



Public Submission to the State Government –
Port Hedland Dust Taskforce



OCTOBER 2017

Executive Summary

As a long-term member of the Port Hedland community, BHP welcomes the opportunity to provide comments on the Taskforce's recommendations.

BHP believes that through this process the State Government can guarantee the strategic sustainable development of the Port and Port Hedland community, including creating new local jobs and economic growth around the Port precinct as well as opening up opportunities for residential development and revitalised community amenities in the East End and the South Hedland CBD.

BHP looks forward to the opportunity to work collaboratively with the community, state and local government, and the rest of industry to realise these shared outcomes.

Context

About BHP

BHP is a leading global resources company. Our principal iron ore operations are based in the Pilbara region of Western Australia and comprise of an integrated system of seven mines, two main railways and two port facilities located at Port Hedland.

BHP manages and operates Western Australia Iron Ore (WAIO) as a single integrated business on behalf of separate underlying joint ventures, which ultimately own WAIO and its operations. These joint ventures include Mt Newman Joint Venture, Mt Goldsworthy Joint Venture, Yandi Joint Venture, and BHP Iron Ore Jimblebar Joint Venture. Ownership is aligned across these joint ventures, with BHP Billiton Minerals, Itochu and Mitsui owning 85%, 8% and 7% respectively.

Our port facilities include two world class operations located on opposite sides of the Port Hedland harbour. Our high quality iron ore product is exported to steel makers in China, Japan, Korea, Taiwan, Europe and Australia.

BHP first shipped iron ore out of the Port Hedland Port in 1966 and we plan to continue doing so for the next 50 to 100 years.

BHP is the largest employer in Port Hedland, the largest rate payer in the Town of Port Hedland and the largest income generator in Port Hedland.

BHP is committed to working with the State Government, Town of Port Hedland and local community in creating a sustainable vision for the entire town that accommodates the needs of all stakeholders.

About Port Hedland

As at the 2016 census, the Town of Port Hedland (Local Government Area) had a population of 14,469. There are 596 residents (just over 4% of the total Port Hedland population) currently living in the West End (from the Port to Taplin Street).

The majority of the Town of Port Hedland population resides in South Hedland which is also where the central business district is located.

The Port of Port Hedland is the world's largest bulk export port. The Pilbara Ports Authority has indicated that the Port could, with further infrastructure investment, reach an export capacity of 700MT in the 2026-2027 financial year.

ACIL Allen conducted an economic study of the Port Hedland Port on behalf of the Port Hedland Industries Council (PHIC) in order to understand the value of the Port of Port Hedland and the trade through the Port to the Pilbara, Western Australian and Australian economies¹. The study also examined the potential economic and social costs if the Port is not supported to grow to its full potential, and total iron ore exports remained unchanged over the next ten years.

ACIL Allen received information on the income, expenditure and wages paid by BHP, FMG, Roy Hill and PPA for the 2015-16 financial year to complete the economic contribution study. Collectively, ACIL Allen refer to the subjects of this contribution study as the Port Hedland Port Supply Chain.

The Port Hedland Port Supply Chain accounted for \$A418.4 million in direct economic output in the Town of Port Hedland in 2015-16. This was approximately 8.7 per cent of the economic output produced in the town of Port Hedland in the financial year. The activities of the Port Hedland Port Supply Chain in Port Hedland generated \$A585.9 million of indirect economic output in the Town, meaning the total economic contribution exceeded \$A1 billion (\$A1.004 billion) in 2015-16. All told, this represented approximately 21 per cent of total economic output produced in Port Hedland in the year.

The economic multiplier of local expenditure by the Port Hedland Port Supply Chain was estimated by the study to be 2.4, meaning every dollar of expenditure made in the area generated flow-on expenditure of \$1.40. This is a significant result given a typical multiplier would indicate flow on expenditure of less than \$1.00 for every dollar spent. This implies that the Port Hedland Port Supply Chain is critical to the underlying structure of the Port Hedland economy. This level of activity supported approximately 5,000 jobs in the Town of Port Hedland, which in 2015-16 was just under half of total employment (10,989) in the region.

