

ECOPORTS PERS REPORT 2021

13 DECEMBER 2021



ECO SLC

Sustainable Logistics Chain

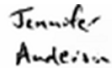
**LEVEL 4, 251 WHARF ROAD
NEWCASTLE NSW 2300 AUSTRALIA**

+61 2 4908 8200

info@portofnewcastle.com.au
portofnewcastle.com.au

QUALITY INFORMATION

Document	Port of Newcastle EcoPorts Report
Date	13 December 2021
Prepared By	Brigid Kelly
Reviewed By	Jennifer Anderson – Senior Manager Property Environment and Planning Simon Byrnes – Chief Commercial Officer

Version	Date	Details	Authorised
A	06/12/2021	Draft for Review	Jennifer Anderson – Senior Manager Property Environment & Planning
B	13/12/2021	Final for ECO SLC submission	 Jennifer Anderson – Senior Manager Property Environment & Planning

The content of this document and the self-diagnosis method has been discussed and confirmed jointly by the Port of Newcastle (PON) Executive Leadership Team, comprising of Chief Executive Officer, Chief Commercial Officer, Chief Financial Officer, Executive Manager Marine and Operations, Executive Manager Projects and Assets, Executive Manager Corporate Services, the Executive Manager Corporate Affairs and Strategy and Executive Manager Business Development, in addition to confirmation from the Senior Manager Property, Environment and Planning.

All records and related documents of the Port Environmental Review System (PERS) report are jointly maintained by relevant departments of PON, including Property Environment & Planning, ESG, People & Culture, Safety, Legal, and Corporate Affairs and Strategy.

This report will be reviewed and updated every two years or when any content modification is required.

CONTENTS

PORT PROFILE	5
CONTEXT	5
PON ENVIRONMENT, SOCIAL & GOVERNANCE RESPONSIBILITY	5
PORT LOCATION AND PORT AREA	6
LEGAL STATUS AND PORT OPERATIONS.....	6
MAIN COMMERCIAL ACTIVITIES	7
MAIN CARGOS.....	7
ENVIRONMENTAL MANAGEMENT.....	7
I. ENVIRONMENT POLICY.....	10
I.1. PON ENVIRONMENT POLICY STATEMENT	10
I.1.1. Sustainability Policy and Actions Update.....	12
I.1.2. Policy Action Plan	12
I.2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS.....	15
I.2.1. Environmental Regulations.....	15
I.2.2. Environmental Aspects Related to each Division.....	17
I.2.3. Environmental Performance Indicators	17
I.3. RESPONSIBILITIES AND RESOURCES.....	24
I.3.1. PON Environmental Responsibility	24
I.3.2. Environmental Responsibility Within the Port Area	24
I.3.3. Environment & Social Resource Allocation	25
I.4. CONFORMITY REVIEW.....	28
I.4.1. Conformity Review on Legal Requirements and Policy.....	28
I.5. ENVIRONMENTAL REPORT	36
I.5.1. Compliance.....	39
I.5.2. Energy and Water Management	39
I.5.3. Emissions Management	40
I.5.4. Maintenance Dredging	41
I.5.5. Waste and Recyclable Management	41
I.5.6. Heritage Management	42
I.5.7. Biodiversity Management	42
I.5.8. Community Engagement	42
I.5.9. Employee Training.....	44

1.5.10. Port Stakeholders’ Needs, Expectations and Engagement.....	44
1.6. BEST PRACTICES	45

List of Tables

Table 1: Policy Action Plan	12
Table 2: Regulations and legislation applicable to PON	16
Table 3: Aspects and Impacts Register	18
Table 4: Key responsibilities of other organisations within the port area	25
Table 5: PON investments in environment and social aspects	25
Table 6: Environmental responsibilities of key personnel	27
Table 7: Details of conformity review progress against objectives detailed in the PON Environment & Sustainability Policy Action Plan	28
Table 8: Overview of PON environmental performance	37
Table 9: Tenant infringement summary 2019 to 2021 to date	39
Table 10: PON historical Scope 1 and Scope 2 energy and emissions data	40
Table 11: PON maintenance dredge material volumes deposited at spoil ground and for beach renourishment	41
Table 12: PON waste stream separation and volumes	41
Table 13: PON stakeholder engagement summary.....	45

List of Figures

Figure 1: Port location, SEPP boundary and precincts including berths	8
Figure 2: Port location with Lease Area boundary shown (source: NSW Department of Planning and Infrastructure, modified from <i>Lease Area Map</i>)	9
Figure 3: PON organisation chart showing functional areas.....	26

PORT PROFILE

The following *Port Profile* section is intended as an introduction. The introduction section is followed by the specified sections and numbering as outlined in *PERS Requirements and guidelines Version 5 December 2016*, starting with Section 1.0.

Context

The content of this chapter and the self-diagnosis method has been discussed and confirmed jointly by the PON Executive Leadership Team, comprising of the Chief Executive Officer, Chief Commercial Officer, Chief Financial Officer, Executive Manager Marine and Operations, Executive Manager Projects and Assets, Executive Manager Corporate Services, the Executive Manager Corporate Affairs and Strategy and Executive Manager Business Development, in addition to confirmation from the Senior Manager Property, Environment and Planning.

All records and related documents of the PERS report are maintained by the Senior Manager Property, Environment and Planning in conjunction with the Environment Manager. Partial chapter content is jointly maintained by the relevant departments.

The content of the following section '*Port Profile*' in this PERS report will be reviewed and updated every two years or when any content modification is required.

PON Environment, Social & Governance Responsibility

PON considers the robustness of its Environment, Social & Governance (ESG) systems and strategies as critical to a strong and successful future.

By embedding positive ESG practices across PON, the organisation seeks to mitigate environmental, legal and reputational risks while also increasing Board oversight, enhancing employee engagement and positively influencing customer behaviour.

The PERS fits with PON's ambition to be transparent about its approach and ESG performance, and to inspire other ports in the Pacific region to do the same.

PERS is primarily designed to assist ports in developing an environmental management program in line with the recommendations of the European Sea Ports Organisation (ESPO). The *ESPO Environmental Code of practice 2004* recommends that ports should:

- Contribute towards a sustainable logistics chain;
- Encourage wide consultation, dialogue and cooperation with relevant stakeholders at a local level (port users, community non-government organisations [NGOs]);
- Generate new knowledge and technology and develop sustainable techniques which combine environmental effectiveness and cost efficiency;
- Enhance cooperation between port administrations in the field of environment, facilitate the exchange of experiences and implementation of best practices on environmental issues;
- Prepare a publicly available environmental policy to increase awareness of environmental concerns and integration of sustainable development;
- Conduct appropriate environmental impact assessments for both port projects and port development plans;
- Stimulate continual improvement in the port environment and its environmental management;
- Promote monitoring based on environmental performance indicators in order measure objectively identifiable progress in environmental port practices;
- Promote environmental reporting as a means of communicating environmentally good behaviour to stakeholders

- Intensify the communication about the environmental achievements made by ports.

PERS is based on internationally recognised professional best practice and yet remains a port specific system developed by ports for ports. It is formulated to be flexible and capable of evolution so it can be adapted to future changes in legislation and priorities for action. The system defines a basic standard of good practice for the port sector.

Port Location and Port Area

There are several boundaries that are relevant to the Port operations and management:

- The *State Environmental Planning Policy (SEPP) Three Ports 2013* Land Application area boundary, which is a regulatory boundary rather a land ownership boundary (and includes land outside PON control);
- The Lease Area, which is the land within PON control;
- The Port Area which includes the Lease Area, waterways where PON has access rights to allow shipping or waterfront infrastructure, as well as any land adjacent to the Lease Area that is managed by PON.
- The Ports SEPP boundary and the Lease Area (as defined in the Lease) and are shown in Figure 1 and Figure 2. PON does not undertake all activities within the Lease Area; much of the area is sub-leased to commercial organisations typically involved in export/import trade. References to 'the Port' in this report mean the land and waterways used by PON and defined as the Port Area in the Port Lease.

The PON Environmental Management Plan (EMP) applies to:

- The Port Area as described above (and in the Lease);
- The operations and activities at the Port, including management of Core Port Infrastructure as described in the Lease.

These areas and activities also form the scope and boundary of the PON EcoPorts PERS report

The Ports SEPP Area is often divided into precincts for ease of description:

- Carrington (Marine Services);
- Mayfield (Multipurpose Deepwater Terminal);
- Kooragang (Energy Precinct); and
- Walsh Point (Bulk Precinct).

Figure 1 shows the Precinct Areas. Figure 2 shows the Lease Area as well as land that is outside the Lease and therefore outside PON control. The following EcoPorts PERS report uses the Precinct terminology to describe the Port. Where Precincts are referenced within this EcoPorts PERS report, PON is describing the activities within the Lease Area, not the broader area that is outside PON control.

Legal Status and Port Operations

PON has substantial environmental obligations (and rights) under the Port Lease and other contractual documents arising from the Port Transaction.

PON maintains a standard lease document for its tenants. Section 17 of the standard lease document defines the environmental obligations with which the tenant is required to comply, including requirements for base condition reporting at entry, environmental audits, contamination reports, end of lease clean up (make good), indemnities, compliance with all relevant environmental legislation, and requirement for notification and clean-up of pollution incidents.

PON has a range of associated subsidiary processes and procedures to deliver the requirements of the Lease, meets applicable environmental legislation and ensures PON's own organisational environmental objectives.

Main Commercial Activities

PON currently has 20 berths that have the ability to operate 24 hours a day, 7 days a week. The Port manages 792 hectares of land and maintains the channel to a depth of 15.2 metres to ensure the safe navigation of vessels through maintenance dredging activities.

PON is embarking on a diversification strategy that leverages its natural advantages to the benefit of customers and the Hunter Region's economy.

Current key strategic development opportunities include the Multipurpose Deepwater Terminal.

In addition to shipping, the Port includes berthing for cruise liners, an 80 berth marina and the Queens Wharf entertainment precinct. A ferry service operates within the Port between Newcastle and the northern suburb of Stockton.

Main Cargos

The Port is a major trade and logistics hub, handling a diverse range of cargo types, including dry bulk, project cargo, bulk liquids, break bulk, Roll-on Roll-off (Ro-Ro) and containers. The project cargoes can include generators, pre-fabricated structures, wind turbines, tunnel boring machines, heavy equipment and rolling stock.

Infrastructure within the Port includes coal terminals operated by Port Waratah Coal Services (PWCS) and Newcastle Coal Infrastructure Group (NCIG), a bulk liquid terminal for vegetable oils, agri-food storage and loading, local and national road and rail access and storage sheds adjacent to berths.

Environmental Management

PON has systems and processes in place to achieve good environmental practice and compliance with the environmental conditions of the Lease and applicable environmental legislation. These include:

- An Environmental Management Plan
- An Environmental Management System aligned with the ISO 14001:2015 standard
- A Land Use Planning Management System

The objectives of the above-mentioned systems and documents are to:

- ensure sound and responsible environmental management;
- identify measures to prevent or minimise potential adverse environmental impacts arising from PON operations;
- identify a framework to assist in ensuring compliance with environmental regulatory requirements relevant to Port and Port-related activities;
- identify key environmental roles, responsibilities and governance arrangements;
- identify emergency preparedness and response procedures, including detail of incident notification procedures and corrective actions; and
- meet the requirements of the Port Lease.



