

## What the impact assessment study found

- Construction noise from the main project area is likely to be below ambient background noise levels at most residences
- During operations, the processing plant, power station, mobile equipment working in-pit, on overburden dumps and material haulage, are predicted to generate moderate levels of noise. It is anticipated there will be minimal impact on residences during the construction phase.
- There is likely to be some impact to two residences within the 5km radial zone of the mine.
- Noise generated by project traffic will be minimal.

### Measured background noise levels (L90)

	Thompson Road	Jobling Road	Bennett Road	Quambatook-MPM Road
Day	28 dBA	34 dBA	31 dBA	34 dBA
Evening	26 dBA	39 dBA	33 dBA	30 dBA
Night	23 dBA	30 dBA	26 dBA	25 dBA

### Earth Resources noise limits for rural premises

	Thompson Road	Jobling Road	Bennett Road	Quambatook-MPM Road
Day	46 dBA	46 dBA	46 dBA	46 dBA
Evening	41 dBA	44 dBA	41 dBA	41 dBA
Night	36 dBA	36 dBA	36 dBA	36 dBA

## Monitoring and managing noise impacts

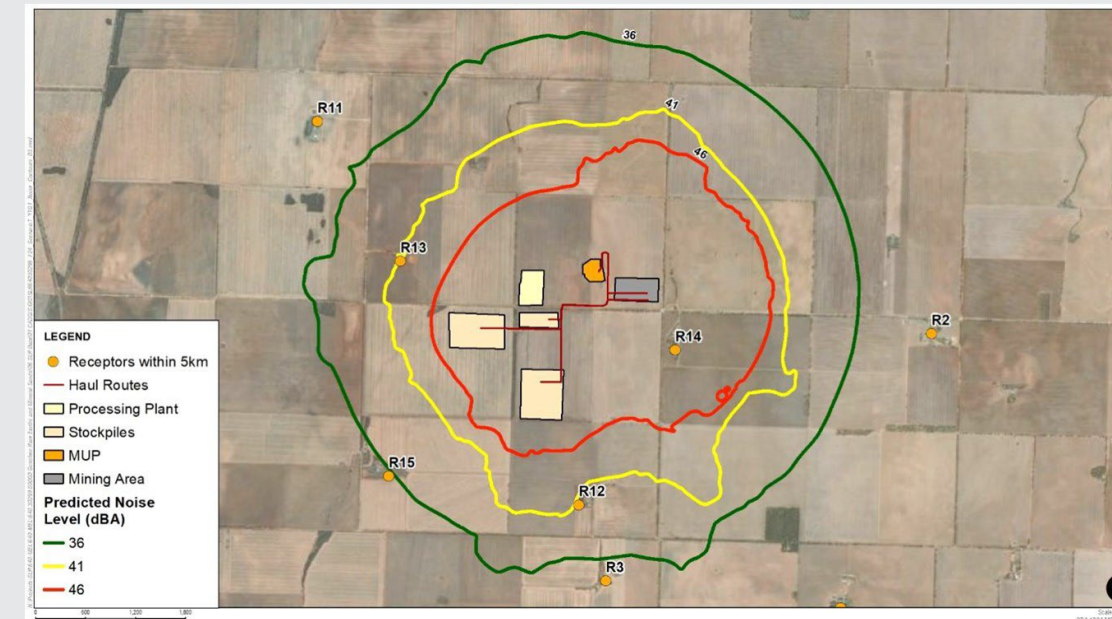
- Develop a Noise Management Plan which includes a noise monitoring program for:
  - all major fixed plant
  - annual noise monitoring surveys at residences closest to operations
- Noise meters will be installed throughout the mine site and assessed regularly.
- Mining personnel who frequently access noisy areas will be subjected to regular and ongoing occupational health and safety noise surveys
- Engineered noise suppression kits added to mobile mining equipment and specific items of plant to mitigate noise if required
- Real-time weather and noise monitoring data will assist mine management in planning operation activities, including road and vehicle maintenance, to help reduce noise levels when working in vicinity of nearest neighbours
- Future technological advances will likely assist with improvements to mining techniques and vehicle noise suppression devices.