The Port Hedland Dust Taskforce

At the direction of the Premier, the State Government established the Port Hedland Dust Management Taskforce (the Taskforce) in 2009 to review existing reports and develop an integrated dust management plan that considered available evidence.

The key issues driving the need for the plan were:

- scale of industry coupled with regional and national economic importance of the port;
- close proximity of residential housing to expanding industrial operations at the port;
- potential risk to community health associated with elevated dust and noise levels in the area;
- amenity issues associated with elevated dust and noise levels; and
- ability of land owners to undertake developments in the area that are not desirable in the longer term due to limited planning controls.

The Taskforce reviewed the available evidence and recognised there were five broad categories where the Plan must give clear direction for action. These were health risk

¹ACIL Allen Consulting, *An economic study of Port Hedland Port*, <http://phic-hedland.com.au/wp-content/uploads/2017/10/port-hedland-port-economic-study-final-report-september-2017.pdf>

assessment and analysis, environmental management controls, land use planning, industry initiatives and governance.

As the Port Hedland Dust Management Taskforce's Report March 2010 highlighted, Port Hedland is located in a dusty, semi-arid region with naturally high levels of dust caused by the hot, windy, dry climate and sparse vegetation and dust levels are likely to further increase in the West End as Port exports grow².

Dust modelling completed as part of the 2010 Taskforce Report indicated that with the proposed expansion of port facilities, notwithstanding the application by industry of best practice engineering controls for dust, there remains the potential for increases in exceedances of the target dust levels in the West End (refer Figure 1).