Figure 1: Port location, SEPP boundary and precincts including berths

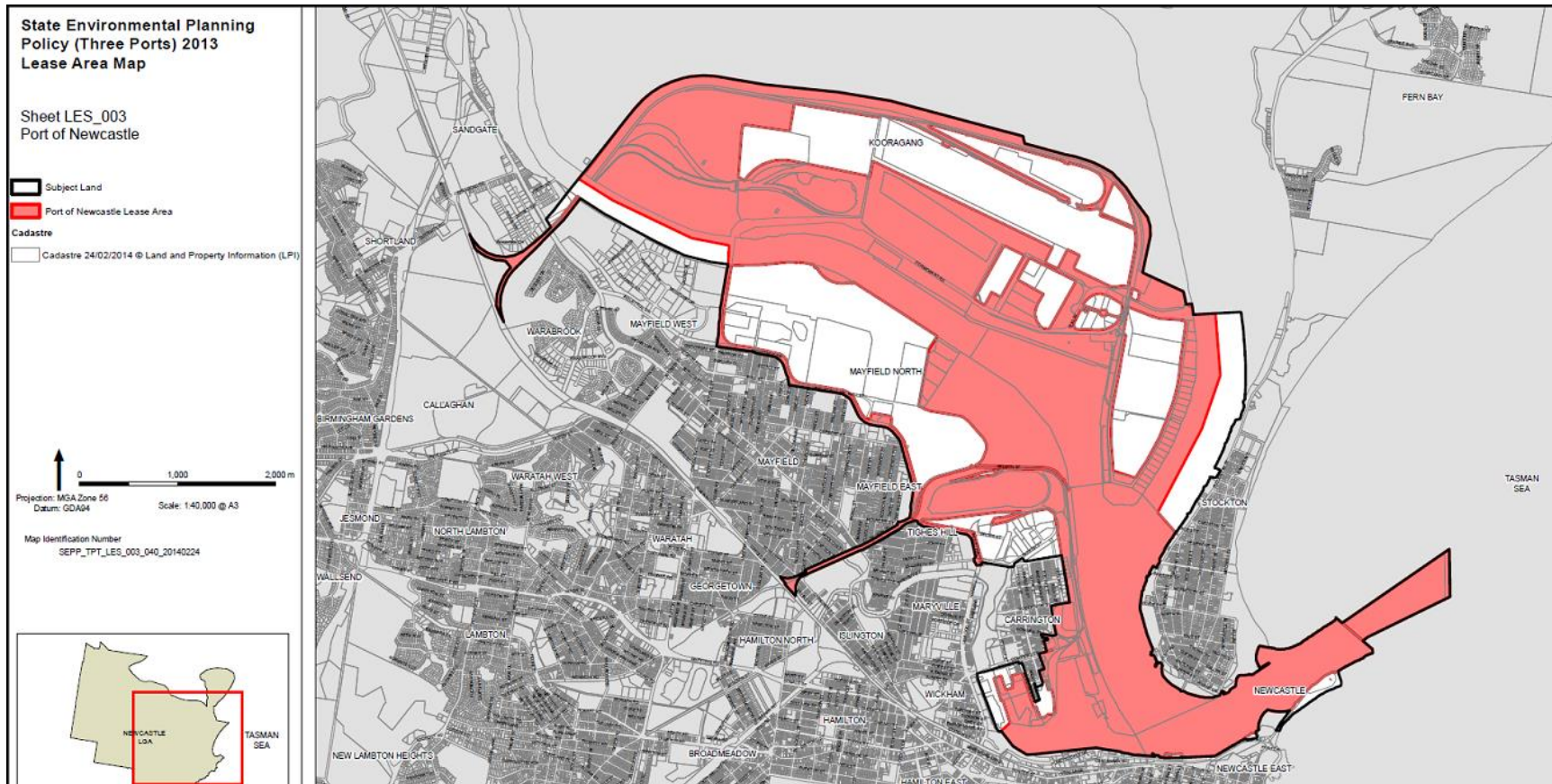


Figure 2: Port location with Lease Area boundary shown (source: NSW Department of Planning and Infrastructure, modified from Lease Area Map)

I. ENVIRONMENT POLICY

The content of this chapter and the self-diagnosis method has been discussed and confirmed jointly by the PON Executive Leadership Team, comprising of Chief Executive Officer, Chief Commercial Officer, Chief Financial Officer, Executive Manager Marine and Operations, Executive Manager Projects and Assets, Executive Manager Corporate Services, the Executive Manager Corporate Affairs and Strategy and Executive Manager Business Development, in addition to confirmation from the Senior Manager Property, Environment and Planning.

All records and related documents of the PERS report are maintained by the Senior Manager Property, Environment and Planning in conjunction with the Environment Manager. Partial chapter content is jointly maintained by the relevant departments.

The content of Chapter I.1 'Policy Statement' in this PERS report will be reviewed and updated every two years or when any content modification is required.

The Port takes seriously its corporate social responsibilities associated with environmental sustainability and development when pursuing corporate growth. Therefore it has prepared environment and sustainability policy statements. By making these statements, PON commits to comply with environment-related regulations and supervisory standards, as well as propose improvement goals and action plans for major port-related environmental matters.

I.1. PON Environment Policy Statement

PON's mission is to promote and support the prosperity of the Hunter Region and New South Wales in a sustainable manner. This is achieved through safe, efficient and sustainable operations.

As the custodian of the Port for the people and government of New South Wales Government, PON recognises its responsibilities in providing and promoting a sustainable environment for its employees, contractors, customers, port users, visitors and members of the public.

PON operates within an Environmental Management System based on the principles of ISO 14001:2015 and EcoPorts SLC.

Key environmental aspects identified for the Port of Newcastle are biodiversity, energy and fuel usage and associated emissions, stormwater, historical land contamination and pollution. These aspects are linked to port development in sensitive areas, operation of the port and our vehicle and vessel fleet and projects and development that involve ground penetration works.

PON is committed to driving active and sustainable environmental management through:

Managing its environmental footprint

- fostering sustainability awareness, pollution prevention and encouraging a genuine respect for environmental protection in all its employees through the provision of training and information.
- considering environmental, social and economic aspects when procuring goods and services
- ensuring responsible consumption and disposal of resources
- investing in infrastructure to prevent environmental impacts

Delivering beyond its boundaries

- proactively supporting initiatives that go beyond compliance obligations

- exhibiting leadership in environmental practices and sustainability whilst encouraging port tenants and licensees to adopt similar standards
- actively contributing to local environment and sustainability initiatives

Having in place robust systems and support

- enabling compliance, commerciality and efficiency within a culture of mutual respect
- ensure compliance with all relevant legislation, regulations and other requirements to which PON subscribe
- supporting PON employee health and wellbeing
- continually improving and innovating to enhance environmental performance
- identifying and managing environmental risks and impacts
- setting objectives and management programs based on key aspects including, decarbonisation, waste to landfill reduction, pollution prevention, improved air quality, biodiversity protection and support for our communities
- regularly review environmental objectives and targets and report on progress to senior management
- developing and maintaining an effective Environmental Management System
- communicating our policy and systems to employees, tenants and contractors
- ensuring contractors engaged by PON meet minimum environmental standards and demonstrate a commitment to sustainable practices
- working in partnership with our stakeholders to drive active and sustainable environmental management
- managing the presence, handling and storage of hazardous substances
- effective lighting design to reduce light pollution
- setting hours of operation and where appropriate, mitigation methods, to minimise public nuisance from noise and vibration
- installing operational controls for water outflows/discharges and water inflows/withdrawals

Being a committed steward

- Complying with all applicable legal and other requirements
- Sustainable management of our heritage assets
- Incorporating sustainable design principles into new developments
- Measuring, understanding and minimising environmental impacts
- Ensuring effective environmental management clauses are included in all new leases and licenses

City-Port Relations

- Having a framework for stakeholder communication that will include communications on its environmental program
- Working to maintain a social licence to operate
- Preparing and making publicly available Environment and Sustainability reports
- Contributing to a sustainable city and community

PON will ensure it has the people, the resources, the assets, the know-how and the culture to deliver a consistently high standard of service to current and future customers in a sustainable manner and to ensure that this policy can be implemented.

This policy will be reviewed every two years by the Executive Leadership Team and approved by the Chief Executive Officer.

1.1.1. SUSTAINABILITY POLICY AND ACTIONS UPDATE

Over the past two (2) years PON has released the annual 2019 and 2020 Sustainability Reports measuring the organisation’s progress towards achieving its sustainability targets. The Sustainability Reports both examined the Port’s contribution towards the social, economic and environmental wellbeing of the Hunter and regional New South Wales (NSW).

PON also underwent a successful refinancing process during 2020-2021. The arrangement includes sustainability-linked loans that incentivises Port of Newcastle by offering a lower margin on debt if targets are met across a range of social and environmental metrics. The loan is the first sustainability-linked financing by an Australian seaport and the first such loan in Australia to include a modern slavery assessment metric addressing all of the borrower’s suppliers. The National Australia Bank (NAB) acted as a core lender in the refinancing and, in its role as Sustainable Finance Structuring Coordinator, assisted in the development of both a sustainability-linked financing framework and green financing framework with Port of Newcastle.

1.1.2. POLICY ACTION PLAN

Table 1 shows the Policy Action Plan from 2018 to 2021.

Table 1: Policy Action Plan

Initiative	Goal	Benefit
2018		
Installation of electricity smart meters	Installation of 26 electricity smart meters	Transparency of data to understand and manage emissions
Corporate sponsorship	Contribution of sponsorship budget to local initiatives	Community support Social licence
Annual Litter Pick	Litter reduction in port environment	Healthy environment Social licence
2019		
Emissions baseline	Completion of Energetics project to detail PON Scope 1 and 2 emissions	Baseline data to understand and manage emissions
Electric Vehicle (EV) fleet Transition Stage 1	Replace five PON vehicles with EV alternatives	Decarbonisation
Corporate sponsorship	Contribution of sponsorship budget to local initiatives	Community support Social licence
Annual Litter Pick	Litter reduction in port environment	Healthy environment Social licence

Initiative	Goal	Benefit
GRESB Assessment	In 2019 Port of Newcastle participated in its first GRESB assessment to benchmark the Port against other ports globally. The information will be used to set a baseline for determining sustainability opportunities that can be integrated into our business strategy.	Transparency of data to understand and manage emissions
Sustainability Advantage Program	The port was awarded Bronze Partner status in the Sustainability Advantage program, which recognises the organisation's work to further strengthen its environmental performance through collaboration with NSW Office of Environment & Heritage (OEH). Companies are assisted in developing sustainability strategies and implementing tangible initiatives aligned to the United Nations' Sustainable Development Goals (SDGs)	Decarbonisation Transparency Social licence
2020		
EV fleet transition Stage 2	Replace five PON vehicles with EV alternatives	Decarbonisation
NBT gantry replacement	Upgrade of equipment to enable improved air and stormwater quality	Improved air and stormwater quality
Community engagement	Hold no less than four CLG meetings	Transparency Social licence
Corporate sponsorship	Contribution of sponsorship budget to local initiatives	Community support Social licence
2021		
Corporate sponsorship	Contribution of sponsorship budget to local initiatives including the local men and women's soccer team	Community support Social licence
Indigenous Scholarship	Inaugural Port of Newcastle's inaugural Indigenous STEM Scholarship, awarded in partnership with the University of Newcastle (UoN) to a member of the Ngarigo community. The Scholarship will assist with considering a STEM career with UoN education.	Community support Social licence
Berth K2 Bulk Ship Unloader	Upgrade of bulk loading equipment to enable improved air and stormwater quality	Improved air and stormwater quality
EV fleet transition Stage 2 continued	Replace additional PON vehicles with EV alternatives	Decarbonisation
Renewable energy	Achieved 100% renewable power for electricity needs	Decarbonisation
Community engagement	Hold no less than four CLG meetings	Transparency Social licence
Cultural awareness	100 percent of staff undertook mandatory cultural awareness training	Social licence
Successful refinancing includes sustainability-linked loans	Loan and financing includes sustainability and modern slavery assessments, as explained in Section 1.1.1	Transparency Social licence

Initiative	Goal	Benefit
Successful submission of the 10-year Sea Dumping Permit Renewal	Contributed to community and stakeholder engagement processes with a number of agencies and community groups.	Transparency Social licence
GRESB Assessment	Followup GRESB assessment to benchmark the Port against other ports globally. PON scored 92 out of 100, and now rank 1 st in Oceania sector and 2 nd globally, compared to the previous assessment with a score of 40 and last in Oceania sector.	Transparency Social licence Decarbonisation
Sustainability Advantage	Awarded Silver Partner Status recognising the Port's significant sustainability achievements since the launch of its Environment Social and Governance Strategy (ESG) in 2019.	Transparency Social licence Decarbonisation
2022		
Mobile harbour cranes at M4 Berth	Upgrade of unloading equipment to enable improved efficiency, with the flow-on effect of improved air and stormwater quality	Improved air and stormwater quality
Sea Dumping Permit renewal	Successful renewal of permit to continue to enable navigational safety, as well as sustainable environmental activities such as beach sand renourishment.	Transparency Social licence
Flora and Fauna Management Plan	Strategic initiative to implement a port-wide Flora and Fauna Management Plan.	Sustainable port Healthy environment Social licence
Diversity	Development of a Diversity and Inclusion Strategy	Social licence
Modern Slavery	Assess 100% of suppliers for modern slavery risk	Social licence
Annual Litter Pick	Litter reduction in port environment	Healthy environment Social licence
Corporate sponsorship	Contribution of sponsorship budget to local initiatives.	Community support Social licence
Indigenous Scholarship	Continue Port of Newcastle's Indigenous STEM Scholarship.	Community support Social licence
Community engagement	Hold no less than four CLG meetings	Transparency Social licence

The Annual Litter Pick was unable to be performed in 2020 and 2021 due to COVID restrictions. A Litter Pick is planned for 2022 with additional resourcing and scope.

