



Government of **Western Australia**
Department of **Water and Environmental Regulation**



Port Hedland Regulatory Strategy

May 2021

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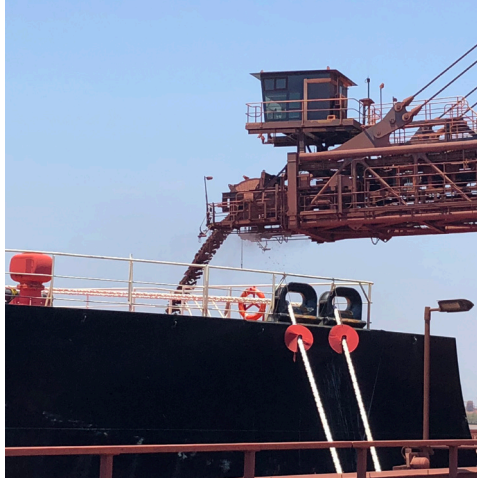
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¹ Background

In August 2017, the Government of Western Australia released the 2016 *Port Hedland Dust Management Taskforce Report to Government* to obtain the views of the Port Hedland community, industry and other stakeholders. This report included a number of recommendations that aligned with the outcomes of the Port Hedland Health Risk Assessment.

In October 2018, the State Government released its response to the Port Hedland Dust Management Taskforce's Report, in particular endorsing the recommendation that an air guideline value of 24-hour PM₁₀ of 70 µg/m³ (excluding natural events) continues to apply where people live on a permanent basis.

The Port Hedland air guideline interim value of 70 µg/m³ was accepted as the guideline value after using established human health risk assessment techniques and assumptions, and is considered to be protective of the health of a 'general population' within the defined area, provided the number of permanent residents remains largely unchanged into the future.

The recommendations also include the introduction of land use planning measures, which are intended to prohibit new residential development and sensitive land uses such as aged-care and childcare premises and restrict population growth west of Taplin Street. The management of fugitive dust from industrial and non-industrial sources was also flagged as an important strategy to control localised sources.

In August 2019, the State Government introduced the concept of an industry-funded voluntary buyback scheme. The Port Hedland Voluntary Buyback Scheme is now endorsed by government and in early 2021 the Hedland Maritime Initiative will begin administering the process.

The voluntary buyback scheme is separate to, but supports, the endorsed Taskforce recommendations relating to restricting population growth in the West End of the Port Hedland peninsula. The voluntary buyback scheme may assist to address the potential impact on local residential property values caused by the introduction of rezoning related to the [Port Hedland West End Improvement Scheme No. 1](#).

Department of Water and Environmental Regulation's role

The Department of Water and Environmental Regulation (the department) is committed to its responsibilities under the State Government-endorsed recommendations of the Port Hedland Dust Management Taskforce. These include:

- developing and implementing a Dust Management Guideline for bulk-handling port premises
- taking over control of the operation and maintenance of the Port Hedland ambient air quality monitoring network.

The department recognises that while the air guideline value is applicable to all residential areas in Port Hedland, its regulatory approach will rely on maintaining the current risk level (as per the department's [Guideline: Risk Assessments](#)) and the implementation of dust management controls for major industry dust sources. The department's primary role has always been and will remain the regulation of dust emissions from port operations that are licensed under Part V of the *Environmental Protection Act 1986* (EP Act).

To address the recommendations for which the department is responsible, it has established the Port Hedland Dust Program, with short-term (2019–23) and medium-term (2024–29) regulatory strategies.

The department's objective is to ensure dust emissions from premises licensed under the EP Act are not increased in the short term. And, that following the introduction of dust management controls from the Dust Management Guideline, impacts are reduced to the lowest practicable level across the whole Port Hedland peninsula to at a minimum meet the air guideline at and to the east of the Taplin Street monitor.

The department's work in achieving this goal will contribute to broader advice to government on its objective that receptors in the Port Hedland population (in particular, permanent residential occupants and sensitive land uses, including childcare centres, residential aged-care facilities, schools and medical centres) are not routinely exposed to ambient dust levels that exceed the air guideline value.



Risk-based assessment

With reference to *Guideline: Risk Assessments*, the department acknowledges that dust emissions from port operations to date have generally been assessed by the department as high risk, and have been approved on the basis that they are subject to multiple regulatory controls to abate and minimise impacts.

