



## Landfill Gas Specialists

Landfill gas management is a key part of modern landfill operation. Tonkin & Taylor's world class design skills and practical operational advice help achieve reduced environmental impacts and optimisation of extraction for reuse.

Development on and around closed landfills is becoming more common. We have a proven track record of cost effective, practical and safe solutions to enable development of closed landfills for commercial, residential and parkland use.

Our team of landfill gas specialists offers leading expertise across the full range of technical disciplines needed for this complex area.

### Typical services include:

- Investigations
- Planning and economics
- Engineering design, contract documents and specifications
- Construction supervision
- Operational advice.

### Expertise

#### Landfill gas management and utilisation systems

- Landfill gas generation estimation and modelling
- Passive and active landfill gas extraction system design
- Flare specifications
- Landfill gas to energy specifications
- Optimisation and extension of existing systems
- Field monitoring and trouble shooting

- Odour assessments and ground level landfill gas monitoring
- Safety and hazard assessment
- Management plans
- Resource consents
- Greenhouse gas emission reduction (Kyoto Protocol, voluntary market and emissions trading) implementation and monitoring.

#### Closed landfill redevelopment

- Landfill gas generation assessment and monitoring
- Risk assessment
- Landfill gas management (cut off walls, venting, extraction)
- Building protection measures
- Management plans
- Resource consents.

### Experience

- Kate Valley Landfill - detailed landfill gas system design
- Omarunui Landfill - detailed landfill gas system design and implementation
- Bluegums Landfill - landfill gas system design and implementation
- Silverstream Landfill - well field optimisation and system design
- MfE Closed Landfill Guidelines - landfill gas monitoring and management
- Pikes Point Closed Landfill - landfill gas protection for new buildings
- Greenmount Landfill - landfill gas protection for 12 adjacent new buildings.