1.2. Environmental Aspects and Legal Requirements

The content of this chapter and the self-diagnosis method has been discussed and confirmed jointly by the PON Executive Leadership Team, comprising of Chief Financial Officer, Executive Manager Marine and Operations, Executive Manager Projects and Assets, Executive Manager Corporate Services, the Executive Manager Corporate Affairs and Strategy and Executive Manager Business Development, in addition to confirmation from the Senior Manager Property, Environment and Planning.

All records and related documents of the PERS report are maintained by the Senior Manager Property, Environment and Planning in conjunction with the Environment Manager. Partial chapter content is jointly maintained by the relevant departments.

The content of Chapter 1.2 'Environmental Aspects and Legal Requirements' in this PERS report will be reviewed and updated every two years or when any content modification is required.

In this chapter, PON identifies the activities and services (including those associated with businesses such as tenants and contractors in the port area) that may cause environmental impacts in the Port, compiles the environmental regulations and mitigation measures for each identified environmental aspect.

1.2.1. ENVIRONMENTAL REGULATIONS

Vessels visiting the Port are regulated by international conventions and norms, such as the *International Convention for the Prevention of Pollution from Ships (MARPOL73/78)*, *London Dumping Convention* and the *International Convention on the Control of Harmful Anti-Fouling Systems to Ships*. Activity at the Port is largely governed by domestic regulations. PON holds a range of approvals and licences under environmental legislation which set a range of requirements, including reporting to regulators such as the NSW Environment Protection Authority (NSW EPA) and the NSW Department of Planning, Industry and Environment (DPIE). A key international convention that applies to port activity includes the 2016 Paris Agreement commitment to tackle climate change.

As described above, legal and other requirements are considered when assessing risk and when setting actions to manage risk. A series of monitoring programs are in place to ensure compliance with legislative requirements.

PON has a firm commitment to meeting relevant environmental legislation and regulations (as described in the Environment Policy and our Sustainability commitments) and meeting other voluntary or contractual environmental obligations to which it subscribes, including the requirements of the Lease between PON and the NSW State Government.

PON has set out the procedure for identifying and tracking its environmental obligations in its *Procedure EMS 004 Identification of Environmental Compliance Obligations*.

PON tracks legal requirements within environmental legislation through a sophisticated third-party database, EnviroEssentials. This Legal Register is available to all PON employees via an external service website. The Legal Register covers NSW and Federal legislation and is updated continuously by the service provider.

Key domestic regulations, both state-wide and Commonwealth (Federal) that are applicable to PON are presented in Table 2. Legislation references are used later in this document in the Aspects and Impacts Register.

Table 2: Regulations and legislation applicable to PON

Legislation	Overview / context	Ref	State / Federal
Protection of the Environment Operations Act 1997	Air, Water, Noise, Pollution, Waste	L1	State
Local Land Services Act 2013	Biodiversity	L2	State
State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017	Biodiversity	L3	State
Heritage Act 1977	Heritage	L4	State
National Parks and Wildlife Act 1974	Heritage	L5	State
Fisheries Management Act 1994	Marine	L6	State
Contaminated Land Management Act 1997 (CLM Act)	Contaminated Land	L7	State
Electricity Supply Act 1995	Energy	L8	State
Hunter Water Act 1991	Water, Sewer, Trade Waste	L9	State
Water Management (General) Regulation 2018	Water, Sewer	L10	State
Work Health and Safety Act 2011 (WHS Act) and the Work Health and Safety Regulation 2017 (WHS Regulation)	Work health and safety, Hazardous Materials, Dangerous Goods	L11	State
Work Health & Safety Amendment (Dangerous Goods at Ports) Regulation 2012	Dangerous Goods	L12	State
Dangerous Goods (General) Regulation 1999	Dangerous Goods	L13	State
Planning & Environment Assessment Act 1979	Development	L14	State
Modern Slavery Act 2018	Procurement, supply chain	L15	Federal
Marine Pollution Act 1981	Federal	L16	Federal
Biosecurity Act 2015	Marine, Land	L17	Federal
Environment Protection and Biodiversity Conservation Act 1999	Biodiversity, Threatened Species	L18	Federal
Hazardous Waste (Regulation of Exports and Imports) Act 1989	Waste	L19	Federal
Sea Dumping Act 1981	Dredging	L20	Federal
National Environmental Protection Measures	Emissions	L21	Federal
State Environmental Planning Policy 55 – Remediation of Land (SEPP 55)	Remediation of land	L22	State
State Environmental Planning Policy 33 – Hazardous and Offensive Development (SEPP 33)	Hazardous development	L23	State
State Environmental Planning Policy (Three Ports) 2013 (the Ports SEPP)	Planning and development at the Port	L24	State
Maritime Transport and Offshore Facilities Security Act 2003	Maritime and security	L25	State
National Parks & Wildlife Act 1974	Heritage	L26	State
Ports and Maritime Administration Act 1995	Maritime	L27	State
Roads Act 1993	Roads in and around the Port	L28	State
Waste Avoidance and Resource Recovery Act 2001	Waste management	L29	State
Radiation Control Act 1990	Control of sources of radiation in	L30	State

1.2.2. ENVIRONMENTAL ASPECTS RELATED TO EACH DIVISION

PON identifies and prioritises management of environmental impacts associated with activities it undertakes through the PON Risk Register as discussed above.

ISO 14001 uses terminology to describe the identification of risk ('environmental aspects and impacts') and is used in the PON EMS procedures. For simplicity, the term 'environmental risk' is used in this chapter.

PON has set out the procedure for developing and updating environmental risk and the process for identifying the issues that are significant within the context of the Port in Procedure *EMS 003 Identification of Environmental Aspects and Impacts*. The environmental risk assessment process includes consideration of the probability of an event and its consequences as per *AS/NZS ISO 31000 Risk Management*. Based on likelihood and consequence, the environmental risks are ranked in the register as extreme, high, significant, moderate or low.

PON's aspect and impact risk register is provided in Table 3 below.

1.2.3. ENVIRONMENTAL PERFORMANCE INDICATORS

PON has identified the following environmental performance indicators that relate to its significant environmental aspects, policy and key environmental objectives:

- Annual number of regulatory non-compliances that are the obligation of PON
- Annual environmental incidents arising from PON operations
- Annual number of community complaints per annum arising from PON operations
- Annual amount of port recyclable waste by recycled type
- Total annual fuel consumption and associated CO_{2e} emissions
- Annual quantity of dredged sand used for local beach renourishment

Table 3: Aspects and Impacts Register

Ref.	Aspect	Impact	Responsible Party	Intn'l Reg	Legal reference	Legal Requirements	Comment
Marine & Operations Division							
MO1	Dredging - maintenance	Biodiversity, contamination waste, hydrocarbon pollution, radiation	Dredging Manager	Y	L1, L20, L21, L27, L30	<p>Material suitability for offshore disposal</p> <p>Placement in designated spoil ground</p> <p>Annual volume reporting to International Maritime Organisation through Dept of Agriculture, Water & Environment</p> <p>No unlawful pollution of waters</p> <p>Appropriate waste management</p> <p>Reporting of incidents</p> <p>EPL required for beneficial reuse volumes >30,000 m³</p> <p>Coastal Management Plans with associated agencies</p> <p>Appropriate use, use, transport, security, installation, service, repair, storage and disposal of the fixed radiation gauge</p>	<p>Sea Dumping Permit (10 year period)</p> <p>Long Term Monitoring and Management Plan</p> <p>Sea Dumping Permit Training</p> <p>PON Technical Advisory Consultative Committee (TACC) for Maintenance Dredging</p> <p>EMS 008 Maintenance Dredging</p> <p>EMS 002 Fuels Oils and Hazardous Substances</p> <p>EMS 020 Environmental Training and Awareness</p> <p>EMS 026 Biofouling and Marine Pests</p> <p>EMS 025 Radiation</p> <p>ENVFM 006 Fixed Radiation Gauge Annual Inspection Report</p> <p>Radiation Management Licence</p> <p>Purchase of Sea Sweeper vessel upcoming to assist with sweeping of channel</p>
MO2	Vessel Fleet	Hydrocarbon pollution, emissions	Dredging Manager	Y	L16, L21, L25	<p>Emissions reporting</p> <p>No unlawful pollution of waters</p>	<p>Emissions and fuel usage monitoring and reporting</p> <p>Monthly environmental inspections</p> <p>EMS 002 Fuels Oils and Hazardous Substances</p>

Ref.	Aspect	Impact	Responsible Party	Intrn'l Reg	Legal reference	Legal Requirements	Comment
							ENVRG 007 PON Emissions Inventory EMS 031 National Pollutant Inventory Reporting EMS 024 Environmental Inspections
MO3	Stevedoring - loose bulk cargo	Stormwater; air quality; noise, biosecurity	Stevedores ¹	N	L1, L16, L17	No unlawful pollution of waters No material to leave licenced area (via air or ground) where there are licences in place. Site specific noise criteria to be met Site specific air quality monitoring to be completed Site specific stormwater and groundwater monitoring and associated criteria Reporting of incidents	Onsite supervision and inspections Pollution control measures to avoid spills Ongoing plans for upgrade of equipment (eg mobile harbour cranes and upgraded unloaders 2022) Environment Protection Licences Annual noise monitoring and reporting Monthly stormwater monitoring and reporting Stevedore Licence Weekly wharf inspections Biosecurity incident response kits EMSWI 106 Bulk and General Cargo Handling Guidelines EMS 041 Biosecurity Incident Response EMS 009 Environmental Event Response and Reporting EMS 010 Environmental Emergency Response
MO4	Handling dangerous goods	Fire, emissions, spills and leaks to waterways, health	Stevedores, PON	Y	L1, L11, L13	Storage requirements Reporting requirements under DPE Development Consents Placarding Auditing requirements No unlawful pollution of waters	ENVRG013 M4 Dangerous Goods Register EMS 009 Environmental Event Response and Reporting EMS 010 Environmental Emergency Response EMS 021 Mayfield No. 4 Operations on the Berth PON Emergency Response Procedures Hazard Audit for designated facilities Port Authority NSW Regulation requirements

¹ Stevedores include Newcastle Stevedores, Linx and Qube

Ref.	Aspect	Impact	Responsible Party	Intr'l Reg	Legal reference	Legal Requirements	Comment
						Reporting of incidents to relevant agencies	
MO5	International Vessels	Biosecurity, emissions, ballast water	Stevedores, PON, Vessel Owners/ agents	Y	L16, L17	No vectors within 400m of waterline Biosecurity response kits to be maintained on FPOE sites Biosecurity Response Management Plans to be developed Biosecurity training	Biosecurity incident response kits Regular vector surveying Weekly wharf inspections EMS 026 Biofouling and Marine Pests EMS 041 Biosecurity Incident Response PON website information
Commercial Division							
C1	Tenants – operations	Stormwater; groundwater; air quality; noise; land contamination	Property Manager	N	L1, L7, L11, L12, L14, L22	No unlawful pollution of waters No unlawful pollution to land No material to leave licenced area (via air or ground) where there are licences in place. Site specific noise criteria to be met Site specific air quality monitoring and associated criteria Site specific stormwater / groundwater monitoring and associated criteria Reporting of incidents Control of existing asbestos	Lease and licence agreements Property Inspections Development approvals Environment Management Plans (construction and operation) Environment Protection Licences Contaminated Site Management Plans PON Contaminated Sites Database ENVRG 001 Asbestos Register EMS 003 Identification of Environmental Aspects and Impacts EMS 014 Land Contamination EMS 024 Environmental Inspections Port-Wide Contamination Study

