



Transport
for NSW



Distanced Based Assessment (Noisiest Plant)

Steps for Assessment:

1. Schedule noisy works to occur in standard hours where possible or before 11pm and implement Standard Measures.
2. Select the representative noise area category. The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
3. Select the noisiest plant. If not found in drop-down list, refer to 'Source List' and select a representative plant with equivalent sound power level.
4. Is there line of sight to receiver? Select the appropriate scenario from the drop down list.
Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list. Solid barriers can be in the form of road cutting, timber lapped and capped fence, shipping container, site office, etc. Substantial solid barriers are barriers greater than 5 metres in height or multiple rows of houses or a sound barrier specifically designed to mitigate construction noise. Please note that vegetation and trees are not considered to be a form of solid barrier and any gaps would compromise the acoustic integrity of the solid barrier.
5. Determine if there are any receivers (both residential and non-residential receivers) within the affected distance for each relevant time period. Consider background LA90 noise measurements to check assumption in Step #2 if:
(a) there are many affected receivers and the impact duration at any one receiver is more than 3 weeks; or
(b) there are a few affected receivers and the impact duration at any one receiver is more than 6 weeks.
Note that consideration needs to be given to the construction staging plan when determining impact duration.
7. Identify if there are any receivers within the additional mitigation measures distances and identify feasible and reasonable measures at each receiver.
8. Where night works are involved, identify sleep disturbance affected distance.
9. Document the outcomes of these steps.
(Note that suitable noise management levels for other noise-sensitive businesses not identified in the Construction and Maintenance Noise Estimator should be investigated on a project-by-project basis. Please contact a Transport for NSW noise specialist for more information)

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Note that spot check verification of noise levels and individual briefings are not required for projects with less than 3 weeks impact duration

Please pick from drop-down list in orange cells

Noise area category			R3
RBL or LA90 Background level (dB(A))	Day		50
	Evening		45
	Night		40
LAeq(5minute) Noise Mangement Level (dB(A))	Day		60
	Day (OOHW)		55
	Evening		50
	Night		45
Noisiest plant			Concrete Saw
Is there line of sight to receiver?			Yes

Residential receiver		Affected distance (m)	LAeq(5minute) noise level above background (LA90)												LAeq(5minute) 75 dB(A) or greater (Highly effected)			Sleep disturbance L _{max} 65 dB(A)
			5 to 10 dB(A)			10 to 20 dB(A)			20 to 30 dB(A)			> 30 dB(A)						
			Noticable			Clearly audible			Moderately intrusive			Highly intrusive						
			Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	
Undeveloped green fields, rural areas with isolated dwellings	Day	140							N	55	70	N, PC, RO	30	75	N, PC, RO	30	75	160
	Day (OOHW)	200				N, R1, DR	140	60	N, R1, DR	55	70	N, R1, DR, PC, SN	25	80	N, PC, RO	30	75	
	Evening	290				N, R1, DR	200	55	N, R1, DR	95	65	N, R1, DR, PC, SN	30	75	N, PC, RO	30	75	
	Night	420	N	420	45	N, R2, DR	290	50	N, PC, SN, R2, DR	140	60	AA, N, PC, SN, R2, DR	55	70	N, PC, RO	30	75	
	Highly Affected	30													N, PC, RO	30	75	
Developed settlements (urban and suburban)	Day	155							N	60	70	N, PC, RO	35	75	N, PC, RO	35	75	185
	Day (OOHW)	240				N, R1, DR	155	60	N, R1, DR	60	70	N, R1, DR, PC, SN	25	80	N, PC, RO	35	75	
	Evening	360				N, R1, DR	240	55	N, R1, DR	105	65	N, R1, DR, PC, SN	35	75	N, PC, RO	35	75	
	Night	545	N	545	45	N, R2, DR	360	50	N, PC, SN, R2, DR	155	60	AA, N, PC, SN, R2, DR	60	70	N, PC, RO	35	75	
	Highly Affected	35													N, PC, RO	35	75	
Propagation across a valley / over water	Day	190							N	70	70	N, PC, RO	45	75	N, PC, RO	45	75	230
	Day (OOHW)	310				N, R1, DR	190	60	N, R1, DR	70	70	N, R1, DR, PC, SN	25	80	N, PC, RO	45	75	
	Evening	485				N, R1, DR	310	55	N, R1, DR	115	65	N, R1, DR, PC, SN	45	75	N, PC, RO	45	75	
	Night	750	N	750	45	N, R2, DR	485	50	N, PC, SN, R2, DR	190	60	AA, N, PC, SN, R2, DR	70	70	N, PC, RO	45	75	
	Highly Affected	45													N, PC, RO	45	75	