west gate tunnel project

JANUARY 2018

Tunnel ventilation and air quality

The West Gate Tunnel Project's tunnel ventilation system has been designed according to stringent air quality standards to protect the health of communities and drivers using the tunnels.

The project includes twin tunnels linking the West Gate Freeway to a new bridge over the Maribyrnong River.

Tunnels can help reduce pollution on residential streets by moving traffic underground. In a tunnel, vehicle emissions can be controlled and dispersed more effectively, with monitoring in place to ensure standards are met.

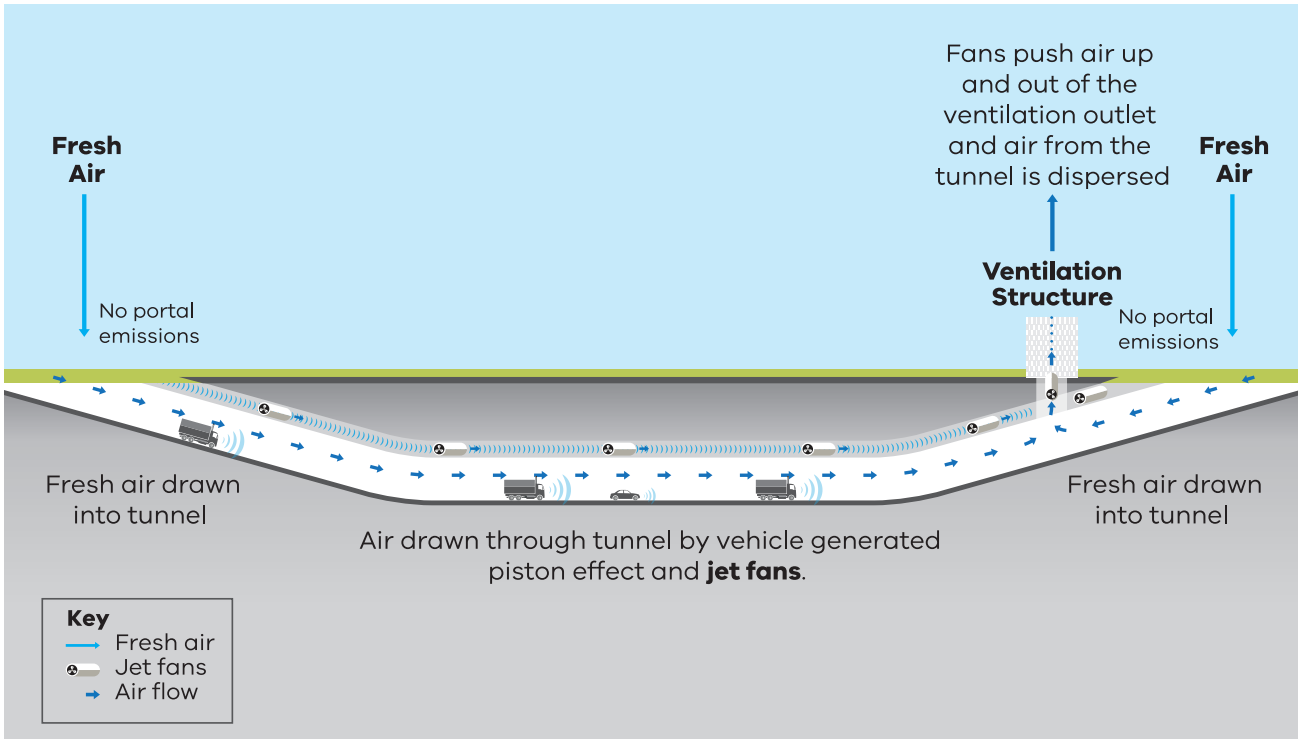
How tunnel ventilation works

Ventilation systems work by drawing in fresh air from the tunnel entry, which is then pushed through the tunnel by the movement of vehicles and jet fans.

Before the tunnel exit, air is pushed up and out of the tunnel through a ventilation structure and into the atmosphere. Studies show that ventilation systems work best when structures are close to the tunnel exit.

There are no emissions from the tunnel entries or exits where vehicles enter and exit.

Research from around the world clearly shows emissions from well-designed tunnel ventilation systems have no measurable effect on local or regional air quality.



The West Gate Tunnel ventilation system

The West Gate Tunnel Project features ventilation structures located at the exit of each tunnel to remove air from inside the tunnel.

The system has been designed to:

- meet Victoria's stringent air quality requirements, which are among the highest standards in the world
- maintain safe air quality inside and outside the tunnel
- manage emissions from predicted traffic volumes both when the project opens in 2022 and also in future

Monitoring and reporting

To ensure requirements and standards are met, the West Gate Tunnel Project must be built and operated according to conditions placed on the project, which control air quality limits, monitoring and reporting.

These conditions are set out in the West Gate Tunnel Project's Environmental Performance Requirements (EPRs), as well as in the license issued by EPA Victoria to operate the tunnel ventilation system, called a Works Approval.

Monitoring and reporting will take place to ensure the ventilation system is operating effectively.

Here's what we're doing:

What is being monitored?	How?	For how long?	When will results be published?
Ambient air quality in the west	Six monitoring stations located in Yarraville, Spotswood and Brooklyn, in addition to EPA Victoria's existing Footscray station.	• During construction • For up to 5 years after the tunnels open	• Monthly • Provision for daily reporting.
Air quality in the tunnel and ventilation structure	Monitoring equipment inside the tunnel and ventilation structure	• At all times during operation of the tunnels	• Quarterly for up to five years after the tunnels open

Tunnel ventilation in Victoria

In Victoria, the CityLink and EastLink tunnels also use ventilation systems. These systems have proven to be very effective. Before and after studies for both CityLink and EastLink showed that air quality remained consistently good after the tunnels opened, with no impact to local or regional air quality.

Tunnel exit and ventilation structure off Whitehall Street, Footscray

Contact us

Do you have a question about the project? If you need more information or would like to provide feedback, please get in touch.

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