Ref.	Aspect	Impact	Responsible Party	Intrn'l Reg	Legal reference	Legal Requirements	Comment
C2	Development customers/ tenants	Exacerbation of existing contamination, disturbance to heritage items, stormwater, biodiversity, visual amenity, climate change	Environment Manager	N	L1, L7, L14, L18, L22	Approvals relevant to development to be sought	Lease and licence agreements Development approvals Contaminated land data base Heritage asset register Landscaping guidelines Contaminated Site Management Plans PON Contaminated Sites Database ENVRG 001 Asbestos Register EMS 003 Identification of Environmental Aspects and Impacts EMS 014 Land Contamination Construction EPL for scheduled development
C3	Impact of climate change on trade throughput	Increased bush fire risk, drought conditions, sea level rise, increase server weather impact	Senior Manager ESG	Y	N		Trade forecasting DHI Model developed for the Port channel with the ability to run scenarios for climate change impact on port infrastructure ESG initiatives
Projects Division							
PI1	Routine or reactive maintenance – landside & waterside	Disturbance to heritage items; biodiversity; noise; disturbance of contaminated land; erosion; land pollution; waste	Maintenance Coordinator	N	L1, L4	Heritage register Biodiversity management plan Coastal Management Plans with associated agencies	Sea Dumping Permit and Long Term Monitoring and Maintenance Plan Risk Assessments Contractor management system PON Contaminated Sites Database Contaminated Site Management Plans ENVRG 001 Asbestos Register EMS 002 Fuels Oils and Hazardous Substances

Ref.	Aspect	Impact	Responsible Party	Intr'l Reg	Legal reference	Legal Requirements	Comment
							EMS 003 Identification of Environmental Aspects and Impacts EMS 014 Land Contamination EMS 015 Heritage Management EMS 040 Integrated Pest Management ENVFM 041 Wildlife Incidents Response Agencies
PI2	Impact of climate change on PON infrastructure	Implications of sea level rise on PON infrastructure	Executive Manager Projects	Y	N		DHI Model developed for the Port channel with the ability to run scenarios for climate change impact Project Lifecycle process to ensure climate change impacts are considered ENVFM 040 Life Cycle Assessment
Finance Division							
F1	Procurement	Modern Slavery; emissions; waste generation	Deputy Chief Financial Officer	Y	L15		Procurement Policy – encourages sustainable procurement and identifies obligations under Modern Slavery Act Flight offset program EMS 007 Waste Management
Corporate Services Division							
CS1	IT infrastructure	Waste, energy usage	IT Supervisor	N	L1	Licensed waste contractor requirements for disposal	EMS 007 Waste Management EMS 027 Energy EMS 028 Water usage Management Waste separation and recycling/refurbishment
CS2	Vehicle Fleet	Emissions	Executive Manager Corporate Services	Y	L21	Annual NPI Reporting	Regular maintenance and renewal program Emissions and fuel usage monitoring and reporting EMS 002 Fuels Oils and Hazardous Substances EMS 031 National Pollutant Inventory Reporting ENVRG 007 PON Emissions Inventory

Ref.	Aspect	Impact	Responsible Party	Intrn'l Reg	Legal reference	Legal Requirements	Comment
Corporate Affairs Division							
CA 1	Community engagement	Complaints arising from port operations	Media & Communications Advisor and Community Relations Manager	N	L1	Noise criteria for specific sites/operations	Community Liaison Group EMS 012 External Communication - Complaints Handling
Work Health & Safety Division							
WHS1	Health and Wellness	Mental health, physical wellbeing	WHS Manager	N	N		Green office design principles adopted Corporate fitness program for PON employees Dedicated end of trip facilities to encourage riding/walking to work Development of a health and well-being program for 2020

1.3. Responsibilities and Resources

The content of this chapter and the self-diagnosis method has been discussed and confirmed jointly by the PON Executive Leadership Team, comprising of Chief Executive Officer, Chief Commercial Officer, Chief Financial Officer, Executive Manager Marine and Operations, Executive Manager Projects and Assets, Executive Manager Corporate Services, the Executive Manager Corporate Affairs and Strategy and Executive Manager Business Development, in addition to confirmation from the Senior Manager Property, Environment and Planning.

All records and related documents of the PERS report are maintained by the Senior Manager Property, Environment and Planning in conjunction with the Environment Manager. Partial chapter content is jointly maintained by the relevant departments.

The content of 1.3 'Responsibilities & Resources' in this PERS report will be reviewed and updated every two years or when any content modification is required.

This chapter is to confirm that PON has a suitable organisational structure and competent professionals to achieve the goals specified in our ESG polices. The divisions (or sections of divisions) mainly in charge of the environmental aspects concerning PON are clarified and listed in the sections below.

1.3.1. PON ENVIRONMENTAL RESPONSIBILITY

Environment is part of the general process of port management and is incorporated into each functional area of the business. There were changes to the structure of the organisation between 2019 and 2021, and the overall organisational structure is provided in Figure 2.

PON has identified environmental responsibilities across the organisation and employs a team of specialists dealing with environment, social and governance (ESG) matters. Environmental responsibilities of PON employees are set through position descriptions developed by the PON People and Culture team together with the Executive Leadership Team (ELT).

At PON, the Environment lead is the Senior Manager Property, Environment and Planning (PEP) as supported by the Environment Manager.

As aforementioned there were changes to the structure of the organisation between 2019 and 2021. One such change was the appointment of a new position of Senior Manager Environment and Social Governance (ESG) in October 2020. Previously the ESG requirements of PON were covered under a combined environmental, planning and sustainability role. The new position is designed to lead strategic ESG programs at PON. The role is sustainability-focused and therefore it provides additional necessary resourcing to focus upon ESG as a matter of significance in the future of the port. The new role of Senior Manager ESG played a significant role in managing and obtaining the successful refinance of the port, and submission of the GRESB assessment each year.

All PON employees have a general obligation to comply with environmental legislation as described in all position descriptions. PON ensures that its employees are equipped to fulfil their obligations through the provision of adequate training, communication and information.

In addition to the general responsibilities above, certain individuals have ESG responsibilities. These are set out in position descriptions, and are also described in PON procedures and work instructions referenced throughout this document.

1.3.2. ENVIRONMENTAL RESPONSIBILITY WITHIN THE PORT AREA

As PON is custodian of the port and not the landowner of the entire port, PON is not responsible for all the environmental issues and aspects connected to the use of the port and port area. Table 4 shows an overview of other relevant stakeholders and their main responsibilities regarding the environment.

Table 4: Key responsibilities of other organisations within the port area

Region	Stakeholders
National	Federal regulators, national policy makers, implementation of IMO legislation
Regional	State regulators, regional and local policy makers, implementation of national legislation, issuing and enforcement of licences, approvals and permits
Port users and tenants	Port Authority of New South Wales, Harbour Master, regulator for the <i>Marine Pollution Act 1981</i>

1.3.3. ENVIRONMENT & SOCIAL RESOURCE ALLOCATION

The costs that have been invested by PON in the environmental aspects are mainly divided into the following categories: staff, environmental maintenance and management, environmental monitoring, emergency responses and communication. The purpose of these investments is to improve the environmental awareness among staff, environmental maintenance, environmental quality, emergency response abilities and public understanding of the Port. Detailed information is provided in Table 5 below.

Table 5: PON investments in environment and social aspects

Category	Item	2018 (\$AUD)	2019 (\$AUD)	2020 (\$AUD)	2021 (\$AUD)
Environmental Monitoring	Sediments, water quality, air quality, noise, biodiversity, soil, groundwater, audits and inspections	\$ 225,197	\$ 247,582	\$ 164,478	TBC
Environmental Maintenance	Stormwater, plant & equipment	\$ 66,600	\$ 68,716	\$ 260,161	TBC
Plant & Equipment	Smart meters water and electricity, hoppers – dust recovery	\$ 2,800,000	\$ 50,000	\$ 315,960	TBC
Emergency Response	Biosecurity response management kits, development of plans	\$ 1,300	-	-	TBC
Communication & Social	Employee engagement survey, community grants sponsorship and donations, Newcastle Port Community Contribution Fund	\$ 1,371,060	\$ 1,161,733	\$ 1,233,320	TBC

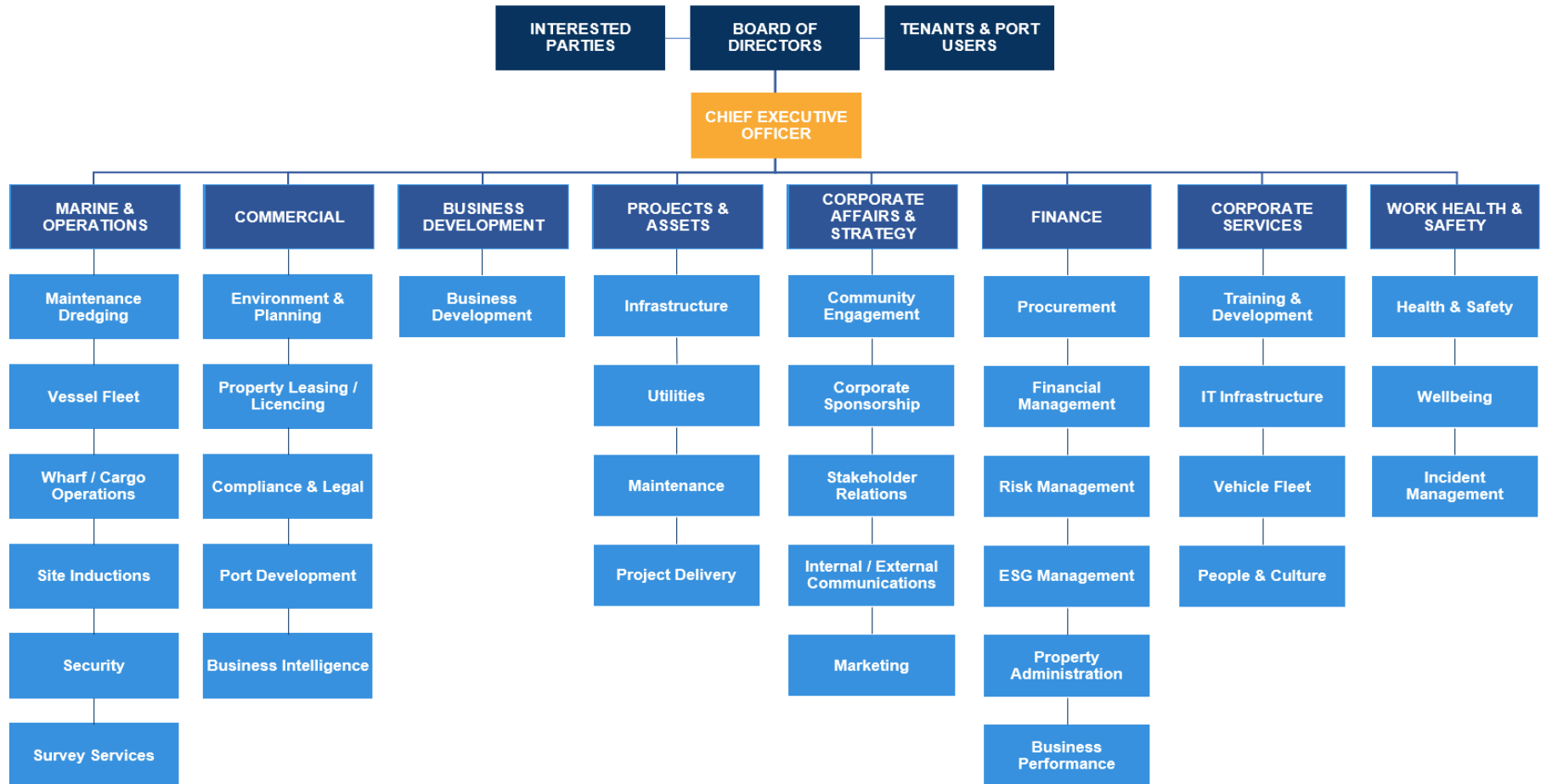


Figure 3: PON organisation chart showing functional areas

Table 6 outlines environmental responsibilities of personnel in relation to critical activities that interact with the environment.

