



<b>Licence Number</b>	L4513/1969/18
<b>Licence Holder</b>	BHP Iron Ore Pty Ltd
<b>ACN</b>	ACN 008 700 981
<b>Registered business address</b>	125-137 St Georges Tce PERTH WA 6000
<b>File Number</b>	DER2013/001083
<b>Duration</b>	17/11/2013 to 16/11/2030
<b>Date of amendment</b>	6 September 2021
<b>Prescribed Premises</b>	Category 5 – Processing or beneficiation of metallic or non-metallic ore Category 54 – Sewage facility Category 58 - Bulk material loading or unloading Category 61 – Liquid waste facility Category 73 – Bulk storage of chemicals etc.
<b>Premises</b>	BHP Iron Ore Port Hedland Operations Nelson Point and Finucane Island Nelson Point Lease LGEI123403, Goldsworthy Rail Lease LGE J998591, Finucane Island Loop LGE I126342, Finucane Island Lease LGE J998595, PACE Wharf Lease K693809L, Utah Jild Lease K693814L, Harriet Point Lease K693808, Nelson Point Wharf Lease LGE I123400, Under Harbour Tunnel Lease K693815L, Finucane Island Substation Lease LGE G946533 PORT HEDLAND WA 6721 As defined by the coordinates in Schedule 1

This Licence is granted to the Licence Holder, subject to the following conditions, on 6 September 2021, by:

**Ed Schuller**  
**Director, Industry Regulation**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

## Explanatory notes

These explanatory notes do not form part of this Licence.

### Defined terms

---

Definition of terms used in this Licence can be found at the start of this Licence. Terms which are defined have the first letter of each word capitalised throughout this Licence.

### Department of Water and Environmental Regulation

---

The Department of Water and Environmental Regulation (DWER) is established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the *Environmental Protection Act 1986* (WA) (EP Act). The Department also monitors and audits compliance with licences, takes enforcement action and develops and implements licensing and industry regulation policy.

### Licence

---

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased, or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered, or permitted to be altered, from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environmental Protection Regulations 1987* (WA) (EP Regulations).

This Licence does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Licence Holder to ensure that any action or activity referred to in this Licence is permitted by, and is carried out in compliance with, other statutory requirements.

The Licence Holder must comply with the Licence. Contravening a Licence Condition is an offence under s.58 of the EP Act.

### Responsibilities of a Licence Holder

---

Separate to the requirements of this Licence, general obligations of Licence Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Licence Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under section 61; and
- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a works approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

## Reporting of incidents

---

The Licence Holder has a duty to report to DWER all discharges of waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

## Offences and defences

---

The EP Act and its regulations set out a number of offences, including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Licence Holder commits an offence if Emissions are caused, or altered from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a Closure Notice or an Environmental Protection Notice.

Defences to certain offences may be available to a Licence Holder and these are set out in the EP Act. Section 74A(b)(iv) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Licence Holder can prove that an Emission or Discharge occurred in accordance with a Licence.

This Licence specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of Specified Emissions and Discharges, in order for the defence to offence provision to be available.

## Authorised emissions and discharges

---

The Specified and General Emissions and Discharges from Primary Activities conducted on the Prescribed Premises are authorised to be conducted in accordance with the Conditions of this Licence.

Emissions and Discharges caused from other activities not related to the Primary Activities at the Premises have not been Conditioned in this Licence. Emissions and Discharges from other activities at the Premises are subject to the general provisions of the EP Act.

## Amendment of licence

---

The Licence Holder can apply to amend the Conditions of this Licence under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Licence at any time on the initiative of the CEO without an application being made.

Amendment Notices constitute written notice of the amendment in accordance with s.59B(9)

of the EP Act.

#### Duration of Licence

---

The Licence will remain in force for the duration set out on the first page of this Licence or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

#### Suspension or revocation

---

The CEO may suspend or revoke this Licence in accordance with s.59A of the EP Act.

#### Fees

---

The Licence Holder must pay an annual licence fee. Late payment of annual licence fees may result in the licence ceasing to have effect.

## Definitions

In this Licence, the terms in the table below have the meanings defined.

**Table 1: Definitions**

Term	Definition
330Mtpa Amendment Application	refers to the application received by DWER on 18 June 2020, titled: <i>Pt V Application (330Mtpa) and Supporting Doc_Final Version</i> DWER record A1904556
ACN	Australian Company Number
Air Guideline Value	refers to the Government-endorsed 24-hour PM <sub>10</sub> air guideline value for Port Hedland residential areas of 70µg/m <sup>3</sup> .
Approved Policy	has the same meaning given to that term under the EP Act.
Annual Period	means a 12 month period commencing from 1 July until 30 June in the following year.
AS3580.1.1	means the Australian Standard AS3580.1.1 <i>Methods for sampling and analysis of ambient air - Guide to siting air monitoring equipment</i> .
AS3580.9.11	means the Australian Standard AS3580.9.11 <i>Methods for sampling and analysis of ambient air Determination of suspended particulate matter – PM10 beta attenuation monitors</i> .
AS3580.14-2014	means the Australian Standard AS 3580.14 <i>Methods for sampling and analysis of ambient air – Meteorological monitoring for ambient air quality monitoring applications</i> .
AS4156.6-2000	means the Australian Standard AS4156.6-2000 <i>Coal preparation, Part 6: Determination of Dust/moisture Relationship for Coal</i> .
ATS5621-2013	means Australian Technical Specification ATS5621-2013 <i>Iron ores – rapid moisture determination</i> .
AS5667.1	means the Australian Standard AS5667.1 <i>Water quality - Sampling - Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples</i> as amended from time to time.
AS5667.10-1998	means the Australian Standard AS5667.10 <i>Water Quality – Sampling – Guidance on sampling of waste waters</i> as amended from time to time.

Average Monthly Availability	<p>means the combined average percentage availability of equipment, calculated for each calendar month by dividing the time that the equipment is operating, by the time the equipment is required to be operating.</p> <p>Equipment is considered 'unavailable' when it is not operating, despite being required to operate in accordance with Conditions of this Licence.</p>
Belt Wash Station	Devices or infrastructure equipped with water sprays and scrapers that are designed to minimise the carry back of ore stuck to the underside of return conveyors.
BOC	means bulk ore conditioning
Books	has the same meaning given to that term under the EP Act.
CEO	<p>means Chief Executive Officer.</p> <p>CEO for the purposes of notification means:</p> <p>Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a></p>
Compliance Report	means a report in a format approved by the CEO as specified by the CEO (refer to guidelines and templates available on the Department's website).
Composite Sample	means a collection of discrete samples taken at regular intervals over the Rake and combined into a homogenised sample for analysis.
Condition	means a condition to which this Licence is subject under s.62 of the EP Act.
Continuous	means a data recovery rate of above 90% averaged annually.
Day	24 hour period, from 24:00 hours to 24:00 hours (midnight).
Deluge Cycle	means the targeted operation of water cannons to stockpiles for no less than two minutes out of every 15 minutes.
DEM Level	means the dust extinction moisture number. It is the Moisture Content of the iron ore at which the Dust Number is 10 derived from the Australian Standard AS4156.6-2000 or a standard approved by the CEO.
Department	means the department established under s.35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
Department	means a request for Books or other sources of information to be

Request	<p>produced, made by an Inspector or the CEO to the Licence Holder in writing and sent to the Licence Holder's address for notifications, as described at the front of this Licence, in relation to:</p> <ul style="list-style-type: none"> <li>(a) compliance with the EP Act or this Licence;</li> <li>(b) the Books or other sources of information maintained in accordance with this Licence; or</li> <li>(c) the Books or other sources of information relating to Emissions from the Premises.</li> </ul>
Discharge	has the same meaning given to that term under the EP Act.
Direct Ship or Direct Shipped	means to run the in-load circuits directly into the out-load circuits without stacking, stockpiling (except where fines are removed from lump during rescreening) or reclaiming the bulk granular material.
Dust Control Equipment Inventory	means an itemised list for all dust control equipment used at the Premises including but not limited to the equipment described in Column 2 of Table 12 in Schedule 4.
DWER	Department of Water and Environmental Regulation.
Emission	has the same meaning given to that term under the EP Act.
Environmental Harm	has the same meaning given to that term under the EP Act.
EP Act	means the <i>Environmental Protection Act 1986</i> (WA).
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA).
Finucane Island	refers to the component of the Premises located on the western side of the Port Hedland Inner Harbour
High Rainfall Events	refers to rain events where equal to, or greater than 20mm of rainfall falls within a 24hr period, as recorded at NP Met 10m.
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act.
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Iron ore	means a type of Iron Ore produced from a mine site or blended Iron Ore from multiple mine sites with a specified physical and mineralogical characteristic (eg. Yandi lump, Yandi fines, Newman blend, Yandi /MAC blend etc).
ISO3087	means International Standardization Organization ISO3087:2011 <i>Iron</i>

	<i>ores – Determination of the moisture content of a lot</i> , as updated from time to time.
Licence	refers to this document, which evidences the grant of a Licence by the CEO under s.57 of the EP Act, subject to the Conditions.
Licence Holder	refers to the occupier of the premises being the person to whom this Licence has been granted, as specified at the front of this Licence.
m/s	means metres per second
Material Environmental Harm	has the same meaning given to that term under the EP Act.
Minor Spillage	means spillage of material or substances that is trivial or negligible in nature and does not result in an Unreasonable Emission, Pollution, Material Environmental Harm or Serious Environmental Harm.
Moisture Content	<p>means the ratio of the mass of water in a sample to the mass of solids in the sample, expressed as a percentage.</p> <p>In equation form:</p> $w = \frac{m_1 - m_2}{m_1} \times 100$ <p>Where:</p> <p>w = moisture content of the sample;</p> <p>m<sub>1</sub> = initial mass, in grams, of the sample; and</p> <p>m<sub>2</sub> = mass, in grams, of the sample after drying.</p>
Mtpa	Million tonnes per Annual Period (calculated as wet tonnes)
Nelson Point	refers to the component of the Premises located on the eastern side of the Port Hedland Inner Harbour.
Ore Handling Activities	means activities occurring within the Premises which involve the movement and/or disturbance of iron ore, including, but not limited to, in-loading, stacking, reclaiming, transferring (via conveyors) and out-loading of iron ore.
PM <sub>10</sub>	refers to particulate matter with a diameter of 10 micrometres or less.
Pollution	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Licence applies, as specified at the front of this Licence and as shown on the map in Schedule 1 to this Licence.
Prescribed	has the same meaning given to that term under the EP Act.

Premises	
Prescribed Standard	has the same meaning as applies for that term under s.51 of the EP Act.
Primary Activities	refers to the Prescribed Premises activities listed on the front of this Licence as described in Schedule 3, at the locations shown in Schedule 1.
Rake	means the group of iron ore-loaded wagons on a train as separated by a locomotive.
Reportable Event	means an exceedance to a criteria specified requiring certain actions to be undertaken by the Licence Holder, including but not limited, to reporting to the CEO.
Routinely Operated	means to be operated at a minimum frequency of at least: (a) every 3 hours during the day; and (b) every 6 hours during the night, until the known Moisture Content of iron ore has been increased to be at or above the DEM, or there is no visible dust lift off from the stockpile.
Sealed/Sealing	means any seal including concrete paving, bitumen, or bitumen-based seal that is resistant to heavy vehicle traffic.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
Static Stockpile	refers to any iron ore stockpile that has been stacked and not reclaimed for a period of six weeks or more.
Strong Wind Conditions	means wind speeds of 14 metres per second or greater.
TRH	Total Recoverable Hydrocarbons
Trigger Investigation	means an investigation which includes but is not limited to a review of monitoring stations for wind speed, direction and PM <sub>10</sub> concentrations and/or a visual observation of activities being undertaken within the vicinity of the monitoring station which recorded the trigger exceedance.
Unreasonable Emission	has the same meaning given to that term under the EP Act.
Unsealed road	means any trafficable area that is not overlaid with concrete paving, bitumen, or bitumen-based seal that is resistant to heavy vehicle traffic.

Waste	has the same meaning given to that term under the EP Act.
West End	means the area to the north of the Premises depicted in Figure 2 of Schedule 1.

# Conditions

## Emissions

1. The Licence Holder must not cause any Emissions from the Primary Activities on the Premises except for specified Emissions and general Emissions described in Column 1 of Table 2 subject to the exclusions, limitations or requirements specified in Column 2 of Table 2.

**Table 2: Authorised Emissions table**

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
<b>Specified Emissions</b>	
Fugitive dust	Subject to compliance with Conditions 2 to 31
Treated effluent to land	Subject to compliance with Conditions 15, 32 and 33
Washwater Discharges, stormwater Discharges and Minor Spillage of material related to the Primary Activities on the Premises	Subject to compliance with Conditions 15, 32, 33 and rows 3 to 5 (inclusive) of Table 13, Schedule 4.
<b>General Emissions (excluding Specified Emissions)</b>	
Emissions which arise from the Primary Activities set out in Schedule 3.	<p>Emissions excluded from General Emissions are:</p> <ul style="list-style-type: none"> <li>• Unreasonable Emissions; or</li> <li>• Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or</li> <li>• Discharges of Waste in circumstances likely to cause Pollution; or</li> <li>• Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or</li> <li>• Emissions or Discharges which do not comply with an Approved Policy; or</li> <li>• Emissions or Discharges which do not comply with a Prescribed Standard; or</li> </ul>

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
	<ul style="list-style-type: none"> <li>Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or</li> <li>Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</li> </ul>

## Bulk granular material specifications

2. The Licence Holder must only load iron ore onto a vessel by an open materials handling system at the Premises.
3. The Licence Holder is authorised to load up to:
  - (a) 290 Mtpa of iron ore, unless in accordance with part (b), (c) or (d) to this Condition;
  - (b) 295 Mtpa of iron ore upon notification of construction or installation of all Stage 1A infrastructure or equipment specified in rows 1 to 5 of Table 9, Schedule 2 in accordance with Conditions 6 to 11.
  - (c) 303 Mtpa of iron ore upon notification of construction or installation of Stage 1B infrastructure or equipment specified in rows 6 to 8 of Table 9, Schedule 2 in accordance with Conditions 6 to 11, provided Condition 3(b) has been complied with; and
  - (d) 330 Mtpa of iron ore upon notification of construction or installation of Stage 2A, 2B and 2C infrastructure or equipment specified in rows 9 to 24 of Table 9, Schedule 2 in accordance with Conditions 6 to 11, provided Conditions 3(b) and 3(c) have been complied with, for a period of up to 5 years or ongoing once compliance with Condition 3(e) is also achieved; and
  - (e) 330 Mtpa of iron ore upon notification of construction or installation dust control infrastructure specified in row 25 of Table 9, Schedule 2 in accordance with Conditions 6 to 11, provided Conditions 3(b), 3(c) and 3(d) have been complied with.
4. The Licence Holder must undertake the following actions in the event that an iron ore stockpile has become a Static Stockpile:
  - (a) ensure, and be able to demonstrate using the method outlined in ISO3087, that the stockpile contains a moisture content at or above the corresponding DEM Level for that stockpile; or
  - (b) apply a physical barrier or chemical stabiliser to stabilise the surface of the stockpile to minimise potential dust emissions.
5. The Licence Holder must not re-stockpile a Static Stockpile for the purpose of avoiding requirements of Condition 4.

