



Australian Government



Transport for NSW

# Great Western Highway

East – Katoomba to Blackheath

Review of Environmental Factors – Noise and vibration fact sheet

May 2022



A noise logger set up in Katoomba.

Together the Australian and NSW Governments are investing \$2.5 billion towards upgrading the Great Western Highway between Katoomba and Blackheath, and between Little Hartley and Lithgow, respectively. The Great Western Highway Upgrade will reduce congestion, deliver safer, more efficient and reliable journeys for those travelling in, around and through the Blue Mountains, and better connect communities in the Central West.

Transport for NSW (Transport) is presenting a Review of Environmental Factors (REF) and concept design for the Katoomba to Blackheath Upgrade for community consultation until 19 June 2022. We invite the community and other interested stakeholders to submit feedback to help inform next steps for the proposal.

This fact sheet summarises key points related to noise and vibration impacts as described in the REF and concept design for the Katoomba to Blackheath Upgrade.

To read the complete chapter on the potential noise and vibration impacts, refer to Chapter 6.6 in the Review of Environmental Factors.



**Minimised**  
noise and vibration

## Noise

Transport understands that construction work can be noisy, which is why we will use a range of measures to reduce the impact of our work in the Katoomba to Blackheath Upgrade.

We have carried out a thorough noise and vibration assessment examining the potential impact to the community while we upgrade the Highway and afterwards.

We are committed to minimising noise and vibration impacts on local communities during construction activities and will manage the impacts in line with the Construction Noise and Vibration Guideline (Transport, 2016).

Existing noise levels in the proposal area are generally dominated by road traffic from the Great Western Highway and from trains passing in the rail corridor.

Most construction work would take place during standard working hours. Residences located closest to the work should not experience significant noise impacts.

In the long term, noise would be decreased once the Great Western Highway Upgrade is complete, due to the inclusion of low noise pavement to reduce traffic noise from the Highway.

At-property noise treatments would also be considered by Transport during detailed design for properties where noise levels may exceed the adopted criteria.

## Vibration

We understand people are sensitive to vibration and some can feel it even at very low levels. This is why the vibration criteria we need to meet during our work to avoid annoying you is more stringent than the criteria used to prevent property damage.

The main potential source of vibration during construction would be the excavation of hard rock. Transport will focus on managing and reducing vibration to prevent damage to properties and heritage structures.

Properties located close to the proposal may be offered a pre-construction property survey, or a 'delapidation survey' which is carried out by an external assessor. This survey creates a record of property's condition before construction begins to ensure that, in the unlikely event property damage occurs because of construction, it can be remediated.

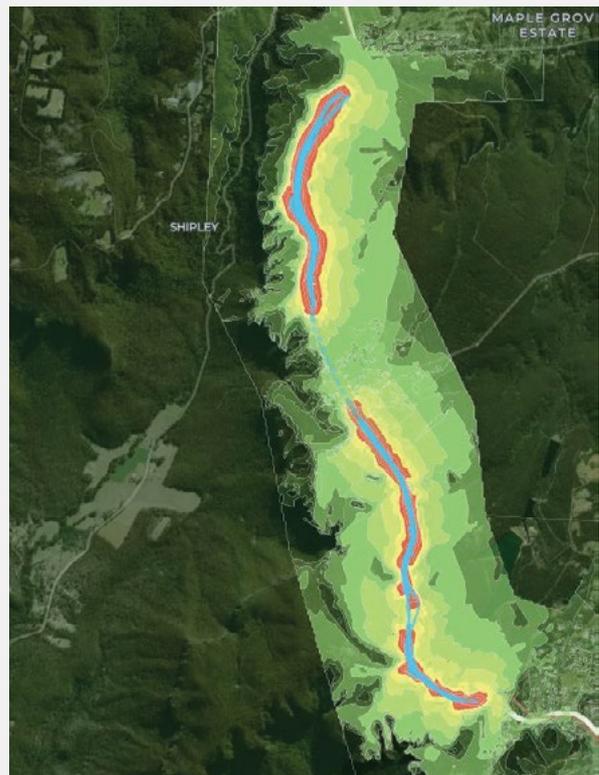
Vibration is of particular concern when we are working close to heritage and other buildings. We will carry out regular vibration monitoring to reduce the potential for damage.

## When we are building

We do not expect construction traffic to increase the local noise levels during construction.

We would schedule louder works during standard construction hours as much as possible, to reduce the impacts on surrounding people and properties.

Other noise mitigation measures would be considered for residents next to the project during louder works, such as alternative accommodation, noise blankets or finishing unavoidable loud night work before midnight when possible. They will be detailed in the Construction Noise and Vibration Management Plan.



Online portal - noise map. Look at changes in noise levels during and after construction near your property.

## How we measure noise

Noise is measured in decibels. Our ears generally do not notice changes of one to two decibels. We also do not hear incremental changes in noise.

To our ears, a change of 10 decibels sounds either half or double as loud. For example, a motorcycle is about 10 decibels louder than a lawnmower but sounds around twice as loud.

