



COMMUNITY INFORMATION

EPA ASSESSMENT OF LICENSED LANDFILLS: 890 TAYLORS ROAD, LYNDHURST

Introduction

EPA has recently completed an assessment of 260 current and formerly licensed Victorian landfills to assess the potential for methane gas movement. This was prompted by the recent issues at the former landfill at Stevensons Road, Cranbourne.

The assessment concluded the following:

- No landfills are likely to be having any methane effects on adjacent communities.
- No residential estates have been affected in the same way as the development adjacent to the Stevensons Road (Cranbourne) former landfill.
- A small number of landfill sites require improved gas management controls. Operators at these sites are working to ensure this work is completed as soon as possible, and EPA is monitoring their progress.

What is methane?

Methane is a natural gas that arises from the decay of organic wastes, such as food and garden wastes, in conditions where there is no oxygen. Methane is the principal gas produced by the breakdown of organic waste materials within landfills where there is no oxygen.

Methane is flammable and can be explosive when concentrations reach between five and 15 per cent in air, and where an ignition source is present. When landfill gas concentrations are very high, they can also result in asphyxiation in enclosed spaces where the amount of oxygen in the air is lower.

Where the concentration of methane exceeds one per cent in a bore at the landfill boundary, EPA requires an investigation and, where needed, improvements to methane management controls. This threshold (one per cent) is well below the lower explosive limit of methane, which is five per cent concentration.

It is important to note that no methane has been detected in homes.

Background to Taylors Road, Lyndhurst landfill

This landfill has received large volumes of organic waste since the 1990s, producing a significant volume of methane. After the closure of the Tullamarine landfill in 2008, Taylors Road landfill became the only remaining landfill in Victoria licensed to receive Category B prescribed industrial waste. This prescribed waste is unlikely to generate significant volumes of methane.

What was found at the Lyndhurst landfill?

The operator is continually improving the site to meet or exceed best practice design standards. Waste is currently deposited in cells that meet standards above best practice.

The EPA licence for this landfill requires that no more than 35 per cent of the waste deposited is prescribed waste. Hence, biodegradable waste is the dominant waste type in the landfill. The prescribed industrial waste is unlikely to generate significant volumes of methane.

Northern landfill boundary

High levels of methane were detected in five bores established on, or just outside of, the northern landfill boundary. A cut-off trench has been constructed in this area to intercept the methane. Shallow monitoring bores further beyond the boundary have not detected methane, indicating methane in surface soils does not extend to industrial buildings further north.

Western and Southern landfill boundaries

Methane was detected in one bore on the western boundary and one bore on the southern boundary. These bores may be located in historical landfill areas, explaining the methane detected. Adjacent bores constructed just outside the landfill boundary did not detect any methane. This suggests that methane is unlikely to have moved beyond the landfill boundary at these locations.

What is being done at Lyndhurst now?

- Additional monitoring bores have been established outside the northern boundary of the landfill.
- The onsite gas extraction system has been improved by the operator to increase landfill gas extraction.
- Boundary gas monitoring bore networks are being expanded by the operator.
- The operator has installed a landfill gas cut-off trench along part of the northern landfill boundary.
- An EPA-approved environmental auditor has been engaged to conduct an environmental audit.
- EPA has required a gas management plan from the operator, with regular updates reported to EPA.

Are homes and neighbourhoods safe?

Yes. Methane has only moved a short distance beyond the landfill at a section of the northern boundary. No residential premises or other buildings have been affected by methane. The operator has installed a gas cut-off trench to control the gas movement.

How will the community be kept informed?

Further information is available on EPA's website and information will be updated periodically (www.epa.vic.gov.au/waste/landfill-assessments.asp)

For further information, please call the site operator or EPA on the numbers below:

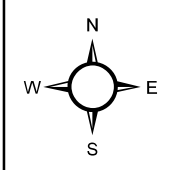
SITA Lyndhurst
02 8754 0105

EPA Victoria
9695 2722



**Taylors Road Landfill
ES511**

1:5,000 (at A3)
0 30 60 120 180
Meters



Map Projection: Vicgrid 94
Datum: Geocentric Datum of Australia 1994

- Sealed Road
- Freeway
- Unsealed Road
- Highway
- - - Sealed Walking/Bike Trail
- - - Unsealed Walking/Bike Trail
- - - Unsealed Track
- Rail Lines
- Land Fill Site
- Parcel



Taylors Road Landfill

Licence No. ES 511 Data Source: State of Victoria and GHD

Disclaimer: Only EPA licensed (and former licensed) landfills where methane was detected >1% v/v adjacent to the site are shown. The landfill site boundary reflects the boundary of the site itself; waste deposits will be present within these boundaries, commonly distributed in zones. Other landfills may be present in this area but are not shown on this plan. The extent of the plan is for context only, and should not be interpreted as the extent of methane gas movement. Suburbs surrounding these landfill sites have not been affected by methane.