Table 6: Environmental responsibilities of key personnel

Function	Position	Business Unit
Port Operations (Dredging)	Dredge Manager	Marine and Operations
Port Operations (Shipping)	Senior Manager Operations	Marine and Operations
Port Operations (Terminals)	Senior Manager Operations	Marine and Operations
Cargo Handling Operations	Senior Manager Operations	Marine and Operations
Licensing and Permits	Senior Manager Property, Environment and Planning	Commercial
Strategic Planning	Senior Manager Property, Environment and Planning	Commercial
Maintenance	Maintenance Coordinator	Projects and Assets
Onsite Contractor Management	Maintenance Coordinator	Projects and Assets
Emergency Planning	Security Manager	Marine and Operations
Waste Management	Maintenance Coordinator	Projects and Assets
Environmental Document and Data Management	Environment Manager	Commercial
Environmental Incident Reporting	Environment Manager	Commercial
Contamination and Soil Pollution Assessment	Environment Manager	Commercial
Air and Water Quality Monitoring	Environment Manager	Commercial
Fuel Usage and Emissions Monitoring	Environment Manager	
Noise Management	Environment Manager	Commercial
Energy and Carbon Footprint Reporting	Senior Manager Environment Social Governance (ESG)	Finance
Strategic ESG Program Lead and Sustainability Reporting	Senior Manager Environment Social Governance (ESG)	Finance
Vehicular Management of Terminal Traffic	Senior Manager Operations	Marine and Operations
Tenant Management	Property Manager	Commercial
Community Management (complaints and media)	Senior Manager Corporate Affairs and Strategy	Corporate Affairs
Procurement	Deputy Chief Financial Officer	Finance

1.4. Conformity Review

The content of this chapter and the self-diagnosis method has been discussed and confirmed jointly by the PON Executive Leadership Team, comprising of Chief Executive Officer, Chief Commercial Officer, Chief Financial Officer, Executive Manager Marine and Operations, Executive Manager Projects and Assets, Executive Manager Corporate Services, the Executive Manager Corporate Affairs and Strategy and Executive Manager Business Development, in addition to confirmation from the Senior Manager Property, Environment and Planning.

All records and related documents of the PERS report are maintained by the Senior Manager Property, Environment and Planning in conjunction with the Environment Manager. Partial chapter content is jointly maintained by the relevant departments.

The content of 1.4 'Conformity Review' in this PERS report will be reviewed and updated every two years or when any content modification is required.

1.4.1. CONFORMITY REVIEW ON LEGAL REQUIREMENTS AND POLICY

1.4.1.1. Policy

PON's Environment Policy was first established voluntarily in 2010. In 2018 the policy was expanded to incorporate sustainability; however in the time since, PON has established a comprehensive ESG Strategy which supersedes the original procedure. As a result the policy is now once again referred to as the Environment Policy.

The Environment Policy is reviewed periodically at a minimum frequency of 2 years. As mentioned in Section 1 of this document, the policy includes a commitment to safe, efficient and sustainable operations. The policy outlines how this will be achieved through management, training, implementation, revision and publication of results of the actions the Port performs in environmental matters.

The following sections provide a conformity review of the objectives described in the Environment Policy and how PON maintains compliance with its legal requirements.

Table 7: Details of conformity review progress against objectives detailed in the PON Environment & Sustainability Policy Action Plan

Initiative	Status update
2019	
Emissions baseline	Completed Q4 2019
Electric Vehicle (EV) fleet Transition Stage 1	Completed Q4 2019
Corporate sponsorship	Completed 2019
Annual Litter Pick	Completed April 2019
2020	
EV fleet transition Stage 2	Continued Q3 2020
NBT gantry replacement	Completed Q3 2020
Annual Litter Pick	Unable to be performed in 2020 due to COVID restrictions.
Community engagement	Completed Q4 2020
Sustainability reporting	Completed for 2020 in June 2021
Corporate sponsorship	Contribution of sponsorship budget to local initiatives
2021	

Initiative	Status update
Corporate sponsorship	Completed Q4 2021
Indigenous Scholarship	Completed Q3 2021
Berth K2 Bulk Ship Unloader	Arrived Q2 2021; commissioning currently occurring to 2022
EV fleet transition Stage 2 continued	Completed Q2 2021
Renewable energy 100% supplied	Began 2020 and completed 2021
Annual Litter Pick	Unable to be performed in 2021 due to COVID restrictions. A Litter Pick is planned for 2022 with additional resourcing and requirements.
Cultural Awareness	Completed Q1 2021 and will be rolled out to new employees on an ongoing basis
Community engagement	One remaining CLG meeting scheduled for Q4
Successful refinancing includes sustainability-linked loans	Completed Q2 2021
Successful submission of the 10-year Sea Dumping Permit Renewal	Completed Q4 2021
GRESB Assessment	Completed Q4 2021
Sustainability Advantage Silver Partner	Completed Q4 2021
2022	
Mobile harbour cranes at M4 Berth	Pending 2022
Modern Slavery assessment for suppliers	Started 2021 to be continued into 2022
Diversity and Inclusion Strategy	Pending 2022
Flora and Fauna Management Plan strategic initiative	Pending 2022
Annual Litter Pick	Aiming for April 2022
Corporate sponsorship	Pending 2022
Indigenous Scholarship	Pending 2022
Community engagement	Pending 2022

1.4.1.2. Managing our carbon emissions

In support of the provisions described in the 2016 Paris Agreement, PON is committed to understanding and reducing its carbon footprint. In addition to its commitment to reduce its carbon footprint PON maintains compliance with the National Pollutant Inventory (NPI) NEPM through monitoring and reporting those emissions arising from the use of its vessel and vehicle fleet. PON reports the NPI emissions annually.

PON has 26 smart meters installed across the Port to monitor energy consumption. The meters also provide transparent usage data to both PON for its operations and tenants to assist in understanding and managing usage.

PON prepared a baseline assessment of carbon emissions for its operations in 2018. The baseline provides detailed information on the Port's Scope 1 and 2 emissions profile and enable it to prioritise decarbonisation projects that will have the greatest impact.

1.4.1.3. Managing Air Quality

In 2018 PON invested \$3.5 million in state-of-the-art hoppers with dust extraction to minimise the environmental effects associated with the handling of loose bulk cargo. In addition to these improvements at the Newcastle Bulk Terminal, the new Kooragang 2 Bulk Ship unloader arrived on 16 May 2021 and at time of writing is currently undergoing construction and commissioning. The new unloader is a \$35 million dollar investment by the Port, and will allow greater control of environmental emissions to air with the use of new baghouses and state of the art controls. The new bulk handling equipment will significantly improve efficiencies, safety and wellbeing, and lead to improved environmental outcomes.

PON undertakes air quality monitoring to demonstrate compliance with the applicable approvals. Monitoring currently includes PM10 and TSP for the Mayfield 4 Berth terminal. Air quality monitoring is undertaken continuously, and collected and measured on a six-day cycle using High Volume Air Sampling (HVAS) units. PON reports air quality monitoring results to DPIE on an annual basis.

There are several port tenants that also have in place approvals that require air quality monitoring to be undertaken. These entities have in place reporting requirements that are consistent with their relevant approvals.

1.4.1.4. Reducing Port Waste

PON is committed to managing the cleanliness of the port environment and in turn the quality of life for the residents of Newcastle.

From 2018 onwards PON had in place waste separation and recycling for eight separate waste streams for its own operations. Details on the volumes recovered and recycled for recent years are provided in Section 1.5.5 *Waste and Recyclable Management*. Waste streams include soft plastics in collaboration with the Plastic Police, and sustainable IT disposal solutions with industry providers.

In 2018 PON launched the Port Wide Litter Pick, an initiative that involves active engagement with port users. The objective is for port users to pick litter within the footprint of their own site and in any communal port areas adjacent to their site. Twenty teams participated in 2018 with total of 254 kilograms of litter being removed from the port environment. In 2019, the teams removed 1,640 kilograms. The Litter Pick was unable to be performed in 2020 and 2021 due to COVID restrictions. A Litter Pick is planned for 2022 with additional resourcing and scope.

PON has in place a waste management procedure to ensure that its employees have a framework to dispose of waste sustainably and in accordance with the relevant legislation. For example, ensuring that the receiving facilities and transport providers have in place the relevant permits and approvals to handle the specific types of waste it is required to retain evidence of waste disposal records

There are suitable facilities located within the port for the receipt of ship waste. The details of these facilities are available to ship owners and agents via the Australian Maritime Safety Authority (AMSA) website. AMSA is the lead agency at the International Maritime Organization (IMO). Waste that is identified as biosecurity waste is to be collected by a waste management provide with an approved Department of Agriculture, Water and Energy (DAWE) agreement.

1.4.1.5. Managing Biodiversity in the Port

The Hunter Wetlands National Park (formerly the Kooragang Nature Reserve) is a large area of protected wetlands that includes much of the northern half of Kooragang Island as well as Fullerton Cove to the east, the Tomago Wetlands to the north, and a wetland area to the west. The boundary of the National Park extends to the PON Kooragang Precinct boundary.

Future development of the Kooragang Precinct would consider impacts on listed species and ecological communities, the Hunter Wetlands National Park and Ramsar wetland. Most development projects would require consent from regulators and would be subject to a range of project-specific requirements.

To support the conservation of the threatened Green and Golden Bell Frog (GGBF) population on PON land, there is an island-wide survey program that is managed by the University of Newcastle (UoN) and financially supported by a group of port users and tenants. Any development in this area that has the potential to have an impact of the GGBF population must ensure that it is compliant with the federal legislation and lodge referrals under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) as necessary to determine what specific management requirements are to be implemented for the project. PON continues to be a strong supporter of the UoN GGBF group and has signed on to continue the contract for 2022.

Non-native marine pests can be introduced to Australian shores within ship ballast water and on ship and boat hulls (biofouling). Marine pests can detrimentally affect marine ecology, fisheries and tourism and so present both a biodiversity and economic risk to NSW.

It is extremely difficult, if not impossible, to eliminate introduced marine pests once they have established.

To help manage the risks, PON is a member of the NSW Marine Pests Working Group with representatives from Biosecurity NSW (Department of Primary Industries), NSW DPIE, NSW Environment Energy and Science, Transport for NSW (previously Roads & Maritime Services), Port Authority of NSW and the private port organisation, NSW Ports.

PON are also in the planning stages of a strategic initiative for a port-wide Flora and Fauna Management Plan. The plan will be scoped and initial implementation stages outlined in 2022.

1.4.1.6. Managing Contractors, Port Tenants and Operators

PON continues the use of the contractor management system initially launched in 2018. The system requires all contractors engaged by PON to meet minimum standards relating to safety, environment, sustainability and industrial relations. PON trains contractors and port visitors through inductions and toolbox talks. Environmental awareness training is provided to contractors and port visitors through a tiered induction system. Toolbox training is delivered to contractors working on site prior to any works commencing. As of 2020, contractors were required to include Coronavirus 2019-safe (COVID-19) controls as part of their risk assessments, which is detailed further in Section 1.4.1.7.

Conducting a risk assessment on an individual activity or project basis enables PON to ensure that environmental control measures are implemented prior to any works commencing. Depending on whether the risk assessment is prepared for a specific project or day-to-day routine activities, the control measures identified will be incorporated into either a project EMP or EMS procedures.

PON manages 790 hectares of land, including operational areas, vacant land and tenanted sites.

Operators in and adjacent to the port are responsible for undertaking and reporting monitoring as part the regulatory conditions for their facilities. These monitoring programmes are extensive and include air quality, noise, water management and ecological impact. The regulator is responsible for determining when monitoring results that exceed licence limits require a response from the tenant.