## Infrastructure and Equipment

### Further works

6. The Licence Holder is authorised to undertake the route upgrade, expansion and productivity initiative works specified in Table 8 of Schedule 2.
7. In the event that the Licence Holder determines to not construct and/or install, or to not operate any works specified in Table 8 of Schedule 2, the Licence Holder must give written notice to the CEO within 14 days.
8. The Licence Holder must construct and/or install the infrastructure and equipment listed in Table 9 of Schedule 2, in accordance with:
  - (a) the design and installation requirements (Column 3); and
  - (b) at the infrastructure location (Column 4),unless where controls listed in Table 9 correspond to infrastructure and equipment that is not constructed and/or installed or not operated in accordance with Condition 7.
9. For works undertaken in Conditions 6 and 8, the Licence Holder must not depart from the scope of works authorised by Table 8 of Schedule 2, or Table 9 of Schedule 2 except where:
  - (a) such departure is minor in nature and does not materially change or affect the infrastructure or equipment; or
  - (b) such departure improves the functionality of the infrastructure or equipment and reduces the risk to public health, amenity and/or the environment; or
  - (c) the Licence Holder determines to not construct, install and/or operate infrastructure in accordance with Condition 7, andall other Conditions in this Licence are still satisfied.
10. The Licence Holder must within 30 calendar days of the completion of construction and/or installation of all infrastructure or equipment listed in Column 2 of Table 9, Schedule 2, for each Stage of Works specified in Column 1 of Table 9, Schedule 2:
  - (a) undertake an audit of compliance with the requirements in Column 3 of Table 9 of Schedule 2; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
11. The Environmental Compliance Report/s required by Condition 10, must include as a minimum the following:
  - (a) an update on the progress of route upgrade, expansion and productivity initiative works authorised through Condition 6, and associated with each Stage of Works specified in Column 1 of Table 9 of Schedule 2.
  - (b) certification that the infrastructure or equipment, or component of infrastructure or equipment specified in Column 2 of Table 9 of Schedule 2 has been constructed or installed in accordance with the relevant requirements specified in Column 3 of Table 9 of Schedule 2;
  - (c) where a departure from the requirements specified in Table 9 of Schedule 2 occurs and is of a type allowed by Condition 9, the Licence Holder must provide to the CEO a description of, and explanation for, the departure and demonstration of achievement of a reduction to the risk to public health, amenity and the environment;

- (d) the operational start date for the infrastructure installed; and
  - (e) be signed by a person authorised to represent the Licence Holder and contains the printed name and position of that person.
- 12.** The Licence Holder must undertake a review of the performance of dust control infrastructure, and prepare and submit to the CEO a Dust Control Validation report, with the information specified in Schedule 6, in accordance with the following requirements:
- (a) within six months of the submission of the Environmental Compliance Report for Stage 1A dust control infrastructure specified in Rows 3 to 5 of Table 9 of Schedule 2, and must demonstrate that those controls achieve at least the rate of proposed dust abatement specified in the 330Mtpa Amendment Application.
  - (b) within 15 months of the submission of the Environmental Compliance Report for Stage 1B dust control infrastructure specified in Row 8 of Table 9 of Schedule 2, and must demonstrate that those controls achieve at least the rate of proposed dust abatement specified in the 330Mtpa Amendment Application.
  - (c) within 15 months of the submission of the Environmental Compliance Report for Stage 2A and Stage 2C dust control infrastructure specified in Rows 12, 22, 23 and 24 of Table 9 of Schedule 2, and must demonstrate that those controls achieve at least the rate of proposed dust abatement or emission rate specified in the 330Mtpa Amendment Application.
- 13.** In the event that the Dust Control Validation reports submitted in accordance with Condition 12(a), (b) and/or (c) do not demonstrate equal or lower dust emission rates to those emission rates specified in the 330Mtpa Amendment Application, the Licence Holder must submit to the CEO a plan of improvement works required to reduce dust from the premises to achieve the objective of no net increase, within three months of submitting the Dust Control Validation report.
- 14.** The Licence Holder must cease all earth moving and construction activities associated with rows 8 and 12 of Table 9 in Schedule 2:
- (a) during Strong Wind Conditions; and/or
  - (b) at Nelson Point where average wind directions are between 90° and 270° for three or more ten minute periods during the hour and wind speeds are greater than 4 m/s; and/or
  - (c) at Finucane Island where average wind directions are between 180° and 360° for three or more ten minute periods during the hour and wind speeds are greater than 4 m/s,

where visible dust is being generated from those activities.

### Maintenance and operation requirements

- 15.** The Licence Holder must ensure that the infrastructure and equipment specified in Column 1 of Table 12 and Table 13 in Schedule 4 is maintained in good working order and operated in accordance with the requirements specified in Column 3 of Table 12 and Column 2 of Table 13 in Schedule 4.
- 16.** The Licence Holder must maintain an Average Monthly Availability rate of 90% or more for all:
- (a) water sprays on stackers, reclaimers and ship loaders;
  - (b) dust collectors combined with wet scrubbers at transfer stations, car dumpers

- and lump rescreening plants;
  - (c) belt wash stations; and
  - (d) BOC sprays.
- 17.** The Licence Holder must maintain a Dust Control Equipment Inventory which includes an itemised list for all dust control equipment used at the Premises and includes but is not limited to the equipment specified in Table 12 of Schedule 4.
- 18.** The Licence Holder must not remove any dust control equipment from the Dust Control Equipment Inventory, without replacing that equipment with equipment that provides the same or greater level of dust mitigation.

## **Moisture content monitoring and management response**

- 19.** The Licence Holder must ensure that for all:
- (a) iron ore accepted at the Premises a corresponding DEM Level is available; and
  - (b) iron ore out-loaded at the Premises a corresponding DEM Level is available for that product at all times,
- and updated on a quarterly basis through laboratory analysis.
- 20.** The Licence Holder must undertake Moisture Content monitoring of iron ore at the Premises:
- (a) at the locations specified in Column 1,
  - (b) for the parameter specified in Column 2,
  - (c) calculated as an average, over the period specified in Column 3,
  - (d) during the frequency specified in Column 4,
  - (e) using the method specified in Column 5,
  - (f) with calibration occurring in accordance with Column 6,
- of Table 3.

**Table 3: Moisture Content monitoring at the Premises**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Location	Parameter	Averaging Period	Frequency	Method	Calibration
Moisture Analyser at Car Dumpers 1 to 5 as depicted in Figures 2 and 3 of Schedule 1 (In-load circuit)	Moisture Content	Averaged for each Rake.	Continuous monitoring for every in-load accepted at the Premises from 31 December 2018.	N/A	Calibration of the online moisture analysers is to be carried out in accordance with the manufacturer's specifications and validated against Composite Sample undertaken in accordance with ISO3087 or as updated.
Sample Stations SS21, SS510, SS611, SS563 and SS730 depicted in Figure 3; and  SS705, SS809, SS891 and SS897 as depicted in Figure 4 of Schedule 1. (Out-load circuit)	Moisture Content	Averaged for each product per ship load.	Continuous monitoring during out-loading at ship loader	ISO3087; or ATS5621-2012; or alternative method approved by the CEO.	N/A

### Moisture Content Limits

21. The Licence Holder must ensure that at least 95% of all iron ore out-loaded from the Premises as averaged over an annual period for each product, has a Moisture Content at or above the corresponding DEM Level, as measured in accordance with Condition 20, Table 3.
22. The Licence Holder must ensure that at least 90% of all iron ore in-loaded and accepted at the Premises has a Moisture Content at or above the corresponding DEM Level, as measured in accordance with Condition 20, Table 3, and averaged over each calendar month.

### Dust monitoring and management

#### Air quality monitoring

23. The Licence Holder must undertake air quality monitoring:
  - (a) at the locations specified in Column 1 and shown in Figure 2 of Schedule 1,
  - (b) for the parameters specified in Column 2,
  - (c) calculated as an average over the period specified in Column 3,
  - (d) at the frequency specified in Column 4,
  - (e) in accordance with the method specified in Column 5, of Table 4.

**Table 4: Air quality monitoring**

Column 1	Column 2	Column 3	Column 4	Column 5
Monitoring Station (refer Figure 2, Schedule 1)	Parameter	Averaging period	Frequency	Method
Finucane Island B2 Finucane Island Wharf Reveg Area Finucane Island Southern Boundary Road Finucane Island Admin E Berth <sup>1</sup> F Berth Burgess Point NP South Boundary Road NP Bi-Lo Cargill <sup>2</sup> NP Fuel Farm Cockburn East NP E Area Reveg NP Gate 9 Finucane Island West	Particles as PM <sub>10</sub> (µg/m <sup>3</sup> )	1 hour average	Continuous	AS3580.9.11 AS3580.1.1
		10 minute average	Continuous	AS3580.1.1
NP Met 10m	Temperature	1 hour average	Continuous	AS3580.14
	Rainfall (mm)			
	Relative Humidity (%)			
	Wind speed (m/s)	10 minute average		
	Wind direction (°)			

Note 1: E Berth is permitted to be relocated to a location that is similarly representative of nearby dust sources and no earlier than 7 days from written notification to the CEO.

Note 2: Cargill monitor is permitted to operate in partial compliance with AS3580.1.1.

## Monitoring and management response

- 24.** The Licence Holder must maintain a record of any instances where ambient PM<sub>10</sub> concentrations at the monitoring locations listed in Column 1 of Table 5 exceed the corresponding management trigger criteria and Reportable Event criteria specified in Columns 2 and 3 of Table 5, when monitored in accordance with Condition 23.

**Table 5: Dust management during dust events**

Row	Column 1	Column 2	Column 3
	Monitoring Station (Schedule 1)	Management trigger criteria	Reportable Event Criteria
1.	Finucane Island B2	<p>(a) <math>\geq 253 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 1 hour average) and wind direction is averaged between wind arc 250° and 320° for any three or more ten minute periods during the rolling 1-hour period, as measured at NP Met 10m, within 10 months from the date of amendment on the first page of this Licence; or</p> <p>(b) <math>\geq 200 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (1 hour average) and wind direction is averaged between wind arc 250° and 320°, until the date that compliance with part (a) can be met.</p> <p>Parts (a) and (b) apply unless where BOM or Yule River monitoring stations<sup>1</sup> have recorded <math>\geq 100 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 1 hour average) within 3 hours of the trigger event.</p>	<p><math>\geq 230 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 24 hour average) when wind direction is averaged between wind arc 250° and 320° inclusive, for any 12 or more hours (cumulative) over the rolling 24 hour averaging period.</p>
2.	Finucane Island Wharf Reveg Area		
3.	NP Fuel Farm	<p>(a) <math>\geq 160 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 1 hour average) when wind direction is averaged between wind arc 110 and 250° inclusive for any three or more ten minute periods during the rolling 1-hour period, as measured at NP Met 10m, within 10 months from the date of amendment on the first page of this Licence; or</p> <p>(b) <math>\geq 100 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (1 hour average) and wind direction is averaged between wind arc 110° and 250°, until the date that compliance with part (a) can be met.</p> <p>Parts (a) and (b) apply unless where BOM or Yule River monitoring stations<sup>1</sup> have recorded <math>\geq 100 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 1 hour average) within 3 hours of the trigger event.</p>	<p><math>\geq 145 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 24 hour average) when wind direction is averaged between wind arc 110 and 250° inclusive, for any 12 or more hours (cumulative) over the rolling 24 hour averaging period.</p>
4.	Cockburn East		
5.	NP Gate 9		
6.	Taplin Street <sup>2</sup>	<p><math>\geq 100 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 1 hour average) when wind direction is averaged between wind arc 250 and 320° inclusive for any three or more ten minute periods during the rolling 1-hour period, as measured at NP Met 10m, within 10 months from the date of amendment on the first page of this Licence; or</p> <p><math>100 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (1 hour average) when averaged wind direction is between 250 and 320°, until the date that compliance with part (a) can be met.</p> <p>Parts (a) and (b) apply unless where, BOM or Yule River monitoring stations<sup>1</sup> have recorded <math>\geq 100 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 1 hour average) within 3 hours of the trigger event.</p>	<p><math>\geq 70 \mu\text{g}/\text{m}^3</math> (24 hour average measured from midnight to midnight)</p>
7.	Taplin Street <sup>2</sup>	<p><math>\geq 100 \mu\text{g}/\text{m}^3</math> PM<sub>10</sub> (rolling 1 hour average) when wind direction is averaged between wind arc 110 and 250° for any three or more ten minute</p>	<p><math>\geq 70 \mu\text{g}/\text{m}^3</math> (24 hour average measured from midnight to midnight)</p>

Row	Column 1	Column 2	Column 3
	Monitoring Station (Schedule 1)	Management trigger criteria	Reportable Event Criteria
		<p>periods during the rolling 1-hour period, as measured at NP Met 10m, within 10 months from the date of amendment on the first page of this Licence; or</p> <p>100 µg/m<sup>3</sup> PM<sub>10</sub> (1 hour average) when averaged wind direction is between 110 and 250°, until the date that compliance with part (a) can be met.</p> <p>Parts (a) and (b) apply unless where, BOM or Yule River monitoring stations<sup>1</sup> have recorded ≥100 µg/m<sup>3</sup> PM<sub>10</sub> (rolling 1 hour average) within 3 hours of the trigger event.</p>	

Note 1: Provision of this data to the Licence Holder is via the Port Hedland Industries Council, of which the Licence Holder is a member, or from DWER once the Department obtains control of monitoring data.