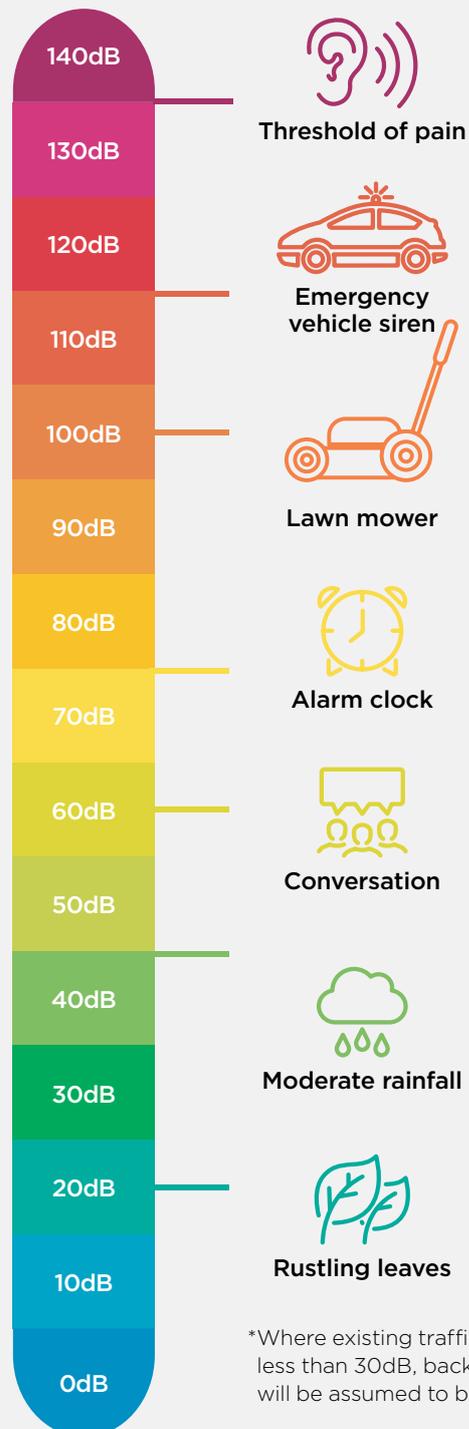
At Transport, noise is measured, predicted and assessed in accordance with relevant legislative guidelines.

Our assessments are conservative and always assess the worst case scenario. We often find that the actual noise caused by a project is lower than we predicted.

Standard guidelines for noise are:

 **50** decibels at night  
 **55** decibels during the day  
for new **freeways or main roads**

 **55** decibels at night  
**60** decibels during the day  
for upgrades of **existing roads**



\*Where existing traffic noise is less than 30dB, background will be assumed to be 30dB.

## Noise assessments

Transport has used noise monitoring data and traffic surveys, a comprehensive noise study, site investigations and noise modelling to predict noise levels that would arise from the proposed Katoomba to Blackheath Upgrade.

Through the noise assessments, we identified residences and businesses likely to be affected by noise at different stages of construction (site preparation, site establishment, vegetation clearing, roadworks, finishing works).

Our studies found that noise and vibration impacts would reduce in the long-term as the Great Western Highway Upgrade Program moves to completion.

Visit the online portal at [nswroads.work/gwheastconsult](https://nswroads.work/gwheastconsult) to explore the interactive noise map where you can enter your address to see how noise levels might change near your property during and after construction.

## What is an REF?

Transport has legal obligations to assess and mitigate impacts that may result from a proposed activity. An REF details these legal obligations, and the environmental impacts and proposed mitigation measures of a project.

## What is a concept design?

A concept design is developed in sufficient detail to allow an assessment of likely environmental, social and economic impacts so stakeholders can provide feedback. It may change based on feedback received.

### View the REF and concept design

You can view the Katoomba to Blackheath REF and concept design:

- online in our virtual consultation room at **nswroads.work/gwheastconsult**
- As a printed copy at one of these locations:
  - Katoomba Library
  - Katoomba Council Headquarters (foyer)
  - Glenbrook Customer Service Counter
  - Blaxland Library

### Speak to the project team

We will hold a mixture of online and face-to-face information sessions.

We recommend that you view the REF and concept design before you speak with the team or make a submission.

#### Online

##### General sessions:

- **Monday 23 May** 6.30pm – 8pm
- **Thursday 9 June** 6.30pm – 8pm

##### Targeted sessions:

##### Biodiversity and water quality:

- **Tuesday 31 May** 6.30pm – 8pm

##### Localised impacts during and after construction:

- **Monday 6 June** 6.30pm – 8pm

### Face-to-face sessions

1. Seminar Room, Katoomba Cultural Centre  
**Wednesday 25 May** 4.30pm – 8pm

– Aboriginal stakeholder engagement session 4.30pm – 6pm

– General session 6pm – 8pm

Location: 30–32 Parke Street, Katoomba

2. Blackheath Neighbourhood Centre  
**Saturday 4 June** 10am – 12pm

Location: 41 Gardiner Crescent, Blackheath

Register for a consultation session at

**nswroads.work/gwheastconsult**

Bookings are essential for all sessions.

Face-to-face sessions will be held pending COVID restrictions.

Contact us on **1800 953 777** or

**gwhd@transport.nsw.gov.au** to have a phone consultation if you prefer.

### How to make a formal submission

We welcome all feedback on the Katoomba to Blackheath Upgrade. To have your input formally considered, and receive a response in the Submissions Report, use our online submission form at

**nswroads.work/gwheastconsult**, email us at **gwhd@transport.nsw.gov.au**, or mail a printed submission to: **Transport for NSW Katoomba to Blackheath (East) REF Submission PO Box 334, Parkes NSW 2870**

## Contact us

Sign up for our eNewsletter online at **nswroads.work/gwhd** and you'll never miss a project update.

Follow us on Facebook – search 'NSW Roads'.



**nswroads.work/gwheastconsult**



**gwhd@transport.nsw.gov.au**



**1800 953 777**



**Great Western Highway  
Upgrade Program**

**PO Box 334, Parkes NSW 2870**



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