBA constantly fluctuating Horse messing with a tin 43dBA periodically Wind gusts in trees 45dBA
SWC	Quarterly	24/07/2019	11:15	165 Sommervale Road, Tucabia	42 NML	44.5	76.7		34.4	44.9	37.1	Minimal construction noise, occasional noise from nearby excavator and passing truck. Aeroplane passing overhead 51dBA once Minimal noise other than wind 35dBA periodically Truck along alignment 42dBA once
SWC	Quarterly	24/07/2019	12:33	970 Wooli Road, Pillar Valley	42 NML	49.6	77.1		32.1	51.6	36.5	Minimal construction noise - distant background noise only Birds nearby 42-51dBA constantly fluctuating Cars on Wooli Rd 50-58dBA Trucks on Wooli Rd 63-69dBA With minimal wind and bird noise 34dBA
SWC	Quarterly	24/07/2019	13:03	37 Old Six Mile Lane, Clarenza	42 NML	60.6	76.4		36.6	65.5	40	Dogs barking constantly & dominant noise 60-72dBA No barking & just background and construction noise 39dBA Construction noise, trucks on alignment & Avenue Rd 40-48dBA
SWC	OOHW	25/07/2019	6:27	566 Coldstream Road, Tyndale	34 NML	58.2	71.1		45.5	56.3	50.3	Predicted level 54. Not project related. Separate report attached
BGC	OOHW	23/07/2019	7.59pm	2967 Pacific Highway, Tyndale	38	70	93	99.6	52.5	70.8	55.3	Main/dominant source of noise from Pacific Highway traffic.
BGC	OOHW	24/07/2019	8.00pm	Tyndale Sheds, 2991 Pacific Highway, Tyndale -10m South of driveway	38	71.9	87.5	101.5	48.3	75.8	56.5	Main/dominant source of noise from Pacific Highway traffic.
BGC	OOHW	26/07/2019	1.07am	Tyndale Sheds, 2991 Pacific Highway, Tyndale	33	72.2	92.8	101.8	61.1	75.5	62.6	Main/dominant source of noise from Pacific Highway traffic.
BGC	OOHW	27/07/2019	12.44am	Tyndale Sheds, 2991 Pacific Highway, Tyndale	33	74.3	89.8	103.9	56.2	78.7	58	Main/dominant source of noise from Pacific Highway traffic.
SEE Civil	OOHW	3/07/2019	6:37 - 6:52pm	James Creek Lane - Lot 31 on DP1136907	44	49.2	67.7		40.6	49.8	46	Dominant noise sources - frogs and insects and highway traffic. Construction works inaudible for majority of monitoring period. One (1) LV and truck passed close by monitor
Pacific Complete	Periodic	3/07/2019	8:40	Lot 1 / DP 815944 Iluka Road, Woombah	39	50.1	64.4		42.5	52.7	49.1 (Laf50)	Periodic monitoring to verify crusher noise output at Castles Ancillary Facility (CH95.890 - CH96.300) - Highway traffic clearly audible over crusher. - Crusher operating between 8:48am-8:52am & was audible. - Mostly unobscured line of site from monitor to crusher. - Noise from movements of bobcat audible over crusher. - Multiple truck movements in and out of site and other plant operating concurrently with crusher.
Pacific Complete	Periodic	3/07/2019	8:57	Lot 1 / DP 815944 Iluka Road, Woombah	39	52.5	62.8		43.1	55.2	51.6 (Laf50)	Periodic monitoring to verify crusher noise output at Castles Ancillary Facility (CH95.890 - CH96.300) - Highway traffic clearly audible over crusher. - Crusher operating for entire duration of monitoring and clearly audible. - Mostly unobscured line of site from monitor to crusher. - Noise from movements of bobcat audible over crusher. - Multiple truck movements in and out of site and other plant operating concurrently with crusher.