PON maintains a standard lease document for its tenants. Section 17 of the lease document defines the environmental obligations that the tenant is required to comply with, including requirements for base condition reporting at entry, environmental audits, contamination reports, end of lease clean up, indemnities, compliance with all relevant environmental legislation, and requirement for notification and clean-up of pollution incidents.

CORONAVIRUS (COVID-19) MEASURES – TENANT RENT RELIEF

PON also considered the impact of COVID upon port tenants paying rent to PON. During 2020 PON developed and applied a *COVID 19 Assistance Policy*, informed by *The National Cabinet Mandatory Code of Conduct SME Commercial Leasing Principles During COVID-19* and NSW equivalent code (Code). The Policy allowed for rent relief where a tenant could substantiate the direct impact of COVID 19 on its business at the port. A number of PON tenants were granted relief, and consumer price index (CPI) rent increases were postponed during the period of the Commonwealth Government Job Keeper program. In keeping with best practice PON applied the

postponements across the majority of the tenant portfolio. The rent increase postponements concluded on 31 March 2021.

1.4.1.7. Supporting the Health and Wellbeing of PON Employees

PON supports the health and wellbeing of its employees by having safety as one of its core values.

PON employees have a voice through the annual organisation-wide Workplace Engagement Program to closely examine, understand and improve work culture. The Workforce Engagement Strategy flows from the priorities established by the Employee Engagement Forum (EEF). The success of this is measured through regular surveys to strive for continual improvement.

PON has a strong commitment to the health, safety and wellbeing of its employees. As part of its commitment PON operates the following programs:

- Employee Assistance Program (EAP)
 - Assists employees and their families to resolve problems whether work related or of a personal nature.
 - The EAP provides a confidential and voluntary counselling, psychotherapy and referral service for all PON employees and immediate family members to achieve maximum life and job satisfaction.
- Employee fitness program.
 - Offers employees and their family access to discounted gym memberships at select local fitness centres.
 - All staff are encouraged where possible to keep up fitness and exercise at home and outdoors.
- Mental health support
 - PON provide a range of mental health support including access to the mindfulness app Smiling Mind.
 - Access to training for Mental Health First Aiders, who are employees trained and available as a first point of contact for employees. As of 2021 approximately 30 PON employees were trained Mental Health first aiders.

PON recognise the importance of the workplace and how it influences health and wellbeing and therefore provide its office-based employees with a working environment that includes:

- Interior landscaping;
- plenty of natural light;
- sit/stand desk stations;
- ergonomic chairs;
- informal collaboration spaces; and
- end of trip facilities.

CORONAVIRUS (COVID-19) MEASURES – PON EMPLOYEES

During 2020 the worldwide COVID-19 pandemic impacted a number of operational and staffing requirements. PON is registered as a COVID-Safe business, and the controls implemented are described in the following section. A Pandemic Emergency Management Response Plan was implemented in March 2020.

During March to end of December 2020 a number of changes and procedures were implemented at PON by the Incident Management Team (IMT). The controls included the following:

- Wharf Road Office controls
 - *Agile Working Arrangement*
 - PON provided support for office staff working at home (or suitable alternate location)

- under an Agile Workplace arrangement.
 - Wharf Road office ensured limited numbers of staff and appropriate distancing was achieved by measures including the use of booking desks, allowing one free desk between each employee, and limiting numbers of people allowable in meeting rooms and lifts.
 - Physical greetings and contact not permitted.
 - Meetings were performed remotely over Zoom or other virtual service wherever possible.
 - Limit of two (2) people allowed in PON vehicles.
 - COVID-19 risk assessments performed for meetings and potential events.
 - Employees requested to stay home and obtain a COVID-19 test if they experienced any symptoms associated with the virus.
- Operational controls
 - The David Allan Dredge operations usually allow for cross-shift work and shift crossovers. From March 2020, cross shift works were not permitted for Dredge casual workers, and no shift crossovers for full-time dredge employees. The practices reduced person-to-person exposure.
 - No face-to-face handovers for wharf operations and vessel schedulers.

The controls were a success for PON and enabled operations to continue successfully through 2020.

The IMT performed ongoing reviews PON's COVID-19 controls depending upon community transmission within NSW, and the ongoing Government restrictions and guidelines. The controls are subject to continual review to ensure PON align with current government regulations, and to provide a COVID-safe environment that supports an agile working arrangement.

1.4.1.8. Strengthen relationships with local communities

The Port Community Liaison Group (CLG) was formed in 2014 and is an opportunity for the community to engage with the port, learn about its operations and provide feedback. The group has been meeting regularly since this time. The CLG is made up of representatives of the local community, industry, Councils and regulatory bodies.

PON partners with the University of Newcastle (UoN) to provide opportunities for students studying a range of disciplines. PON has awarded numerous internship opportunities in collaboration with UoN and has been recognised as the 'Most Valued Partner' during the university's Student Engagement Awards.

Additionally, PON's inaugural Indigenous STEM Scholarship was launched in 2020 and first awarded in 2021 in partnership with the University of Newcastle (UoN) to a member of the Ngarigo community. Port of Newcastle's Indigenous STEM Scholarship is open to Indigenous students who plan to complete a Science, Technology, Engineering or Mathematics (STEM) related degree at UoN. The program will run for 3 years with one scholarship awarded each year.

PON has also commenced a number of other relationship and community exercises, including:

- Memorandum of Understanding (MOU) with UoN
 - In October 2021 an MOU was signed between PON and UoN. The organisations have pledged to collaborate across areas including:
 - Research, development and enabling platforms
 - Talent development
 - Innovation programs
 - Community engagement and collaboration, including with Aboriginal and Torres Strait Islander communities; and
 - Energy hub and precinct development
- Upgrade to historical Footbridge Infrastructure

- In October 2021 PON commenced a once in half a century upgrade to Carrington's historical Tippler Footbridge, which connects Carrington to green space areas along the foreshore of Newcastle Harbour in October 2021.
- The repairs will include energy efficient LED lighting.
- The upgrades will enable safe public access to the unique Carrington Foreshore area for the community.

1.4.1.9. Ensure Appropriate Training and Awareness for our Employees

PON has in place a Training and Development Policy. This policy identifies the process used for identifying training needs. Within the EMS, PON maintain an Environmental Training Procedure (EMS 020). EMS 020 outlines the process of bringing a PON employee to an agreed standard of proficiency in environmental management by practise and instruction. All employees are required to complete:

- Port inductions
- EMS and EMP training
- Sustainability awareness training

To ensure compliance with its regulatory obligations, PON also provides the following role specific training to its employees:

- Sea Dumping Permit training
- Handling dangerous and hazardous goods training
- Biosecurity training

To further develop sustainability awareness, PON also provides 'lunch-and-learn' sessions for its employees.

1.4.1.10. Managing Contamination in the Port

With a historical legacy of land contamination from heavy industry, PON has undertaken a comprehensive port-wide baseline study to understand the impacts of this legacy issue on its sites.

All new tenant, under lease arrangements with PON, are required to undertake a base condition report at the time of entry. The base condition report includes a land contamination assessment.

PON will ensure that location specific assessments are undertaken for any ground penetrating works to ensure that materials are managed to prevent harm to human and/or ecological health and further exacerbation of any existing contamination.

Land contamination in NSW is managed under the *Contaminated Land Management Act 1997*. Upon identification of exceedances of contamination criteria for either human or ecological health, a Section 60 notification will be lodged with the NSW EPA.

Several sites that have significant contamination *in situ* have been remediated and are managed under a site-specific Contaminated Site Management Plan (CSMP) to ensure the integrity of the remediation.

1.4.1.11. Maintaining Heritage Assets

The Port has a multi-faceted and extraordinarily rich history, which includes 220 years of commercial shipping.

Within the Port there are several individual and groups of heritage items that have been recognised as having heritage value, including buildings, navigations structures, trees and relics.

PON has prepared a Heritage and Conservation Register in compliance with its obligations under the 98-year Port Lease. The register has been endorsed by the State Heritage Register Committee of the Heritage Council of NSW and will assist PON in caring for heritage assets and their future conservation and development. The Register is reviewed at minimum annually, and was last updated in February 2021.

The Heritage and Conservation Register comprises three parts:

- Part I is a thematic history of the Port
- Part II sets out the organisation's strategies to manage its heritage assets
- Part III is the list of heritage assets, together with an assessment of their heritage significance

1.4.1.12. Managing Maintenance Dredging

PON works in collaboration with City of Newcastle (Council) and DPIE to actively contribute to sand renourishment at Stockton Beach. This helps restore sand that is lost through erosion. On average PON takes approximately 25,500 m³ of clean sand from the entrance to the Port and relocates it to a designated area off Stockton Beach to support City of Newcastle's beach renourishment efforts.

1.4.1.13. Managing Impacts on Stormwater

The quality of the port's water reflects PON's commitment to sustainability and the environment. PON actively monitors the physical and chemical composition of water quality in the port area to inform positive stormwater management decisions. By working with port tenants and EPA NSW, the Port can help drive improved outcomes that contribute towards a sustainable port environment.

As part of PON's environment protection licence with EPA, the completion of commissioning of the K2 Ship Unloaders will trigger commencement of a comprehensive stormwater discharge study. The unloader is expected to be commissioned in 2022. Following commissioning, the twelve-month stormwater discharge quality monitoring program will be performed, including a year-by-year review and comparison of stormwater quality. The stormwater discharge study will ensure best practice management of stormwater quality at the K2 berth in addition to use of the new unloader.

1.4.1.14. Ensuring Compliance

PON has a firm commitment to meeting relevant environmental legislation and regulations, as described in the Environment Policy, and meeting other voluntary or contractual environmental obligations to which it subscribes, including the requirements of the Lease between PON and the NSW Government.

PON has set out the procedure for identifying and tracking its environmental obligations in *Procedure EMS004 Identification of Environmental Compliance Obligations*. PON tracks legal requirements within environmental legislation through a sophisticated third-party database. The Legal Register is available to all PON employees via an external website. The Legal Register covers NSW and Federal legislation and is updated continuously by the service provider. PON holds a range of approvals and licences under environmental legislation, and these set a range of requirements including reporting to regulators such as the NSW EPA and DPIE.

Legal and other requirements are considered when assessing risk and when setting actions to manage risk. Various monitoring programmes are in place to ensure compliance with legislative requirements. Overall conformity with legal and other requirements is assessed in the audit programs.

1.5. Environmental Report

The content of this chapter and the self-diagnosis method has been discussed and confirmed jointly by the PON Executive Leadership Team, comprising of Chief Executive Officer, Chief Commercial Officer, Chief Financial Officer, Executive Manager Marine and Operations, Executive Manager Projects and Assets, Executive Manager Corporate Services, the Executive Manager Corporate Affairs and Strategy and Executive Manager Business Development, in addition to confirmation from the Senior Manager Property, Environment and Planning.

All records and related documents of the PERS report are maintained by the Senior Manager Property, Environment and Planning in conjunction with the Environment Manager. Partial chapter content is jointly maintained by the relevant departments.

The content of 1.5 '*Environmental Report*' in this PERS report will be reviewed and updated every two years or when any content modification is required.

The aim of the environment report is to provide environmental information to senior port management, the public and other interested parties regarding the environmental impact and performance of the port's significant environmental aspects.

PON does not currently have a single specific environment report. This information is incorporated into various other communication methods such as internal management reports, external regulatory reporting requirements, and the public website.

The environmental reports are made available on the PON public website at www.portofnewcastle.com.au

PON's environmental performance to date is summarised in Table 8 and further detailed in the sections below.

