



# Dust monitoring in Port Hedland

## Environmental Protection Act 1986, Part V

The Department of Water and Environmental Regulation (DWER) has prepared this fact sheet to provide information on dust monitoring in Port Hedland.

### DWER's responsibilities

DWER was formed on 1 July 2017, through the amalgamation of the Department of Water (DoW), Department of Environment Regulation (DER), and the Office of the Environmental Protection Authority (OEPA). DWER regulates prescribed premises in Port Hedland, including port facilities, under Part V, Division 3 of the *Environmental Protection Act 1986* (EP Act).

### Interim dust criteria

In 2010, the Port Hedland Dust Management Taskforce released its Port Hedland Air Quality and Noise Management Plan. Through this Plan, the Taskforce acknowledged that the 24-hour average particulate matter smaller than 10µm (micrometre) in diameter (PM<sub>10</sub>) dust concentrations in Port Hedland regularly exceeded the National Environment Protection (Ambient Air Quality) Measure (Air NEPM) of 50 micrograms per cubic metre (µg/m<sup>3</sup>). An alternative interim 24-hour PM<sub>10</sub> guideline of 70µg/m<sup>3</sup> was established pending the finalisation of a Health Risk Assessment.

### Health Risk Assessment

In February 2016, the Department of Health released its Port Hedland Air Quality Health Risk Assessment for Particulate Matter (HRA).

The HRA determined that the 24-hour PM<sub>10</sub> guideline of 70µg/m<sup>3</sup> (with 10 allowable exceedences per year to accommodate natural events) was appropriate for the current population in Port Hedland to preserve the health and wellbeing of residents. The Air NEPM states that only continental dust storms, prescribed fires, and region-wide bushfires are considered natural events.

The HRA also recognised that regular exceedences of this level were likely in certain areas of Port Hedland in close proximity to port facilities.

Figure 3 (below) illustrates the number of exceedences at Taplin Street in Port Hedland from January 2012 to November 2014.

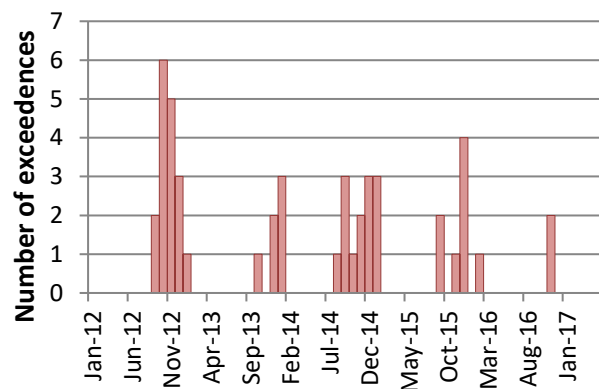


Figure 3: Number of exceedences of 70 µg/m<sup>3</sup> at Taplin Street (24-hour averaging period).

After considering the HRA and the available dust monitoring data, in August 2016 the Taskforce submitted a report to government with recommendations for managing dust in Port Hedland. The Taskforce Report included recommendations for future management of dust monitoring in the town.

## Dust monitoring options

The Port Hedland Industries Council (PHIC) undertakes real-time monitoring for particle levels within Port Hedland. The monitoring results are presented on PHIC's webpage at [www.phicmonitoring.com.au](http://www.phicmonitoring.com.au).

One of the recommendations of the Taskforce is that the PHIC air quality network continues operating, with responsibility for oversight of the network, including data verification, storage and publication, transferred to DWER.

## Industry dust monitoring

Port operators within Port Hedland operate a series of boundary monitors to provide real-time data that assists with the identification and management of dust emissions from each individual operator. Port operators also use this data to identify background sources of particulate matter, including from other port operators.

These boundary monitors do not form part of the PHIC air quality network. Boundary monitoring is undertaken to assist in premises management not regulation, and therefore is not reported external to the company operating the premises.

## DWER dust strategy

DWER recognises that the key air quality hazard arising from port operations in Port Hedland is fugitive dust.

DWER also conducted a seminal Light Detection and Ranging (LiDAR) technology monitoring campaign at Port Hedland in 2017 in order to better assess the dust sources and pathways to receptors. The report for the LiDAR campaign is expected to be released in late-2017.

DWER has commenced a review of all licences granted under Part V, Division 3 of the EP Act for port facilities (bulk handling of materials), in the Port Hedland harbour.

The Taskforce recommendation is that the current system of using a National Association of Testing Authorities (NATA) accredited monitoring provider continues, with the network being funded by Port Hedland industry through PHIC.

The recommendation also requires the port industry environmental regulator (DWER) to assume oversight of the monitoring network in order to ensure the data received from the network are reliable and accurate.

Consequently, if this recommendation of the Taskforce is accepted, DWER will be undertaking a review of the monitoring network, consulting with industry and investigating procedures and possible future regulations that will allow the Taskforce recommendation to be implemented.

## More information

See DWER's Community Update at [www.der.wa.gov.au/our-work/community-updates/435-port-hedland-dust-monitoring-campaign](http://www.der.wa.gov.au/our-work/community-updates/435-port-hedland-dust-monitoring-campaign).

For advice on dust regulation in Port Hedland, or related matters, please contact:  
[atrium.reception@dwer.wa.gov.au](mailto:atrium.reception@dwer.wa.gov.au) or call 6364 7000.

## Legislation

This document is provided for guidance only. It should not be relied upon to address every aspect of the relevant legislation. Please refer to the State Law Publisher (SLP) for copies of the relevant legislation, available electronically from the SLP website at [www.slp.wa.gov.au](http://www.slp.wa.gov.au).

## Document versions

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