

2019

# SUSTAINABILITY PLAN





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# Message from the CEO

I am pleased to introduce the *NSW Ports 2019 Sustainability Plan*. This document illustrates our progress and achievements since the release of our first sustainability plan in 2015 and outlines our proactive strategy and actions for the next three years.

NSW Ports plays a vital role in keeping Australia's economy moving. We manage key trade gateways at Port Botany and Port Kembla, through which millions of tonnes of freight are imported and exported to domestic and international markets each year.

Sustainability is integral not only to our business, but to the long-term success of the supply chain industries.

We recognise we have a responsibility to enact sustainable environmental, social and governance measures which minimise the impact our business has on the natural environment and the communities in which we operate.

Over the past few years we have gained greater insight into the expectations of our stakeholders, more clearly defined our sustainability risks and developed actions and indicators to build a more resilient business. We are proud of our achievements in the pursuit of sustainable transport and logistics, including in the areas of: infrastructure planning, development, environmental value, resource conservation, energy efficiency and stakeholder engagement.

The scope of this *NSW Ports 2019 Sustainability Plan* has expanded to include 'whole of port' goals beyond our direct operational control. Our sustainability strategy and actions are also aligned with the United Nations Sustainable Development Goals.

We are committed to operating ethically and transparently and look forward to further engagement with our communities and stakeholders as we embark on the roll-out of this plan and assess our performance in future years.

We hope you find this *NSW Ports 2019 Sustainability Plan* informative. We welcome your feedback by email to [enquiries@nswports.com.au](mailto:enquiries@nswports.com.au).




**Marika Calfas**  
Chief Executive Officer



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# SUSTAINABILITY AT NSW PORTS





We recognise that along with delivering value for our shareholders, we also need to make a positive contribution to the communities in which we operate, protect the environment and act in an ethical and transparent manner.

In order to grow sustainably we strive to be:

- Strongly competitive.
- Highly resilient.
- Responsive and adaptable.
- Holistic and integrated in our approach.
- Working within the means and scope of our business and the capacity of the environment while engaging with stakeholders.
- Leaving a beneficial legacy for future generations.

# Our business at a glance

At NSW Ports, our focus is managing the key trade gateways connecting the people and businesses of NSW to global markets. Our business is a significant contributor to the economies of NSW and Australia.

We hold long-term leases to manage Port Botany, Port Kembla, Enfield Intermodal Logistics Centre and Cooks River Intermodal Terminal.

NSW Ports is well-placed to provide support and leadership to our tenants and the broader transport and logistics sector as they seek to adopt sustainable practices.

Our role is to:

- Strategically plan for future trade and infrastructure requirements.
- Develop and maintain key port infrastructure.
- Promote opportunities to optimise port operations and associated supply chains.
- Manage safety, security and operations at common user facilities.
- Manage land leases and licences held by tenants.
- Engage with government, business and the community.



## Enfield Intermodal Logistics Centre

An intermodal logistics centre, centrally located just 15km west of Sydney's CBD

Direct and daily rail connections into Port Botany on dedicated freight-only rail, reducing road congestion

A number of heritage features with architectural or historical interest





Keep  
Australia's  
economy  
growing



### Cooks River Intermodal Terminal

An empty container park on dedicated freight-only rail, 8km from Port Botany

Offers direct freight rail connection to Port Botany



### Port Botany

Australia's premier container port, handling 2.6 million TEU\*

The only port in Australia with freight rail 'on-dock' at each of our three container terminals

Australia's largest common-user bulk liquids facility

Pipeline access to Sydney Airport, nearby industrial precincts and regional NSW



### Port Kembla

Home of NSW's largest motor vehicle import facility

Diversified bulk import and export port including: iron ore and other raw materials for Australia's largest integrated steel manufacturing facility; agriproducts; construction materials; liquid bulk; and other general cargo

Home to a number of WWII military history and coastal indigenous heritage values

\* TEU = Twenty Foot Equivalent Units. This is the number of twenty foot equivalent containers handled.