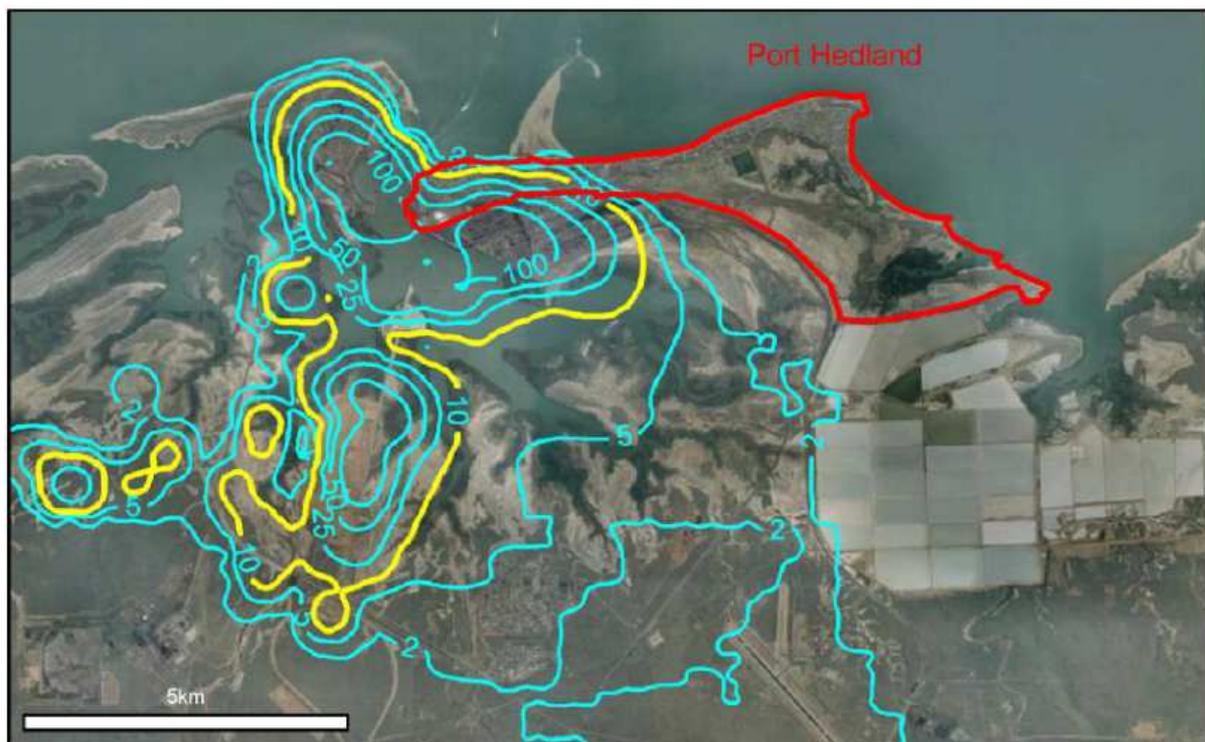


Figure 1 – From the Taskforce's 2010 Report: Modelled PM10 exceedances of 70 µg/m3 for Port Hedland for the expanded inner harbour.

Port Hedland and the Port operations have historically been allowed to develop in close proximity with no separation of industrial and residential land use. In the last 10-15 years this has been exacerbated by strong global market demand for commodities exported through the Port Hedland Port. At the same time, a growth in incompatible development with increased residential occupancy adjacent to the Port precinct has occurred. It has also become more apparent that this incompatibility requires intervention to prevent potential future land use conflicts and enable the economic value of bulk commodity exports to be realised for the local, State and Federal economy.

BHP has been a member of the Taskforce since its inception, both in its own right and as a member of Port Hedland Industries Council, and has worked cooperatively with the State

² The Port Hedland Dust Management Taskforce Report March 2010, page 10, http://www.jtsi.wa.gov.au/docs/default-source/default-document-library/ph_air_quality_noise_management_plan_0310.pdf?sfvrsn=8

and Local Government and industry to implement the recommendations of the original 2010 Taskforce Report.

In 2010 the Dust Taskforce published the Port Hedland Air Quality and Noise Management Plan. Subsequent to this the Department of Health conducted a study which culminated in the publication of the “Port Hedland Air Quality Health Risk Assessment for Particulate Matter, January 2016” (HRA). After consideration of the HRA, the Dust Taskforce responded with the 2017 Taskforce Report. BHP’s submission considers all three reports but responds directly to the 2017 Taskforce Report’s recommendations.

BHP welcomes the release of the 2017 Taskforce Report and appreciates the opportunity to respond to the recommendations.

The opportunity if potential land use conflicts are solved

Western Australia is the largest iron ore producer in the world and Port Hedland Port is the world’s largest bulk export port. The Western Australian iron ore industry competes in a globally competitive market and must remain cost efficient and productive to maintain established, long-term markets in China, Japan, Korea and Taiwan which are critical to its long-term health and survival.

The use of steel has been a fundamental feedstock to developing economies as evidenced by the China induced boom experienced by the iron ore sector for much of the last decade. The link between economic growth in Asia and growth prospects of the Australian iron ore sector remains, albeit the prospects are more uncertain and definitely more tempered than experienced at the beginning of the decade. Given conducive economic conditions, BHP is well placed to participate in future growth of the sector and BHP is confident that WA iron ore exports from Port Hedland have significant capacity to continue for a long time into the future.

However, this cannot be taken for granted and we need to ensure that the WA operating environment remains internationally competitive. For example, Vale, a Brazilian company, is the world’s single largest iron ore producer with substantial iron ore resources and already benefits from a significantly lower iron ore royalty rate than WA producers. There are also large high grade undeveloped resources in West Africa that could be developed if Australia’s ability to ensure availability of supply on internationally competitive terms was jeopardised.

If the State Government can continue to lead a course to resolve the potential land use conflicts resulting from historic planning issues and provide efficient regulatory oversight in Port Hedland there is a significant opportunity for the State and local community to capitalise into the future.