- 25.** Immediately upon being notified of management trigger criteria and/or Reportable Event criteria specified in Condition 24 being exceeded, the Licence Holder must:
- (a) conduct a Trigger Investigation to identify any potential source of the management trigger and/or Reportable Event criteria exceedance; and
  - (b) upon identification of a potential on-site source during the Trigger Investigation conducted in accordance with part (a) of this Condition, immediately control visible dust emissions by:
    - (i) applying additional dust suppression; and/or
    - (ii) activating dust extraction equipment, if not already operating and where applicable; and/or
    - (iii) ceasing or changing iron ore handling activities for the purpose of eliminating that dust source.
- 26.** Where the management trigger criteria is exceeded from the same monitor on multiple occasions within a three-hour period, the source of the exceedance may be considered as one event, requiring one Trigger Investigation in that period.
- 27.** In the event that source dust cannot be identified within 20 minutes of the management trigger criteria and/or Reportable Event criteria specified in rows 1, 2 and 6 of Table 5 being exceeded, the Licence Holder must undertake the following management actions:
- (a) cease all operation of mobile screening plant and associated front end loading activities at Finucane Island;
  - (b) operate all available BOC sprays on all conveyors that are handling iron ore through Finucane Island infrastructure, unless the Moisture Content of the iron ore being handled is known to be at or above DEM Level;
  - (c) apply water to all unsealed trafficable areas on Finucane Island where vehicle movement has occurred in the previous hour;
  - (d) operate Finucane Island stockpile cannons on Deluge Cycle within the relevant wind vector for that management trigger criteria exceedance; and

- (e) operate all available dust suppression sprays at Finucane Island transfer stations and conveyors handling iron ore, within the relevant wind vector for that management trigger criteria exceedance.
- 28.** In the event that source dust cannot be identified within 20 minutes of the management trigger criteria and/or Reportable Event criteria specified in rows 3, 4 and 7 of Table 5 being exceeded, the Licence Holder must undertake the following management actions:
- (a) cease all operation of mobile screening plant and associated front end loading activities at Nelson Point;
  - (b) operate all available BOC sprays on all conveyors that are handling iron ore through Nelson Point infrastructure, unless the Moisture Content of the iron ore being handled is known to be at or above DEM Level;
  - (c) apply water to all unsealed trafficable areas on Nelson Point where vehicle movement has occurred in the previous hour;
  - (d) operate Nelson Point stockpile cannons on Deluge Cycle within the relevant wind vector for that management trigger criteria exceedance; and
  - (e) operate all available dust suppression sprays at Nelson Point transfer stations and conveyors handling iron ore, within the relevant wind vector for that management trigger criteria exceedance.
- 29.** The Licence Holder must continue actions specified in Conditions 25(b), 27 and/or 28 for the duration of management trigger criteria being exceeded.

## Reporting

- 30.** The Licence Holder must investigate, undertake the actions and report in accordance with Schedule 5, in the event that any Reportable Event Criteria (as specified through Condition 24) is exceeded.
- 31.** The Licence Holder must submit to the CEO a Dust Monitoring Report that incorporates the information specified in Schedule 7 within 15 months from achieving the Premises design capacity of 330Mtpa, to demonstrate no net increase in dust emissions from prescribed activities at each Nelson Point and Finucane Island.

## Wastewater and washwater monitoring and limits

- 32.** The Licence Holder must monitor:
- (a) from the locations specified in Column 1,
  - (b) for the parameters specified in Column 2,
  - (c) over the averaging period specified in Column 3,
  - (d) at the frequency specified in Column 5, and
- in accordance with the method specified in Column 6 of Table 6.

**Table 6: Wastewater and washwater discharge monitoring**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Location	Parameter	Averaging Period	Limit	Frequency	Method
L1 and L2	Total Nitrogen (mg/L)	Spot sample	100 mg/L	Annually	AS5667.1 AS5667.10
L1 and L2	Total Phosphorous (mg/L)	Spot sample	15 mg/L	Annually	AS5667.1 AS5667.10
L3 and L4	TRH	Spot sample	15 mg/L	Quarterly	AS5667.1

### Wastewater and Washwater Limits

- 33.** The Licence Holder must ensure that discharges from the locations specified in Column 1, are below the limits specified in Column 4 for the parameters specified in Column 2 in Table 6 of Condition 32.

### Record-keeping

- 34.** The Licence Holder must maintain accurate and auditable Books including the following records, information, reports and data required by this Licence:
- (a) the calculation of fees payable in respect of this Licence;
  - (b) the amount of iron ore (in wet tonnes) out-loaded from the Premises including the average monthly percentage of iron ore that is Direct Shipped for the purpose of informing Quarterly Reports required by Condition 30;
  - (c) records of the duration for which iron ore is stockpiled at the Premises to verify compliance with Condition 4 of this Licence;
  - (d) the works conducted in accordance with Condition 6 of this Licence;
  - (e) the maintenance of infrastructure required to ensure that it is kept in good working order in accordance with Condition 15 of this Licence;
  - (f) Average Monthly Availability of equipment specified through Condition 16;
  - (g) dust control equipment inventory as required by Condition 17;
  - (h) any changes to the equipment detailed in the dust control equipment inventory including the rationale for the change and estimated reduction in emissions in accordance with Condition 17;
  - (i) monitoring undertaken in accordance with Conditions 20, 23, 24 and 32 of this Licence;
  - (j) monitoring data obtained in accordance with Condition 20 of this Licence;
  - (k) events reported in accordance with Conditions 4 and 32 and Schedule 5 of this Licence;
  - (l) incidence of management trigger criteria and the management actions undertaken in accordance with Condition 24; and
  - (m) complaints received under Condition 35 of this Licence.

In addition, the Books must:

- (a) be legible;
  - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible and are capable of retrieval;
  - (c) be retained for at least 3 years from the date the Books were made; and
  - (d) be available to be produced to an Inspector or the CEO.
- 35.** The Licence Holder must record the number and details of any complaints received by the Licence Holder relating to its obligations under this Licence and its compliance with Part V of the EP Act at the Premises, and any action taken by the Licence Holder in response to the complaint. Details of complaints must include:
- (a) an accurate record of the concerns or issues raised, for example a copy of any written complaint or a written note of any verbal complaints made;
  - (b) the name and contact details of the complainant, if provided by the complainant;
  - (c) the date of the complaint; and
  - (d) the details and dates of the actions taken by the Licence Holder in response to the complaints.
- 36.** The Licence Holder must submit to the CEO, no later than 30 September each year:
- (a) a Compliance Report indicating the extent to which the Licence Holder has complied with the Conditions in this Licence for the preceding Annual Period;
  - (b) determination of success in achieving no net increase in dust emissions from prescribed activities at either Nelson Point or Finucane Island, in the year following submission of the Dust Monitoring Report in accordance with Condition 31; and
  - (c) a monitoring report providing the results of monitoring and any supporting records, information, reports and data as required by:
    - (i) Condition 20 for the Average Monthly Availability rate of dust control infrastructure;
    - (ii) Condition 20 for Moisture Content monitoring undertaken during in-load and out-load at the Premises as specified in Table 3;
    - (iii) Condition 21 for reporting on events where the Moisture Content of a ship's load falls below the corresponding iron ore DEM Level, as determined in Table 3; and
    - (iv) Condition 32 for wastewater and washwater discharge monitoring as specified in Table 6.
- 37.** The Licence Holder must comply with a Department Request, within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

## Schedule 1: Maps

### Premises map

The Premises are shown in the map below.