### Definitions of day, evening and night (Environmental Protection Regulations 2021)

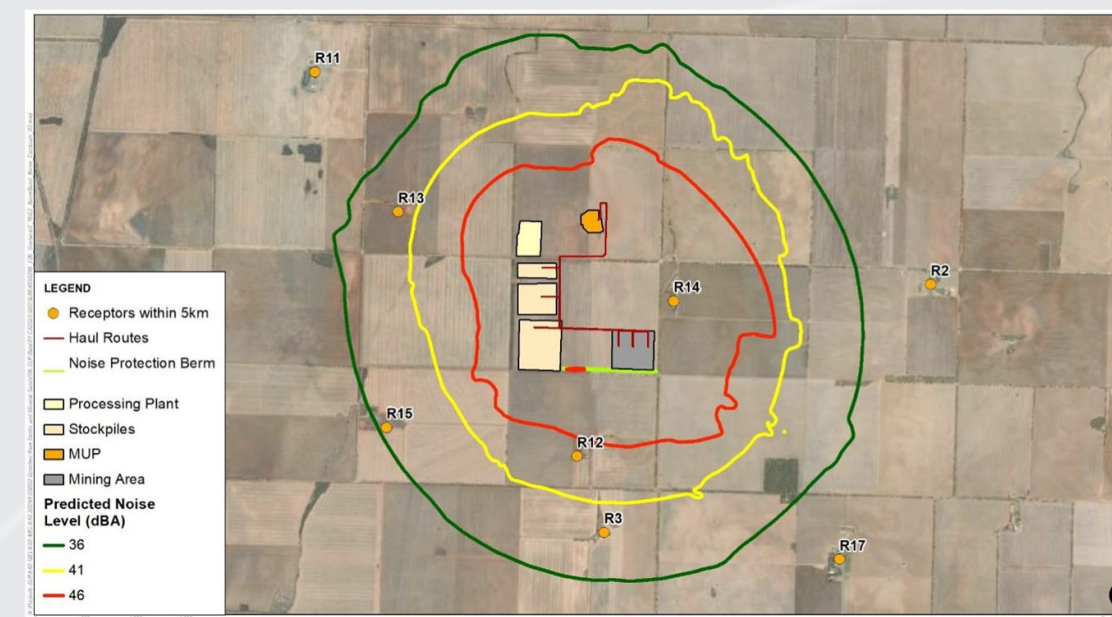
Period	Day	Time
Day	Monday to Saturday (except public holidays)	7 am – 6 pm
Evening	Monday to Saturday Sunday and public holidays	6 pm – 10 pm 7 am – 10 pm
Night	Monday to Sunday	10 pm – 7 am