Currently according to ACIL Allen, the Port contribution to the Western Australian economy is upwards of \$A26.4 billion – almost as much as the State’s entire construction industry. This level of economic contribution supported just over 59,000 jobs in the Western Australian economy – or around one in every 20 jobs in the State.

If the Port achieves exports of 700MT per annum over ten years it would create up to an additional 5,338 full time equivalents jobs across WA per annum.

Importantly for the State Government, the ACIL Allen study indicates there would be an up to \$A5.2 billion increase in tax receipts over ten years with an average increase of around \$A516 million per annum. Royalty receipts will potentially be \$A4.6 billion higher and payroll tax receipts will potentially be \$A508 million higher over the 10 year study period. This

represents a significant contribution to the Pilbara and WA economies as well as State Government revenues.

The community of Port Hedland must also benefit socially from the continued growth of the Port and the implementation of the Taskforce recommendations. BHP considers that an opportunity exists for the State Government to create a 'Port Precinct' in the West End that focuses on capturing the economic benefit from the Port to create long term local positive social change. This can be achieved through the application of appropriate planning controls that encourage compatible developments and restrict further residential development in the Port Precinct with increased investment in public amenity in South Hedland and coastal areas in the East End.

This broader renewal of the Port Precinct will allow for the growth of commercial and maritime related businesses as well as supporting industrial tourism. The renewal of the Port Precinct will have multiple benefits including reducing potential land use conflicts, boosting the local economy and supporting existing businesses in the Port Precinct. Through this renewal the amenity of the Port Precinct will also be improved. Although the focus of the Taskforce is on the West End / Port Precinct the opportunity exists for the State Government to present a broader vision for the entire township.

Response to the Taskforce recommendations

As a long-term member of the community, BHP has a key role to play in continuing to implement best practice environmental management while at the same time ensuring that Port Hedland continues to be developed for the benefit of all stakeholders. We welcome the opportunity to provide the following comments on the Taskforce's recommendations:

Health Risk Assessment - Interim Guideline - Recommendation 1:

The Taskforce recommends that the current interim guideline of 24-hour PM10 of 70 µg/m³ (+ 10 exceedances to accommodate natural events) continues to apply to residential areas of Port Hedland and that measures should be introduced to cap (and if possible, reduce) the number of permanent residents in dust-affected areas of Port Hedland.

BHP supports this recommendation for the Department of Water and Environmental Regulation (DWER) to continue to apply the current 24-hour PM10 of 70 µg/m³ guideline (allowing 10 events per annum to account for natural events) which has applied to BHP's operations since 2007.

BHP supports the compliance monitoring location continuing to apply at Taplin Street.

Since 2010 substantial investments in the monitoring and modelling of dust emissions combined with investments of ~\$A400 million in leading dust prevention and abatement controls across BHP's mines and port operation have delivered a significant reduction in the dust events potentially attributable to BHP, with no events recorded for BHP in the 2017 financial year.

Dust abatement strategies implemented by BHP include:

- removal of crushing operation from the Port;
- removal of stacking / reclaiming (and associated infrastructure) from the northern end of the North Stockyard and the rehabilitation of these areas;
- increase in the number of belt wash stations throughout the facility;
- introduction of fogging systems at key transfer stations throughout the facilities at both Nelson Point and Finucane Island;

- ore moisture conditioning;
- sealing of roads; and
- improved availability and maintenance of dust abatement infrastructure.

Technological development is a key opportunity that industry must embrace to enable the Port to reach its full potential and BHP fully supports a diligent and conscientious integration of new technologies over time.

BHP, along with the rest of industry, has demonstrated a commitment to continuous improvement in respect of its dust mitigation practices. We are committed to continuing to advance the science of dust management and proving and adopting practical and effective ways to reduce potential dust emissions.

However, as the Taskforce's 2010 Report highlights, industry initiatives alone will not provide the solution. Investment by industry in additional, more costly, mitigation options will not materially reduce dust levels in the community, having regard to the multiple sources of that dust.