Table 8: Overview of PON environmental performance

Performance Indicator	Performance 2019	Performance 2020	Performance 2021	Procedures
Compliance	<p>Zero PON regulatory non-compliance</p> <p>Two (2) tenants regulatory non-compliance</p> <p>Noise monitoring 100% compliant</p> <p>No external EMS audit for this reporting period</p>	<p>Zero PON regulatory non-compliance</p> <p>Zero Tenants regulatory non-compliance</p> <p>Noise monitoring 100% compliant</p> <p>No external EMS audit for this reporting period</p>	<p>Zero PON regulatory compliance to date</p> <p>One (1) tenant regulatory non-compliance to date</p> <p>Noise monitoring pending</p> <p>Tri-annual external EMS audit: 11 opportunities for improvement, and a GAP analysis to align with 2015 version of the standard.</p>	<p>Operational Environmental Management Plans</p> <p>Lease Agreements</p> <p>Environmental Management System</p>
Energy	<p>Relocation of PON Head Office included energy efficient initiatives</p>	<p>Continued replacement of tradition vehicles to electric fleet</p> <p>Entered into Renewable Energy Contract for 91% of usage; to save 4,900 CO_{2eq} per annum once at 100%</p>	<p>Continued replacement of tradition vehicles to electric fleet</p> <p>Entered into Renewable Energy Contract at 100% to save 4,900 CO_{2eq} per annum</p> <p>Remaining data pending</p>	<p>EMS Procedure 027 Energy</p>
Emissions	<p>Scope 1: 2,582 t CO_{2eq}</p> <p>Scope 2: 966 t CO_{2eq}</p>	<p>Scope 1: 1,702 t CO_{2eq}</p> <p>Scope 2: 731 t CO_{2eq}</p>	<p>Scope 1: Data pending</p> <p>Scope 2: Data pending</p>	<p>ENVRG 007 Emissions Inventory</p> <p>EMS Procedure 031 National Pollutant Inventory Reporting</p>
Maintenance Dredging	<p>28,458 m³ of clean sand diverted from spoil ground for beneficial reuse at Stockton Beach</p>	<p>12,146 m³ of clean sand diverted from spoil ground for beneficial reuse at Stockton Beach</p>	<p>Data pending</p>	<p>Long Term Monitoring & Maintenance Plan</p> <p>EMS Procedure 008 Maintenance Dredging</p>
Waste	<p>Streams separated; please refer to Table 12.</p>	<p>Streams separated; please refer to Table 12.</p>	<p>Streams separated; data pending for 2021.</p>	<p>EMS Procedure 007 Waste Management</p>

Performance Indicator	Performance 2019	Performance 2020	Performance 2021	Procedures
				WHS Procedure 0617 PON Asbestos Management
Heritage	Completion of community plaza	Continued restoration of Carrington Engine House	Continued restoration of Carrington Engine House Draft conservation management plan (CMP) prepared	PON Heritage & Conservation Register EMS Procedure 015 Heritage Management DA No. 07/1496 – Concept approval Section 60 Heritage Act 1977 Approvals
Biodiversity Management	Biosecurity First Points of Entry Determination approved	Ongoing Green and Golden Bell Frogs research and management	Ongoing Green and Golden Bell Frogs research and management	EMS 041 Biosecurity Incident Response Procedure
Community Engagement	\$1.06 million in sponsorship and donations to date 3 x CLG meetings to date	\$1.18 million in sponsorship and donations 4 x Community Liaison Group Meetings	\$1.12 million in sponsorship and donations given to date in 2021 4 x Community Liaison Group Meetings 12 Newcastle Port User Group Meetings	EMS 012 External Communication – Complaints Handling
Employee Training	3 x lunch and learn sessions	3 x lunch and learn sessions	3 x lunch and learn sessions	EMS 020 Environmental Awareness and Training

1.5.1. COMPLIANCE

For the calendar years of 2019 to 2021 at time of writing there were no regulatory non-compliances at PON licenced sites.

Infringements incurred by PON tenants are summarised in Table 9.

Table 9: Tenant infringement summary 2019 to 2021 to date

Date	Summary of incident
24 March 2021	Tenant is a chemical manufacturer. During loading of coal tar pitch shipping hose failure occurred, and pitch was spilled onto wharf with some entering the harbour. Bunds were in place; however nature of the hose meant the pitch was sprayed onto the berth and allowed some to enter the harbour. Material solidified upon contact with water. Clean-up occurred using divers. Tenant was fined by NSW EPA.
5 December 2019	Tenant operates alumina and petroleum coke unloading facility. Air quality from dust collector emission points exceeded licence standards and penalty notice was issued by NSW EPA.
1 July 2019	Tenant operates a coal loading facility. In 2018 two separate incidents of contaminated water spilled to harbour occurred. Tenant was fined by NSW EPA in 2019.

For the 2019 and 2020 monitoring periods PON achieved compliance for all its noise monitoring obligations.

PON has an EMS in place is aligned with the ISO 14001 standard. All PON employees are briefed on the PON EMS as part of employee onboarding. In 2021 an audit of the PON EMS was completed against the ISO14001 standard with an external qualified contractor. The audit provided 11 opportunities for improvement, and a GAP analysis to ISO 14001:2015 standard. As a result of the audit and in line with PON review frequency requirements, a detailed internal review of the EMS is being performed. It is anticipated that PON will work to begin the process to obtain ISO 14001 certification within the next year.

1.5.2. ENERGY AND WATER MANAGEMENT

PON has ongoing monitoring of energy and water in place to enable better understanding and management of consumption. The monitoring also provides PON with a baseline to be able to understand the effectiveness of any improvement projects. Following on from a Stage 2 energy audit of PON managed assets, in recent years PON have performed the following:

- PON has responded to Scope 2 emissions through the purchase of renewable energy. In October 2020, PON subscribed to a five-year renewable energy contract with energy retailer Infigen. Further information on this initiative is provided in Section 1.6 Best Practices.
- Installation of 29 smart water meters to enable more accurate water management.
- Continued initiatives for sustainable energy usage through staged replacement of traditional vehicles with electric vehicles.
- Relocation of PON head office. In April 2019, PON completed a full renovation of our new offices, consolidating three levels into one and introducing increased energy efficiency. The new premises includes interior landscaping, use of natural materials and light, encouragement of a paperless system where possible, and encouragement to use local public transport services.

1.5.3. EMISSIONS MANAGEMENT

PON monitors and calculates CO_{2e} emissions for vessel and vehicle fleets over which it has operational control. Most PON Scope 1 emissions are attributed to maintenance dredging activities. Scope 2 energy usage is related to use of electricity at head office location.

Table 10: PON historical Scope 1 and Scope 2 energy and emissions data

Year	Scope 1 Emissions as CO ₂ equivalent (tonnes)	Scope 2 energy usage (GJ)	Scope 2 Emissions as CO ₂ equivalent (tonnes)
2018	2,381	6,145	1,400
2019	2,579	3,476	966
2020	1,681	3,543	731
2021	Data pending	Data pending	Data pending

The decrease in Scope 1 emissions between 2020 and 2021 is due to the following operational processes:

- Dredger was unavailable for a period in 2020 to enable scheduled maintenance works on land (layup), which led to a significant reduction in diesel; and
- to a lesser extent, fuel usage decreased due to the rollout of electric vehicles to the PON fleet replacing traditionally fuelled vehicles.

PON is actively working on developing initiatives that when introduced will increase the efficiency of our dredging operation and subsequently reduce the associated Scope 1 emissions.

For Scope 2 emissions PON has calculated emissions arising from electricity consumed at the head office location. PON is responsible for 792 hectares of landholdings, made up of tenanted, operational and vacant areas. There are four separate private networks that support these areas. PON is committed to further understanding its Scope 2 emissions as they relate to operational aspects of the business, which was achieved with the prior installation of smart meters assisting in better understanding additional Scope 2 emissions for which PON are directly responsible.

In 2019, PON commenced a project to measure carbon footprint across the business with the intention of using 2018 as the baseline year. In 2020, PON completed a project that assessed our Scope 1 and 2 emissions against the Science Based Targets initiative (SBTi) trajectories. The project provided PON with a tool that enables identification and prioritisation of emissions reduction projects. PON will also use the output of this tool to identify and formalise mid-term and long-term emission reduction targets.

A significant reduction in carbon equivalent emission was observed at the Newcastle Bulk Terminal from the 2018 baseline year to 2019. The observation is a result of two significant changes, being the removal of a third-party user load from PON usage, and the decommissioning of the gantry crane infrastructure in preparation for the new loader's arrival. A slight increase in emissions may be anticipated with the commissioning of the new gantry infrastructure from 2020 to 2021.

Reductions were also observed from the relocation of the PON head office as described in Section 1.5.3 Emissions Management.

From 2019 onwards PON were engaged in mapping Scope 3 emissions as part of the carbon footprint project. Opportunities were commenced to reduce some of the associated Scope 3 emissions through offsetting all emissions associated with our corporate flights under the GreenFleet partnership scheme which provides offsets through the planting of trees. The Renewable Energy contract will also assist reducing Scope 3 emissions resulting from tenant usage.

PON is also continuing an in-depth study into vessel emissions in port, and our potential influence to achieving reduction of these emissions. PON and Port Authority of NSW (PANSW) are committed to multilateral efforts to protect the natural environment and limit the global temperature rise with assistance from the Vessel Arrival System (VAS). Following the 2007 Pasha Bulker storm event, a VAS was developed and introduced to Newcastle. The system provides an opportunity for arriving vessels to manage their voyage speed time to minimise time at anchor. The Australian Maritime Safety Authority (AMSA) recently commissioned a study to understand the impacts of Newcastle’s VAS. The study identifies significant reductions in greenhouse gas (GHG) emissions and fuel oil consumption (FOC) following the introduction of the VAS through speed optimisation with benefits including:

- \$36,000 savings in fuel per voyage
- 50% less time spent in the port
- 23% lower average voyage speed
- 18% reduction in greenhouse gas emissions.

1.5.4. MAINTENANCE DREDGING

Table 11 shows the volumes of dredge spoil material for the purposes of maintenance dredging. It is comprised of material taken to the approved offshore spoil ground, and clean sand placed onto Stockton Beach in support of beach renourishment efforts managed by local Council and supported by DPIE.

Table 11: PON maintenance dredge material volumes deposited at spoil ground and for beach renourishment

Year	Volume placed at offshore spoil ground (m ³)	Volume placed for beach renourishment (m ³)
2018	389,750	25,542
2019	364,541	28,458
2020	151,903	12,146
2021	Data pending	Data pending

1.5.5. WASTE AND RECYCLABLE MANAGEMENT

Over the course of 2019 to 2021 PON had in place eight (8) recycling streams. Table 12 shows the volumes recorded.

Table 12: PON waste stream separation and volumes

Recyclable Stream	2018	2019	2020	2021	Comments
Batteries (kg)	9.4	8	0	Data pending	None collected in 2020; services still used 2021 and ongoing.
Coffee Pods (no.)	4,300	1,300	-	Data pending	Pods no longer in use.
E-waste (kg)	775	0	0	275 to date	Further information provided below.
Mobile phones (no.)	59	14	0	Data pending	None collected in 2020.
Hard Hats (no.)	104	0	150	Data pending	None collected 2019.
Toner Cartridges (no.)	48	26	13	Data pending	
Waste Oil (litres)	13,500	21,700	15,600	Data pending	

Recyclable Stream	2018	2019	2020	2021	Comments
Co-mingled (kg)	107	100	6	Data pending	
Soft plastics (kg)	-	53	166	Data pending	New initiative.

During 2020 due to COVID requirements many staff worked from home therefore a reduction occurred in some waste collection streams including co-mingled waste.

In 2021 to date PON utilised a specialised waste contractor that recycles e-Waste and also looks to donate usable electronics to communities in need. The e-waste was comprised of the following:

- 12 desktop PCs
- Cables
- Servers
- Peripherals including keyboards and speakers
- 5 monitors

In 2021 PON committed to further understanding opportunities to improve its waste management through participation in the NSW Government Bin Trim Program. The program included an initial waste survey and provided the business with a tailored action plan to find more ways to avoid, reduce and recycle waste. Actions from the Bin Trim audit are currently being assessed and will continue into 2021.

1.5.6. HERITAGE MANAGEMENT

As committed stewards of the port, for the 2018 period, the PON Board approved \$700,000 for restoration works on the state heritage listed items. Together with funding from the NSW Government \$1.2 million contribution, PON has committed to the restoration of Carrington Hydraulic Engine House.

Extensive consultation with Heritage NSW and further commitment from PON resulted in a further campaign of restoration works commencing in 2020 and concluding in late 2021, with further works earmarked for 2022/2023.