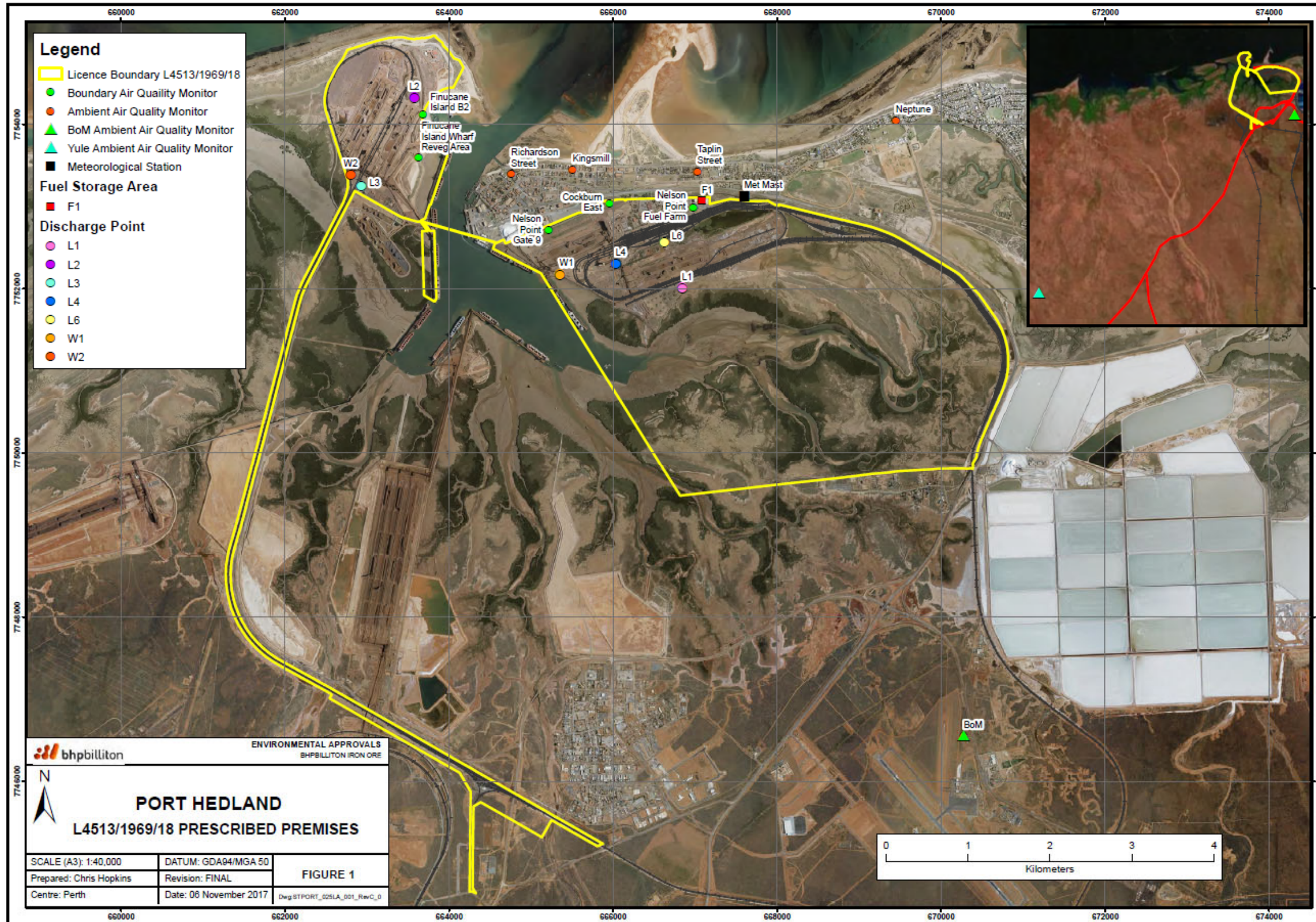


Figure 1: Premises map with premises boundary shown in yellow

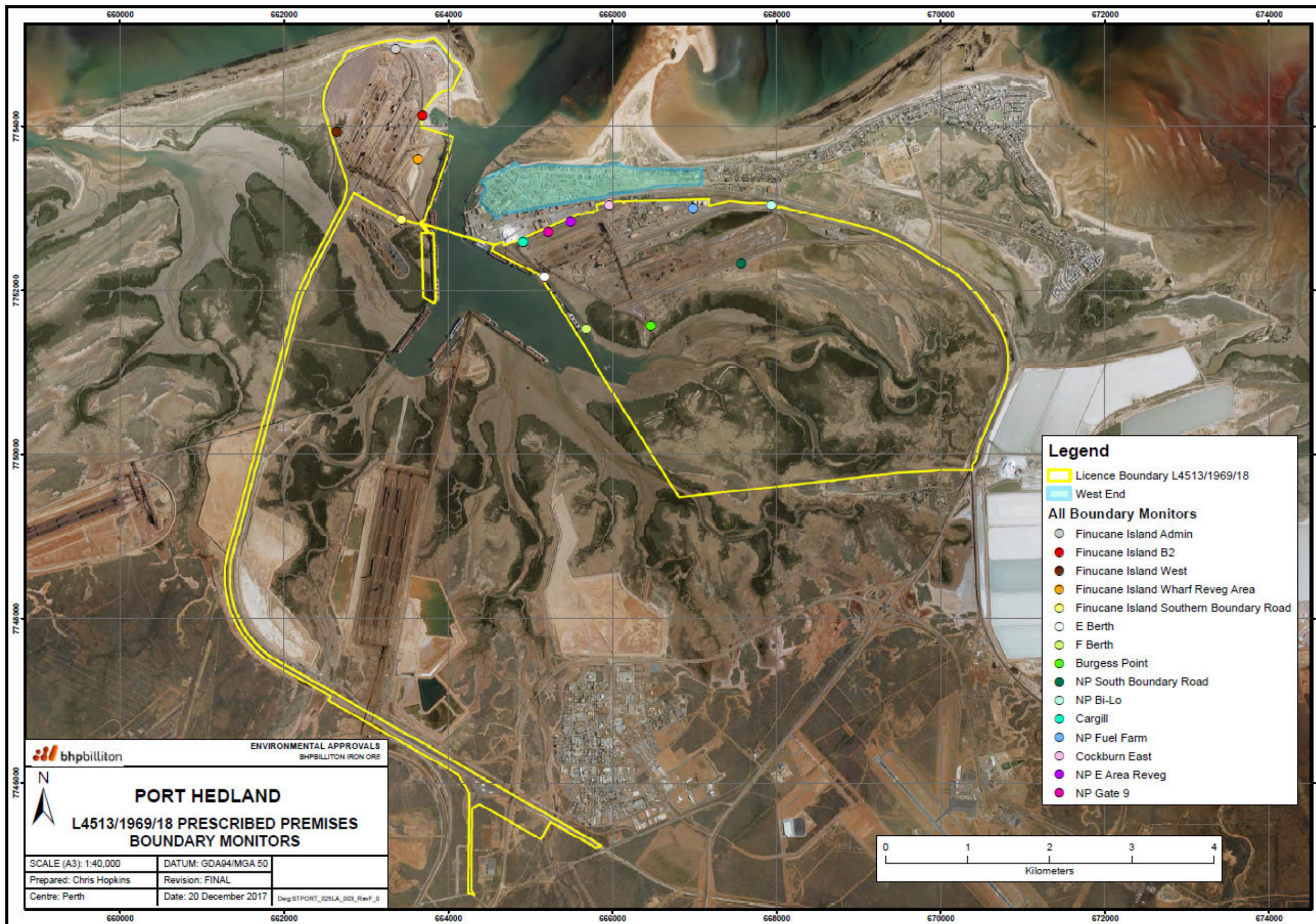


Figure 2: Boundary monitor locations

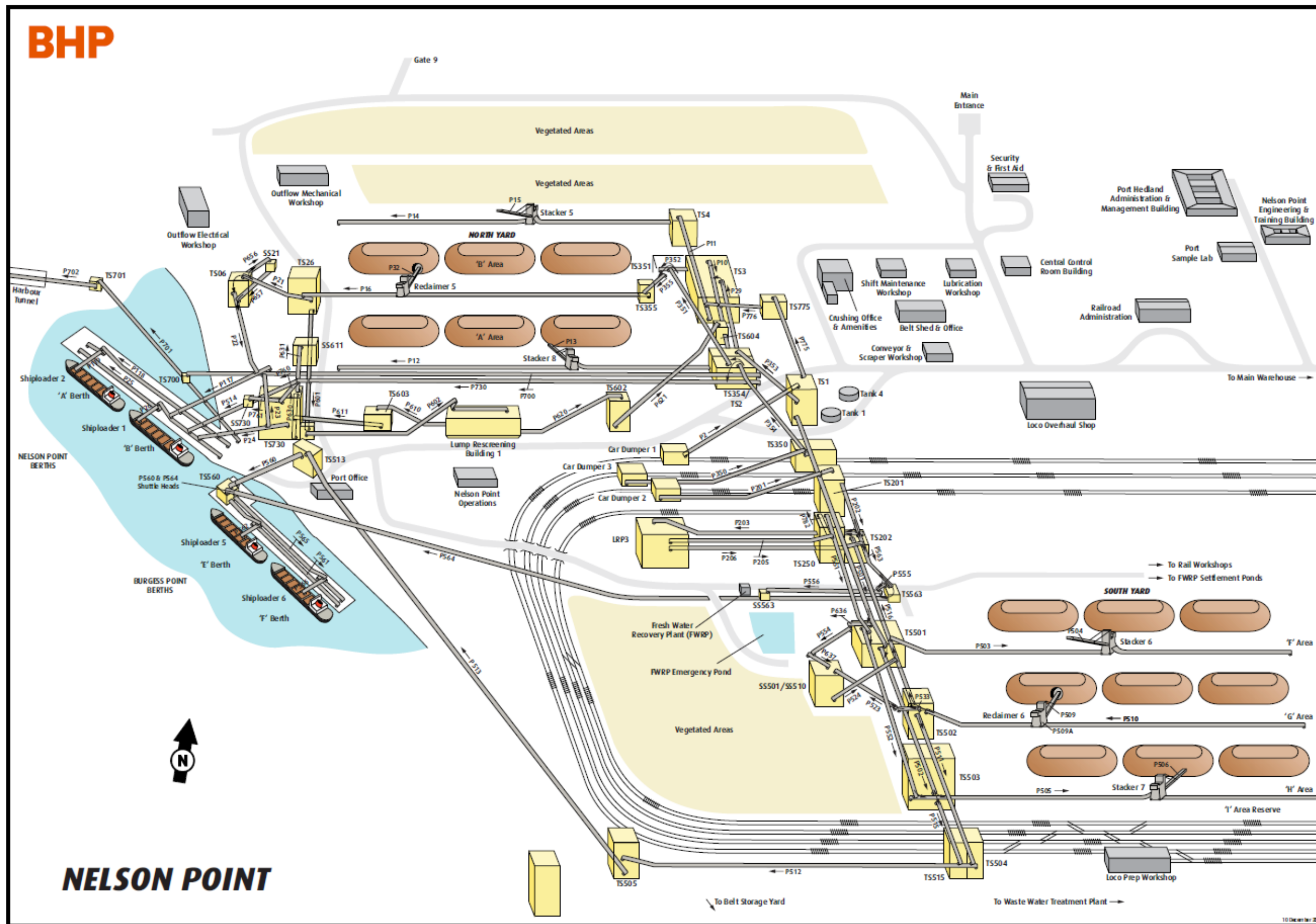


Figure 3: Nelson Point existing infrastructure plan

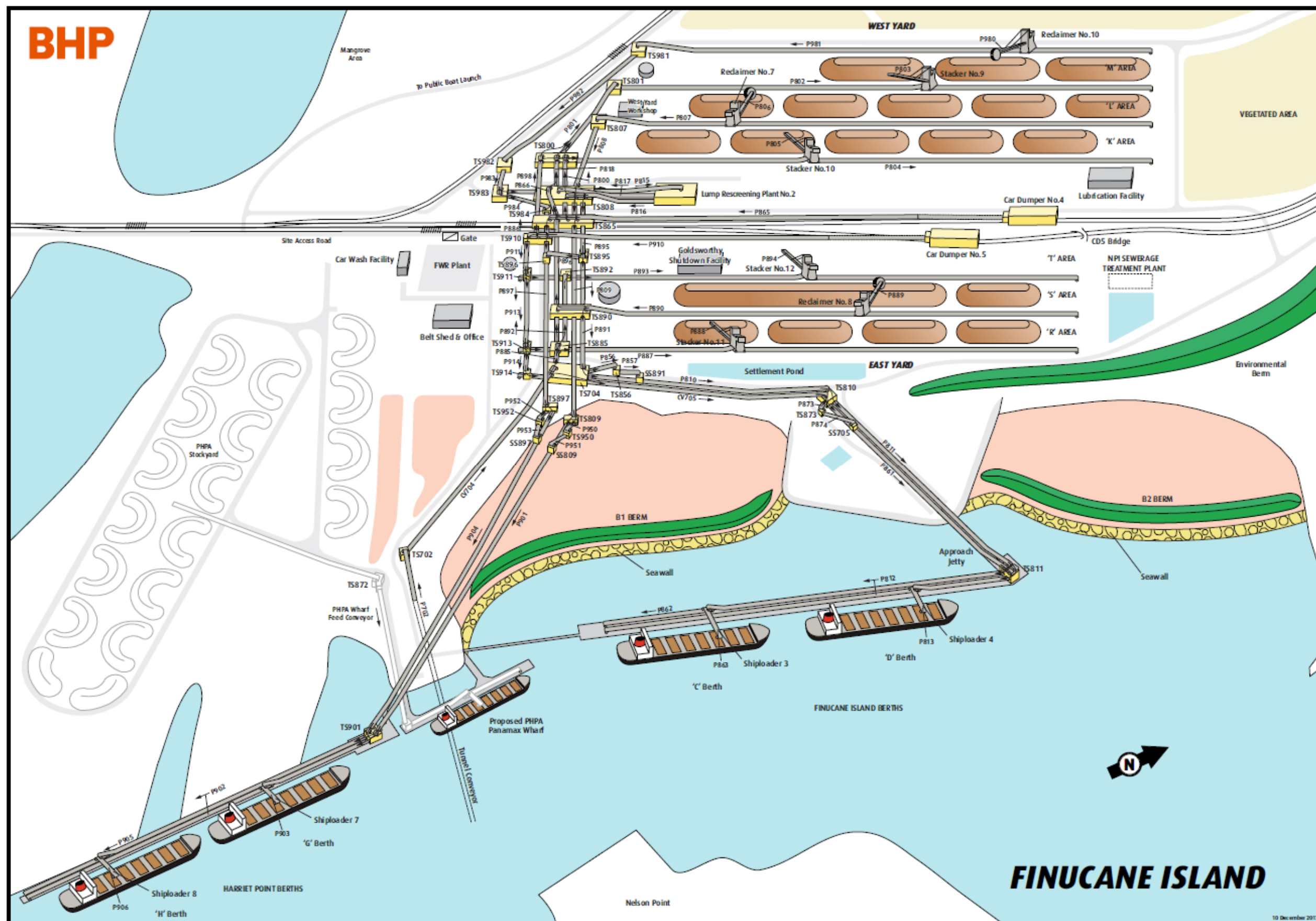


Figure 4: Finucane Island existing infrastructure plan

# NELSON POINT

## - 330 Mtpa Route Upgrade and Major Works

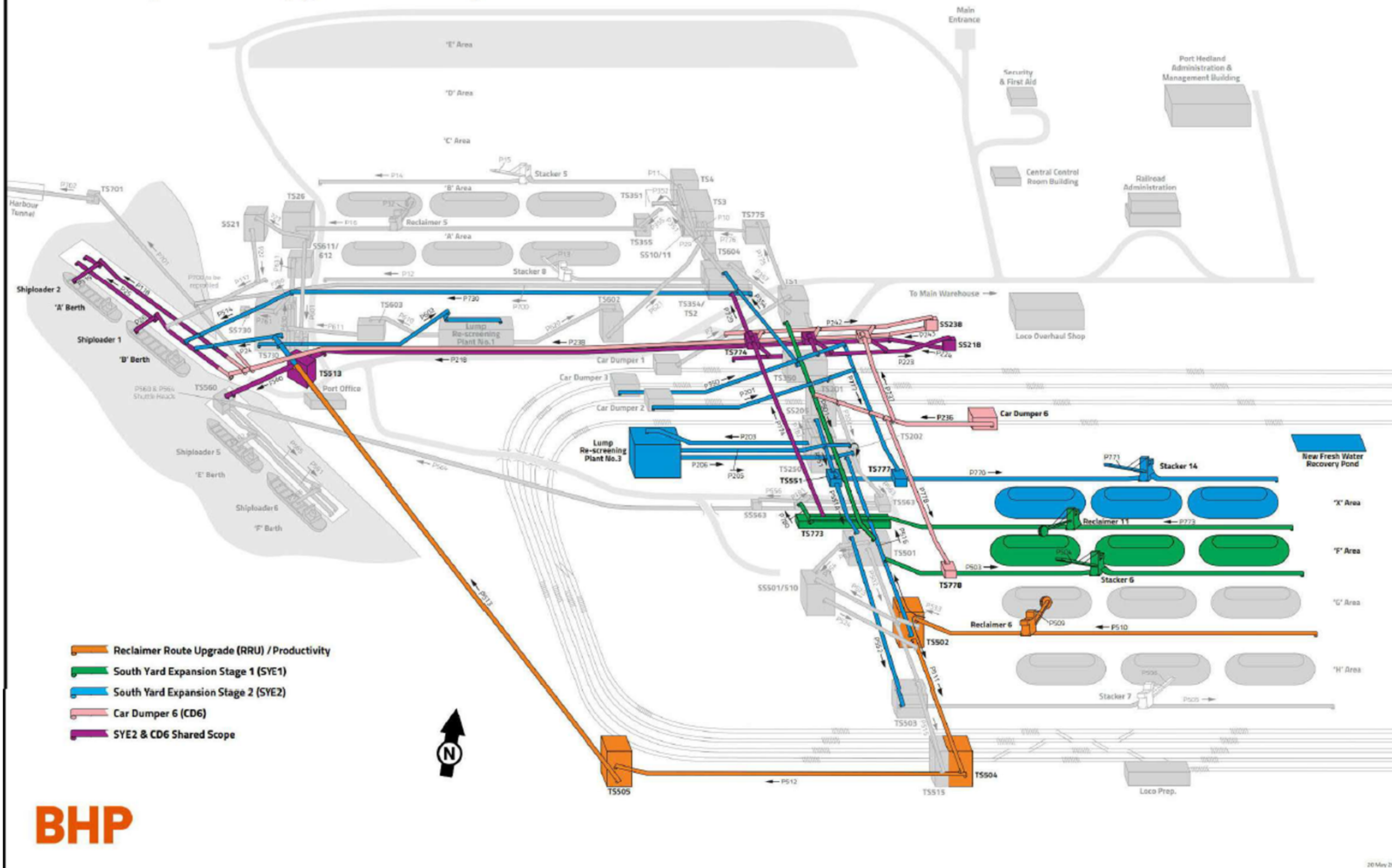


Figure 5: Nelson Point route upgrades and major works

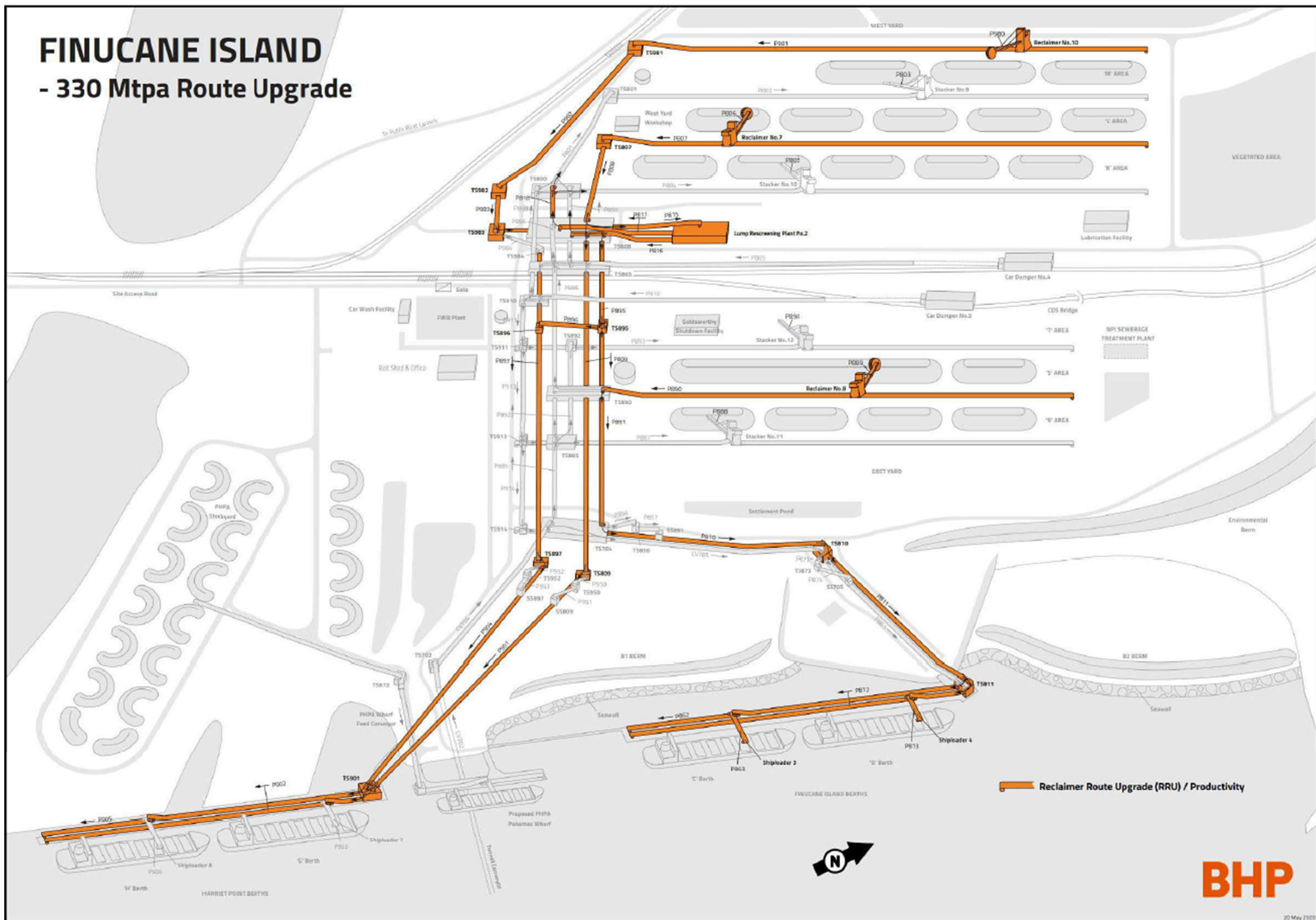


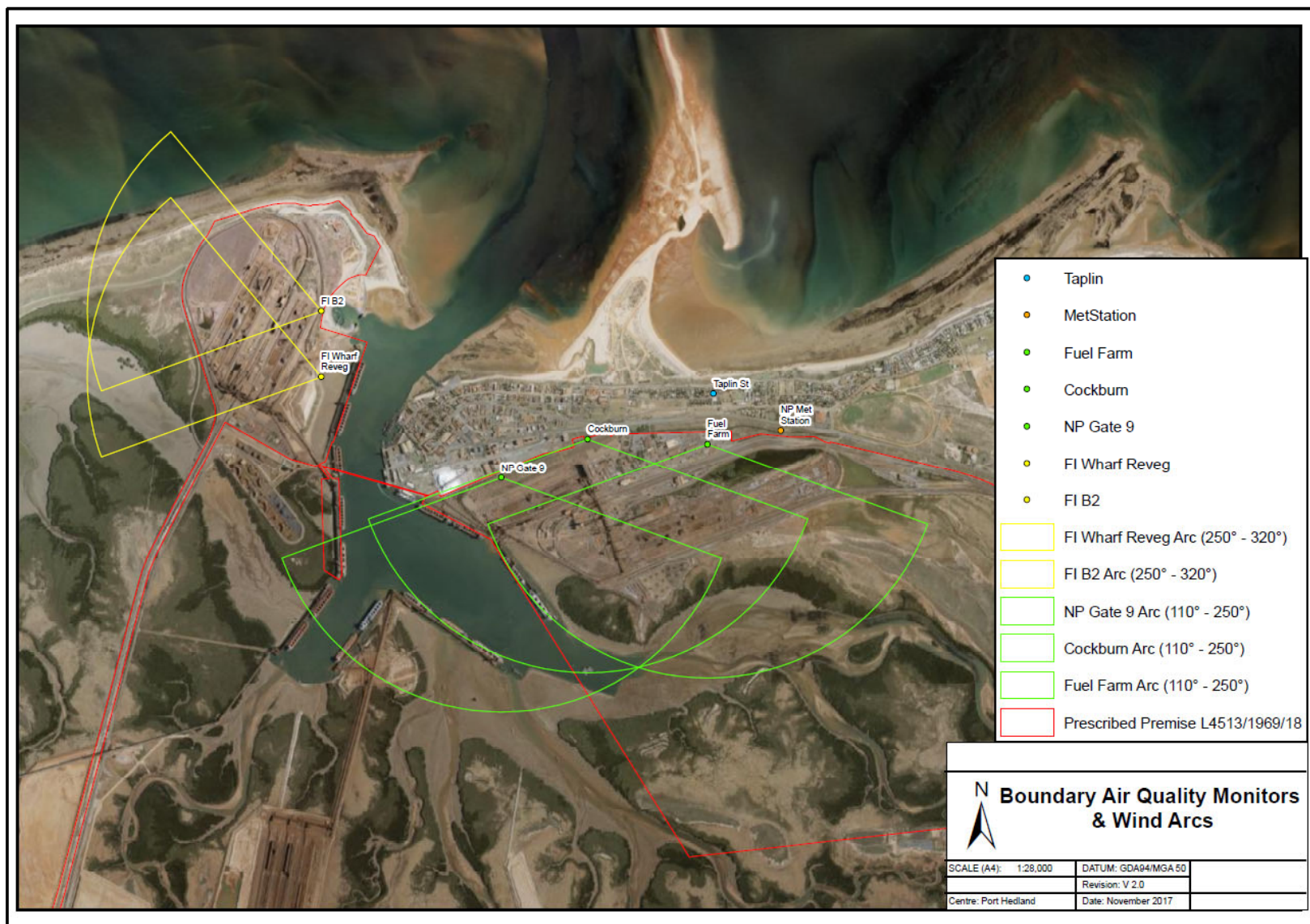
Figure 6: Finucane Island route upgrades and major works



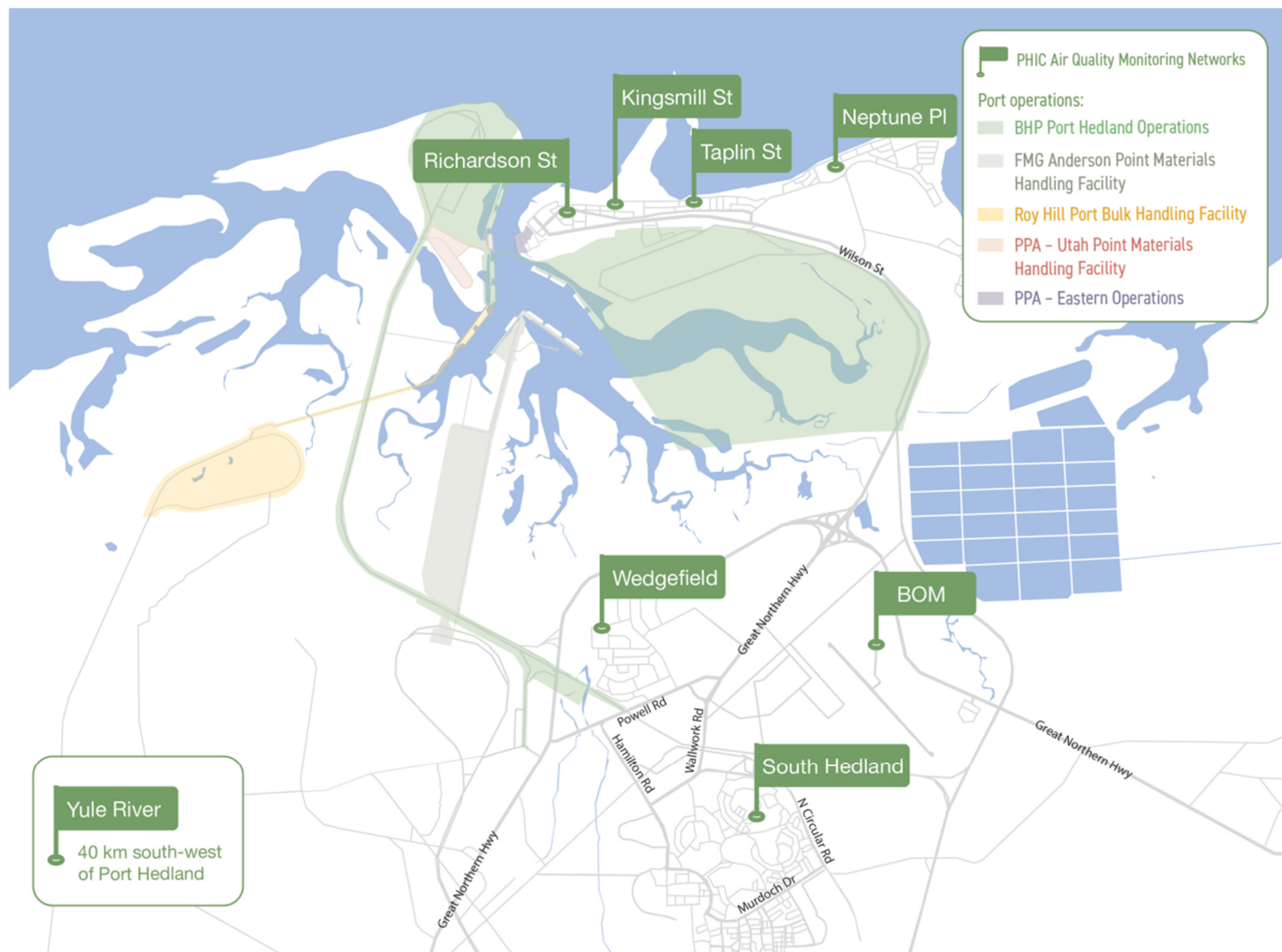
**Figure 7: Open area sealing – Phases 1 and 2**



**Figure 8: Wind fence locations**



**Figure 9: Boundary monitors and wind arcs that place receptors downwind of Premises Activities**



**Figure 10: Ambient monitoring network**

## Premises boundary

The Premises boundary is defined by the coordinates in Table 6.

**Table 6: Premises boundary coordinates**

Easting	Northing
663844.84	7755057.36
663921.88	7754992.86
663927.59	7754964.79
663989.90	7754901.15
664063.02	7754804.17
664124.54	7754783.09
664177.71	7754692.87
664052.64	7754448.63
664013.58	7754450.29
663982.90	7754445.90
663935.52	7754429.83
663909.15	7754416.79
663886.56	7754402.93
663831.64	7754355.34
663787.79	7754311.60
663754.30	7754271.53
663726.86	7754228.48
663710.27	7754193.95
663691.50	7754138.81
663676.27	7754074.50
663665.24	7753997.72
664065.49	7753875.52
663776.88	7753022.15
663766.88	7753025.21
663726.90	7752907.32
663709.79	7752856.87
663657.91	7752831.58
663665.43	7752821.78
664586.54	7752560.79
664668.52	7752598.86
664686.25	7752556.36
664690.19	7752554.72
664693.66	7752553.07
665031.08	7752693.58
665030.39	7752695.85
665124.21	7752735.12
665163.15	7752751.43
