

Is PMB SA's smog capital?

Concerns raised about city's air quality

CHELSEA PIETERSE

HOW clean is the air we breathe in Pietermaritzburg?

This is the question being asked by environmentalists who are gravely concerned about the air quality in the city bowl.

Experts believe that inadequate steps are being taken to combat pollution and that there is insufficient monitoring of air quality.

However, the Msunduzi municipality says the "air quality emissions comply with national standards".

In August a fire at the New England dump saw the city blanketed in a mass of thick smoke. Several schools sent pupils home over health concerns.

University of KwaZulu-Natal agrometeorology Professor Mike Savage said Pietermaritzburg is surrounded by hills, and has winter-time smogs.

"Pollution from fires, vehicles, homes and other sources becomes trapped in low-lying areas, often following a cloudless winter night."

"Cooler air becomes trapped by a layer of warmer air above low-lying areas. This is air temperature inversion."

"The warmer air acts like a lid trapping pollutants in the cooler air near the low-lying areas."

He said Pietermaritzburg's winter fogs increased the problem.

Savage said there were a number of reasons for the city's pollution problem "that will not go away easily".

He said there was a high concentration of industry within low-lying residential areas where wind speeds are generally lower than high-lying areas and pollution is not dispersed.

"This area includes a dump site that is a source of unpleasant smells and smoke from open fires."

"The extent of air pollution experienced by residents depends mainly on wind speed and direction and temperatures."

Savage said there was not enough monitoring of, and ineffective combating of pollution in the city.

"There is little incentive given to industry to reduce their pollution and national highways and other transport systems also contribute."

Savage added there was little local research done on pollution and climate and the effect it has on human health.

He said monitoring wind speeds, for example, could be used to decide where to locate industries.

Bobby Peek, the climate and environmental justice manager for Pietermaritzburg-based environmental group groundWork, said there was no proper monitoring system in place.

He said Pietermaritzburg had a really serious

air pollution problem (especially in winter) because many of the industries emitting pollution were located within the city bowl on either side of the N3.

"Since the AQ (air quality) Act and subsequent regulations in 2005 some of the dirtier industries have closed down, leading to better air quality.

"However, the volume of traffic along the N3 has increased significantly since and this will contribute significantly to AQ in the city, especially smog," said Peek.

"In short, we don't really have an ongoing and real sense of AQ in the city because the monitoring and reporting is flawed and patchy," he said.

Msunduzi municipal spokesperson Thobeka Mafumbatha said there were AQ stations at Northdale

Hospital, City Hall, Pietermaritzburg Airport and Edendale Station.

She said Edendale station had been vandalised and was in the process of being repaired.

"Air quality emissions comply with national standards, except during the periods of the landfill fire and veld fires," she said.

She said air quality is a "dynamic phenomenon that changes constantly", due to emission sources, and meteorological factors.

"During the winter the city is particularly susceptible to an accumulation of pollution because it lies in a basin."

"This is when we, as a city experience episodes of pollution."

She said the "indiscriminate burning of tyres" within the municipality to recover scrap metal, as well as being a source of fuel in winter is another major concern.

"Diesel smoke is the greatest contributor to the visual degradation of the atmosphere and results in a 'brown haze'."

She said the available data only covers one year and the unit cannot make comparisons until adequate data is available."

• chelsea.pieterse@witness.co.za