



# TLCCG

## Tullamarine Landfill Community Consultation Group

### Glossary of Terms

This glossary will be updated as required from material or questions raised at the TLCCG community meetings.

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**Analytes** - a chemical substance that is the subject of a chemical analysis

**Dioxin** - also called polychlorinated dibenzodioxin, any of a group of aromatic hydrocarbon compounds known to be environmental pollutants that are generated as undesirable by-products in the manufacture of herbicides, disinfectants, and other agents. In popular terminology, dioxin has become a synonym for one specific dioxin, 2,3,7,8-tetrachlorodibenzo-para-dioxin (2,3,7,8-TCDD).

**Electrical Conductivity (EC)** - indicator of salinity levels in water. Higher EC values indicate higher salt levels. (A measure of the ability of water to transport electrons).

**Flame Ionisation Detector (FID)** – commonly used for detecting organic compounds in gases

**Flux Hood Reader** - is an inverted container of specific area and volume used to collect samples from the cap surface for a specified period of time. This reader is used to detect emissions at a specified point on the landfill.

**Groundwater** - Groundwater is water that is located in a geological structure or formation. Over time, water from rain and rivers migrates through the ground and is stored in porous soils and rocks.

**Leachate** – The water –based liquid that has filtered through the landfill and become contaminated..

**Light Non-Aqueous Phase Liquid (LNAPL)** is a non-water based liquid that is made up of various organic chemicals, including polychlorinated biphenyls (PCBs). At the Tullamarine closed landfill, the LNAPL is an oily substance that floats on the leachate.

**mAHD** - elevation in metres with respect to the [Australian Height Datum](#) i.e sea level

**Mann-Kendall tests** - non-parametric tests for the detection of trends in a time series.

**Natural Attenuation (NA)** - natural processes that act to degrade the volume, mass, concentration or toxicity of contaminants in soil and groundwater. These processes include physical, chemical or biological and act without human intervention but can be accelerated under preferable conditions

**Non-methane organic compounds (NMOC)** - e.g. vinyl chloride

**Outlier** - In statistics, an outlier is an observation point that is distant from other observations. An outlier may be due to variability in the measurement or it may indicate experimental error; the latter are sometimes excluded from the data set.

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**Particulate Matter** - Dust is made up of particulate matter that can consist of a number of components such as acids, organic chemicals, metals, soil or dust particles and allergens. The size of particles is linked to their potential for causing health problems. Larger particles  $PM^{10}$  (> 10 micrometres) can irritate eyes, nose and throat. Smaller particles  $PM^{2.5}$  (<10 micrometres) can get deep into the lungs.

**Photoionisation Detection (PID) sensors** – measure volatile organic compounds

**Post Closure Pollution Abatement Notice (PC PAN)** - A notice to manage the ongoing environmental risks posed by a landfill after its operational phase.

**Post Closure Management Plan (PCMP)** – The plan developed to undertake key tasks in order to meet the requirements of the PC PAN.

**Recharge water** – is the water that recharges groundwater. This can come from infiltration through the ground, called a recharge zone, or from a water body such as a creek/river/stream/lake.

**Surface Emission Monitoring (SEM)** involves the use of a sensitive methane detector and a hand held wand with an inverted cup to measure concentrations of methane. Typically it is done in 25 m traverses across the landfill however if emissions are detected traverses can be completed on a smaller grid to target an emissions 'hot spot'.

**TDS (Total Dissolved Solids)** is a common parameter for testing water quality

**TRAR** – Groundwater Technical Review for Auditor Review

**Volatile organic compounds (VOC)** – e.g. trichloroethylene