665576.20	7752924.36
665697.67	7752943.97
665814.62	7752974.34
665834.08	7752979.42
665816.17	7753048.01

Easting	Northing
665913.49	7753073.43
665918.57	7753053.97
665975.40	7753068.82
665996.52	7753074.34
666018.23	7753080.01
666046.45	7753087.38
666130.74	7753089.70
666151.13	7753071.53
666168.28	7753090.78
666505.43	7753099.04
666842.59	7753107.31
667179.75	7753115.57
667178.95	7753032.11
667262.46	7753052.24
667430.43	7753092.71
667680.69	7753065.87
667892.56	7753070.04
667977.72	7753022.90
668023.74	7753012.64
668023.82	7753024.87
668097.25	7753007.40
668447.76	7752924.01
668798.26	7752840.61
668807.99	7752838.29
669055.22	7752779.47
669148.49	7752754.73
669240.38	7752725.23
669330.63	7752691.06
669419.01	7752652.30
669505.29	7752609.06
669589.23	7752561.45
669873.71	7752390.30
670158.19	7752219.16
670195.46	7752194.68
670231.61	7752168.60
670467.00	7751928.82
670471.58	7751922.35
670652.07	7751663.07
670682.95	7751615.19
670710.92	7751565.55
670735.88	7751514.34
670757.74	7751461.73

Easting	Northing
670776.43	7751407.90
670791.87	7751353.06
670804.01	7751297.40
670812.81	7751241.11
670818.24	7751184.39
670820.28	7751127.45
670818.92	7751070.49
670814.16	7751013.72
670806.02	7750957.33
670794.54	7750901.52
670779.74	7750846.50
670761.70	7750792.46
670740.46	7750739.60
670616.57	7750454.04
670492.68	7750168.48
670478.43	7750133.48
670465.76	7750097.88
670454.62	7750061.41
670445.13	7750024.47
670437.31	7749987.15
670431.20	7749949.51
670389.22	7749876.62
670387.91	7749827.08
670388.80	7749799.40
670383.33	7749799.19
670380.57	7749799.40
670380.29	7749807.94
670369.71	7749807.01
670328.83	7749803.39
670308.81	7749804.93
670265.89	7749808.24
669964.19	7749802.49
669902.52	7749798.74
669842.70	7749795.11
669782.87	7749791.48
669723.05	7749787.84
669482.12	7749773.21
669448.90	7749768.94
669414.19	7749764.48
669358.67	7749757.34
669147.95	7749738.88
668969.10	7749715.55