The basis for this position is that the air guideline value (referred to in [Guideline: Risk Assessments](#) as specific consequence criteria) has been assessed by the department as likely to be exceeded at receptor locations west of Taplin Street. To the east of Taplin Street, the risk has been assessed to be lower (moderate) with the air guideline value being possibly at risk of not being met.

In areas west of Taplin Street, any significant increase of risk may lead the department to form a view that the operations are not acceptable. The department's strategy is aimed at avoiding this position and reducing industry dust emissions to lower levels.

The department works closely with the Department of Health to ensure that the factors in determining risk, such as a significant increase in the average PM₁₀ or the number of exceedances, are monitored and managed.

Air guideline value

The department takes the Port Hedland air guideline value into account in its regulatory framework; however, the air guideline value is not an enforceable limit. It is applied in the same manner as the National Environment Protection (Ambient Air Quality) Measure, providing guidance on monitoring population exposure to air pollution through the application of nationally consistent monitoring methods.

Exceedances of the measure would result in an appropriate and proportionate regulatory response aimed at returning air quality to an acceptable level. The department considers that ensuring compliance with licence conditions relating to dust management at licensed premises and implementing its Port Hedland Dust Program is an appropriate and proportionate response.

In March 2010, the Port Hedland Dust Management Taskforce adopted an 'interim guideline' of $70 \mu\text{g}/\text{m}^3$ (24-hour average) with 10 exceedances per calendar year, to be met east of Taplin Street. In its response to the final recommendations of the Taskforce, in October 2018 the State Government agreed that the air guideline value of $70 \mu\text{g}/\text{m}^3$ should apply to residential areas, wherever people live on a permanent basis in Port Hedland.

The Department of Health agrees to the continuation of the 10 exceedances per year of the air guideline value, as measured at Taplin Street, on the understanding that the overall population for the Port Hedland peninsula does not exceed 17,000: the modelled population in the Health Risk Assessment. As a matter of course, the department will take appropriate action to understand the cause of those events. There is no limit on exceedances solely as a result of natural events as per the application of the National Environment Protection (Ambient Air Quality) Measure. Consistent with the National Environment Protection (Ambient Air Quality) Measure, natural events are defined as bushfires, jurisdiction authorised hazard reduction burning, or continental-scale windblown dust.



Dust Management Guideline

In 2021, the department will finalise the development of a Dust Management Guideline that will be applicable to port operators in Port Hedland.

The Guideline is not intended to be a one-size-fits-all approach for port users, which are licensed individually under Part V of the EP Act. Dust controls will vary across operations in accordance with individual site context.

The Guideline will identify a tiered approach to best-practice dust control methods and infrastructure, while acknowledging a level of reasonableness and practicability for port operators to install and implement these measures.

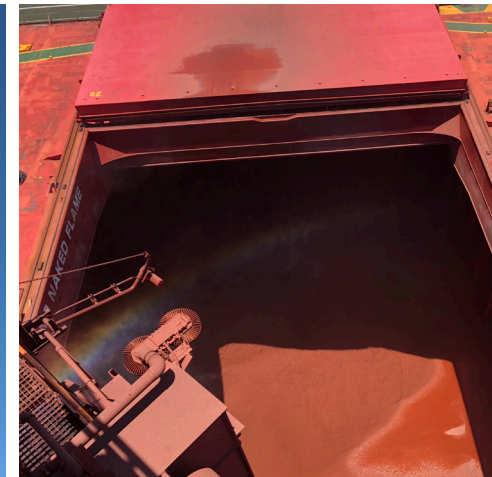
The Guideline itself will not be mandatory. However, in implementing the guideline, the department will have consideration of each port operator's self-assessment against the Guideline, before including changes to dust controls in each company's operating licence. It is an offence under the EP Act not to comply with a licence condition.

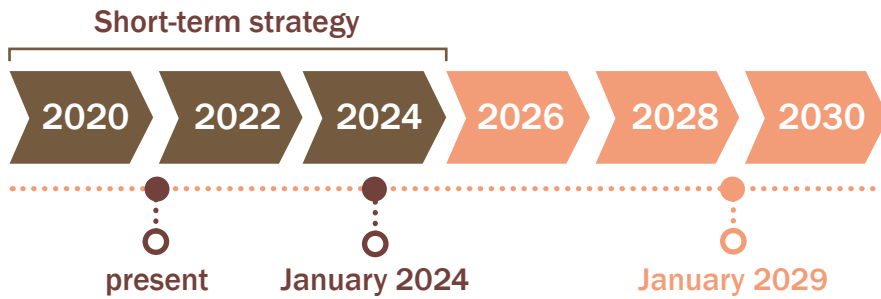
Port Hedland Monitoring Network

The department will take over the ambient monitoring network and oversee its ongoing operation, with cost recovery from port operators in Port Hedland (as currently represented by the Port Hedland Industries Council).

