RioTinto

Environmental Protection Act 1986 (WA)
Part IV Ministerial Statement
Five Yearly Performance Review Report

Ministerial Statement: 770

Proposal: Dampier Port Operations

Report period: 1 May 2018 to 30 April 2023

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1 Introduction

1.1 Site Description

Hamersley Iron Pty. Limited (hereafter referred to as the Proponent), a wholly owned subsidiary of Rio Tinto, operates iron ore receiving, processing, stockpiling and exporting facilities at the Parker Point (PP) and East Intercourse Island (EII) port facilities (collectively termed the Dampier Port herein). Dampier Port is located adjacent to the township of Dampier on the Pilbara coast of Western Australia and is situated on the Hamersley Iron special lease area established under the *Iron Ore (Hamersley Range) Agreement Act 1963*. Dampier Port commenced operations in 1966 and has been progressively expanded since that time, as summarised below:

- 2003: PPT expansion from 35 to 50 million tonnes per annum (Mtpa), with a total Dampier Port Operations approved throughput of 95 Mtpa (Ministerial Statement 638);
- 2005: PPT expanded to 75 Mtpa, 120 Mtpa total (Ministerial Statement 702);
- 2008: PPT expanded to 100 Mtpa, 145 Mtpa total (Ministerial Statement 770);
- 2010: PPT expanded to up to 115 Mtpa, 160 Mtpa total (s45C amendment, Ministerial Statement 770).

1.2 Purpose

This report addresses Condition 5-1 of Ministerial Statement 770, which requires the Proponent to submit an environmental performance review (termed the Performance Review herein) every five years from the date that the project was approved. This report covers the period from 1 May 2018 to 30 April 2023.

The Performance Review must address the following:

1. The major environmental issues associated with implementing the project; the environmental objectives of those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those objectives;
2. The level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
3. Significant improvements gained in environmental management, including the use of external peer reviews;
4. Stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
5. The proposed environmental objectives over the next five years, including improvements in technology and management processes.

1.3 Report Structure

The Performance Review has been broadly structured in accordance with the requirements stipulated within Condition 5-1 of Ministerial Statement 770, with key requirements to be addressed as summarised within Table 1.

Table 1: Requirements of Condition 5-1 of Ministerial Statement 770

Clause	Requirement	Section of Performance Review Report
5.1.1	The major environmental issues associated with implementing the project; the environmental objectives for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those objectives.	Sections 2 and 3
5.1.2	The level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable.	Section 4
5.1.3	Significant improvements gained in environmental management, including the use of external peer reviews.	Section 5

Clause	Requirement	Section of Performance Review Report
5.1.4	Stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed.	Section 6
5.1.5	The proposed environmental objectives over the next five years, including improvements in technology and management processes.	Section 7

2 Environmental Risks

The key environmental risks associated with expansion and operation of Dampier Port are detailed within approval applications (SKM, 2007, 2010) and the associated Environmental Protection Authority assessment report and associated recommendations (EPA, 2007). These environmental risks broadly include:

- Dust emissions;
- Noise emissions; and
- Stresses on water resources.

These risks are summarised below and additional detail regarding these risks are available within the EPS, S45C application and EPA report.

2.1.1 Dust Emissions

Handling and processing of ore has the potential to generate dust under certain weather and operational conditions, and this dust may impact the local environment and amenity of residents within the nearby townsite of Dampier. Factors influencing the generation and dispersion of dust may include meteorological conditions (ambient temperature and evaporation rates, wind speed and direction), ore particle size distribution, ore moisture content and ore handling and associated ancillary activities (e.g. vehicles, areas of exposed ground).

Particle size is a determinant regarding the potential impacts associated with generated dust. Dust particulates are generally defined by size as:

- Total suspended particulate (TSP), which is particulate matter 50 µm or less in diameter;
- Particulate matter with a diameter of 10 µm or less (PM_{10}); and
- Particulate matter with a diameter of 2.5 µm or less ($PM_{2.5}$).

Dampier Port dust emissions have been modelled for each of these size fractions and are summarised in Table 2 (Environmental Alliances, 2010).

Table 2: Modelled particulate emissions for Dampier Port

Location	Parameter		Dampier Port Operations	Background/ other	Total	Criterion ($\mu g/m^3$)
Dampier Town	PM_{10}	24-hour average (6th highest)	20.7	24.6	45.3	50
		Annual Average	5.6	15.5	21.1	25
	$PM_{2.5}$	24-hour average (6th highest)	9.2	7.9	17.1	25
		Annual Average	2.5	4.5	7.0	8
	TSP	24-hour average (6th highest)	27.7	44.1	71.8	90
		Annual Average	8.1	19.5	27.6	-
King Bay Industrial estate	PM_{10}	24-hour average (6th highest)	59.3	12.8	72.1	-
		Annual Average	15.8	9.2	25.0	-
	TSP	24-hour average (6th highest)	90.2	23.0	113.2	150
		Annual Average	22.8	11.6	34.4	-

A series of engineered controls are incorporated into the design of Dampier Port to reduce dust emissions, including:

- Baghouse dust extraction systems installed at car dumpers and screen houses;
- Dust collectors on sample stations;
- Dust covers on car dumpers, crushers and screen houses;
- Dust cover on high risk conveyors (i.e. 5E at EII);
- Belt scrapers and / or High Pressure, Low Volume (HPLV) belt cleaners on major conveyors;
- Water cannons on stockpiles;
- Water sprays on car dumpers, conveyors, screens, transfer stations, stackers, reclaimers and ship loaders; and
- High-wind water tower at EII stockyard.