# Sustainability performance

## Our Business



**\$4.4 billion**

to NSW Gross State Product (GSP)

Supporting

**29,400**

jobs

**42%**

of goods in a Sydney household  
(including food and beverages)  
imported in containers via Port Botany

**30 Year**

Master Plan adopted for current  
implementation

## Our Environment



**First and only  
Australian**

port to implement an environmental  
incentive program for shipping to  
encourage vessels with improved  
environmental emissions performance

NSW Ports' Greenhouse gas emissions

**reduced  
by 20%**

since FY2015

**15 heritage  
items**

under management, including the last  
known Mobile Block Setting Steam Crane  
at Port Kembla

## Our People



Local employer:

**33.5%**

of Port Botany  
workers and

**99%**

of Port Kembla  
workers live locally

**Diverse workforce:**  
NSW Ports employees

**49%** female

**51%** male

## Our Community



**14**

regular community liaison  
meetings per year

We actively support  
a range of community  
partnerships including:

**MU  
SEA  
UM**

  
**Conservation  
Volunteers Australia**



**Bayside Council**  
Serving Our Community

We also support the community  
through sponsorships including:



# Sustainability initiatives

NSW Ports actively participates in state, national and global initiatives to ensure we play a leading role in securing a sustainable future. These include:



## Infrastructure Sustainability Ratings

We are working with the Infrastructure Sustainability Council of Australia (ISCA) to achieve a Design and As-Built rating for the Brotherson Dock Life Extension project at Port Botany.

ISCA seeks to promote infrastructure that is designed, constructed and operated to optimise environmental, social and economic outcomes over the long term.

## Paris Climate Agreement

We are committed to minimising our carbon footprint by pursuing energy efficiency and renewable energy opportunities. We also work with our tenants and port users to identify opportunities to reduce emissions associated with the use of our ports, intermodal assets and related supply chains.

## Navigating a Changing Climate

We have signed on as a supporter of *Navigating a Changing Climate*, an initiative of the World Association for Waterborne Transport Infrastructure. We have agreed to take action to ensure that port infrastructure is designed, constructed and maintained to mitigate and adapt to climate change.

## Research partnerships



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA



LOW CARBON LIVING  
CRC



## Sustainability Advantage Program

We achieved Bronze Recognition in 2019 for sustainability performance through the NSW Government's Sustainability Advantage program. This supports organisations to improve environmental and sustainability performance.

## World Ports Sustainability Program

We support the World Ports Sustainability Program (WPSP) through our national peak body, Ports Australia. Established in 2017 by the International Association of Ports and Harbors, the program aims to demonstrate global leadership of ports in contributing to the United Nations Sustainable Development Goals.

We also participate as an incentive provider in the Environmental Ship Index, a key initiative of the WPSP to promote cleaner shipping. Through this program, we support the shipping sector to reduce emissions by providing financial incentives for ships visiting our ports whose environmental performance surpasses the International Maritime Organisation (IMO)'s requirements. The IMO aims to reduce total annual Greenhouse Gas (GHG) emissions by 50% by 2050, with a view to ultimately phasing them out completely.



# Sustainability timeline

2013

Formation of NSW Ports

2015

Release of NSW Ports' first Sustainability Plan  
Release of NSW Ports' 30 Year Master Plan

2016

Commencement of rail operations at Enfield Intermodal Logistics Centre  
Real-time energy monitoring installed at Port Kembla

2017

Opening of Enfield Intermodal Public Lookout  
Office solar energy projects completed  
Opening of Container exhibition at Australian National Maritime Museum

2018

Establishment of community partnership to restore Sir Joseph Banks Park  
\$120M Rail Investment at Port Botany announced

