

# **Project Information Sheet** Air Quality and Amenity

An Environmental Management Plan (EMP) will be developed for the site to manage air quality, noise, the handling of harmful materials, and traffic control. This plan is essential for ensuring that the project adheres to safety and regulatory compliance throughout its duration. The EMP will be submitted to the Department of Water and Environmental Regulation (DWER) as a supporting document to the Remedial Action Plan (RAP).

Throughout the project, activities such as vegetation clearing, earthworks, soil storage and vehicle movement on unsealed on-site roads will generate dust. Additionally, earthworks have the potential to release airborne asbestos fibres. The EMP will include procedures and controls to manage dust and asbestos emissions during the project.

### **Types of Dust and Emissions**

#### **Outdoor (ambient) Air**

Total airborne dust consists of particles of various sizes ranging from relatively large particles that can cause nuisance down to fine particles that can be inhaled deeply into the lungs.

#### Nuisance Dust

Nuisance dust consists of airborne particles that are generally considered inert and not harmful, but it can cause annoyance, such as when settling on cars. This type of dust, often referred to as Total Suspended Particulate (TSP), can be generated during activities like vegetation clearing, the use of internal unsealed roads, earthworks and stockpile lift-off.

#### PM10 (Particulate Matter ≤10 Microns)

PM10 refers to suspended dust particles that when breathed in are captured in the nose and throat and don't enter the lungs. These particles are typically generated during vegetation clearing, earthworks, and vehicle movement. Ambient air quality is usually measured as PM10.

#### **Respirable (fine) Dust**

Respirable or fine dust consists of tiny particles that can penetrate deep into the lungs when inhaled, posing significant health risks. Due to these potential health risks, the standards for acceptable levels of respirable dust are much stricter than those for larger particle sizes like TSP and PM10. These particles are typically generated during earthworks and from stockpile lift-off.

#### **Respirable Fibres**

Respirable fibres include asbestos fibres and synthetic mineral fibres (SMF). Exposure to airborne asbestos fibre poses a significant risk to human health, while exposure to airborne SMF can cause upper respiratory tract irritation.

## **Dust and Emission Control Measures**

#### **Mitigation Measures**

The Project will proactively prioritise air quality through several pre-emptive dust suppression techniques. These measures include:

- An earthworks plan that employs a cut to fill methodology, which involves removing the topsoil or unwanted earth material from certain parts of the site and using it to fill in low-lying areas or create embankments, slopes, and other features.
- A three-metre-high solid temporary fence along the Adelaide Street boundary to help contain dust within the construction site.
- Restricting the movement of fill within dedicated areas to minimise dust being carried away by the wind.
- Regularly applying water to earthwork areas to keep dust from rising.
- Application of specifically formulated dust suppression products to manage dust on clean sand stockpiles.

#### **Dust Monitoring**

Real-time monitoring stations will continuously measure dust particles, including TSP, PM10, and respirable particles. Monitoring will also include wind direction and wind speed to provide comprehensive data on dust dispersion. If dust levels exceed safety thresholds, immediate actions will be taken, including increasing the frequency and intensity of wetting surfaces, deploying water fog misting, and stopping work temporarily.

#### **Asbestos and Fibre Monitoring**

Airborne asbestos fibre sampling will be undertaken daily during site earthworks, following Australian Standards and the membrane filter method [NOHSC:3003(2005)]. Sampling will be conducted at the site boundary and adjacent to live earthwork zones to ensure airborne asbestos fibre concentrations remain safe. Any exceedance in control criteria will initiate a review of control measures. Exceedance of para-occupational exposure criteria will result in an immediate halt to work and a review of airborne fibre control methodology.

Further information on the management of dust can be found in the **Project Information Sheet – Management of Hazardous Materials.** 

# **Further Information**

If you have any questions or concerns, or would like to register for email updates, please email <u>info@hazelmerehub.com.au</u> or call 0408 875 843.

More information is also available on the project webpage <u>www.hazelmerehub.com.au</u> and Facebook page <u>www.facebook.com/HazelmereHub</u>