<b>Easting</b>	<b>Northing</b>
668771.08	7749693.49
668363.85	7749648.11
667956.62	7749602.74
667549.39	7749557.36
667120.29	7749509.55
666939.02	7749489.23
666817.96	7749475.73
666749.58	7749584.95
666657.26	7749732.43
666466.72	7750036.79
666276.19	7750341.15
666085.66	7750645.50
665844.33	7751030.99
665603.01	7751416.47
665361.69	7751801.95
665120.15	7752187.17
664535.05	7752490.08
664550.47	7752519.70
664555.46	7752545.60
664568.16	7752552.26
664578.20	7752556.91
663690.83	7752808.35
663769.99	7752705.04
663822.62	7752706.69
663848.60	7751880.20
663824.46	7751841.57
663697.19	7751921.06
663672.69	7752701.98
663740.09	7752704.10
663651.73	7752819.43
663639.87	7752822.79
663623.68	7752814.90
663545.65	7752837.01
663410.85	7752874.78
662850.78	7753191.25
662645.72	7752795.55
662517.84	7752548.67
662389.96	7752301.79
662281.82	7752092.59
662239.06	7752003.50
662203.02	7751910.39
662174.61	7751814.63
662066.97	7751404.62
661959.32	7750994.61
661851.68	7750584.60
661744.03	7750174.60

<b>Easting</b>	<b>Northing</b>
661656.89	7749842.69
661569.75	7749510.79
661482.61	7749178.88
661404.79	7748911.48
661377.46	7748815.29
661355.55	7748717.83
661342.06	7748618.86
661337.07	7748519.04
661340.45	7748419.24
661352.11	7748320.17
661372.07	7748222.31
661400.37	7748126.50
661436.53	7748033.42
661480.28	7747943.66
661531.58	7747857.90
661589.92	7747776.71
661654.85	7747700.78
661725.85	7747630.58
661802.58	7747566.50
661884.54	7747509.01
661970.38	7747457.98
662323.96	7747263.89
662324.70	7747263.49
662426.55	7747207.58
662520.90	7747155.80
662655.42	7747078.95
662734.81	7747033.65
662954.51	7746908.27
663244.07	7746743.13
663533.64	7746577.98
663823.20	7746412.83
664052.45	7746282.08
664281.70	7746151.33
664335.69	7746120.54
664508.46	7746022.03
664516.84	7746017.25
664681.76	7745923.22
664699.13	7745913.31
664947.55	7745771.69
665195.96	7745630.06
665298.93	7745571.36
665329.24	7745554.08
665498.44	7745457.61
665878.31	7745241.06
665808.02	7745211.41
665737.19	7745251.83

<b>Easting</b>	<b>Northing</b>
665502.70	7745385.62
665268.22	7745519.40
665250.86	7745529.30
665234.16	7745500.04
665195.16	7745431.72
665132.15	7745321.15
665105.97	7745336.07
664745.56	7745541.62
664385.16	7745747.18
664297.34	7745696.73
664292.58	7745201.37
664287.83	7744706.02
664309.36	7744670.37
664328.19	7744639.16
664291.64	7744655.02
664272.91	7744663.15
664267.41	7744662.06
664251.58	7744658.92
664254.52	7744964.47
664257.45	7745270.03
664260.36	7745573.01
664263.27	7745875.99
664128.29	7746104.68
663775.36	7746306.17
663422.42	7746507.65
663069.48	7746709.14
662806.00	7746859.41
662542.53	7747009.67
662570.19	7747058.18
662491.37	7747103.17
662215.90	7747254.37
661940.43	7747405.58
661851.74	7747458.32
661765.84	7747518.58
661685.22	7747585.93
661610.63	7747659.70
661542.40	7747739.50
661481.10	7747824.82
661427.18	7747914.98
661381.20	7748009.33
661343.23	7748107.09
661313.48	7748207.81
661292.50	7748310.68
661280.26	7748414.75
661276.70	7748519.59
661281.94	7748624.43

<b>Easting</b>	<b>Northing</b>
661287.01	7748661.64
661292.67	7748703.18
661296.13	7748728.52
661318.97	7748830.16
661346.80	7748928.15
661424.41	7749194.97
661547.48	7749663.77
661670.56	7750132.56
661793.63	7750601.36
661901.22	7751011.21
662008.81	7751421.05
662116.41	7751830.89
662145.79	7751929.90
662153.31	7751949.32
662183.57	7752027.48
662212.21	7752087.14
662227.75	7752119.50
662336.37	7752329.53
662361.67	7752378.35
662390.16	7752433.32
662592.28	7752823.31
662713.21	7753056.60
662746.03	7753154.48
662769.24	7753234.05
662766.19	7753320.45
662635.51	7753734.33
662504.84	7754148.21
662490.51	7754205.56
662484.23	7754262.59
662484.34	7754319.47
662486.43	7754338.93
662489.58	7754368.30
662507.40	7754441.11
662515.94	7754464.60
662524.68	7754488.02
662535.41	7754510.60
662546.48	7754533.01
662625.00	7754685.88
662664.32	7754744.32
662697.79	7754783.25
662744.01	7754873.49
662761.79	7754908.20
663125.63	7755018.96
663267.62	7755053.85
663361.44	7755061.45
663447.89	7755061.76

<b>Easting</b>	<b>Northing</b>
663499.67	7755047.42
663586.71	7755038.77
663597.53	7755047.18
663645.07	7755047.68
663662.45	7755053.35
663698.79	7755049.62
663771.99	7755065.82
663807.46	7755080.82
663826.60	7755080.91

## Schedule 2: Schedule of works

Table 7: Authorised works

Row	Column 1	Column 2	Column 4
	Stage of works	Scope of authorised works	Location (Schedule 1)
1.	Reclaimer route upgrade	<p>Nelson Point</p> <ul style="list-style-type: none"> <li>Reclaimer 6 hydraulic drive and route upgrades</li> <li>Upgrade shiploader 5 and 6 to 13,500 tph;</li> <li>Upgrade car dumper 3 to shiploader 1 and 2 (via P730) to 15,400 tph</li> </ul> <p>Finucane Island</p> <ul style="list-style-type: none"> <li>Reclaimer 10 hydraulic drive and route upgrade to shiploader 7 and 8 (18,000tph);</li> <li>Reclaimer 8 hydraulic drive and route upgrade to ship loader 3 and 4 (13,500 tph respectively);</li> <li>Reclaimer 10 hydraulic drive and route upgrade to shiploader 7 and 8 via lump rescreening plant No.2 (18,000 tph);</li> <li>Lump rescreening plant No.2 upgrade to 18,000 tph;</li> <li>Replacement of shiploader 3;</li> <li>Upgrade DTS route to shiploader 3 to 13,500tph; and</li> <li>Upgrade route from reclaimer 8 to shiploader 3 to 13,500 tph.</li> </ul>	Figure 5 and Figure 6
2.	South yard expansion 1	<ul style="list-style-type: none"> <li>New stockpile (F area);</li> <li>New reclaimer 11 at 15,400 tph to shiploader 5 and 6;</li> <li>New reclaimer 11 at 14,500 tph feed rate to lump re-screening plant No.3;</li> <li>New reclaimer yard conveyor (P773 and transfer stations);</li> <li>Upgrade existing stacker 6 to 16,000 tph;</li> <li>Upgrade inflow conveyors from car dumper 2 and car dumper 3 to stacker 6 to 16,000tph;</li> <li>Upgrade lump re-screening plant No.3 to 14,500 tph feed rate from reclaimer 11; and</li> <li>Upgrade lump re-screening plant No.3 feed conveyors to 14,500 tph.</li> </ul>	Figure 5
3.	South yard expansion 2	<ul style="list-style-type: none"> <li>New stockpile (X area);</li> <li>New stacker 14 at 20,000 tph;</li> <li>New conveyors and associated transfer stations from car dumper 2 and car dumper 3 to stacker 14;</li> <li>Lump re-screening plant No.3 upgrade to 18,000 tph; and</li> <li>New freshwater recovery pond for the purpose of replacing the FWRP Emergency Pond shown in Schedule 1, Figure 3.</li> </ul>	Figure 5
4.	Car dumper 6/South yard expansion 2 shared scope	<ul style="list-style-type: none"> <li>New route from car dumper 2, car dumper 3 and car dumper 6 to shiploader 5 and 6 (P218);</li> <li>New sample station for P218 route (SS218);</li> <li>New route connection (P729 &amp; P774) from reclaimer 11 to shiploader 1, 2, 5 and 6 via P218, P238 &amp; P730 conveyors; and</li> </ul>	Figure 5

		<ul style="list-style-type: none"> <li>Modify and upgrade A &amp; B berth conveyors and shiploaders 1 and 2.</li> </ul>	
5.	Car dumper 6	<ul style="list-style-type: none"> <li>New car dumper 6</li> <li>Car dumper 6 to stackers SY (STK6, STK7, STK14);</li> <li>Car dumper 6 to stackers NY (STK5, STK8);</li> <li>Car dumper 6 via conveyor P238 to shiploaders 1 and 2; and</li> <li>New sample station for P238 route (SS238.)</li> </ul>	Figure 5

**Table 8: Construction and installation requirements for dust and noise control infrastructure**

Row	Column 1	Column 2	Column 3	Column 4
	Stage of works	Infrastructure and equipment	Requirements	Location
1.	Stage 1A	Conveyors	Install hybrid ultra-low noise idlers along conveyors for the purpose of minimising noise.	Conveyors: P2, P10, P15, P26, P32, P119, P352, P353, P355, P502, P503, P504, P505, P506, P509, P510, P511, P512, P562, P602, P621, P701, P775 as depicted in Figures 3 and 5 of Schedule 1.
2.			Install belt wash stations at the return end of conveyors to minimise the carry back of ore.	South Yard conveyors (existing conveyors at Nelson Point): P503 and P505 as depicted in Figure 5 of Schedule 1.
3.		Car dumpers	Install fogging units at the conveyor of car dumpers to minimise the escape of dust emissions from the car dumper.	Nelson Point: Car Dumper 1 (P2) Car Dumper 2 (P201) Car Dumper 3 (P350) as depicted in Figure 3 of Schedule 1.
4.		Road and open area sealing – Phase 1	Sealing of open areas for the prevention of dust lift off from traffic movement and wind erosion.	Finucane Island Phase 1: ROA1, ROA2, ROA3 Nelson Point Phase 1: ROA4, ROA5, ROA6 as depicted in Figure 7 of Schedule 1.
5.		Road and open area sealing – Phase 2	Sealing of open areas for the prevention of dust lift off from traffic movement and wind erosion.	Finucane Island Phase 2: ROA8, ROA9, ROA10, RAO11 Nelson Point Phase 2: ROA12, ROA13, ROA14, RAO15, RAO16 as depicted in Figure 7 of Schedule 1.

6.	Stage 1B	Conveyor	Install hybrid ultra-low noise idlers along conveyors for the purpose of minimising noise.	Conveyor drives at: P12, P13, P14, P118, P202, P203, P501, P513, P514, P351, P354, P515, P516, P551, P552, P560, P563, P564, P566, P610, P611, P702, P730, P776 as depicted in Figures 3 and 5 of Schedule 1.
7.			Install shields at conveyor drives for the purpose of minimising noise.	Conveyor drives at: P510, P511, P512 as depicted in Figures 3 and 5 of Schedule 1.
8.		Wind fence	Erect FI Type A wind fence as depicted in Figure 8 of Schedule 1, with a height no less than 20m above the base of the stockyard and with a mesh aerodynamic porosity no greater than 50%.  Erect FI Type B wind fence as depicted in Figure 8 of Schedule 1, with a height no less than 20m above the base of the stockyard and with a mesh aerodynamic porosity no greater than 50%.	Finucane Island (West Yard): WY Wind fences as depicted in Figure 8 of Schedule 1.
9.	Stage 2A	Conveyors and conveyor drives	Install or replace shields at conveyor drives for the purpose of minimising noise.	Conveyor drives at: P773A, P773B, P501, P206, P505N, P505S, P503N, P503S, P14N, P16N, P353N as depicted in Figures 3 and 5 of Schedule 1.
10.			Install hybrid ultra-low noise idlers along conveyors for the purpose of minimising noise.	Conveyors: P772 (Reclaimer 11), P773, P780 as depicted in Figure 5 of Schedule 1.
11.			Install belt wash stations at the return end of conveyor to minimise the carry back of ore.	South Yard conveyor (Nelson Point extension): P773 as depicted in Figure 5 of Schedule 1.
12.		Wind fence	Erect Nelson Point South Yard Fence as depicted in Figure 8 of Schedule 1, wind fence with a mesh aerodynamic porosity no	Nelson Point (South Yard): SY Wind fence as depicted in Figure 8 of Schedule 1.

			greater than 50%. The height of western section of the Nelson Point South Yard Fence must be no less than 15 m above the base of the stockyard and the eastern length with a height no less than 20m above the base of the stockyard.	
13.		Reclaimer	Construct reclaimer fitted with boom sprays designed to direct water toward the stockpile surface and reclaiming buckets.	South Yard reclaimer (Nelson Point extension): Reclaimer 11 as depicted in Figure 5 of Schedule 1.
14.		Stockpile water cannons	Stockpile cannons located along stockpile rows spaced at intervals that ensure full coverage of the stockpile surface with water.	South Yard stockpiles (Nelson Point extension): F area as depicted in Figure 5 of Schedule 1.
15.	Stage 2B	Conveyors and conveyor drives	Install shields at conveyor drives for the purpose of minimising noise.	Conveyor drives: P201N, P201S, P516, P552, P560, P730, P770A, P770B, P777 as depicted in Figure 5 of Schedule 1.
16.			Install hybrid ultra-low noise idlers along conveyors for the purpose of minimising noise.	Conveyors: P201 (extension), P350 (extension), P770, P771 (Stacker 14), P777 as depicted in Figure 5 of Schedule 1.
17.			Install belt wash stations at the return end of conveyor to minimise the carry back of ore.	South Yard conveyor (Nelson Point extension): P770 North Yard conveyors (Nelson Point extension): P218, P238 as depicted in Figure 5 of Schedule 1.
18.		Stockpile water cannons	Stockpile cannons located along stockpile rows spaced at intervals that ensure full coverage of the stockpile surface with water.	South Yard stockpiles (Nelson Point extension): X area as depicted in Figure 5 of Schedule 1.
19.		Stacker	Stacker designed to luff to minimise the height between stacker and stockpile.	South Yard stacker (Nelson Point extension): Stacker 14

			Fitted with dust hood and head sprays designed to minimise dust at the stockpile as ore is deposited.	as depicted in Figure 5 of Schedule 1.
20.	Stage 2C Car dumper and Spaghetti Junction transfer stations	Conveyors and conveyor drives	Install shields at conveyor drives for the purpose of minimising noise.	Conveyor drives: P218A, P218B, P219, P236A, P236B, P237, P774, P778, P351 as depicted in Figure 5 of Schedule 1.
21.			Install hybrid ultra-low noise idlers along conveyors for the purpose of minimising noise.	Conveyors: P218, P219, P236, P237, P238, P25 (extension), P701 (extension), P118 (extension), P774, P778, P729 as depicted in Figure 5 of Schedule 1.
22.		Car dumper and exit conveyor	Partially enclosed (open train entry and exit points only) and equipped with wet scrubber extraction and collection system.	South Yard car dumper (Nelson Point extension): Car Dumper 6 as depicted in Figure 5 of Schedule 1.
23.			Install fogging unit at the conveyor of car dumper to minimise the escape of dust emissions from the car dumper.	South Yard car dumper (Nelson Point extension): Car Dumper 6 exit conveyor (P236) as depicted in Figure 5 of Schedule 1.
24.			Install belt wash station at the return end of conveyors to minimise the carry back of ore.	South Yard conveyors (Nelson Point extension): P236 (Car Dumper 6 exit conveyor) as depicted in Figure 5 of Schedule 1.
25.		Spaghetti Junction transfer stations	Install control that is consistent with DWER's Dust Management Guideline for bulk-handling port premises, to achieve a minimum 40% reduction in dust emissions.  Must be installed within 5 years from the date of amendment, as specified at the front of this Licence.	Transfer Stations: TS2, TS3 and TS354 as depicted in Figure 5 of Schedule 1.