If the Taskforce's 2017 Report recommendations regarding planning controls and background dust mitigation are not supported and instead it is only industry which are required to make more costly future investments in an effort to reduce overall dust levels then there is a real risk this will lead to either volumes slowing or no growth in exports because it is too costly to produce the additional tonnes.

BHP's support for planning controls does not mean that we do not support development in the West End. BHP supports further development which will deliver a sustainable future for the West End. In BHP's view the best way of achieving this is to allow for the growth of commercial and maritime related businesses as well as supporting industrial tourism. The renewal of the Port Precinct will have multiple benefits including reducing potential land use conflicts, boosting the local economy and supporting existing businesses in the Port Precinct. BHP also supports improvements to community amenity which will be only possible through the renewal of the Port Precinct.

Air Quality Monitoring - Recommendation 2:

The Taskforce recommends that the Port Hedland Industries Council continue operating and maintaining its air quality network, with responsibility for oversight of the network, including data verification, storage and publication, transferred to the Department of Environment Regulation. The Taskforce notes that the Department of Environment Regulation will consider a number of options, including regulations, to implement this recommendation.

BHP endorses this recommendation and as a member of PHIC we endorse the comments contained in its public submission. BHP has supported the establishment of the extensive monitoring program and network as well as contributing significantly to PHIC through enabling the BHP network to be extended to an industry based network.

BHP also believes that the implementation of this recommendation can be achieved without the need for further regulation to be placed on industry.

Industry Regulation - Recommendation 3:

The Taskforce recommends that:

- *The Department of Environment Regulation implements a coordinated risk-based review and assessment approach to managing dust and noise in Port Hedland through a review of all port premises licences under Part V, Division 3 of the Environmental Protection Act 1986.*

- *Where premises are subject to Ministerial Statements, the Department of Environment Regulation will provide the findings and recommendations of its risk-based review and assessment to the Environmental Protection Authority and the Office of the Environmental Protection Authority.*
- *The Environmental Protection Authority and the Office of the Environmental Protection Authority will consider the Department of Environment Regulation's assessments, and the appropriateness of conditions in Ministerial Statements.*
- *Where the Environmental Protection Authority inquires under section 46 of the Environmental Protection Act 1986 into the conditions within Ministerial Statements, the Environmental Protection Authority will provide the Minister for Environment with a report on whether the conditions in the Statement/s should be changed.*
- *The Department of Environment Regulation finalises and implements dust management guidelines for bulk handling port premises, outlining its expectations in relation to the assessment of dust impacts, dust control and monitoring requirements from these premises.*

BHP endorses the need for a risk-based review and assessment approach where it is effective, outcomes based and not unduly prescriptive. We consider that the DWER, as regulator, needs to continue to have regard for local conditions, for example the high level of background dust, and other non-regulatory levers.

BHP has had significant success in mitigating potential dust emissions through comprehensive monitoring and management controls. BHP utilises a range of leading dust controls aimed at reducing dust generation at every point of the ore handling process. This includes controls such as:

- stockyard water cannons;
- bulk ore moisture conditioning (BOC) sprays;
- enclosure and dust extraction on all car dumpers;
- sealing roads, where practicable, and implementation of an extensive cleaning regime;
- belt wash stations on selected conveyors;
- fogging sprays at selected transfer stations and rescreening plants;
- water sprays on all luffing/slewing stackers, reclaimers and ship loaders; and
- addition of gravel to unsealed open areas to reduce wind erosion.

These controls are utilised as part of an integrated dust management system across BHP's operations that incorporates real-time air quality monitoring data together with forecast weather information to enable active adjustments to our operational activities to minimise dust emissions.

BHP's dust management performance is regularly reported to DWER.

Industry's success in reducing dust for the whole air shed through comprehensive monitoring and management controls does not mean that there will be a continuous linear improvement as it will become increasingly more expensive to deliver diminishing results. While BHP is optimistic about technological advancements, finding practical, feasible ways to abate dust are likely to have diminishing results.