Pacific Complete	Periodic	10/07/2019	8:57	Garrett's Lane CH94200 Lot 80 / DP1193425	39	52.5	66.5		38.9	55.1	50.1 (Laf50)	Periodic monitoring for general construction activities at Iluka Interchange - Distance between monitor and work site approx. 430m - Monitor separated from construction sites by river and thin line of trees along river bank - Construction noise from Bridge B67 very faint - reversing alarms and intermittently audible - Birds chirping near the monitor also very loud

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Pacific Complete	Periodic	10/07/2019		Garrett's Lane East, Woombah CH94890 Lot 29 / DP1195140	39	62.2	84.4		48.6	63.5	59.7	<p><b>Periodic monitoring for general construction activities at Iluka Interchange</b></p> <ul style="list-style-type: none"> <li>- Distance between work site and monitor approx. 200m</li> <li>- Activities: line marking, finishing works for Stage 2 Switch (to occur that night)</li> <li>- Construction noise on new southbound alignment very faint</li> <li>- Bobcat moving around on site could be heard intermittently</li> <li>- Reversing alarms and quackers audible</li> <li>- Construction related LVs and public vehicles passing noise monitor at various times during the monitoring period.</li> <li>- Construction noise inaudible over noise from trucks on existing highway which are very noisy</li> </ul>
Pacific Complete	Periodic	10/07/2019	15:31	395 Chatsworth Road CH93690 Lot 11 / DP774168	39	63.1	87.5		36.4	58.1	43.8 (Laf50)	<p><b>Periodic monitoring of general construction activities at Iluka Interchange, Bridge B67 and Bridge B07</b></p> <ul style="list-style-type: none"> <li>- Distance between monitor and work site approx. 480m</li> <li>- Bridge B07 activities: Grouting for mortar pads and curing, loading of materials into trucks by digger, trucks moving around on site</li> <li>- Bridge B07 activities: construction workers, digger, EWP Crusher operating for entire duration of monitoring and clearly audible.</li> <li>- Direct line of site between monitor and works</li> <li>- Mostly a very quiet location</li> <li>- Construction noise inaudible at monitoring location.</li> <li>- Highway traffic audible but not very loud, public and construction related light vehicles and trucks travelling down Chatsworth road and passing monitor very noisy</li> </ul>
Pacific Complete	Periodic	10/07/2019	15:50	385 Chatsworth Road CH93690 Lot 11 / DP774168	39	48.9	77.9		33.0	45.9	40.7 (Laf50)	<p><b>Periodic monitoring of general construction activities at Iluka Interchange, Bridge B67 and Bridge B07</b></p> <ul style="list-style-type: none"> <li>- Distance between monitor and work site approx. 600m</li> <li>- Bridge B67 activities: Grouting for mortar pads and curing, loading of materials into trucks by digger, trucks moving around on site</li> <li>- Bridge B07 activities: construction workers, digger, EWP Crusher operating for entire duration of monitoring and clearly audible.</li> <li>- Direct line of site between monitor and works</li> <li>- Construction noise inaudible at monitoring location.</li> <li>- Highway traffic audible but not very loud,</li> <li>- Public and construction related light vehicles and trucks travelling down Chatsworth road and passing monitor very noisy</li> </ul>
Pacific Complete	Complaint	15/07/2019	8:59	Garrett's Lane East, Woombah Lot 110 / DP1121323	39	68.8	89.0		58.1	69.9	65.5 (Laf50)	<p><b>Noise monitoring in response to a complaint.</b></p> <p><b>Note: Rubbleblor was in use to break up pavement on existing highway after Stage 2 Iluka Traffic Switch.</b></p> <ul style="list-style-type: none"> <li>- Rubbleblor can be clearly heard over all other noise including highway traffic.</li> <li>- Can hear the noise generated by the engine of the rubbleblor, as well as the sound of the metal piles hitting the ground.</li> <li>- Construction related LVs and trucks travelling down Garretts Lane East and passing monitor.</li> <li>- Dogs at nearby property also barking intermittently.</li> </ul>
Pacific Complete	Complaint	15/07/2019	9:17	Garrett's Lane East, Woombah Lot 110 / DP1121323	39	64.7	85.8		48.5	64.5	58.7 (Laf50)	<p><b>Noise monitoring in response to a complaint.</b></p> <p><b>Note: Rubbleblor was in use to break up pavement on existing highway after Stage 2 Iluka Traffic Switch.</b></p> <ul style="list-style-type: none"> <li>- Rubbleblor can be clearly heard over all other noise including highway traffic.</li> <li>- Can hear the noise generated by the engine of the rubbleblor, as well as the sound of the metal piles hitting the ground.</li> <li>- Construction related LVs and trucks travelling down Garretts Lane East and passing monitor.</li> </ul>
BMD Constructions	OOHW	12/07/2019	13:17	400m along Mororo Rd (representative)	44	38.7	63.2		29.4	38.6	32.0	Bird call up to 63 dB(A) monitoring area very quiet. Construction inaudible from monitoring spot.