Additional dust mitigation measures include:

- Application of water and chemical dust suppressant on roads and other exposed areas;
- Removal of dust on roads with street sweepers;
- Mechanical removal of spilled ore from beneath conveyors;
- Rehabilitation of open and exposed areas, where practical;
- Optimised operational and maintenance tactics for dust suppression equipment; and
- Forecasting of dust risk and implementation of associated proactive management measures.

These controls, as well as particulate monitoring/management processes, are detailed within the Dampier Port Operations Dust Management Plan (DMP; Rio Tinto, 2015). The DMP's purpose is to provide a reproducible and consistent approach to manage and mitigate the levels of fugitive dust generated by Dampier Port. The DMP is reviewed annually and if significant changes are made, regulatory approval is sought. It is anticipated that an updated DMP will be submitted to the regulator in 2024.

Verification of these controls and Dampier Port's dust emissions/impacts are assessed via an extensive dust monitoring network (refer to Table 3). Dust monitoring is conducted within the townsite of Dampier and the King Bay industrial estate, which are sensitive receptors potentially impacted by Dampier Port Operations, and a reference site located within Karratha. The overarching purpose of the dust monitoring program is to quantitatively measure dust levels at both compliance and reference locations and assess performance against set objectives and targets.

Table 3: Dampier Port Operations dust monitoring network

Site Name	Parameter	Monitor type
Dampier Central (Dampier Primary School)	PM_{10}	TEOM
	$PM_{2.5}$	
	TSP	
Dampier West secondary monitor	PM_{10}	TEOM
Dampier East secondary monitor	PM_{10}	TEOM
Dampier North secondary monitor	PM_{10}	TEOM
Karratha (Hunt Way)	PM_{10}	TEOM
	$PM_{2.5}$	
	TSP	
King Bay	TSP	E-Bam

2.1.2 Noise Emissions

Handling and processing of ore has the potential to generate noise under operational conditions, and this noise may impact the local environment and amenity of residents within the nearby townsite of Dampier. The major noise sources associated with Dampier Port include:

- Conveyors, associated drives and transfers;
- Alarms (conveyor start-ups, vehicles, other);
- Bulking activities;
- Car dumpers; and
- Locomotives (idling, brake cars, shunting).

Noise emissions from fixed plant and rail sources are regulated under the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations) and *State Planning Policy 5.4: Road and Rail Transport Noise and Freight Considerations in Land Use Planning* (SPP 5.4) respectively.

The Noise Regulations limits for fixed plant cannot be retrospectively met due to the proximity of the town to Dampier Port (both of which were established prior to the establishment of the Noise Regulations). The Proponent has applied for a Regulation 17 exemption to vary the assigned noise level limits within the town. The Regulation 17 application has been informed by monitoring activities conducted within the town of Dampier and updated noise target criteria were proposed in 2022.

Noise modelling indicates that rail noise levels comply with SPP 5.4.

Noise from Dampier Port is managed in accordance with the Noise and Vibration Control Management Plan (RTIO, 2010a). Additionally Annual Noise Monitoring Reports and Noise Improvement Plans are developed and submitted to the Department of Water and Environment Regulation (DWER).

2.1.3 Water Resources

Dampier Port requires water to operate equipment and for operational dust suppression. Potable water is supplied by the Water Corporation and sourced from the West Pilbara Water Supply Scheme. Usage is tracked using a combination of proponent and Water Corporation owned water meters.

The Pilbara region is water-stressed and responsible management is necessary to minimise the impact on natural water resources. Water is managed at Dampier Port in accordance with the Dampier Water Management Plan (WMP). The WMP sets a framework for effective water management and intends to:

- Improve water performance through Rio Tinto standards, water targets and risk assessments to reduce operating costs, as well as reduced social and environmental impacts.
- Account for the social, environmental and economic value of water in business planning, projects, operation and closure. This includes identifying and respecting the cultural values associated with water.
- Engage with others on water, through communities, governments, industry, internal collaboration and by forming partnerships to ensure the sustainable use of water resources, reliable access to afford water and to be recognised as leaders in water management

The Dampier Port have embarked upon a programme of improved water management and planning. The objectives of water management planning at Dampier Port are to reduce the volume of scheme water used by the site, to prevent as far as practicable the release of all wastewaters and to ensure all water used is fit for purpose. Water management planning at Dampier Port can be divided into four areas:

- Water efficiency improvements;
- Used water collection;
- Used water treatment and storage; and
- Reuse of collected wastewater.