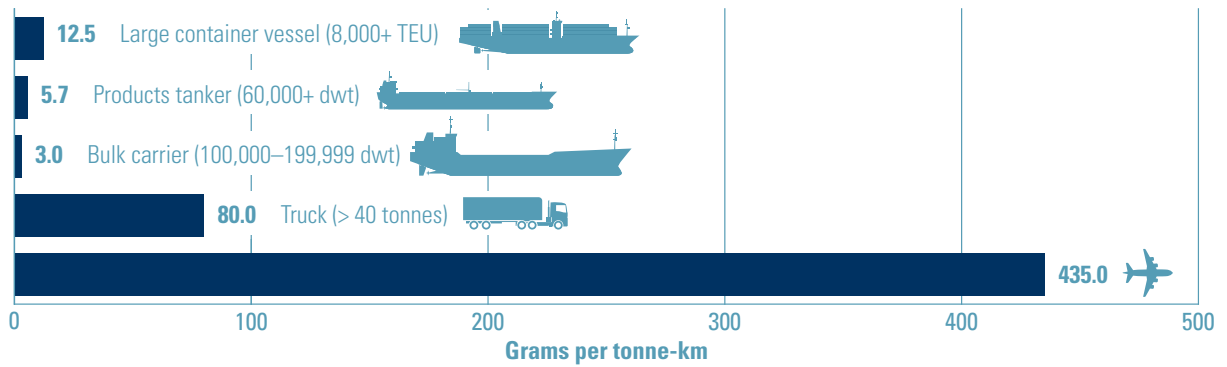
2019

**Australia's first and only Environmental Shipping Incentive introduced**  
**Release of NSW Ports' second Sustainability Plan**



Shipping is by far the most efficient and environmentally sound way to transport goods around the world. Around 80% of world trade is done through shipping, accounting for only 2% of the world's carbon emissions. As an island nation, Australia conducts 98% of its trade through ports.

### Comparison of the typical CO<sub>2</sub> emissions between modes of transport



DWT = deadweight tonnage. This is the total carrying capacity of a vessel.



# Our achievements

Since our first Sustainability Plan was released in 2015, we have completed, or are progressing all identified actions and have delivered significantly more than what we set out to achieve.








## Action plan scorecard:



### Transport and logistics

Actions from 2015 Plan	Progress	Sustainability Outcome
<b>Enfield Intermodal Logistics Centre</b>		Operations commenced May 2016.
<b>Promote increased use of rail, shipping and high productivity vehicles</b>	 Ongoing	Advocated for: <ul style="list-style-type: none"> <li>• Funding for Port Botany freight rail line duplication.</li> <li>• Moorebank Intermodal Terminal development approval.</li> <li>• Approvals for high productivity vehicle permits for port access.</li> <li>• Planning for Mt Ousley interchange.</li> </ul> Delivery of rail siding extensions at Enfield Intermodal Terminal. Commencement of Enfield intermodal terminal rail operations.
<b>Maintenance dredging for navigable depths in port channels/berthing</b>	 Ongoing	<ul style="list-style-type: none"> <li>• 4 x dredging campaigns completed at Port Kembla.</li> <li>• 2 x dredging campaigns completed at Port Botany.</li> </ul>



## Development and land use

### Actions from 2015 Plan Progress

### Sustainability Outcome

**Recognition of port protection requirements / buffer zones through environmental planning instruments**



Ongoing

- Measures to protect land for freight and logistics included in the NSW Freight and Ports Plan 2018 and Greater Sydney Region Plan 2018.
- Rezoning of old Port Kembla School site for residential development rejected due to proximity to port-related industrial land and rail.
- Proposed amendments to the State Environmental Planning Policy (Three Ports) 2013 to reduce the risk of incompatible development on land surrounding ports.
- Eastern City District Plan confirms protection/growth for trade gateways including Port Botany while managing interfaces of industrial, trade and intermodal.
- Illawarra Shoalhaven Regional Plan seeks to prevent land use conflicts by managing buffers around Port Kembla and supporting freight network.

**Freight and logistics infrastructure policy and strategy**



Ongoing

NSW Government delivered Greater Sydney Region Plan, State Infrastructure Strategy, Future Transport 2056 and NSW Freight and Ports Plan in 2018. These documents support:

- Protection of land for freight and logistics by retaining industrial land around ports and intermodal facilities and managing interfaces with more sensitive land uses.
- Previous government port planning strategy that Port Botany, followed by Port Kembla, will deliver NSW's container trade needs.

**Review Green Port Checklist to improve sustainability**



In Progress

- Green Port Checklist reviewed in 2017.
- Port Development Codes to be replaced with NSW Ports Sustainable Development Code – new action for 2019 Plan.

**Port Kembla Development Code**



- Port Kembla Development Code completed in June 2016.
- To be replaced with NSW Ports Sustainable Development Code – new action for 2019 Plan.

**Sustainable design measures**



Ongoing

Sustainability incorporated in the design of the Brotherson Dock Life Extension Project and new warehouses at Enfield.

**Record weather-related disruptions on port operations**



Ongoing

Procedure established and ongoing records maintained of port weather disruptions.



