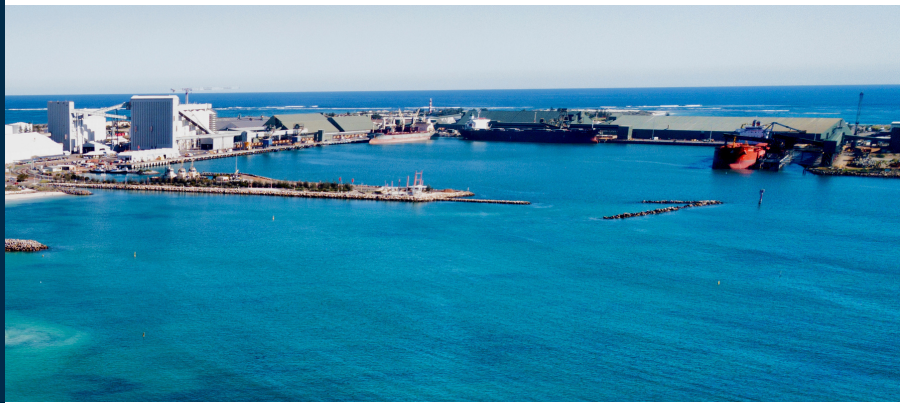


# AMBIENT AIR QUALITY



## SUSTAINABILITY & ENVIRONMENT

### Managing and Monitoring Air Quality

Conscious of the impact of our operations on the surrounding environment in which we function and live, Mid West Ports Authority aims to continually improve our environmental performance. Minimising dust emissions from our operations is a key focus at Mid West Ports Authority.

### Air Quality and Dust Explained

Dust is a general term used to describe small solid particles suspended in the air. Dust particles are typically categorised into different size classes:

- TSP – Total Suspended Particles, generally up to 100 microns ( $\mu\text{m}$ ) in diameter.
- PM<sub>10</sub> – Particulate Matter (PM) with an aerodynamic diameter less than 10 microns.
- PM<sub>2.5</sub> – Particulate matter with an aerodynamic diameter less than 2.5 microns.

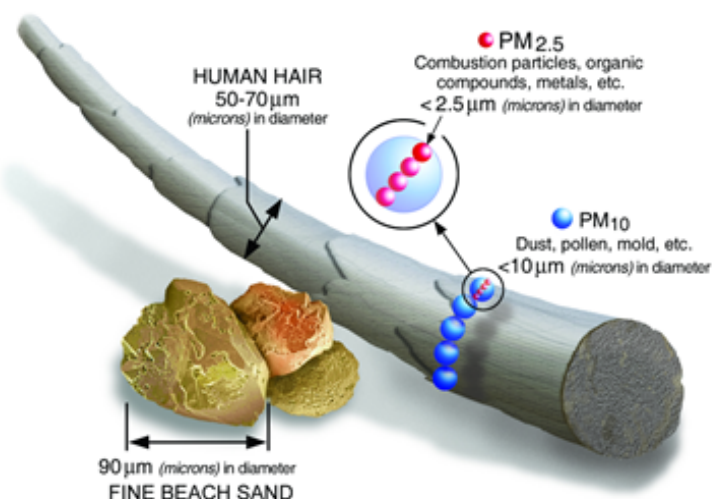


Image Source: United States Environmental Protection Agency

The most common metric for measuring air quality is particulate matter, specifically PM<sub>10</sub>.

PM<sub>10</sub> particles are invisible to the naked eye. PM<sub>10</sub> particles are capable of penetrating the lower airways of humans and can cause negative health effects at very high levels, particularly to those with pre-existing conditions such as asthma, lung disease and cardiovascular (heart) disease.

### Air Quality in the Geraldton Region

A wide range of processes produce airborne particles, both natural sources and as a result of human activity.

Common factors that contribute to ambient dust levels in Geraldton include:

- Wind patterns
- Hot, dry conditions
- Marine aerosols (sea spray)
- Exposed areas subject to prevailing winds (coastal, dune systems)
- Land and urban development activities
- Grain harvesting season
- Smoke from fires
- Road dust, vehicle and truck exhaust emissions
- Light industrial and commercial activities
- Port and mining industry activities, including bulk material storage and handling



## Air Quality Regulation in Western Australia

In Western Australia, emissions from industry is regulated by the Department of Water and Environmental Regulation (DWER) under the Environmental Protection Act 1986 (EP Act).

Mid West Ports Authority holds an Environmental Licence issued under Part V of the EP Act.

This Licence outlines Conditions which require Mid West Ports Authority to manage, monitor and report dust emissions in order to minimise impact to the environment and surrounding community.

## Meeting Our Regulatory Requirements

In order to comply with our Environmental Licence, Mid West Ports Authority:

- Monitors real time PM10 dust emissions at the Port boundary via a network of air quality monitoring stations
- Monitors and samples High-Volume PM10 & TSP dust emissions during specific 'concentrate' product handling

- Compares all results to the National Environmental Protection Measure (NEPM) (Ambient Air Quality) and World Health Organisation (WHO) guidelines
- Reports air quality monitoring results to DWER on a regular basis
- Collaborates with Port users, customers and stakeholders to improve dust emissions from operations.

## About Mid West Ports Authority

Mid West Ports Authority is committed to providing a gateway for trade and tourism, aligning our strategic direction with that of economic benefit and prosperity for our community, and building trust and transparency across our operations.

We look to fulfil this commitment safely and reliably while being transparent in providing exceptional service to our customers, value to our stakeholders and employees, all while sustaining our community and the environment into the future.

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