Dust suppression equipment/activities are water intensive and maintaining an appropriate balance between site dust emissions and efficient use of potable water is necessary. During the reporting period, reductions in potable water use were achieved through efficiency measures and increased water re-use. These strategies have enabled Dampier Port Operations to comply with the water consumption target criteria (refer to Section

3 for further details). Dampier Operations consistently meets its water target and will continue to investigate opportunities to improve performance going forward.

3 Environmental Objectives and Targets

This section details the objectives and targets for the key environmental factors associated with the Dampier Port. These objectives are broadly defined within the proponent's environmental impact assessment(s), EPA reports and Ministerial Statement, and have been summarised below.

3.1 Dust Emissions

3.1.1 Objectives

Dust monitoring is conducted within Dampier in real-time to ensure key objectives and targets are met. The EPA's environmental objectives (EPA 2007) for dust emissions are to ensure that:

- particulate levels in the town of Dampier comply with the relevant health criteria;
- particulate emissions do not adversely affect the health, welfare and amenity of Dampier residents and workers within the King Bay Industrial Area; and
- all reasonable and practicable measures are taken to minimise particulate emissions from the port operations.

3.1.2 Performance Targets

Dust emission target criteria are detailed within Ministerial Statement 770. These criteria have been primarily derived from the *National Environment Protection (Ambient Air Quality) Measure* (NEPM) and *Environmental Protection (Kwinana Atmospheric Wastes) Policy and Regulations 1999* (KEPP), as summarised within Table 4 below.

Table 4: Environmental criteria for airborne dust applicable to Dampier port operations

Location	Particle Size	Averaging Time	Concentration (µg/m³)	Source
Dampier town	TSP	1-hour	150	None
	PM10	24-hour	50	NEPM
Kings Bay industrial area	TSP	1-hour	150	None
		24-hour	150	KEPP

3.1.3 Methodology

The methodology for determining whether Dampier Port operations are potentially attributable to an exceedance of these target criteria is defined in the DMP and summarised below.

> *Dampier Port Operations contribution to PM10 and TSP 24-hour exceedances at Dampier Primary school (Dampier central) and the King Bay industrial area are estimated by calculating the percentage of the total dust load for the relevant 24-hour period that was recorded when the wind direction was from within the terminal's nominated arc of influence (see Table 5 below). If the percentage of the total PM10 or TSP dust load from the respective arc of influence exceeds 50%, then it is recorded that the terminal potentially contributed to the 24-hour averaged exceedance.*

A review of the on and off-site monitoring data is carried out to determine if the exceedance could be from operations other sources. If operations cannot confidently link the on-site operational activities to the exceedance, Dampier Port will not report the event.

Table 5: Bearing from the dust monitoring stations to the Pilbara Port Operations Parker Point and EII

Source	Bearing (from) degrees	
	Dampier Primary School	**King Bay Industrial Area**
Parker Point operational area	29-59	198-249
East Intercourse operational area including 5E Conveyor and Road	201-305	

3.2 Noise Emissions

The EPA's environmental objectives (EPA 2007) for noise emissions are to ensure that:

- Noise emissions comply with statutory requirements and acceptable standards;
- Noise emissions arising from the proposed increase in throughput at Dampier Port operations do not significantly contribute to noise levels within the town of Dampier; and
- Noise impacts on the town of Dampier as low as practicable.

The L_{A10} assigned level is best placed to assess fixed plan noise levels against target criteria specified within the Noise Regulations, whilst the SPP assesses against L_{Aeq}. The upper 10th percentile of monitored L_{A90} noise levels, filtered to removed extraneous noise, has also been used to estimate performance against the L_{A10}.

As discussed within Section 2.2, Noise Regulations target criteria cannot be retrospectively met within the town of Dampier and the Proponent has applied for a Regulation 17 exemption to vary the assigned noise level limits and the respective noise target criteria are summarised within Table 6.

Table 6: Dampier Port noise target criteria

Noise Type	Receiving location	Time of day	Parameter	Noise Regulation Target dB (A)	Proposed Regulation 17 target dB (A)
Fixed plant	Dampier Hampton Drive (EII)	0700-1900 Monday to Sunday	LA_{10}	45	45
		0900-1900 Sunday and Public holidays		40	44
		1900-2000 all days		40	
		2200-0700 Monday to Saturday 0900 Sunday and Public holidays		35	
	Dampier: Patterson Crescent (PPT)	0700-1900 Monday to Sunday		48	48
		0900-1900 Sunday and Public Holidays		43	
		1900-2000 all days		43	
		2200-0700 Monday to Saturday 0900 Sunday and Public holidays		38	
Rail		0600-2200	L_{Aeq}	60	N/A
		2200-0600		55	N/A

[1]L_{Aeq} upper 10th percentile assessment

3.3 Water Resources

3.3.1 Objectives

The EPA's overarching environmental objective is to conserve water resources in the Pilbara Region by minimising water usage (EPA 2007). This is primarily achieved through water efficiency measures and the reuse of water wherever practicable. Water use is actively tracked via a detailed water meter network and assessed against a target criteria of not more than 2,740 ML per annum.