The department will prepare an annual report on the ambient air quality monitoring results, including analysis of trends and discussion of meteorological conditions when exceedances of relevant air guideline values are recorded.

Given the substantial historical data set, and to allow trend analysis, the department intends to continue monitoring at the same (or similar) locations.





2 Short-term strategy

In the shorter term of the Port Hedland Dust Program, the department will oversee the development and implementation of the initial or first phase of controls from the Dust Management Guideline for port operators; and facilitate the transfer of the ambient air quality monitoring network which will enable a high level of monitoring and analysis of ambient dust impacts.

Development and implementation of Dust Management Guideline

The department will finalise and publish its Dust Management Guideline and subsequently mandate port operators to self-assess against the Guideline. Port operators will be required to report back to the department on their self-assessment and provide a list of proposed improvements and a draft schedule for implementation of those changes to their operations.

After review and consideration of each port operator's proposed approach, the department will amend the licence of each operator to require the changes be made in a timely manner.

A fit-for-purpose program (Dust Management Guideline Review) will be established with industry to baseline and review the progress of the implementation of the Dust Management Guideline.

The Review will inform future decisions on regulation by considering the success, impact and practicability of the industry changes that were enacted. The Review also will have regard for the number of exceedances of the air guideline value recorded at the various monitoring stations, but the major focus will be on trends in overall ambient dust levels across the whole of the Port Hedland peninsula.

The department will consider impacts against the air guideline value across all of Port Hedland with a view to reporting on the impact of the program back to government.

Regulatory assessment approach

Port Hedland is also recognised as a strategic hub for the state economy and needs a clear regulatory framework for port operators to operate within. Under *Guideline: Risk Assessments*, the department acknowledges that the risk of dust impacts has been assessed as high and port operations have been authorised to date, subject to multiple regulatory controls.

Accordingly, it is the department's position that applicants wishing to expand their operations will need to demonstrate that emissions and discharges have not increased as a result of their proposal, and the current risk is not increased. In accordance with *Guideline: Risk Assessments*, should the department determine that risk has changed to 'extreme', it will refuse the application.

Any new bulk ore handling entrant to the port proposing to construct a new facility will be expected to be referred under Part IV of the EP Act for consideration by the Environmental Protection Authority (EPA). The department's position and advice to the EPA will be that emission controls identified in the Dust Management Guideline should be considered on a case-by-case basis as a minimum requirement.

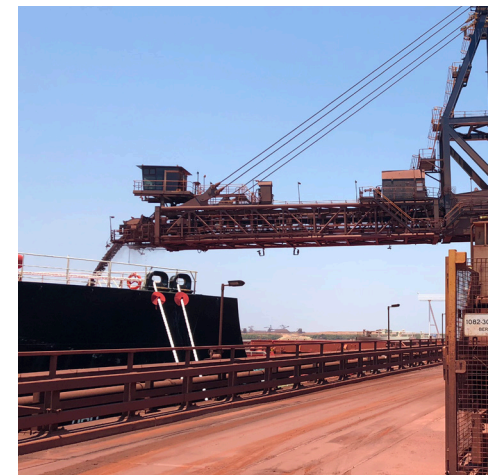
Desired outcomes

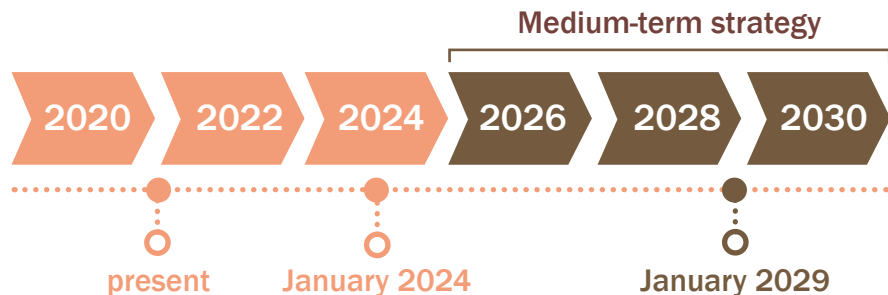
The department expects industry to achieve reductions in prescribed premises dust emissions, which will in turn produce measurable reductions in ambient dust levels (not simply reduce the number of air guideline value exceedances) across the entire Port Hedland peninsula, and in particular the West End.

