



Air Quality Management in the City of Tshwane

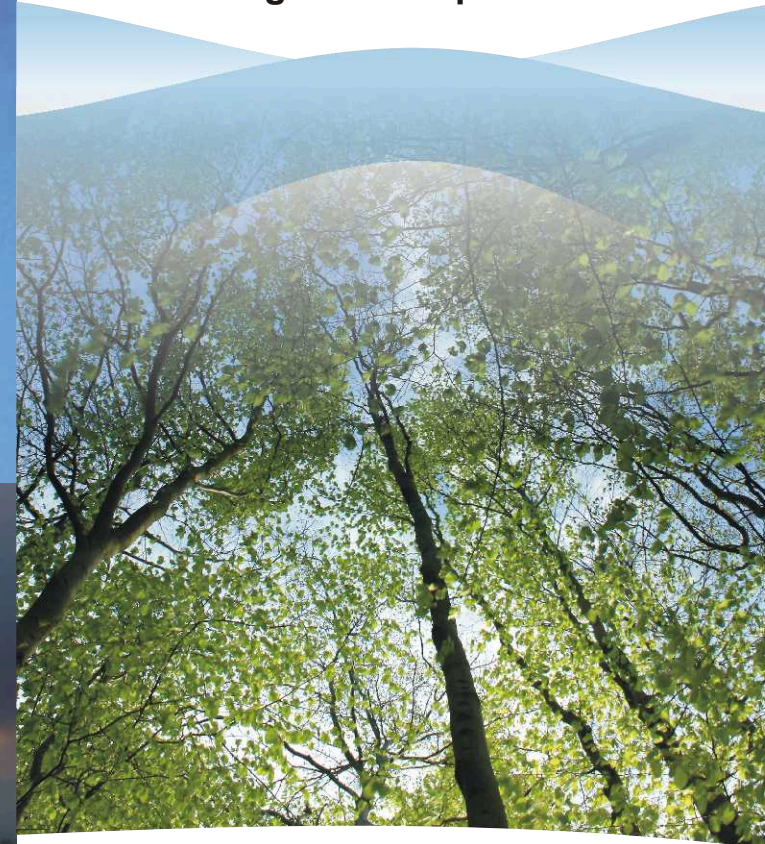
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AIR QUALITY MANAGEMENT IN TSHWANE

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Ambient Air Quality

The word ambient refers to your immediate surroundings, thus ambient air quality makes reference to the air quality within your immediate surroundings.

Air quality is measured against health risk thresholds (levels) which are designed to protect ambient air quality. Various countries including South Africa have Air Quality Standards (legally binding health risk thresholds) which aim to protect human health due to exposure to pollutants within your living space.

When a pollutant is measured in ambient air it is referred to as the concentrations of that pollutant in air.

Pollutant concentrations are measured in ambient air for various reasons, these include:

- To determine whether concentrations are exceeding available health risk thresholds (air quality standards);
- To determine how different sources of pollution contribute to ambient air concentrations in an area;
- To validate dispersion modeling conducted for an area;
- To determine how pollutant concentrations fluctuate over time in an area; and
- To determine the areas with the highest pollution concentrations.

Air Quality Management Act

In accordance with the Constitution, municipalities have executive authority over air pollution control. The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004), shifted the focus from the centralisation of air pollution governance to the decentralisation of power, placing the responsibility for air quality management on the shoulders of local authorities. This responsibility includes the characterisation of baseline air quality, the management and operation of ambient monitoring networks, the licensing of listed activities and the development of strategies to reduce emissions.

To fulfil these responsibilities, local authorities will be required to develop air quality management plans as part of their integrated implementation plans.

City of Tshwane Air Quality Management Plan

The Air Quality Management Plan for Tshwane was developed and approved on 15 September 2006 by the Mayoral Committee and will be used as a management and performance-monitoring tool for air quality control and to provide a baseline assessment of air quality issues in Tshwane.

The purpose of the plan is to address various categories of air pollutants, including toxic and odoriferous substances, greenhouse gases and ozone-depleting substances. In the development of an ambient air quality and meteorological monitoring network, careful consideration was given to the monitoring objectives, the parameters to be monitored and the locations of the stations.



An example of a mobile station

The site locations for stationary stations include Rosslyn (northern section) and Pretoria West, Mamelodi (eastern section), Booyens (western section) and Olievenhoutbosch (southern section).

Mobile stations (street boxes) are strategically placed to monitor transport- and residential-related pollutants.

Four street boxes placed in Temba, East Lynne and Bosman Street (city centre) will measure particulate matter, sulphur dioxide and nitrogen dioxide.

Another four placed in Ga-Rankuwa, Atteridgeville, Mabopane and Pretoria North will measure nitrogen oxide, carbon monoxide and sulphur dioxide.