

LANDFILL GAS INFRASTRUCTURE AT HANRAHAN ROAD LANDFILL

Managing Hanrahan Road Landfill for the Future

Have you noticed the new vertical column at the Hanrahan Road Landfill? This is a modern landfill gas flare: a safe, standard piece of infrastructure used to protect the environment as landfills age and transition toward closure.

As waste breaks down underground, it naturally produces landfill gas. The new system uses a network of wells and pipework to collect this gas and direct it to the flare, where it is safely treated in a controlled environment.

FREQUENTLY ASKED QUESTIONS

Project Management

How long has the system been operating?

The infrastructure was activated by LMS Energy in August following testing and completion of Department of Water & Environmental Regulation (DWER) licence conditions.

Who will operate and maintain the system?

The system will be fully managed, monitored and maintained by LMS Energy, with support from City of Albany waste staff. LMS specialises in methane abatement and renewable energy solutions and partners with nearly 50 local councils and landfill owners across almost 70 sites nationwide. Learn more about LMS Energy [here](#).

Environmental Impact

What is landfill gas?

Landfill gas is produced naturally when organic waste, such as food, garden waste and cardboard, breaks down. It is made up mostly of methane and carbon dioxide.

Why focus on methane?

Methane is a potent greenhouse gas. In the short term, it traps heat far more effectively than carbon dioxide and is a major contributor to global greenhouse gas emissions.

"Cutting methane is the strongest lever we have to slow climate change over the next 25 years."

– Inger Andersen, Executive Director, UN Environment Programme (UNEP)

The waste management industry can play a key role in methane abatement, and the City remains committed to continuously improving waste management practices alongside key diversion initiatives such as FOGO.

Why does the gas need to be flared?

Flaring converts methane into carbon dioxide and water vapour, significantly reducing the environmental impact of the gas that would otherwise escape into the atmosphere.

FREQUENTLY ASKED QUESTIONS

continued

How it Works

How does the flare work?

The flare operates using a small, enclosed and controlled flame at the top of the stack to burn collected landfill gas. The unit is operated and monitored to meet environmental requirements.

How much gas is there?

The amount of landfill gas varies over time and depends on the type and age of waste in the landfill. The new gas system will allow the City and LMS Energy to monitor how much gas is generated and its composition as it is collected across the site.

Organic waste is the main source of methane in landfill and gas continues to be generated as older waste breaks down. The system will provide more accurate data once operational.

Can it generate electricity?

Generating electricity from landfill gas requires a consistent, high-volume gas supply over a long period. At this stage, the volume and composition of gas at Hanrahan Road are not yet known, so flaring is the preferred initial approach while LMS Energy monitors the system and gathers accurate data.

Safety, Noise & Odour

Is the flame dangerous?

No. The flare is a fully enclosed, controlled system designed specifically for landfill environments. It includes multiple safety features such as automatic shut-off, flame detection and pressure monitoring.

Will it smell?

The system can reduce odour by capturing and treating landfill gas rather than allowing it to escape from the site untreated. The shimmer above the flare is a harmless heat haze, similar to the air above a backyard barbecue.

Is it noisy?

The flare is designed to operate with low noise levels and comply with environmental standards.

The Big Picture for Albany

Is this permanent?

The flare is part of the ongoing management and closure process for the landfill. Gas systems typically operate for many years because waste continues to break down long after a landfill stops accepting new waste.

Does this mean the landfill is closing?

The Hanrahan Road Landfill is moving toward the end of its operational life and will close by June 2032. This infrastructure is an important step in preparing the site for safe, long-term closure and rehabilitation.

How does this relate to what I put in my bin?

The more food, garden material, cardboard and other organics we keep out of landfill through FOGO, recycling and reuse, the less gas is generated over time.

How can the community help?

The Albany community has already done a great job embracing FOGO. By continuing to separate waste correctly, using the FOGO bin, recycling properly and keeping reusable items out of landfill, residents can make a real difference. Small actions at home add up. Keeping organic material out of landfill helps reduce future methane generation, environmental impacts and long-term costs for the community.