## Local environment outcomes

### Actions from 2015 Plan

### Progress

### Sustainability Outcome

#### Port Botany Noise Management Strategy



Strategy rolled out in 2017 with ongoing monitoring and collaboration with NSW Environment Protection Authority (EPA) and tenants.

#### Road traffic monitoring at Port Botany and Port Kembla



Partially Complete

- Road traffic volume assessment completed for Port Botany in 2017.
- Port Kembla assessment to be delivered in 2019 plan.

#### Port Botany long-term land-use risk assessment



In Progress

Scope of assessment developed – action to be delivered in 2019 plan.

#### Contribute to government policy on environmental management of port operations



Ongoing

Submissions made to:

- Draft Marine Estate Management Strategy 2017.
- Draft Coastal Management State Environment Planning Policy (SEPP).
- Draft Industrial Noise Guidelines 2015.
- Regulation of Air Emissions from Shipping 2015.
- Biosecurity Levy considerations.

#### Heritage management strategy



Rolled out Heritage Asset Management Strategy (HAMS) in 2016 with targeted Asset Maintenance Plan for key heritage items. Actions included:

- Restoration of steam crane at Port Kembla.
- Interpretive walk & signage at Enfield Intermodal Lookout.

#### Environmental Management Plans (EMPs)



Ongoing

Overarching EMPs for NSW Ports finalised 2015 and regularly reviewed.

#### Maintenance of Green and Golden Bell Frog ponds at Enfield and Port Kembla



Ongoing

Ponds are regularly maintained.



## Resource conservation and efficiency

### Actions from 2015 Plan Progress

### Sustainability Outcome

**Installation of additional solar panels at Port Botany and Port Kembla**



- 32kW solar system installed on Port Kembla Maritime Centre in 2017.
- An extra 17kW solar system installed on Brotherson House at Port Botany in 2017.
- Measurable reduction of 21% in electricity consumption at our Port Botany and Port Kembla office buildings compared to our FY15 baseline.

**Electricity monitoring and management services**



- Electricity monitoring system installed at Port Kembla Maritime Centre in 2016, complementing our Port Botany system.

**Green procurement standards for motor vehicles**



**Partially Complete**

- Rationalised vehicle fleet and reduced fuel consumption by 74% since FY15.
- Purchased first hybrid petrol-electric vehicle in 2019.
- Green procurement policy to be delivered as part of 2019 Plan.

**Recycling schemes for batteries, mobile phones and other electronic equipment**



Port Botany and Port Kembla have permanent recycling collection points for old batteries and mobile phones.





**Reuse dredged material from Berth 103 within the footprint of the Port Kembla Outer Harbour Development**



Approximately 120,000m<sup>3</sup> of dredged material placed in the Outer Harbour in 2015 as part of an onsite re-use initiative.



## Stakeholder and community partnerships

Actions from 2015 Plan	Progress	Sustainability Outcome
<b>Community liaison meetings at Port Botany, Port Kembla and Enfield</b>	 Ongoing	40 community liaison meetings held in the period 2015–2018 as part of our ongoing community engagement program.
<b>Publish development and sustainability information on NSW Ports website</b>	 Ongoing	New NSW Ports website launched 2017 includes Community and Environment Hub for: <ul style="list-style-type: none"> <li>• Environmental &amp; sustainability information.</li> <li>• Compliance records for NSW Ports development projects.</li> <li>• Community announcements.</li> <li>• Consultative committee minutes and terms of reference.</li> <li>• Public access information.</li> <li>• Sponsorship updates.</li> </ul>
<b>Environment and Sustainability Working Groups for tenants at Port Botany and Port Kembla</b>	 Ongoing	Working Groups established: <ul style="list-style-type: none"> <li>• 1 x meeting held for Port Botany.</li> <li>• 2 x meetings held for Port Kembla.</li> </ul>
<b>Environmental awareness training for all staff and contractors</b>	 Ongoing	<ul style="list-style-type: none"> <li>• New environmental induction rolled out 2015.</li> <li>• All new staff undertake this induction.</li> <li>• Over 770 contractors and port users have completed health, safety and environmental inductions online since 2018.</li> </ul>
<b>Staff involvement in environmental and sustainability events</b>	 Ongoing	<ul style="list-style-type: none"> <li>• 8 x Clean Up Australia Day events.</li> <li>• 3 x Biggest Morning Tea fundraisers.</li> <li>• 1 x World Environment Day 'Green Pledges' event.</li> <li>• 1 x National Safe Work Month program.</li> </ul>