As the Taskforce recognises on Page 25 of the report *"with increasing throughput, it will be difficult to reduce dust emissions even with continued improvements in dust generated per tonne of exports"*.

In addition, regulators must take into account that background dust accounts for a significant proportion of the total Port Hedland dust and industry must be realistically regulated to

reduce overall dust within its control. To extend this to background dust is an unrealistic burden on all Port users.

In PHIC's 2015/16 Annual Report to the Taskforce (completed by an independent consultant), the Taplin Street monitoring station recorded 10 exceedance days above the 24 hour average for PM10 of 70µg/m³. A detailed analysis showed:

- on 4 days elevated regional dust was the cause;
- on 3 days industry was the cause;
- on 2 days industry and elevated regional levels was the cause; and
- on 1 day it was a local source, other than industry, that was the cause.

It is important that the State Government and its Departments ensure short term certainty, while planning for the long term context of the port operating for the next 50 to 100 years.

Noise - Recommendation 4:

The Taskforce recommends that:

- *The Department of Environment Regulation assesses unacceptable noise levels and assesses whether additional controls can be introduced as part of its review of all port premises licences under Part V, Division 3 of the Environmental Protection Act 1986.*
- *The Town of Port Hedland uses the Port Hedland Cumulative Noise Study to inform its land use planning for the West End of Port Hedland.*

BHP endorses the environment regulator prioritising a precinct wide approach to noise which was first identified by the Taskforce in 2010, whilst avoiding introducing regulatory uncertainty and/or a new land use conflict issues in the interim. Such an approach should not constrain growth of the Port.

Assessment of noise should not be limited to the Port precinct, but also needs to be consider transport corridors - including assessing town planning implications for South Hedland and East End.

Land-use planning - Recommendation 5:

The Taskforce recommends that:

- *The Minister for Planning asks the Town of Port Hedland to implement a Special Control Area westwards from McGregor Street as part of its Town Planning Scheme No. 5.*
- *The Special Control Area prohibits new permanent residential development and other sensitive land uses, including aged care and child care premises, west of Taplin Street.*
- *Low-density (R20) residential development be permitted in the predominantly residential area between Taplin and McGregor Streets, but higher-density residential development and other sensitive land uses be prohibited.*
- *The zoning in the Special Control Area aligns with the Town of Port Hedland Local Planning Strategy's Precinct 1, taking into consideration the findings of the Health Risk Assessment.*

BHP supports further development which will deliver a sustainable future for the West End. In BHP's view the best way of achieving this is to allow for the growth of commercial and maritime related businesses as well as supporting industrial tourism. The renewal of the Port Precinct will have multiple benefits including reducing potential land use conflicts, boosting the local economy and supporting existing businesses in the Port Precinct. BHP also supports improvements to community amenity which will be only possible through the renewal of the Port Precinct.

In the last ten years BHP has invested more than \$A20 million in activation projects in the West End including the FORM Court House Gallery, Silver Star café, park improvements (Marapikurrinya, Lions, Bert Madigan) and the Port Hedland Chamber of Commerce and Industry Business Incubator.

BHP also supports previous statements by the Government that the Town's East should continue to become an attractive, modern residential community with new community amenities for Port Hedland residents.

BHP is concerned that the implementation of appropriate planning controls has been slow to progress. There is now a critical need to provide certainty to ensure that the Port's and Town's growth is not hindered. Furthermore, as recommended by the Department of Health's Port Hedland Health Risk Assessment, the revised planning regime should focus on reducing and eventually eliminating the number of residents exposed to elevated dust levels over time.

Since 2010 it is disappointing that the Taskforce's recommendations regarding planning controls have not been adequately addressed and at times circumvented. BHP can provide examples to the State Government upon request.

BHP notes that there is no clear indication as to which agency is to take the lead with respect to preparing the Special Control Area (SCA), and its implementation once the SCA is in place. We believe that the State Government should appoint the Western Australian Planning Commission (WAPC) supported by Department of Planning, Lands and Heritage as the agencies responsible for land use planning matters in the proposed SCA, including assessing and determining development applications.

