



**AUGUST 2020**  
**ENVIRONMENT EFFECTS STATEMENT**  
**YAN YEAN ROAD UPGRADE – STAGE 2**

## Noise and Vibration

The Environment Effects Statement (EES) for Yan Yean Road Upgrade – Stage 2 examines the potential environmental, social, cultural and economic impacts of the Project and identifies how they will be avoided, mitigated or managed.

To inform the EES for the Project, we completed a series of technical investigations. We engaged a team of independent technical experts to carry out these investigations that included desktop modelling and assessments.

The results of these investigations helped us understand how noise and vibration could impact residents and nearby properties.

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We're upgrading  
Yan Yean Road to  
help you get home  
safer and sooner.

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**To find out more**  
[roadprojects.vic.gov.au/ees](http://roadprojects.vic.gov.au/ees)

Authorised by the Victorian Government, 1 Treasury Place, Melbourne





Understanding potential impacts assisted us to develop plans to effectively manage, or in some instances mitigate, noise and vibration during construction and make sure the road design will not contribute to an unacceptable increase in noise levels after the upgrade is complete.



## Preconstruction

Technical specialists completed a preliminary construction noise and vibration study to predict the potential levels that noise and vibration could reach during typical construction activities. These activities included:



**Earthworks**



**Ground clearing**



**Paving**

The preliminary assessment enabled the team to estimate what the impacts that construction noise and vibration could have on nearby residents and businesses.

These predictions informed a series of general noise control measures designed to help the successful contractor develop a Construction Noise and Vibration Management Plan (CNVMP).

Once a contractor has been appointed and exact construction techniques and equipment are known, further detailed construction noise and vibration assessments will be completed.

Prior to construction commencing, the contractor will arrange for independent inspectors to carry out property condition surveys for all properties located within 50m of the project area.

After construction is complete, a second property condition survey will be offered, so the condition of the property before and after construction can be compared.

These two property condition assessments provide assurance to landowners that any potential damage caused by construction works can be identified and rectified by the contractor.

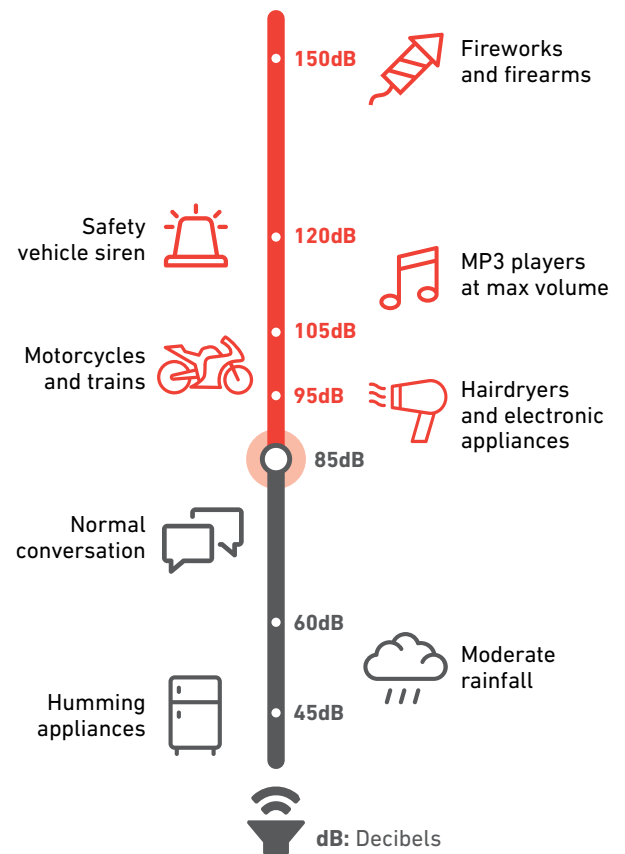
## During construction

Strict controls will be put in place to make sure construction noise is well managed and complies with Environmental Protection Agency (EPA) Victorian guidelines.

Some examples of controls we'll implement during construction are:

- monitor machinery with vibration monitors. Vibration levels cannot exceed the level that would cause structural damage to nearby buildings
- turn off machinery when not in use
- place noise reducing mats on temporary fencing at strategic locations
- continuously monitor noise levels to ensure we comply with EPA guidelines
- stage works to complete the noisiest works during the day
- when working at night is unavoidable, complete the noisiest works at the start of the night
- consider appropriate respite options for residents who may have their sleep disrupted by noisy works over consecutive nights.





Examples of common noise levels

## Post construction

Technical specialists used sophisticated noise modelling technology to accurately predict change in noise levels that people will likely experience once we've upgraded Yan Yean Road.

The current noise levels were compared to what predicted noise levels will be over five years after the road upgrade is complete.

Percentage of properties	Noise level impact
1%	3 to 4+ dBA reduction
2%	0 to 3 dBA reduction
93%	0 to 3 dBA increase
4%	3 to 5 dBA increase

The majority of the residential properties along Yan Yean Road are predicted to have a noise increase of no more than 3 decibels once the Project is complete, which is a barely perceptible noise increase.

Around 3% of properties will actually experience a slight reduction in noise levels as a result of the road upgrade because the upgraded road will sit further away from those residential properties than it does now.

We estimate that 4% of properties will experience a 3 to 5 decibel noise increase in future.

→ Testing will be carried out once the Project is complete to make sure the upgraded road complies with the VicRoads' Traffic Noise Reduction Policy (TNRP) criteria.





## Our commitment

We understand and share the value the community places on the amenity of the local area. We've developed an Environmental Management Framework (EMF) that provides a transparent and integrated framework for managing the Project's environmental impact.

The EMF establishes Environmental Performance Requirements (EPRs) that set the environmental outcomes that must be achieved during design, construction and operation of the new road.

EPRs have been developed to address the Project's identified impacts and deliver environmental benefits. You can view this as part of the EES documentation available for the Project.

We're committed to minimising the impacts of noise and vibration through thoughtful design and construction methodology while we deliver this important and much needed road upgrade.

The road design and construction techniques will be continually re-evaluated and refined to minimise noise and vibration impacts as much as possible.

## EES Documentation

The EES, including the Noise and Vibration Impact Assessment, is available to view and on display for public comment from 31 August to 9 October 2020.

Commenting on the EES gives you a chance to have your views considered as part of the planning approvals decisions for Yan Yean Road Upgrade – Stage 2. You can read the EES on our website. Copies are also available on USB by request.

### More Information

For more information about the EES process, where to read the document and how to make a submission visit [roadprojects.vic.gov.au/yyr-ees](https://roadprojects.vic.gov.au/yyr-ees).

For more information about the project, email [contact@roadprojects.vic.gov.au](mailto:contact@roadprojects.vic.gov.au) or call **1800 105 105**.

## Contact us

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