# Achievement highlights

Over the last four years, as our drive towards sustainability has gathered momentum we have expanded our sustainability program to incorporate the following additional initiatives:

- Investment in rail capacity at Port Botany.
- A new hydraulic gangway at Bulk Liquids Berth 1, Port Botany.
- Productivity dashboards at Port Botany.
- Sustainable concrete research partnerships at Port Kembla.
- Implementing Australia's first environmental incentive program for shipping emissions reduction.
- Conservation partnerships with community volunteers at Botany and Port Kembla.
- Partnership with Australian National Maritime Museum to produce a public exhibition about shipping containers.
- Community partnerships with local schools and surf clubs.

Highlights of some of our achievements are included in the following case studies.





## More containers on trains means less trucks on the road

NSW Ports is working with logistics operators to increase transportation of containers by rail:

- Creating operational efficiencies.
- Reducing road congestion.
- Reducing emissions.

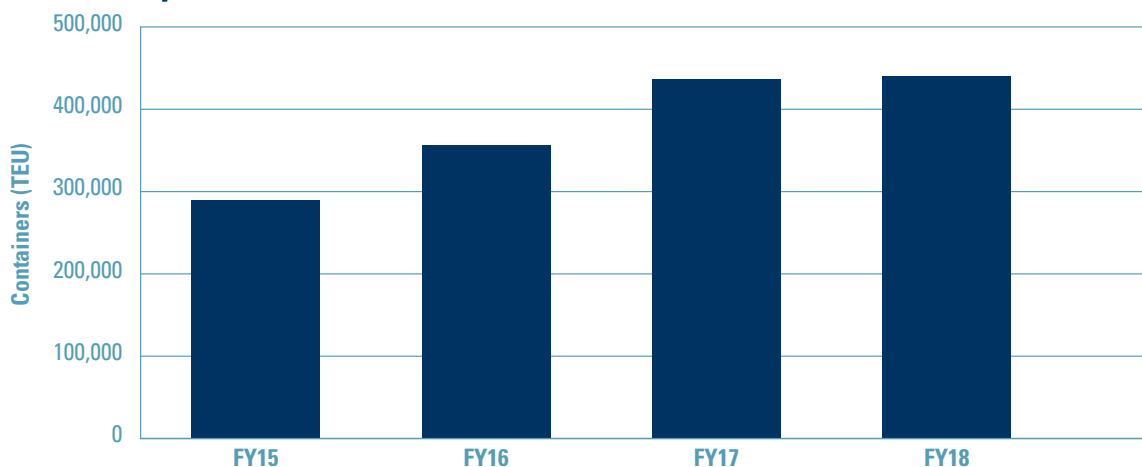
We have increasingly focused on growing the volume of containers transported to and from Port Botany by rail. Enfield Intermodal Logistics Centre (Enfield ILC) opened in May 2016 and we actively participate in the Port Botany Rail Optimisation Group (PBROG) and engage with peak industry bodies and key logistics operators to promote the use of rail transport. We also monitor the utilisation of rail windows at Port Botany and work with stevedores to improve rail efficiency and throughput.

We advocate for infrastructure projects to support rail transport including: the completion of the duplication of the Port Botany Rail Freight Line, reservation of a corridor for the Western Sydney Freight Line, and development of additional intermodal facilities at Moorebank and Western Sydney.

### Outcome:

The volume of containers transported to and from Port Botany by rail has grown by 52% since the 2015 financial year. The Federal Government announced funding to complete the Port Botany Rail Line Duplication in 2018 and NSW Government planning approvals were granted for the Moorebank Intermodal facility in 2016.

### Port Botany Container Volume on Rail



Movement of containers by rail between Port Botany and Enfield continues to grow – reducing road traffic between Enfield ILC and Port Botany and improving the efficiency of port operations.



## Investment to boost rail capacity at Port Botany

In November 2018, we announced our investment in 'on-dock' rail infrastructure capacity at each of Port Botany's three container terminals, commencing in 2019. Investment will be staged, with stevedores being required to invest in rail operating equipment to meet target terminal capacities.

In the first four years of the program, NSW Ports will invest \$120 million to double port side rail capacity and increase efficiency. Stage 1 investment will increase capacity to 1.5 million TEU and reduce turn-around times by more than 33% at the Patrick terminal.