3.3.2 Performance Targets

The water performance targets for Dampier Port are outlined below:

- To prevent the discharge of any contaminated wastewaters from the site (the discharge of uncontaminated stormwater is acceptable as this has little or no impact upon the natural environment);
- To maximise the volume of water recycled through the plant and used for dust suppression; and
- Maintain the network of water meters at PPT and EII to accurately quantify the volume of water used and recycled and to maintain the site water balance.

4 Performance Assessment

Compliance with legal and regulatory requirements, quantitative monitoring data and trends in environmental performance were measured at Dampier Port Operations during the 5-year reporting period. Dampier Port's environmental performance for the reporting period is summarised within the following.

4.1 Discussing Environmental Performance

This performance is actively tracked within a variety of on-site forums, including:

- Daily prestart meetings;
- Daily department meetings;
- Monthly dust and water stakeholder meetings;
- Monthly site Health, Safety and Environment meetings;
- Monthly 4/3 meetings (General Manager / Managers);
- Monthly 4/3/2 Leading Health, Safety and Environment meetings (General Manager / Managers / Superintendents); and
- Quarterly State of the Nation Presentations.

Non-compliances with target criteria (Section 3) are prioritised, actively investigated and rectified as soon as practicable.

4.2 Dust Emissions

Particulate concentrations were continually assessed using Tapered Element Oscillating Microbalance (TEOM) monitors and are summarised within the following. Real-time dust monitoring results are made publicly available on the following website. (Pilbara Iron Dust Monitoring (benchmarkmonitoring.com.au).

Locations and measured parameters are listed in Table 7.

Table 7: Parameters measured at TEOM sampling locations

Station	Parameter measured
Karratha	PM10, PM2.5, Wind Speed, Wind Direction
Dampier Central	PM10, PM2.5, TSP, Wind Speed, Wind Direction
King Bay	TSP, Wind Speed, Wind Direction

4.2.1 24-hour TSP Assessment

The King Bay Industrial Area and Dampier Central 24-hour TSP data has been derived from 1-hour averages and assessed against the 150 ug/m^3 KEPP target, as depicted in Figure 1.

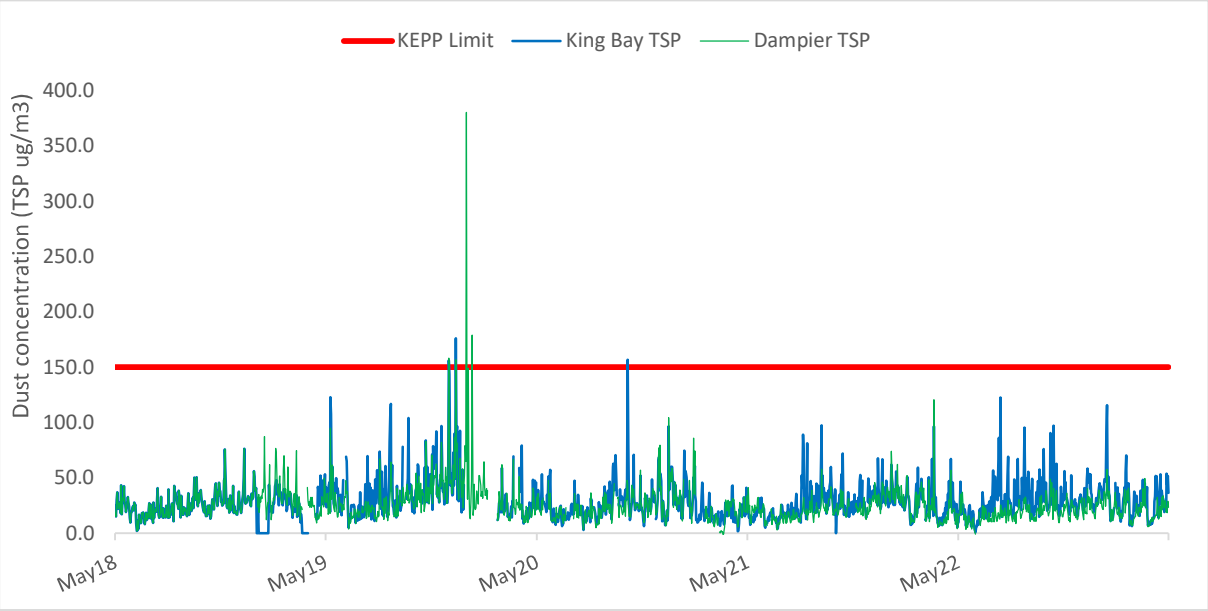

Figure 1: Historical 24-hour average TSP dust monitoring results for King Bay and Dampier Central compared with the daily limit of 150 µg/m^3 for the period 1 May 2018 to 30 April 2023

Summary statics of the TSP concentrations measured at Dampier Central and King Bay are presented in Table 8. Dampier Central and King Bay recorded a 24-hour average of 25.07 µg/m^3 and 29.2 µg/m^3 respectively during the reporting period. There was one exceedance potentially attributed to operations during the reporting period compared to zero in the previous reporting period (Table 9). An investigation report was generated and submitted to relevant regulators for this occurrence.

