Dust Monitoring Campaign at Beeliar and Munster

Purpose

This Fact Sheet provides information on a dust monitoring campaign to be undertaken by the Department of Water and Environmental Regulation (DWER) at the suburbs of Beeliar and Munster in the City of Cockburn, Western Australia.

Introduction

DWER provides strategic, technical and policy advice on air quality matters.

Ongoing air quality monitoring is undertaken by DWER at a number of metropolitan and regional centres within Western Australia in accordance with the National Environment Protection (Ambient Air Quality) Measure (Air NEPM).

Short-term campaigns are also undertaken in other areas to supplement existing information from that location.

Beeliar and Munster are two suburbs in close proximity to a large industrial area with some potential for high dust levels which may at times exceed the Air NEPM criteria. The magnitude and precise source of any dust that may be generated is not yet fully determined, with nearby industry, natural events and other activities potentially all contributing to dust levels in the area.

Dust monitoring campaign

The dust monitoring campaign is designed to assist in determining the origin and level of any dust impacting Beeliar and Munster. Monitoring will be undertaken for a period of three to four months beginning in January 2019.

Equipment used

For the period of the campaign, DWER will install a Light Detection and Ranging (LiDAR) unit as shown in Figure 1, Tapered Element Oscillating Microbalances (TEOMs) and Beta Attenuation Monitors (BAMs) within the area.

Figure 1 Windcube 200S LiDAR

What will be monitored

The pollutant to be monitored is particulate matter transported in air. The LiDAR unit will primarily focus on determining dust lift off sources while the TEOMs and BAMs results will be compared with the Air NEPM criteria for particulates that are less than 10 micrometres in diameter (PM10).

Air quality criteria

The Air NEPM provides criteria for particulate matter monitoring as shown in Table1.

Table 1. Air Quality Particle Criteria

Pollutant	Averaging Period	Maximum concentration (micrograms per cubic metre)
Particulate Matter as PM10	1 day	50µg/m3
	1 year	25µg/m3

Results

During the study, a live feed of the data gathered as part of the dust monitoring campaign will be made publicly available through a dedicated web portal linked to DWER's website www.dwer.wa.gov.au and a report on the findings expected to be released in late-2019.

Figure 2 Typical TEOM installation

More Information

For advice on the Air NEPM, or related matters, please contact DWER on 6364 7000.

This document is available in alternative formats and other languages on request.

Related Documents

Additional publications about air quality are available online from, https://www.dwer.wa.gov.au/your-environment/air, or can be requested by phoning 6364 7000.