

FUGITIVE METHANE

Our company

Zephyr Environmental (Zephyr), is a boutique environmental consulting practice specialising in air quality and carbon management. We aim to form enduring and trust-based relationships with our clients to help them solve their most challenging environmental problems.

Our decentralised and agile structure enables us to handle the most complex assignments while remaining small enough to prioritise excellence in delivery while minimising business disruption for our clients. Our value lies in de-risking projects and providing trusted expert advice.

Our core value is 'We are a breath of fresh air, to our clients and our people.' This is more than just a tagline; we strive to ensure that our clients have a significantly different, positive experience when working with us.

A photograph of a drone flying over a green, hilly landscape under a blue sky with scattered clouds. The drone is in the foreground, slightly out of focus, with its propellers and camera visible.

We strive to deliver practical, defensible advice that de-risks operations to ensure good environmental outcomes.

Services we provide:



Meteorological modelling



Air quality monitoring programs



Odour & dust management



Regional airshed management



Environmental & GHG audit / assurance



Air emissions management



Carbon mitigation & management



Data analysis & interpretation



Atmospheric dispersion modelling



Flagship Fugitive Methane Projects



Greenhouse Gas Measurement, Reporting and Verification Services

We undertook advanced MRV activities including quantifying fugitive methane using a range of technologies such as satellite data, open-path analysers, flux chambers and drone-based measurement techniques. These methods can be applied across sectors including waste management, agriculture, open-cut coal mining, Oil & Gas and CCS.



Methane Flux Monitoring at a Legacy Landfill

We measured methane flux at a legacy landfill to estimate gas collection efficiency. Drone surveys were used to identify emissions hotspots, and flux chambers provided surface emission measurements. Collection efficiency was calculated by comparing measured emissions with known gas flows to on-site engines.



Fugitive Methane Emissions Research & Development

We completed a multi-stage research program involving methane monitoring at active coal mines and landfills. Techniques trialled included satellite data interrogation, flux chamber surveys, open-path monitoring and multiple drone-based methods. A co-location study and comparison across ten technologies informed the development of an optimised emissions quantification methodology.

If these case studies — or any of the other services we offer — sound like they could add value, please don't hesitate to reach out. Our team is always ready to discuss your goals, answer any questions, and explore how we can best support your success.

Get in touch with our team at:



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Zephyr Environmental



www.zephyrenviro.com