## Schedule 3: Primary Activities

At the time of assessment, Emissions and Discharges from the following Primary Activities were considered in the determination of the risk and related Conditions for the Premises.

The Primary Activities are listed in Table 10:

**Table 9: Primary Activities**

Primary Activity	Premises production or design capacity
Category 5 – Processing or beneficiation of metallic or non-metallic ore: premises on which – (a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed; or (b) tailings from metallic or non-metallic ore are reprocessed; or (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	155 million tonnes per annual period
Category 54 – Sewage facility: premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	260.9 cubic metres per day
Category 58 - Bulk material loading or unloading: premises on which clinker, coal, ore, ore concentrate or any other bulk granular material (other than salt) is loaded onto or unloaded from vessels by an open materials loading system.	330 million tonnes per annual period
Category 61 – Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated.	8,000 tonnes per annual period
Category 73 – Bulk storage of chemicals etc: premises on which acids, alkalis or chemicals that – (a) contain at least one carbon to carbon bond; and (b) are liquid at STP (standard temperature and pressure), are stored.	63,336 cubic metres in aggregate

## Bulk materials loaded and unloaded

The bulk material considered in the determination of risk and related Conditions for the Premises includes the iron ore received at the Premises' rotary car dumpers via trains from the Licence Holder's inland mines: Jimblebar, Wheelarra Hill, Orebody 31, Orebody 18, Eastern Ridge (Orebody 23, 24, 25 and 32), Mining Area C and South Flank, Marillana Creek (Yandi), Mt Whaleback and Orebody 29, 30 and 35).

## Infrastructure and equipment

The Primary Activity infrastructure and equipment situated on, or authorised for construction on, the Premises is listed in Table 11 with Nelson Point and Finucane Island infrastructure and equipment depicted in Figures 2, 3 and 5 respectively.

**Table 10: Infrastructure and equipment**

	Infrastructure	Plan reference
1.	Ship loading wharf and ship loader	Figure 3: Ship loader 1, 2, 5 and 6 A, B, E and F Berths  Figure 4: Ship loader 3, 4, 7 and 8 C, D, G and H Berths
2.	Stackers	Figure 3: Stacker 5 – 8  Figure 4: Stacker No. 9 – 12  Figure 5: Stacker 14
3.	Iron ore stockpiles	Figure 3: A, B, F, G and H Areas  Figure 4: K, L, M, R, S and T Areas
4.	Reclaimers	Figure 3: Reclaimer 5 and 6  Figure 4: Reclaimer No. 7, 8 and 10  Figure 5: Reclaimer 11
5.	Conveyors	Figure 3 and 5: P2, P10 – P16, P21 – P26, P29, P32, P117 – P119, P201 – P203, P205 – P206, P218, P219, P236 – P238, P242, P243 P350 – P355 P501 – P506, P509 – P516, P521 – P524, P533, P551 – P556, P560 – P566, P601, P602, P610, P611, P620, P621, P630 – P631, P700 – P702, P729, P730, P760, P761, P770, P771, P773 – P778 P782  Figure 4: CV704, CV705 P800 – P813, P815 – P817, P818, P856, P861 – P863, P865, P866, P885 – P898 P901 – P906, P910, P911, P913, P914, P951, P953, P980 – P984
6.	Transfer stations (TS)	Figure 3 and 5: TS1 – TS4, TS26 TS201, TS202, TS250 TS350, TS351, TS354, TS355 TS501 – TS505, TS513, TS515, TS551, TS560, TS563 TS602 – TS604 TS700, TS701, TS730, TS775, TS777 TS778

	Infrastructure	Plan reference
		Figure 4: TS702, TS704 TS800, TS 801, TS807 – TS811, TS856, TS865, TS873, TS885, TS890, TS892, TS895 – TS897 TS901, TS910, TS911, TS913, TS914, TS950, TS952, TS981 – TS984
7.	Lump Rescreening Plants	Figure 3: Lump Rescreening Plant No. 1 and Lump Rescreening Plant No. 3 Figure 4: Lump Rescreening Plant No. 2
8.	Car dumpers	Figure 3: Car Dumper 1, 2 and 3 Figure 4: Car Dumper No. 4 and 5 Figure 5: Car Dumper 6
9.	Freshwater Recovery Plants	Figure 1: L3 and L4 Figure 3: FWRP and FWRP Emergency Pond Figure 4: FWR Plant Figure 5: New Fresh Water Recovery Pond
10.	Sample Stations	Figure 3 and Figure 5: SS21, SS238, SS510, SS611, SS563 and SS730 Figure 4: SS705, SS809, SS891 and SS897
11.	Wastewater treatment plants	Figure 1 (Premises map): L1, L2
12.	Hydrocarbon storage	Figure 1 (Premises map): F1
13.	Temporary screening plant	N/A – mobile
14.	Water carts	N/A – mobile
15.	Mobile fog cannon	N/A – mobile

## Site layout

The Primary Activity infrastructure and equipment is set out on the Premises in accordance with the site layout specified on the Premises map in Schedule 1.

## Schedule 4: Infrastructure and Equipment

**Table 11: Dust control infrastructure and equipment**

	Column 1	Column 2	Column 3	Column 4
	Site infrastructure	Dust Control Equipment	Operational requirements	Reference to plan
<b>Nelson Point (Figure 3 and 5) and Finucane Island (Figure 4 and 6) infrastructure</b>				
1.	Car Dumpers	Dust collector and wet scrubber	Negative pressure maintained at all times during in-loading and vented via wet scrubber, in accordance with Condition 16.	Figure 3: Car Dumper 1, 2 and 3 Figure 4: Car Dumpers 4 and 5 Figure 5: Car Dumper 6
2.		Fogging units	Fogging unit operated at the conveyor of car dumpers whenever exit conveyors are operating to minimise the escape of dust emissions, once installed in accordance with Conditions 8 and 9.  Operated in accordance with Condition 16; or by Conditions 25 to 29.	Figure 3: Car Dumper 1, 2 and 3 Figure 5: Car Dumper 6
3.	Lump Rescreening Plants	Dust collector and wet scrubber	Doors on conveyor access chutes remain closed when conveyors are operating  Dust covers placed over screen housings  Dust collectors and wet scrubbers operating when rescreening plants are operating, in accordance with Condition 16.	Figure 2: Lump Rescreening Building 1, LRP 3  Figure 4: Lump Rescreening Plant No. 2
4.	Conveyors	Belt Wash Stations	Belt wash stations operated when the conveyor is running to remove material carried back from the belt, in accordance with Condition 16.  Spillage from under the conveyors is removed regularly to prevent suspension of material once dried.	Figure 3, Figure 4 & Figure 5  CV704, CV705, P702, P800, P801, P802, P804, P807, P808, P809, P810, P811, P812, P815, P816, P817, P861, P862, P865, P886, P887, P890, P891, P892, P893, P895, P897, P898, P901, P902, P904, P905, P910, P911, P913, P818, P982, P983, P911, P913 P10, P11, P117, P118, P12, P14, P16, P2, P201, P202, P203, P205, P206, P24, P25, P29, P350, P351, P353, P354, P501, P502, P510, P511, P512, P513, P514, P515, P516, P552, P560,

	Column 1	Column 2	Column 3	Column 4
	Site infrastructure	Dust Control Equipment	Operational requirements	Reference to plan
				P561, P564, P565, P601, P610, P620, P621, P700, P701, P730, P775.
5.		Belt scrapers & Plough scrapers	Belt scrapers and/or plough scrapers fitted to conveyors for the purpose of preventing product carry-back.	<p>Figure 3, Figure 4 &amp; Figure 5</p> <p>Scrapers</p> <p>CV704, P885, P886, P887, P888, P702, P800, P865, P866, P801, P802, P803, P980, P981, P982, P983, P984, P897, P904, P905, P906, P898, P910, P911, P913, P914, P892, P893, P894, P861, P862, P863, CV705, P806, P807, P808, P809, P901, P902, P903, P815, P816, P817, P818, P895, P896, P804, P805, P889, P890, P810, P811, P812, P813, P891, P556, P636, P350, P351, P352, P354, P514, P730, P760, P761, P11, P14, P15, P118, P119, P203, P205, P206, P551, P552, P505, P506, P565, P566, P502, P513, P515, P516, P560, P523, P524, P554, P637, P533, P32, P16, P21, P22, P23, P24, P117, P355, P601, P602, P610, P611, P620, P621, P29, P10, P657, P201, P202, P501, P503, P504, P561, P562, P563, P555, P2, P353, P775, P776, P700, P701, P512, P656, P511, P26, P510, P25, P509, P12.</p> <p>Ploughs</p> <p>CV704, P885, P886, P887, P888, P702, P800, P865, P867, P801, P802, P803, P980, P981, P982, P983, P984, P897, P904, P905, P906, P898, P910, P911, P913, P914, P892, P893, P862, P863, CV705, P806, P807, P808, P809, P901, P902, P903, P815, P816, P817, P818, P895, P896, P804, P805, P889, P890,</p>

	Column 1	Column 2	Column 3	Column 4
	Site infrastructure	Dust Control Equipment	Operational requirements	Reference to plan
				P810, P811, P812, P813, P891, P894, P350, P351, P352, P354, P514, P730, P11, P14, P15, P118, P119, P203, P205, P206, P551, P552, P505, P506, P565, P509, P25, P515, P516, P560, P523, P524, P554, P533, P636, P16, P21, P23, P117, P355, P221, P222, P223, P601, P602, P611, P621, P10, P12, P504, P561, P562, P563, P555, P2, P353, P775, P776, P700, P701, P510, P511, P512, P513, P201, P202, P501, P503, P566, P502, P26.
6.		BOC sprays (Nelson Point)	Operated as required and in accordance with Condition 16, or by Condition 28.	Figure 3 P10, P11, P118, P12, P14, P16, P2, P201, P202, P203, P205, P206, P22, P25, P350, P351, P354, P501, P503, P505, P510, P512, P513, P552, P561, P564, P565, P700, P701, P730, P775
7.		BOC sprays (Finucane Island)	Operated as required and in accordance with Condition 16, or by Condition 27.	Figure 4 CV704, CV705, P800, P802, P804, P807, P808, P809, P810, P811, P812, P816, P861, P862, P865, P866, P887, P890, P891, P893, P895, P897, P898, P901, P902, P904, P905, P910, P911, P913, P981, P982, P983.
8.	Transfer stations (all)	Rubber curtains	Rubber curtains at the entry of head chutes and exit point of the impact area.	Figure 3, Figure 4 & Figure 5 All TS in figures
		Rubber skirts	Rubber skirting to the rear of the impact area to form a seal.	
9.	Transfer stations (specified)	Dust collector and wet scrubber	Dust collectors and wet scrubbers operating when transferring iron ore from one conveyor belt to another, in accordance with Condition 16.	Figure 3: TS1, TS26, TS201, TS350, TS560 Figure 4: TS800, TS808, TS865, TS910,
		Fogging sprays In-chute	Fogging operating when transporting iron ore from one conveyor belt to another, in	Figure 3: TS502, TS503, TS513, TS563, TS603, TS775 Figure 4:

	Column 1	Column 2	Column 3	Column 4
	Site infrastructure	Dust Control Equipment	Operational requirements	Reference to plan
		fogging systems	accordance with Condition 16.	TS704
10.	Stackers	Head sprays	Head sprays operating during iron ore stacking, in accordance with Condition 16.	Figure 3: Stackers 5 and 8 (North Yard) Stackers 6 and 7 (South Yard) Figure 4: Stackers 9 and 10 (West Yard) Stackers 11 and 12 (East Yard)
		Dust hoods	In place when stacking Height of stacker lowered to reduce drop height.	
11.	Reclaimers	Sprays on bucket wheel	Sprays on bucket wheel operated during reclamation of iron ore, in accordance with Condition 16.	Figure 3: Reclaimer 5 (North Yard) Reclaimer 6 (South Yard) Figure 4: Reclaimer No.7, Reclaimer No. 10 (West Yard) Reclaimer No.8 (East Yard)
12.	Stockpile cannons	Stockpile cannons located along stockpile rows spaced at intervals that ensure full coverage of the stockpile surface with water.	Routinely Operated on stockpiles where Moisture Content is not known and when not reclaiming or stacking.  Operated as required and in accordance with Condition 16; or by Conditions 25 to 29.	Figure 3: 'A' Area, 'B' Area (North Yard) 'F' Area, 'G' Area, 'H' Area (South Yard) Figure 5: 'X' Area (South Yard) Figure 4: 'L' Area, 'K' Area, 'M' Area (West Yard) 'R' Area, 'S' Area, 'T' Area (East Yard)
13.	Mobile fog cannon	Fogging cannon that generates atomised air and water to produce a cloud of fog	Operated as required and following identification of visible dust sources within the Premises.	N/A – mobile
14.	Ship loaders	Sprays at the tripper chute and at the end of the conveyor (loading) boom	Sprays operated at ship loaders when loading iron ore into a vessel, in accordance with Condition 16.	Figure 3: Ship loaders 1 and 2 (Nelson Point Berths) Ship loaders 5 and 6 (Burgess Point Berths) Figure 4: Ship loader 3, Ship loader 4 (Finucane Island Berths)

