



# fact sheet

## Noise

***The Northern Expressway will link Gawler with an upgraded section of Port Wakefield Road. Noise impacts along the route have been considered as part of the project's environmental assessment.***

The project's Environmental Report (available for download on the department's website - [www.dtei.sa.gov.au](http://www.dtei.sa.gov.au)) provides detailed information about noise and ways of minimising its effects on the community. It shows that noise may increase at properties adjacent to the route, while properties along other roads (e.g. Main North Road, Angle Vale Road and Heaslip Road) are likely to experience a reduction in traffic noise.

Various noise reduction measures are being investigated as part of the planning and consultation process in order to minimise the effect of noise on adjacent communities.

### What is noise?

Noise is sound measured in decibels (dB). Traffic noise consists of noise emitted from engines, transmissions, exhausts, brakes and tyres.

Not everyone is affected by the same levels of traffic noise. The degree to which a person is affected will depend on that person's sensitivity to noise. It depends upon the activity being conducted and the time of day. Certain noise levels tolerated during the day may be unacceptable at night.

### How is traffic noise assessed?

The first step in assessing traffic noise is to measure the existing noise environment by placing noise measuring devices at various locations along the proposed route.

The second step is to predict the future traffic noise levels using a computer based noise model.

The traffic noise model takes into account the following factors:

- traffic volume and speed
- percentage of light and heavy vehicles for both day and night periods
- road pavement surface
- road geometry and surrounding topography
- receiver / source distance and heights
- reflections from buildings or roadside barriers
- contributions of other noise sources, e.g. adjoining roads and intersections.

The noise assessment for the Northern Expressway has been completed by Bassett Acoustics, a company employing



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experienced and specialist acoustic engineers, who have carried out many traffic noise assessments throughout Australia.

## **How will traffic noise be minimised?**

Noise reduction measures are part of the Northern Expressway design. They include:

- using stone mastic asphalt, which is one of the quietest road surfaces
- locating the route away from noise sensitive properties (where feasible)
- keeping the expressway pavement as close to the natural ground level as possible
- minimising the slope (grade) of the expressway, which minimises the noise impact from braking and accelerating vehicles
- providing a buffer area, or 'setback' on either side of the road.

## **How will noise be managed *during* construction?**

Some noise disturbance may be unavoidable during the construction of the expressway. A Construction Noise Management Plan will be developed to minimise noise emitted. Appropriate noise-reducing measures, such as shielding, will be put in place during construction and monitoring will be undertaken to ensure compliance with noise guidelines.

## **How will noise be managed *after* construction?**

When the expressway is complete, noise assessments will be undertaken to record the actual level of noise being experienced. These checks will help assess the accuracy of noise predictions and the effectiveness of the noise-reducing measures adopted.

## **What makes a property eligible for noise treatment?**

Eligibility for noise treatment is based on the predicted noise level at the residence after opening of the Northern Expressway. Predicted noise levels are influenced by the distance of the property to the road, the impact from other roads and intersections, and surrounding topography. Only residential properties that will be above the project noise goals are offered treatment.

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## **For more information**

Further information about the project will be available on our website:  
[www.northernexpressway.sa.gov.au](http://www.northernexpressway.sa.gov.au) or  
Email [northernexpressway@saugov.sa.gov.au](mailto:northernexpressway@saugov.sa.gov.au)

Please contact us if you would like more information or would like to provide input into the environmental assessment process.

**Information line 1300 658 621**

**Interpreter information 1300 658 621**

**Text message (SMS) 1999NEXY**

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