### Outcome:

When fully operational, Stage 1 of this investment will:

- Reduce truck kilometres travelled in Sydney by at least 10 million per year.
- Save over 2 million litres of diesel per year – the equivalent of a net reduction of more than 5,400 in CO<sub>2</sub> emissions tonnes per year.
- Create more rail services and rail windows for cargo owners including regional trains.



This initiative was delivered over and above the 2015 Sustainability Action Plan.





## Moving cement by rail

Port Kembla has increasingly become a crucial gateway for supply of imported cement to support the NSW construction boom. While traditionally, cement clinker imports are ground to cement in Port Kembla and transported by road to concrete batching plants within the Sydney metropolitan region, in 2018 Cement Australia commenced transportation of cement by rail from its Port Kembla mill to a facility in the Sydney suburb of Clyde.

### Outcome:

As a result, the volume of cement transported by rail has averaged approximately 350 rail wagons per month since 2018, saving about 4,200 truck movements on the roads of the Illawarra and Southern Sydney in 2018.



This initiative was delivered over and above the 2015 Sustainability Action Plan.





## Navigating the future: NSW Ports' 30 Year Master Plan

In October 2015, NSW Ports released Navigating the Future: NSW Ports' 30 Year Master Plan.

### Outcome:

The plan articulates our priorities and the actions we believe should be undertaken to ensure a sustainable and efficient port supply chain well beyond the 30 year horizon. It is designed to be a blueprint for our stakeholders, setting a clear and consistent direction that guides decision making and informs discussion.



This initiative was delivered over and above the 2015 Sustainability Action Plan.



## Port Botany productivity dashboards

We have increased our capability to capture port operations data and developed productivity dashboards for Port Botany which display current and historic data regarding waterside and landside port activities.

### Outcome:

This data is used to understand port operational efficiency and identify opportunities for improvements.



This initiative was delivered over and above the 2015 Sustainability Action Plan.

## New hydraulic gangway at Port Botany's Bulk Liquids Berth 1



In 2018 we replaced the old gangway tower at Port Botany's Bulk Liquid Berth 1 with a new, custom manufactured gangway tower. This ensured safe access to both large and small ships and improved berth efficiency by reducing berth occupancy time by over 30 minutes for each ship calling at Bulk Liquid Berth 1.

### Outcome:

New infrastructure like this gangway increases the capacity of the berth and provides faster vessel turn-around – improving productivity and facilitating the handling of larger ships in line with our 30 Year Master Plan.



This initiative was delivered over and above the 2015 Sustainability Action Plan.

## Sustainable concrete for port infrastructure



NSW Ports is participating in two research projects through the University of Wollongong (UOW) and the University of NSW (UNSW) to trial use of more sustainable concrete options for marine structures:

- **The UOW research thesis** is investigating the effects of using unwashed sea sand in concrete as opposed to river sand, natural sand or manufactured sand. The project is investigating and comparing the compressive strength and chemical composition of concrete cylinders made with sea sand and placed in the marine environment at Port Kembla.
- **The UNSW project** was undertaken by the former Cooperative Research Centre (CRC) for Low Carbon Living and is trialling the use of Geopolymer Concretes made with steel furnace slag. The growing demand to produce concrete for large-scale infrastructure places immense pressure on natural resources and an opportunity was identified to use steel furnace slag which is a by-product of steel making. The concrete blocks produced in this manner were placed at the Port Kembla breakwater and are integrity tested on an ongoing basis.

### Outcome:

Both research projects are challenging the way non-renewable resources are being used in the maritime construction industry by aiming to identify less energy intensive technology and testing the viability of more sustainable material options. The use of alternative concrete compositions will reduce energy consumption during the concrete making process and utilise more environmentally friendly materials and waste products.



This initiative was delivered over and above the 2015 Sustainability Action Plan.



## Sustainable development features for Enfield ILC warehouses

NSW Ports has partnered with industrial developer Goodman to develop 12 warehouse buildings across six precincts at the Enfield ILC. Goodman prepared a new master plan for the site and, after receiving development approval, commenced staged construction in 2018.