The department, by virtue of the transfer of the ambient monitoring network, will display clear and transparent information relating to ambient dust levels in real time. As per the current situation, a detailed analysis of the dust impacts in the greater Port Hedland area will be published on an annual basis by the department.

The Dust Management Guideline Review will inform future decisions on the ongoing effectiveness of industry regulation for consideration by government.

The department will have adequate information about both the emissions (from port operators) and impacts to the environment and community to inform government direction on the ongoing approach in Port Hedland.





3 Medium-term strategy

The department’s regulatory strategy is one part of the State Government’s continuing whole-of-government approach to ensure the continued prosperity of Port Hedland. Implementation of the Port Hedland West End Improvement Scheme No. 1, the Port Hedland Voluntary Buyback Scheme and the ongoing environmental regulatory strategy are all complementary strategies as part of industry and government responsibility for environmental management.

On conclusion of the implementation of the Dust Management Guideline and the associated changes to port operations, the department will seek input from all relevant State Government decision-making departments in regard to the adequacy of dust impacts to Port Hedland.

Acknowledging the whole-of-government approach in Port Hedland, the department considers it appropriate to determine if the combined government programs have had the desired effect in Port Hedland.

On the advice of government, the department may be required to reconsider the tiered approach to reasonableness and practicability in its Dust Management Guideline and enact a second phase of review against the Guideline.

Regulatory assessment approach

The Dust Management Guideline will be the primary guidance tool for regulation of port operators following its implementation. Applications made to the department by port operators will be required to demonstrate their ability to meet the Dust Management Guideline requirements.

In accordance with *Guideline: Risk Assessments*, the department will continue to make risk-based decisions. Should the department determine that risk has changed to ‘extreme’, it will refuse the application, regardless of whether the applicant has met the Dust Management Guideline.

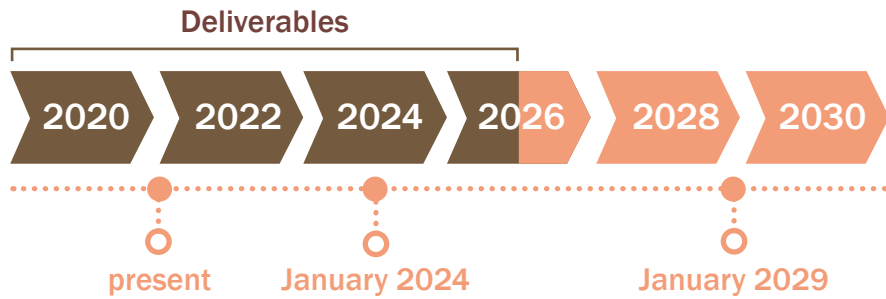
Any new bulk ore handling entrant to the port that is proposing to construct a new facility will still be expected to be referred under Part IV of the EP Act and will be considered by the EPA. The department’s position and advice to the EPA will be that emission controls identified in the Dust Management Guideline should be considered on a case-by-case basis as a minimum requirement.

Desired outcomes

The department expects that the whole-of-government strategies will allow the risk of dust to the Port Hedland population to be reduced.

The department’s Dust Management Guideline will provide clear benchmarks and direction to industry; that if met, will ensure that dust emissions can be managed effectively.

The department’s ambient monitoring network will be fit for purpose, proportionate to the level of risk and reliably inform community members of the impacts of dust.



4 Deliverables

The department commits to a number of deliverables over the next five years that will be publicly available:



The Dust Management Guideline will be finalised by 2021 and necessary licence amendments to enact the document following that.



A website displaying live data from the ambient air quality monitoring network; with some trend analysis.



Annual reports on the performance and measurements of the ambient monitoring network, delivering an objective view of the impacts of dust on Port Hedland.



A Dust Management Guideline Review, after the completion of the short-term strategy, which considers the effectiveness of the Dust Management Guideline controls of industry dust sources within the port.



5 Further communication

The department will utilise its community updates webpage as its primary method of communication for matters relating to Port Hedland. Regular updates will be provided on the update page to reflect any further consultation processes from the department.

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