### Decibel scale

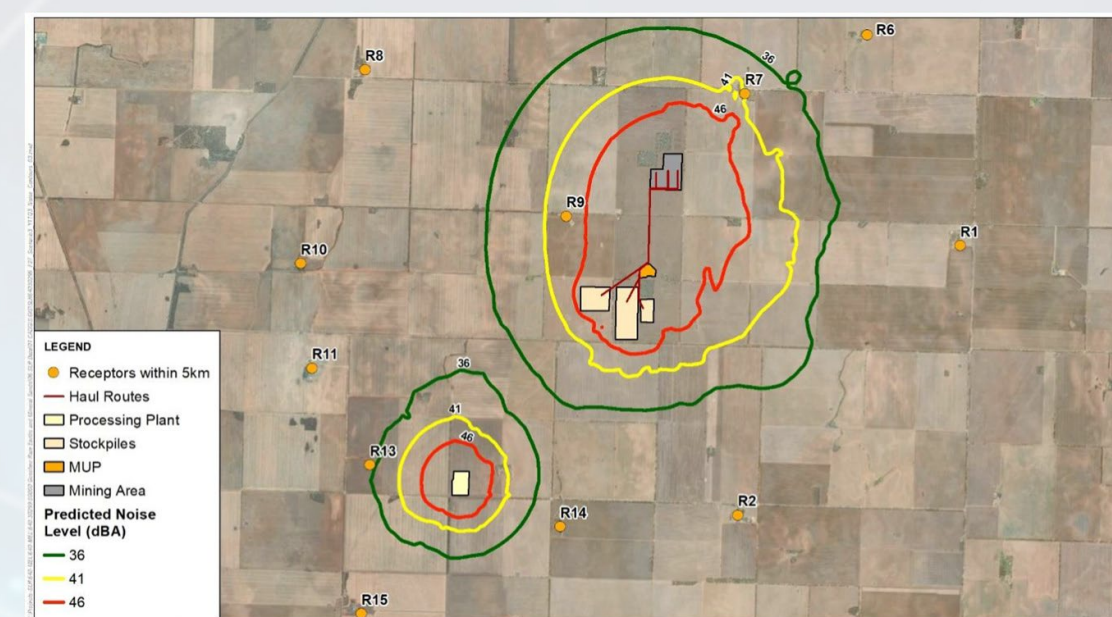
Goschen Project	Fireworks	140 dBA	<b>Extremely loud</b>
	Rocket launch	130 dBA	
	Jet engine	120 dBA	
	Police siren	110 dBA	
	Trombone	110 dBA	
Construction (first 18 months) 56 dBA	Helicopter	100 dBA	<b>Very loud</b>
	Hair dryer	90 dBA	
	Truck	80 dBA	
	Car	70 dBA	
	Chat	60 dBA	
Operations 36 – 46 dBA	Rain	50 dBA	<b>Moderate</b>
	Refrigerator	40 dBA	
	Whisper	30 dBA	
	Rustle of leaves	20 dBA	
	Breath	10 dBA	
		0 dBA	<b>Faint</b>



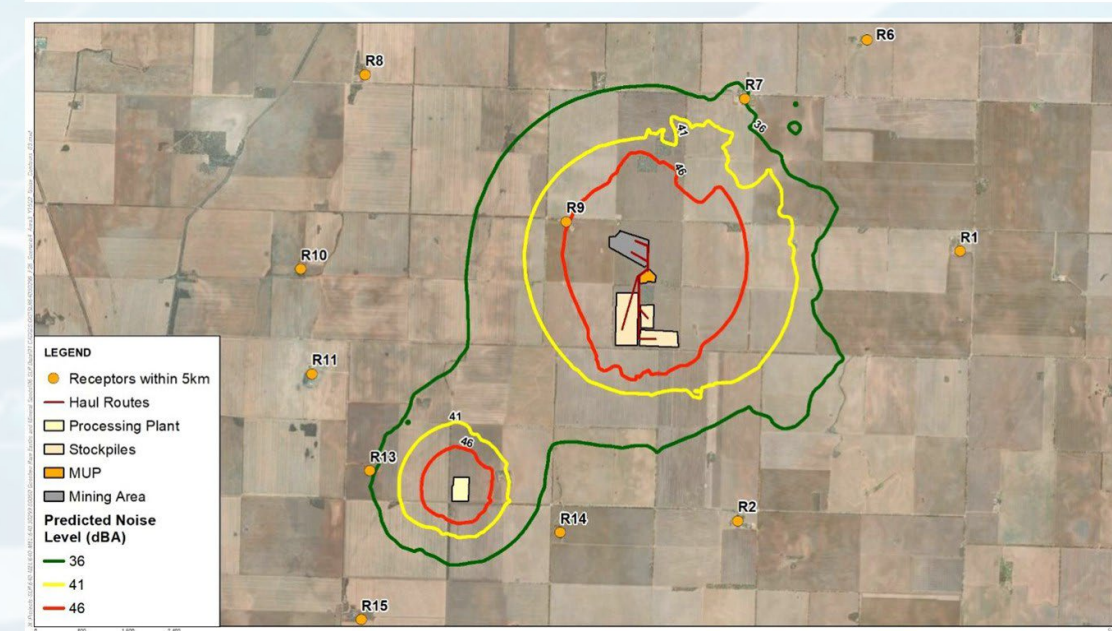
**Scenario 1**  
Area 1 – Year 1, Quarter 1  
(with noise bund)



**Scenario 2**  
Area 1 - Year 6, Quarter 2



**Scenario 3**  
Area 3 - Year 11, Quarter 3



**Scenario 4**  
Area 3 - Year 15, Quarter 2