BMD Constructions	Monthly	24/07/2019	9:50	1 Jackybulbin Rd, Mororo	44	62.9	83.0		37.9	57.2	45.2	Local traffic on Jackybulbin Road dominant noise source 68.0-82.4 dB(A). Pacific Highway traffic 46.8-59.3 dB(A). Construction Gate 102.7 North not in use. Construction noise inaudible from monitoring therefore works are compliant.
BMD Constructions	Monthly	24/07/2019	10:18	7175 Pacific Highway	44	65.0	83.4		48.2	68.9	53.8	Pacific Highway traffic dominant noise source 52.0-64.2 dB(A) with peaks of 70.0 and 71.8 dB(A). Bobcat idling onsite - 50.4 and reversing onsite - 50.6 dB(A). Truck movements onsite 49.4-52.0 dB(A). Construction noise below NML and therefore compliant.
BMD Constructions	Monthly	24/07/2019	10:52	6530 Pacific Highway	44	59.1	71.5		43.6	63.7	49.1	Pacific Highway traffic dominant noise source 47.6-57.8 dB(A) with peaks of 68.9 and 69.9 dB(A). Trucks at construction gate - 50.4-51.1 dB(A), trucks idling onsite - 46.4 dB(A) and truck movements onsite 49.3-51.2 dB(A). Other construction activities inaudible. Construction noise below NML and therefore compliant.
LendLease	Monthly	10/07/2019	11:05	NMP03 (1202 Wardell Rd)(R242)	36	49.4	72.1	88.7	35.5	49.4	38.8	Main contributing source R2B. Sweeper cart and some LV movements. Extraneous noise sources: Birds, Traffic on Wardell Rd. Reading was below modelled/approved noise scenario as detailed within the CCNMP. Winds: Still
LendLease	Monthly	10/07/2019	11:23	NMP04 (1175 Wardell Rd)(R245)	36	48.3	66.3	83.6	29.6	51.3	33.8	Main contributing source R2B. Some LV movements and some activity south of batch plant. Extraneous noise sources: Birds, Traffic on Wardell Rd. Reading was below modelled/approved noise scenario as detailed within the CCNMP. Winds: Still
LendLease	Monthly	10/07/2019	11:50	NMP06 (109 Meridian Drive)	41	48.7	75.5	92.3	34.2	43.2	36.4	Pac Highway main contributing source. Extraneous noise sources: Birds, 1 car passed on Meridian Dr. Winds: Still
LendLease	Monthly	10/07/2019	12:13	NMP08 (55 Whytes Lane West)	41	46.3	57.1	87.3	36.5	49.6	41.4	R2B not audible. Main source Pac Highway. Frogs.Winds: Still

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LendLease	OOHW	8/07/2019	19:40	R126 (716 Pimlico Rd)	41	48.1	60	83.7	42.5	50.1	44.6	Pac Highway main contributing source. Extraneous noise sources: Frogs, Traffic on Pimlico Rd. Reading was below modelled/approved noise scenario as detailed within the CCNVMP. Winds: Still
LendLease	OOHW	9/07/2019	19:15	R18 (218 Pacific Highway, Broadwater)	41	64.7	74.5	94.7	49.2	67.9	57.1	Pac Highway main contributing source. Extraneous noise sources: Frogs. Construction noise (saw cutting at Abutment A) was inaudible. Reading was below modelled/approved noise scenario as detailed within the CCNVMP. Winds: Still
Georgiou	OOHW Works - Monthly	20/07/2019	14:15	83 Smith Drive	62.8	59.6	81.9	119.3	43.9	58	46	
Georgiou	OOHW Works - Monthly	20/07/2019	14:45	55 Pimlico Road	58.3	56.3	77.6	114.9	39.1	56	43	
Georgiou	Monthly	25/07/2019	11:10	87 Smith drive	62.8	59.4	81.2	117.6	42.1	59	44	
Georgiou	Monthly	25/07/2019	11:35	55 Pimlico road	58.3	56.1	78.1	111.3	41.1	56	43	