	Column 1	Column 2	Column 3	Column 4
	Site infrastructure	Dust Control Equipment	Operational requirements	Reference to plan
15.		Deflector at the end of the conveyor (loading) boom	In place when ship loading.	Ship loader 7, Ship loader 8 (Harriet Point Berths)
16.	Mobile rescreening plant	Dust skirts on hoppers and transfer points	Operated on day shift only to enable visual observations of dust.  Operated in accordance with Condition 27 and 28.	N/A
17.	Unsealed roads	Watercarts & suppressants	Wet down trafficked areas using watercarts or apply dust suppressant chemicals for the purpose of minimising dust emissions.  Apply dust suppressant chemicals on unsealed non-trafficable areas at least every two months, excluding areas undergoing rehabilitation/revegetation..	N/A
18.	Sealed roads	Street sweeper	Regularly operate street sweeper/s on sealed roads to remove settled dust for the purpose of preventing resuspension of dust.	N/A

**Table 12: Other Infrastructure Controls**

	Column 1	Column 2	Column 3
	Site Infrastructure	Operation details	Reference to plan
<b>Discharges to land from WWTPs</b>			
1.	Nelson Point WWTP	Effluent to be treated to a quality that falls below the limits specified in Column 4 of Table 6, prior to discharge to irrigation field.	Figure 1: L1
2.	Finucane Island WWTP	Operated for the treatment of effluent prior to discharge to irrigation fields.	Figure 1: L2
<b>Washwater and stormwater management</b>			
3.	Stormwater/ washwater discharge	Captured stormwater (unless in High Rainfall Events) and washwater to be treated at either the Nelson Point or Finucane Island Freshwater	Figure 1: W1, W2, L6

	Column 1	Column 2	Column 3
	Site Infrastructure	Operation details	Reference to plan
		Recovery Plant prior to reuse for dust suppression or discharge to: <ul style="list-style-type: none"> <li>W1 – Nelson Point flop gate</li> <li>W2 – Finucane Island gate</li> <li>L6 – FWRP Settlement Ponds</li> </ul>	
4.	Nelson Point Freshwater Recovery Plant (L3) Finucane Island Freshwater Recovery Plant (L4)	Treated stormwater and washwater from washdown areas is either reused or directed to the Nelson Point Freshwater Recovery settlement ponds or the FWRP Emergency Pond, or New Freshwater Recovery Pond once constructed.  Surplus water from the Freshwater Recovery Plants to meet a quality that falls below the limits specified in Column 4 of Table 6 prior to discharge.	Figure 1: L3 and L4 Figure 3: FWRP Figure 3: FWR Plant Figure 5: New Fresh Water Recovery Pond
5.	Stormwater infrastructure for berth	Captured stormwater is pumped to the Freshwater Recovery Plants for treatment prior to re-use.  Spilt iron ore must be removed from surfaces under wharf conveyors on a weekly basis and ship loaders on a daily basis, where ship loading occurs, through washdowns with spillage removed from the wharves where accessible.	Figure 3: A, B, E and F Berths Figure 3: C, D, G and H Berths
	<b>Noise</b>		
6.	Conveyor rollers	Conveyor rollers inspected at least monthly for the purpose of identifying possible causes of conveyors generating noise above optimal levels.	Figures 3, 4 and 5
	<b>Fuel storage</b>		
7.	Bulk fuel storage	Main Fuel Farm at Nelson Point with the capacity to store 62.6ML of hydrocarbons.  Hydrocarbons greater than 250 L must be stored within bunding capable of containing 110% of the volume of the largest vessel, or 25% of the total volume, whichever is greatest.	Figure 1: F1

## Schedule 5: Quarterly Reporting

The following schedule outlines the investigation and reporting requirements triggered as a result of Condition 24, Reportable Events as a result of dust monitoring boundary or ambient Reportable Event Criteria (as specified in Table 5, Column 3) being exceeded.

### Reporting Frequency

Reports must be submitted to the CEO on a quarterly basis, by the last day of the following months in each year:

- April (for January to March),
- July (for April to June),
- October (for July to September); and
- January (for October to December).

### Contents of Report

The Quarterly report must contain the following details:

1. All validated boundary air quality and meteorological monitoring data for the quarterly period as recorded at those Monitoring Stations specified in Table 4 of Condition 23, and provided in the format specified in Schedule 8.
2. The following information to support the investigation of Reportable Event criteria exceedances listed in Condition 24:
  - date(s), time and duration of event;
  - total amount (in wet tonnes) of iron ore in-loaded and out-loaded at the Premises;
  - the percentage of iron ore that is Direct Shipped versus the amount not Direct Shipped (e.g. stockpiled, handled by stackers and/or reclaimers);
  - the Average Monthly Availability for dust control infrastructure during the month in which the event occurred as specified in Condition 16;
  - from 1 April 2022, a comparison of boundary air quality monitoring data and meteorological data, recorded at those Monitoring Stations listed in Column 1 of Table 4 as specified in Condition 23, with ambient air quality monitoring data as measured at the ambient monitoring stations depicted in Figure 10;
  - from 1 April 2022, time series graphical plots of PM<sub>10</sub>, including but not necessarily limited to dust scatter plots (dust roses), for the Monitoring Stations referred to above on the day/s on which the event occurred; and
  - for all iron ore which is being handled during the 24-hour period of the event, a comparison of the Moisture Content against the corresponding DEM Level.
  - determination of the source of the exceedance through:
    - review of PM<sub>10</sub> concentrations at the Yule and BoM background monitors;
    - review of meteorological data, including temperature, wind speed and direction, as measured at the NP Met 10m monitoring station depicted in Figure 2 of Schedule 1;
    - review of boundary dust data to identify potential premises dust sources that may have contributed to the exceedance;
    - for Reportable Events at Finucane Island and Nelson Point, a comparison of all boundary PM<sub>10</sub> for Monitoring Stations specified in Column 1 of Table 4..

- the findings of the investigation by the Licence Holder into the cause(s) of the Reportable Event, including the extent to which the Licence Holder's activities contributed to the Reportable Event through the provision of the following information:
  - a description of Ore Handling Activities in the 24-hour period of the Reportable Event including the infrastructure routes used;
  - the age of each stockpile located within the wind direction specified in Column 2 of Table 5 and, if known, the average Moisture Content of Product within each stockpile;
  - the availability of dust control infrastructure in the time period where ore is handled during the Reportable Event;
  - all corrective and management actions undertaken including but not limited to those specified in, Conditions 25, 27 and/or 28; and
  - all corrective and mitigation measures proposed for the avoidance of future Reportable Events where it is determined that Premises activities are a significant contributor to the Reportable Event.

## Schedule 6: Dust Control Validation Report

The following schedule specifies the contents for the Dust Control Validation Reports required by Condition 12.

### Contents of Report

The report must contain at a minimum, but not be limited to:

#### Dust control equipment monitoring

- A detailed description of the methodology used to validate the effectiveness of dust controls specified in Schedule 2. For example, at the time of measurements provide:
  - frequency of measurements;
  - product characteristics (namely moisture and dust extinction moisture);
  - meteorological data at each measurement;
  - boundary data; and
  - other upwind sources and the controls in place/not in place for these sources.
- All data that are used to estimate site specific emission rates and control efficiencies, plus supporting information. This includes:
  - instrument data (e.g. DustTrak, boundary monitor, wind sensor);
  - parameter estimates (e.g. sigma Z) where measured data not available; and
  - instrument details (e.g. DustTrak model, wind sensor model, etc).
- Process flow data in emission spreadsheets and flowcharts of the process. The emission data should be presented in a way that identifies: each product, activity, hourly ore moisture data (where available) and when each product does or does not meet DEM.
- All spreadsheets related to the emission validation process including all input data in computer readable and editable format (e.g. TSG files, dustiness index for each ore type, hourly tonnage data, estimated hourly moisture content for each ore type, where available and controls etc.) for all emission sources tested both with and without dust controls operating and in the format specified in Schedule 8.
- Information on the statistical tests or other procedures adopted to ensure that the data used in final emissions estimations are robust, or that the uncertainty is properly understood and accounted for.
- A comparison of measured emissions:
  - for each ore type handled through the area where the control is targeting; and
  - when dust controls are operating against modelled rates of emissions reduction provided in the Application.

## Schedule 7: Dust Monitoring Report

The following schedule specifies the contents for the Dust Monitoring Report required by Condition 31 to demonstrate no net increase in dust emissions from prescribed activities at either Nelson Point or Finucane Island.

### Contents of Report

The report must contain at a minimum, but not be limited to the following information:

- a review and analysis of data from the monitoring stations:
  - NP Gate 9, Cockburn, Fuel Farm for Nelson Point, as depicted in Figure 2 of Schedule 1, for analysis of no net increase;
  - FI Wharf Reveg, FI B2 for Finucane Island, as depicted in Figure 2 of Schedule 1, for analysis of no net increase;
  - NP Met 10m; and
  - upwind PM<sub>10</sub> monitoring stations,for a period of at least 12 months prior to, and 12 months after installation of all infrastructure specified in Table 9 of Schedule 2;
- a review of the extent to which the network is capturing dust emissions from Premises' sources;
- analysis of PM<sub>10</sub> data recorded at those Monitoring Stations specified in Table 4 of Condition 23 in comparison to monitoring data recorded at the Ambient Monitoring Network depicted in Figure 10 of Schedule 1 where there are:
  - exceedances of the Air Guideline Value at Richardson St, Kingsmill St and Taplin St monitors; and
  - Reportable Events as specified in column 3 of Table 5,
- meaningful graphs, such as line graphs, polar plots and radial graphs to visualise the analysis findings.

## Schedule 8: File format for monitoring data

The Licence Holder must ensure that validated (particle, gas and meteorological instrument data) results of ambient air monitoring are provided as a comma delimited time series listing on a suitable computer readable medium. An example is given below. Variations on this format may be acceptable to DWER following discussions and approval from the DWER Air Quality Branch

```
SITE NAME:XXXXXXXXXX
column description
ddmmyyyy HHMM,x,x,x,...
ddmmyyyy HHMM,x,x,x,...
↓
↓
↓
ddmmyyyy HHMM,x,x,x,...
```

where:	<b>dd</b> is the two digit day of the month i.e. 01, 02,...,31
	<b>mm</b> is the two digit month of the year i.e. 01, 02,...,12
	<b>yyyy</b> is the four digit year i.e. 2009, 2010, ...
	<b>HH</b> is the two digit hour code i.e. 00, 01,...,23
	<b>MM</b> is the two digit minute code i.e. 00, 10, 15,...,55
	<b>x,x,x</b> is the comma delimited decimal data.

The time period for comma delimited time series listing must represent the end of the data period. Hence the first timestamp for any day must be 0005 hours and the data associated with this time stamp must be the averaged data for the period up to this time i.e. from midnight to 0005 hours. The last time for any day must be 2400 and the data associated with this time stamp must be the averaged data for the period up to this time i.e. from 2355 hours to midnight.

If the above method of timestamping is not achievable by your system, then the time series listing can be timestamped at the **start** of the period with the first timestamp of each day being 0000 hours which represents data from midnight to 00:05 and ends at 2355 hours which represents data from 23:55 to midnight on the same day. Erroneous or invalid data must be denoted as a blank (**not** a space) or a numeric error code such as -99.0 within the data set. There should be no spaces in the data lines other than that between the date and time.

The covering documentation will indicate if the data timestamp is at the start of the data averaging period or the end of the data averaging period.

The following additional data is also required for each transect:

- Upwind concentration
- Windspeed during traverse
- Ambient temperature
- Sigma theta (maybe not)

An example five-minute averaged data set comprising eight parameters is provided below.

SITE NAME:- GENERIC AQMS

```
Date_Time,CO_ppm,NO_ppb,NO2_ppb,NOx_ppb,SO2_ppb,O3_ppb,PM10_ug_m3,PM2.5_ug_m3
26/04/2013 2325,0.2,31.4,11.4,42.8,,0.2,10.0,5.3
26/04/2013 2330,0.2,26.6,12.6,39.3,,0.1,8.6,4.7
26/04/2013 2335,0.1,14.8,14.6,29.4,,0.1,8.2,5.1
26/04/2013 2340,,,,,,,,,
26/04/2013 2345,,,,,,,,,
26/04/2013 2350,0.2,25.7,16.2,42,,0.5,14.6,13.4
26/04/2013 2355,0.2,,15.8,36,,0.6,14.2,11.3
26/04/2013 2400,0.2,,15.1,35,,0.5,14.3,9.7
27/04/2013 0005,0.2,24.8,15.3,40.1,,0.5,12.8,9
27/04/2013 0010,0.3,27.1,14.6,41.8,,0.4,12.7,9.2
27/04/2013 0015,0.4,33.2,14.5,47.7,,0.4,13.0,8.9
27/04/2013 0020,0.5,26.5,12.6,39.1,,0.2,12.0,7.9
```

The following units must be used for ambient data submitted as a comma delimited time series listing:

Pollutant	Units	Minimum precision
Carbon monoxide	parts per million	X.X (tenth of a ppm)
all other gases	parts per billion	X (tenth of a ppb)
particles	micrograms per cubic metre	X.X (tenth of a µg/m³)
wind speed	metres per second	X.X (tenth of a m/s)
wind direction	degrees from north	X.X (tenth of a degree)
sigma	degrees	X.X (tenth of a degree)
air temperature	degrees Celsius	X.X (tenth of a degree)
relative humidity	%	X.X (tenth of a %)
pressure	hectopascals	X.X (tenth of a hPa)
solar radiation	watts per square metre	X.X (tenth of a watt/m²)

These units must be used unless approval has been obtained Air Quality Branch to use alternative units.

The proponent must provide:

- Data as five or 10 minute averages. If these are not available, then at shortest available averaging period;
- Site name, instrument manufacturer and model number;
- Site location (Latitude/Longitude GPS coordinates);
- Data validation procedure used to validate data; and
- all reported data must be time-stamped with the actual time to which the measurement refers.