In addition, a draft conservation management plan (CMP) has been prepared and is currently being reviewed by Heritage NSW with its adoption targeted for Q1 2022.

1.5.7. BIODIVERSITY MANAGEMENT

In June 2018 a collaborative shorebird rehabilitation project, led by PON tenant Newcastle Coal Infrastructure Group, was awarded the PIANC Working with Nature Certificate. The project saw the restoration of 28 hectares of saltmarsh.

PON continues to support the conservation of the threatened Green and Golden Bell Frog (GGBF) population on PON land. This is performed through an island-wide survey program that is managed by the University of Newcastle (UoN) and financially supported by a group of port users and tenants including PON. PON plan to be part of the study and funding indefinitely, and are soon to finalise a three-year contract with UoN to support their works.

PON are also in the planning stages of a strategic initiative for a port-wide Flora and Fauna Management Plan. The plan will be scoped and initial implementation stages outlined in 2022.

1.5.8. COMMUNITY ENGAGEMENT

PON contributes at least \$1 million annually to the Newcastle Port Community Contribution (NPCC) Fund, which was established by the NSW Government in 2014. The NSW Government also administers

the NPCC Fund. The NPCC Fund supports suitable projects which enhance or maintain landside infrastructure and community amenity and access around the Port.

Eleven community projects showcasing the history and vibrancy of Newcastle Port were delivered with funding from NPCC funding in 2020, mostly by local not for profit and community organisations.

Since 2014, the NPCC Fund has supported 33 projects to a value of \$5.9 million which have provided direct benefit to the community of Newcastle and Port users and neighbours.

In addition to the NPCC contribution, Port of Newcastle also has in place a community sponsorship program that supports the Port's Your Port, Our Community ethos. The Port's Community Sponsorship Program underwent a review in 2019 to align with the principles of PON's newly adopted ESG Strategy and has been further refined throughout 2021 to ensure that the Port's sponsorship, donation and community support initiatives are closely aligned with PON's values: Community, Integrity, Community and Wellbeing.

PON's commitments include that 35% of the corporate sponsorship budget goes directly to Our Community projects. In 2020, PON had an exceptional number of compliant applications for the Our Community projects category, with 46% of the total corporate sponsorship budget being allocated.

In 2020, PON launched a \$30,000 partnership with the University of Newcastle. Applications for the Indigenous Students in STEM Scholarship opened in September 2020 and the inaugural award was presented to the first student in 2021. The Scholarship is open to Indigenous students who plan to complete a Science, Technology, Engineering or Mathematics (STEM) related degree at the University of Newcastle, and aims to enhance the Hunter Region's capacity in meeting future technology-led jobs and to support tertiary education pathways for Indigenous students. Three scholarships, each worth \$10,000, are awarded over the three-year period of the program. As well as financial support, the Scholarship includes the opportunity to take part in professional development at Port of Newcastle and learn more about Port operations.

PON operates within the traditional countries of the Awabakal and Worimi peoples and is committed to building stronger relationships with its local Aboriginal communities. The establishment of a Reconciliation Action Plan (RAP) is a key initiative in support of the national Closing the Gap movement to reflect PON's commitment to engaging with our local Aboriginal communities and helping to improve economic, health and social outcomes. The establishment of Port of Newcastle's RAP will provide the plan and framework to commence our journey and contribute to the national reconciliation movement. We are committed to delivering our first RAP in 2021.

In addition to NPCC fund contributions, since 2018, PON has contributed almost \$591,000 in sponsorship and a further \$64,000 in donations.

Projects ranged from contributions to the following initiatives.

Supporting Charities and Not for Profit Organisations

PON have supported a host of local Charities and Not for Profit Organisations including the Salvation Army, Variety Children's Charity, CanTeen, Bikers for Kids, Chuck Duck Breakfast Program, Equal Futures, Headspace, In 2 Life, Mission Australia, Westpac Rescue Helicopter, Harry's House, Melanoma Institute of Australia, Soul Café, Lifeline, Mission to Seafarers, Newcastle Legacy, Rotary, Ronald McDonald House Hunter, Samaritans, Miracle Babies and the Cancer Council amongst other local organisations.

Supporting Programs

- Innovation and science, including support for the University of Newcastle electric vehicle initiatives and science and engineering challenge, and providing solar panels for a local sailing club.
- Primary School Innovation Hub for budding scientists.
- Biodiversity, including the installation of a walking trail for the Ash Island arboretum and for arborist support at the Hunter Region Botanic Gardens.
- Port of Newcastle provided \$100,000 to fund a full-time Masters/PhD student scholarship for a new higher degree program run by Macquarie University's Business School. Key areas of research include the pivotal role of ports as hub-and-spoke agents in the import and export trade, based on an integrated modal supply chain, as well as the possible future of supply chains in Australia based on a study of the benefits and costs of integration between modes.
- Port of Newcastle also provided \$30,000 for Macquarie University to facilitate a series of supply chain webinars and online roundtable discussions about how to build more resilient and responsive supply chains. Held during the peak of the COVID-19 pandemic, these discussions explored how to mitigate disruptions under extraordinary circumstances and events.

Supporting Local Initiatives

- Other community social initiatives, including the University of Newcastle's China Week, the Rotary Club of Newcastle Stockton bridge mural, the Hunter Ideation at Work Innovation Expo, Newcastle Writers Festival, funding for a new shed set up for the Newcastle Men's Shed, funding to host the Hunter Hurricanes Water Polo Club Harbour Games, Curious Legends outdoor performances, Newcastle Regional Show, Nobbys Surf Life Saving Club, Newcastle Rowing Club, and the Newcastle Music Festival.
- Port of Newcastle has also formed a major sponsor partnership with the Newcastle Jets Football Club, supporting its men's and women's A-League teams for the next three seasons, as well as promoting grassroots opportunities for local budding football players and community members.

1.5.9. EMPLOYEE TRAINING

To further develop sustainability and ESG awareness, PON provided the following lunch and learn sessions in 2020 and 2021 for its employees:

- Modern Slavery – Seafarer Welfare
- Circular Economy
- Sustainable Procurement
- PON Vessel emissions inventory
- Sustainable Development Goals (SDG) – Life on Land
- PFAS as emerging contaminants
- The Future of Ports: Marine Trade and Energy

As of November 2021, PON has also rolled out a set of six (6) ESG training modules in that employees company-wide are to complete.

1.5.10. PORT STAKEHOLDERS' NEEDS, EXPECTATIONS AND ENGAGEMENT

Table 13 defines key stakeholder groups at the Port of Newcastle, identifies their needs and expectations and details how the Port currently engages with the various stakeholder groups.

Table 13: PON stakeholder engagement summary

Stakeholder type	Needs and expectations	Engagement
Harbour Master	Maintained channel for the safe navigation of vessels	Regular meetings
Community	Safe and sustainable operations Compliant and well-managed environmental impacts including noise, air quality, light pollution and water quality Maintenance dredging management Enablement of clean sand to Stockton Beach for renourishment	Community Liaison Group meetings Public Website Quarterly maintenance dredge Technical Advisory Consultative Committee (TACC) meetings
Port Tenants	Safe and efficient access to land and associate wharf side infrastructure Connectivity to rail and road infrastructure Access to utilities Sustainability leadership	Port User Group Public website
Port Customers	Safe and efficient operations. Connectivity to rail and road infrastructure.	Port User Group Public website
Vessel operators	Safe navigable access to the port. Suitable wharf side infrastructure Waste reception facilities Potable water supply	Public website Via vessel agents and Port Authority NSW
Regulators	Compliant, well-managed, sustainable and safe operations Protection and enhancement of biodiversity	Regular meetings and reporting Public website

1.6. Best Practices

The content of this chapter and the self-diagnosis method has been discussed and confirmed jointly by the PON Executive Leadership Team, comprising of Chief Financial Officer, Executive Manager Marine and Operations, Executive Manager Projects and Assets, Executive Manager Corporate Services, the Executive Manager Corporate Affairs and Strategy and Executive Manager Business Development, in addition to confirmation from the Senior Manager Property, Environment and Planning.

All records and related documents of the PERS report are maintained by the Senior Manager Property, Environment and Planning in conjunction with the Environment Manager. Partial chapter content is jointly maintained by the relevant departments.

The content of Chapter 1.6 'Best Practices' in this PERS report will be reviewed and updated every two years or when any content modification is required.

This chapter details two examples of environmental projects undertaken by the PON to improve environmental conditions.

Port of Newcastle	Australia
Contact:	Jackie Spiteri and Brigid Kelly
Position:	Senior Manager ESG and Environment Manager
Email:	jackie.spiteri@portofnewcastle.com.au and Brigid.Kelly@portofnewcastle.com.au
Environmental Issue: Air Quality, Climate Change (Energy efficiency, GHG emissions reduction & Adaptation), Energy Consumption, Vehicle Exhaust Emissions	
Relevance to ESPO 5 E's framework: Exemplify, Encourage, Enforce	
Continued replacement of traditional fleet vehicles to EV vehicles	
<p>In May 2020, the port took the first step in its transition to a fully electric fleet with the acquisition of four (4) electric vehicles (EVs) being the Hyundai Ioniq models. By November 2020, PON was well along the way to its target of 100 per cent electrification by 2023 after purchasing an additional five (5) vehicles.</p> <p>To support the vehicle transition, two 50-kilowatt DC fast chargers have been installed in the operational port area and six 22-kilowatt dual-port AC chargers at the PON head office.</p> <p>AS PON Senior Manager ESG Jackie Spiteri states, "The business case for BEVs is both financial and strategic. While the port will save \$20,000 in fuel costs and 48 tonnes of CO₂ equivalent annually once the fleet is fully electric, the driver for us is more about leadership and demonstrating to others that electric vehicles do work. They're also the way of the future."</p> <p>PON is well on track to transition its entire vehicle fleet to electric.</p> <p>In addition to the above, through a partnership with City of Newcastle (Council) PON is also sponsoring two electric vehicle charging stations located near its head office on Wharf Road. The 22-kilowatt chargers – collectively enabling four vehicles to be plugged in simultaneously – are the latest additions to the city's network and are powered by 100% renewable energy. The partnerships are critical to achieving the Port's diversification and sustainability goals, beginning with expanding the Council's electric vehicle charging network to promote renewable energy and sustainable transport options.</p>	




Example of new vehicle



Charging Station at public carpark

<https://www.portofnewcastle.com.au/news/electric-vehicle-fleet-to-support-sustainable-operations-at-port-of-newcastle/>

Port of Newcastle	Australia
Contact:	Jackie Spiteri and Brigid Kelly
Position:	Senior Manager ESG and Environment Manager
Email:	jackie.spiteri@portofnewcastle.com.au and Brigid.Kelly@portofnewcastle.com.au
Environmental Issue: Air Quality, Climate Change (Energy efficiency, GHG emissions reduction & Adaptation), Energy Consumption	
Relevance to ESPO 5 E's framework: Exemplify, Enable, Enforce	
100% Renewable energy contract	
<p>PON has responded to Scope 2 emissions through the purchase of renewable energy. In October 2020, PON subscribed to a five-year renewable energy contract with energy retailer Infigen for its three embedded networks located at the Newcastle Bulk Terminal and Carrington and Mayfield precincts, which service PON operations and tenants operating within these networks.</p> <p>The renewable energy contract has direct linkage with the Bodangora wind farm, whose turbine components were shipped through the Port of Newcastle in 2017-2018.</p> <p>The project will significantly reduce PON's Scope 2 emissions and Scope 3 emissions resulting from tenant usage. In total, based on 2018 as a baseline year, this project will save a total of 4,876 tonnes of CO₂e per annum.</p> <p>PON has a series of smaller sites that will transition to renewable energy contracts by the end of 2021.</p> <p>In November 2020, PON entered into a retail PPA with Infigen Energy for its three embedded networks, covering 90.5 percent of PON's power usage. PON are well on track to secure 100% renewable power for electricity needs by the end of 2021.</p>	
	
<i>Example of Wind farm</i>	
<p>News articles 2019 and 2020</p> <p>https://www.newcastleherald.com.au/story/6849803/port-flicks-the-switch-to-renewables/</p>	