BHP suggests that an improvement plan (IP) and improvement scheme (IS) provides a more appropriate framework for preparing and implementing the SCA by the WAPC. BHP can expand upon this suggestion on request.

Local Government and Community - Recommendation 6:

The Taskforce recommends that:

- *The Town of Port Hedland works with key stakeholders to identify and mitigate dust from non-industry sources, with a focus on:*
 - *Identifying and implementing dust mitigation options for the spoil bank;*
 - *Sealing unsealed roads and undertaking regular and effective street sweeping operations;*
 - *Considering greening options, including coastal dune revegetation and the establishment of a green belt around the port; and*
 - *Reviewing and improving the efficacy of municipal services associated with dust control.*

BHP endorses the recommendation that the Town of Port Hedland work with key stakeholders to identify and mitigate background dust, noting there is a considerable opportunity here.

As the Taskforce's Report states, there are three major sources of PM₁₀ dust contributing to the total dust load within the Port Hedland air shed:

- regional background dust from various sources such as regional dust storms, wildfires etc;
- non-Industrial sources such as light industrial areas, vehicle activity along roads; and
- industry sources from the port operations.

Naturally occurring dust is a significant contributor to overall dust in Port Hedland. We encourage broader dust management and exposure reduction opportunities that are not isolated to industry.

Over the past decade, BHP has made significant contributions to amenity improvements, cleaning and greening in the West End in partnership with entities such as Town of Port Hedland, State Government, the Pilbara Ports Authority and the Port Hedland Chamber of Commerce Incorporated. Initiatives include:

- providing additional cleaning of public amenities such as high pressure cleaning playgrounds, street furniture and the main street;
- various greening projects including street-scaping along major road arteries, CBD verge treatments, and creating a vegetation zone along Wilson Street;
- creating new parks and improving existing parks;
- developing Visitors centre/art gallery precinct including the Silver Star café; and
- contributing funding toward the Port Authority's Interpretative Walk.

BHP would welcome the opportunity to work with Town of Port Hedland and other industry partners to help to manage and mitigate background dust in Port Hedland.

Governance - Recommendation 7:

The Taskforce recommends that:

- *The Taskforce continues to operate, with a focus on sharing information and co-ordinating agency activities when needed.*
- *The Taskforce reports annually to the Minister for State Development on progress in implementing the recommendations in this report and on the overall status of dust and noise management in Port Hedland.*

BHP endorses the recommendation that the Taskforce continues to operate, to the extent that it continues to support action being taken, and for a report to be provided to the Minister for State Development on the progress in implementing the recommendations. BHP also supports greater opportunity for ongoing community engagement in the Taskforce process.

Conclusion

Sustainable long term orderly development and expansion of the Port of Port Hedland is critical to the economic future of Port Hedland, Western Australia and Australia. If the Port achieves exports of 700MT per annum over ten years it would create up to an additional 5,338 jobs across WA per annum.

Importantly for the State Government, there would be an up to \$A5.2 billion increase in tax receipts over ten years with an average increase of around \$A516 million per annum. Royalty receipts will potentially be \$A4.6 billion higher and payroll tax receipts will potentially be \$A508 million higher over the 10 year study period. This represents a significant contribution to the Pilbara and WA economies as well as State Government revenues.

BHP believes that through this process the State Government can guarantee the strategic sustainable development of Port Hedland, including ensuring that the West End creates new local jobs and economic growth around the Port precinct. This will enable a vibrant vision for the East End with new residential development and community amenities for Port Hedland residents and provide an ongoing commitment by Governments and industry to continue revitalising and improving South Hedland as the CBD of Port Hedland.

The Taskforce report provides a unique opportunity for the State Government to address these issues. The negative financial and social impact to Port Hedland, the Pilbara, the State and the Nation is too great if decisive and timely action is not taken.

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