



Lyttelton Tunnel Fire Protection Upgrade Project



Work to improve safety in the Lyttelton Tunnel with a new \$28.7 million fire protection system is in full swing and is expected to finish early next year. Once the system is operating, it will improve safety for tunnel travellers on a route that's an economic lifeline for both Canterbury and the South Island.

It's also a critical link in the fuel supply chain to Christchurch and the wider Canterbury region. On average, 600 tankers use the tunnel every month - a connection that the people of Lyttelton and surrounding communities depend on. With these levels of reliance, it's clear just how important it is to upgrade tunnel systems.

MANAGING TUNNEL TRAFFIC

Installing the new fire protection system is a complex job, involving working in tight and confined spaces inside the tunnel. This means single and full lane closures are needed in order to carry out the work. To minimise the impact of the closures, work is done late at night and in the early hours of the morning when tunnel traffic is at its lightest.

The first of up to 15 full lane closures are scheduled for 26, 27 and 28 August. There will be a 10 minute opening on the hour between 11pm and 4am for the duration of these closures. Tunnel access for emergency services will be available at all times. A 90-day schedule for single and full lane closures is updated monthly and can be viewed at www.nzta.govt.nz/assets/projects/lyttelton-tunnel/lyttelton-tunnel-lane-closures.pdf

These first full closures will be for testing the new public address system to improve communications inside the tunnel. The system broadcasts safety instructions to tunnel users in an emergency. A full closure is required as there can be no noise inside the tunnel while testing takes place.

WHAT DOES THE PROJECT INVOLVE?

The project involves installing a new deluge fire suppression system designed to contain a fire until emergency services reach the scene. It also includes building a large reservoir to supply water for this system. Some earthquake strengthening of the tunnel portal buildings will be carried out along with communication equipment upgrades.

A new wastewater pipe is being installed to futureproof wastewater services in Lyttelton and surrounding areas. Find out more about this project at www.ccc.govt.nz/services/water-and-drainage/wastewater/wastewater-projects/lyttelton-harbour-wastewater-project



New wastewater pipeline suspended from the duct ceiling.

WHAT'S BEEN COMPLETED SO FAR?

An important project milestone has been achieved already, with the construction of a new pump house and stormwater system.

The construction team's focus is currently on building a new 1.4 million litre water reservoir - this holds about the same amount of water as a 25 metre swimming pool.



AN INSIDE JOB

Finding a suitable work platform for the construction crew to do their jobs in the confined surroundings of the tunnel duct was challenging. This had to provide a safe and stable working surface to install brackets for the sewer line inside the tunnel ventilation duct.

The pipes for the deluge system are currently being fabricated offsite and installation for these and the 2274 sprinkler heads inside the ducts will start in the coming weeks.

The working platform and drill rig designed especially for the installation of 9km of new pipe, held in place by 1326 brackets.



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Find out more about this project at:

- www.nzta.govt.nz/lyttelton-tunnel

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