Table 8: Summary statistics for the Dampier Central and King Bay industrial area TEOM monitoring stations showing the average 24-hour TSP concentrations (2018 – 2023)

Reporting period	Dampier Central (µg/m^3)	King Bay (µg/m^3)
2023*	21.8	29.5
2022	21.3	29.3
2021	21	24.9
2020	26.2	27.4
2019	34.1	38.0
2018	26	26.1

*Data up to 30/04/2023

Table 9: Number of exceedances of the 24-hour KEPP standard at King Bay and Dampier Central 2018–2023

Reporting period	No. exceedances of KEPP standard (150µg/m^3) at King Bay	No. exceedances of KEPP standard (150µg/m^3) at Dampier Central	No. potentially attributable to Dampier Port Operations
2023*	0	0	0
2022	0	0	0
2021	0	0	0
2020	1	1	1

Reporting period	No. exceedances of KEPP standard (150µg/m^3) at King Bay	No. exceedances of KEPP standard (150µg/m^3) at Dampier Central	No. potentially attributable to Dampier Port Operations
2019	2	3	0
2018	0	0	0
Total	**3**	**4**	**1**

*Data up to 30/04/2023

4.2.2 24-hour PM_{10} Assessment

Dampier town's 24-hour PM_{10} data has been derived from 10-minute averages and assessed against the 50 ug/m^3 NEPM criteria, as depicted in Figure 2. There is a distinct seasonal trend with higher (≥ 50 µg/m^3) and more variable PM_{10} concentrations recorded in the months from October to February, when south-westerly to north-westerly winds prevail, air temperatures are elevated, and evaporation rates are higher. Dampier Central recorded its highest average in December 2019 (176 ug/m^3).

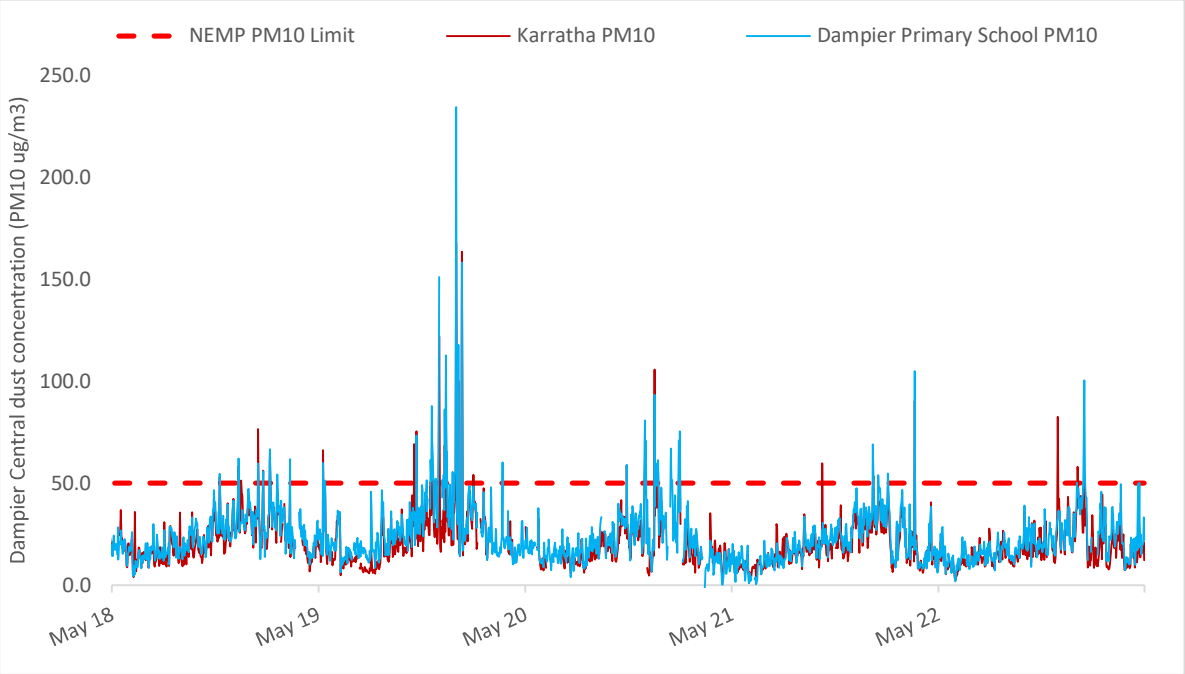

Figure 2: Historical 24-hour average PM10 dust monitoring results for Dampier Central compared to the 50 ug/m^3 for the period of 1 June 2018 to 30 April 2023

Summary statics of the PM_{10} concentrations measured at Dampier Central are presented in Table 10. During the reporting period the average PM_{10} was 23.08 ug/m^3. There were four exceedances potentially attributed to operations during the reporting period compared to seven in the previous reporting period (Table 11). Investigation reports were generated and submitted to relevant regulators for these occurrences.

Table 10: Summary statistics for the Dampier Central TEOM monitoring stations showing the average 24-hour PM10 concentrations (2018 – 2023)

Reporting period	Dampier Central (µg/m^3)	Karratha (µg/m^3)
2023*	21.6	20.2
2022	20.7	18.5
2021	19.1	16.9
2020	24.4	22.8
2019	29.3	24.1
2018	23.4	21.4

*Data up to 30/04/2023

Table 11: Number of exceedances of the 24-hour NEPM standard at Dampier Central 2018–2023

Reporting period	No. exceedances of NEPM standard (50µg/m^3) at Dampier Central	No. potentially attributable to Dampier Port Operations
2023*	0	0
2022	5	0
2021	4	1
2020	18	1
2019	29	2
2018	7	0
Total	**63**	**4**

*Data up to 30/04/2023

4.3 Noise emissions

Noise Regulations limits cannot be retrospectively met within the town of Dampier due to its proximity to Dampier Port, and the Proponent has applied for a Regulation 17 exemption to vary the assigned noise level limits within the town. During this reporting period, Noise Regulations criteria were exceeded on an ongoing basis. Monitoring data has been broken down by site for 2019-2023 data (Table 12).

The 2018 noise report submitted to support the MS 770 AER has been misplaced in the transition to a new internal document system. The Proponent is currently resourcing a copy of the final report from the consultants and this can be provided at a later date if required.

Table 12: Noise levels received within Dampier Town recorded at Patterson Crescent (Parker Point) and Hampton Drive (East Intercourse Island)

Upper 10th LA90			
Year	**Time**	**Hampton Drive**	**Patterson Crescent**
2019	Day	46.1	53.8
	Evening	43.8	53.0
	Night	42.5	52.1
	Other	43.2	52.7
2020	Day	45.1	48.1
	Evening	43.2	47.0
	Night	43.1	46.6
	Other	43.2	46.6
2021	Day	43.9	49.3
	Evening	42.3	48.5
	Night	42.0	44.5
	Other	42.1	47.3
2022*	Day	41.6	39.9
	Evening	40.6	38.5
	Night	40.2	39.1
	Other	40.4	38.9

*In 2020 the adequacy of the Patterson Crescent Barn Own noise monitor was reviewed. A secondary noise monitor was installed at the same location in July 2020 to supplement the existing monitors noise data. In 2022 the supplementary monitor was used as the primary compliance monitor at the Patterson Crescent due to the continuing issues with the Barn Own monitor.

4.4 Water Resources

Rio Tinto tracks water use against the annual limit outlined in Schedule 1 of MS770. As a result of Rio Tinto's water use efficiency initiatives, water consumption during the reporting period remains below the target of 2740 ML per annum (Table 13). Water use decreased by 33% from its peak in 2019 to 2022 due to a number of

water saving initiatives. The water use figures are based on a combination of readings from Water Corporation meters and the internal meter network.

Table 13: Dampier Port annual water use

Reporting period	Water use (million litres)	Annual limit (million litres)
2023*	551.8	2740
2022	1631.7	2740
2021	1816.9	2740
2020	2132.1	2740
2019	2430.7	2740
2018	2163.3	2740

* 2023 YTD (30 April 2023)

5 Improvements in Environmental Management

5.1 Environmental Risk Assessment and Continuous Improvement

The site leadership team conduct regular reviews of the site's environmental risks using the Risk Management Information System (RSA Archer) as part of the continuous risk review and improvement cycle required by Rio Tinto's Health, Safety, Environment and Quality (HSEQ) Management System. For high and critical risks, this review is conducted quarterly, while for low and moderate risks, it is conducted annually. As part of this risk review process, improvements are identified, and actions assigned. Action scopes have assigned responsibilities, timeframes for completion and sections for monitoring progress on a regular basis.

The following are considered when evaluating the risk:

- Changes or additions to site activities and processes;
- Performance against previous years environmental action plans;
- New or changed legislation;
- Community and government feedback;
- Monitoring results;
- Status of corrective actions from internal and external inspection and audit findings;
- Environmental incidents on site;
- Changes to technology; and
- Existing operational controls.

5.2 Significant Improvements

Environmental performance has improved at Dampier Port operations during the reporting period. Improvements in performance are a result of increased operational discipline, implementation of actions to improve performance and compliance with regulatory/legislative requirements, management plans and Rio Tinto Environment Standards. A summary of significant improvements realised during the reporting period is provided in Table 14.

Table 14: Review of environmental improvements (2018- 2023)

Improvement description	Year completed
Air quality	
Car dumper dust management base house upgrades	2018
Review and upgrade the hydraulic belt scrapers to reduce carry back	2018
Re-instate the Parker Point dust hoods	2018
Install improved stockyard canon logic at Parker Point and East Intercourse Islands	2019
Investigate the suitability of cannon heads, determine if they are the best available	2019
Car dumper dust management improvements for stack monitoring at East Intercourse Island Parker Point.	2020
Roll out of a mandatory dust management training course for all employees on site	2020
Road dust suppressant trial of DustMag	2020
Improve dust text alarms to directly link with a Trigger Action Response Plan (TARP).	2021
Upgraded the wind sensor and alarm loggers at both Dampier Primary School and King Bay TEOMs to improve the real time dust alarm accuracy and response.	2021
Application trial of brine as dust suppressant to roads and open areas at Parker Point	2021
East intercourse island imports train product moisture for spray control set	2022
Application of brine as dust suppressant to road ways and open areas extended to East Intercourse Island	2022
Dumper dust management response to interlock suppression systems at appropriate levels based on ore types.	Ongoing
East intercourse Island Dust Collector replacement A pre feasibility assessment was initiated to scope the upgrade of the EII car dumper and screenhouse dust collector systems. This assessment is going in 2023 with an expected change out to begin in 2024	Ongoing
Noise	
Campaign change out of idlers along 5E conveyor from steel to low-noise composite idlers.	2022
Water	
Review of Water Management Plan. Outcome: Development of seasonal and daily water targets complete with ongoing review required. Target metrics added to daily reports for communication to operational teams.	2019
Flow meter network upgraded. Outcome: Flow meters have been replaced/installed to allow more accurate tracking and reporting of water use data and leak detection (areas of increased/decreased flow trigger a live alarm.	2020
Coastal Water team established. Outcome: Dedicated additional resources stood up to focus on water optimisation projects to achieve 350ML reduction target at Cape Lambert by end of 2022.	2021
Live Water Use PowerBI Dashboard created. Outcome: Daily Department Meeting Water Use PowerBI metrics created to allow live tracking and review of water use and recycling.	2021
Water pipe network upgrade to replace ageing pipework and reduce the number of leaks occurring due to pipe failues.	2021 – Ongoing
Parker Point Recyled Water Plant. Trial of a water recycling plant for process occurred at Parker Point in 2021. A permanent water recycling plant is underway to be established at Parker Point in H2 2023.	2021 - Ongoing
Water cannon feedback sensors established through all stockpiles to allow for easy detection of faulty cannons and leaking water systems.	2022

5.3 External Certification, Audits, and Inspections

Dampier Port operates in accordance with the requirements of the Rio Tinto Iron Ore HSEQ Management System and the Rio Tinto Environment Standards, with the intent of the standards to prevent, or otherwise minimise, mitigate and remediate the effects that our business' operations have on communities and environments.

The Environmental Standards and the HSEQ Management System are periodically audited by internal and external assessors. Rio Tinto also undertakes internal audits of its legal and regulatory requirements and submits environmental compliance reports to the OEPA (now the Department of Water and Environmental Regulation). Audits and reviews completed during the reporting period are provided in Table 15. These results are used to monitor compliance and continuously improve environmental management and performance.

Table 15: Audits and reviews undertaken from 2018 to 2023

Internal/External	Assessment	Date
2018		
External	MS770 2017 Annual Environmental Compliance Report	April 2018
2019		
External	MS770 2018 Annual Environmental Compliance Report	April 2019
Internal	Environment Standards Gap Assessment	April 2019
Internal	HSEC Business Conformance Audit (BCA)	May 2019
2020		
External	MS770 2019 Annual Environmental Compliance Report	April 2020
External	MS770 Compliance Audit report	December 2020
2021		
External	MS770 2020 Annual Environmental Compliance Report	April 2021
Internal	Coastal Water Efficiency Review	April 2021
Internal	HSEC Business Conformance Audit (BCA)	June 2021
2022		
External	MS770 2021 Annual Environmental Compliance Report	April 2022
Internal	Dust Asset Performance Audit	July 2022
2023		
External	MS770 2022 Annual Environmental Compliance Report	April 2023

6 Stakeholder and Community Consultation

6.1 Consultation

Stakeholder and community consultation with regard to environmental performance primarily occurs in the form of the Coastal Community Environment Forum (CCEF). The CCEF aims to facilitate engagement between Rio Tinto, coastal communities, authorities, regulators and other key stakeholders on significant environmental issues, activities and priorities associated with Rio Tinto Coastal Operations. Meetings are chaired by the site General Manager of each respective port, and are held twice a year. Annually, meeting invitations are also extended to Rail and Dampier Salt Limited coastal operations. The location of the meeting alternates between Cape Lambert Port, Dampier Port, Dampier Salt and Rail (Seven Mile).

Key stakeholders invited to the CCEF include the below groups:

- OEPA;
- DER;
- Department of Biodiversity, Conservation and Attractions (DBCA);
- Department of Water and Environmental Regulation (DWER);
- Department of Mines and Petroleum (DMP);
- Department of Primary Industries and Regional Development (DPIRD);
- City of Karratha (CoK);
- Water Corporation;
- Woodside;
- Pilbara Ports Authority;
- Pilbara Development Commission;
- Dampier seafarers;
- Ngarluma Aboriginal Cooperation;
- Murujuga Aboriginal Cooperation;
- Wickham Community Association;
- Wickham Tidy Towns;
- Dampier Community Association;
- Karratha Community Association;
- Point Samson Community Association; and
- Community members who have lodged environmental complaints.

Discussion on environmental aspects in consultation forums was used to inform initiatives to improve environmental performance.

Additional engagement also occurs within community association and traditional owner meetings and relevant community events, and in association with ongoing active liaison with environmental regulators and authorities.

6.2 Complaints

Complaints received are recorded as per the Rio Tinto Incident Reporting Procedure and Iron Ore (WA) Community Complaints, Disputes and Grievances Guidance Note.

Complaints were recorded, investigated, actioned, and closed out, as required, during the reporting period. Environment related complaints for the reporting period are shown in Table 16.

Table 16: Community environment complaints recorded during the reporting period.

Incident Date	Short Description
7 Nov 2018	Email sent to the Proponent which included a photograph of a fugitive dust plume originated by PPT. Investigation occurred and proponent provided investigation findings to the complainant. Complaint was satisfied with no further dialogue required.
23 Nov 2018	Visual dust complaint raised by a Dampier resident. Proponent provided investigation findings who was satisfied with no further dialogue required.
31 Oct, 11 Dec, 28 Dec 2019	A repeat complaint was raised by community members regarding operational dust from East Intercourse Island impacting the condition (cleanliness) of the boats. On the dates of concern raised, dust levels were within an acceptable limit on 31 October, attributed to a large regional event on 11 December, and attributed to be a potential operational exceedance on 28 December. The complainants were invited and attended a meeting on site on 18 December to discuss mitigation and suppression methods with site leadership.
29 Dec 2019	A complaint was raised regarding dust lift off from Iron Ore Carriages on Dampier Highway. On the day a regional dust exceedance had occurred.
21 May 2020	Community member complaint regarding dust from PPT in Dampier Town. Complaint raised by a community member regarding visual dust from Parker Point into the direction of the township. Monitoring data indicated that dust levels were within PM_{10} and TSP limits.
18 Sep 2020	Complaint raised by community member regarding visual dust from Parker Point to King Bay. On site monitoring indicated that a regional event has occurred.
2021	No complaints were received.
08 Oct 2022	Community member complaint notice was received via DWER regarding dust levels occurring from Dampier Port. No exceedance occurred on the day.
31 Oct, 2 Nov 2022	Community member complaint regarding dust blowing from Parker Point into Dampier Boat Harbour impacting condition (cleanliness) of the boats. A short term dust exceedance was recorded on the days due to higher than forecast winds. The complainant was invited and attended a meeting with the Operations Manager to discuss mitigation and suppression methods.

7 Proposed Environmental Targets 2023 – 2028

The broad environmental objectives and targets discussed within Section 3 of this document will continue to be applicable to Dampier Port over the 2023 – 2028 period. They will be revised and updated, if necessary, in accordance with the requirements of MS770 and in consultation with the EPA.

8 References

Rio Tinto (2015). *Dampier port Operations – Dust Management Plan.*

Environmental Alliances (EA) (2010). *Dust Dispersion Modelling for Pilbara Iron Dampier Port Upgrade to DISPERSION MODELLING FOR PILBARA IRON DAMPIER PORT UPGRADE TO 160 MT/A*, Report prepared for Sinclair Knight Merz, March 2010.

EPA (2007). *Dampier Port Increase in Throughput to 145 Mtpa Hamersley Iron Pty Ltd.* Report and recommendations of the Environmental Protection Authority. Perth, Western Australia. Bulletin 1265, January 2007.

Rio Tinto (2017), *Iron Ore – Management System Standard Element 4 Management Improvement Planning* (RTIO-HSE-0072773)

Rio Tinto (2015). *Rio Tinto HSEC Communities consultation and engagement guidance*

SKM (2007). *Dampier port Increase in Throughput to 145 Mtpa – Environmental Protection Statement, Revision 5.* Report prepared for Hammersley Iron, September 2007.

SKM (2010). *Dampier Incremental Project Increase in throughput to 160 Mtpa, Revision 0.* Report prepared for Hammersley Iron, April 2010.

9 Appendices

Appendix 1: Glossary and Abbreviations

CCEF	Coastal Community Environment Forum
CLA	Cape Lambert Port A Operations
CLB	Cape Lambert Port B Operations
CoK	City of Karratha
CD1	Car Dumper 1
CD2	Car Dumper 2
CLDMP	Cape Lambert Dust Management Plan
DER	Department of Environment Regulation
DEC	Department of Environment and Conservation
DMP	Department of Mines and Petroleum
DoW	Department of Water
DPaW	Department of Parks and Wildlife
EIP	Environmental Improvement Plan
EMP	Environmental Management Plan
EPA	Environmental Protection Authority
EPS	Environmental Protection Statement
HSECQ	Health Safety Environment Communities and Quality
LRP2	Lump Re-screening Plant 2
Mtpa	Million tonnes per annum
OEPA	Office of the Environmental Protection Authority
$PM_{2.5}$	Particulate matter with an effective aerodynamic diameter of less than 2.5 µm
PM_{10}	Particulate matter with an effective aerodynamic diameter of less than 10 µm
RTIO	Rio Tinto Iron Ore
TEOM	Tapered Element Oscillating Microbalance
TSP	Total Suspended Particulates, particulate matter with an effective aerodynamic diameter of less than 50 µm