### Outcome:

Each warehouse will incorporate sustainable development features including:

- Rainwater collection tanks for reuse in toilet flushing and landscape irrigation.
- Solar hot water systems.
- Low volatile organic compound paints, carpets and sealants.
- Water efficient bathroom hardware.
- LED lighting to all warehouse areas.
- Translucent roof and wall sheeting to increase natural light and save electricity.
- Landscaping with low-maintenance vegetation to minimise demand for irrigation and support local biodiversity.



## Environmental Incentive for Shipping

In 2019 NSW Ports was the first Australian port to introduce an environmental incentive for ships. The incentive is applied to vessels that perform better in reducing their emissions than the levels required by current standards of the International Maritime Organisation. The incentive takes the form of a discount on vessel charges for Port Botany and Port Kembla. This initiative supports the World Ports Sustainability Program.

### Outcome:

NSW Ports is taking the lead in Australia by incentivising shipping lines to improve their environmental performance. The incentive will promote and encourage cleaner, more environmentally friendly ships visiting Port Botany and Port Kembla, which will reduce emissions and improve local air quality.



This initiative was delivered over and above the 2015 Sustainability Action Plan.

## Maintaining heritage values at Port Kembla

Repair and maintenance of heritage-listed items is an important part of the sustainable management of our assets at Port Kembla Heritage Park. As part of this work, we have repaired and repainted the Mobile Block Setting Steam Crane in 2018 and refurbished the associated original wagons in 2019. The Crane is the last of its kind remaining in NSW and provides a valuable link to the history of port construction in the early 1900s.



### Outcome:

Great care has been taken in repairing damage, removing rust and repainting. The wagons are being restored using local timber and re-using as much of the original materials as possible.





## Conservation partnerships at Sir Joseph Banks Park and Port Kembla Heritage Park

In August 2018 we launched a three-year partnership with Bayside Council and Conservation Volunteers Australia (CVA), to carry out environmental conservation works at Sir Joseph Banks Park, Botany.

The park holds significant environmental importance, with vital fresh water wetlands and remnant Eastern Suburbs Banksia Scrub. It is an asset to the community from a conservation standpoint, and also provides valuable open space for community recreation.

### Outcome:

The project will engage up to 600 local community members in rehabilitating areas of native vegetation which provide significant habitat for native fauna.

We have also partnered with Conservation Volunteers Australia to enhance wetlands and habitat for the endangered Green and Golden Bell Frog at the Port Kembla Heritage Park.



This initiative was delivered over and above the 2015 Sustainability Action Plan.



## Solar Energy and Electricity consumption monitoring

In 2017 we installed solar systems on our office buildings at Port Botany and Port Kembla and began tracking energy using an energy monitoring and metering service.

At Port Kembla we installed a 42kW solar system while at Port Botany we installed an extra 17kW system to increase existing solar capacity and reduce the environmental footprint of office activities. By monitoring our energy usage, we are able to manage unexpected energy spikes and surges.

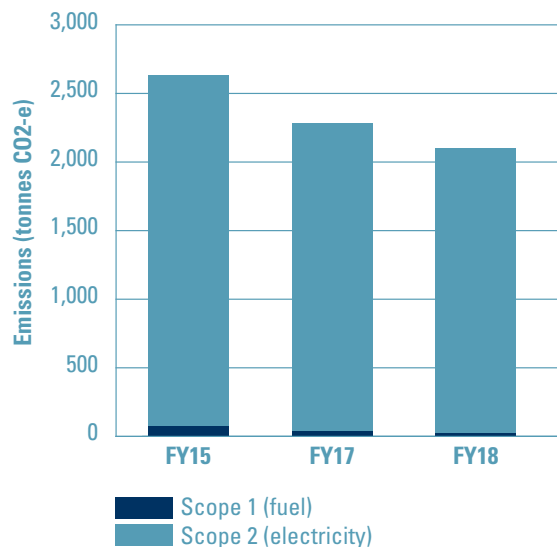
### Outcome:

We achieved a 21% reduction in electricity consumption at our Port Botany and Port Kembla office buildings compared to our FY15 baseline.

## NSW Ports' Greenhouse Emissions Profile

We have reduced greenhouse gas emissions from our consumption of fuel and electricity by 20% since FY15 to 2,101 tonnes CO<sub>2</sub>-equivalent per annum. This has been achieved through a range of initiatives including rationalisation of office space and vehicle fleet, energy efficiency improvements in air conditioning and lighting, on-site solar electricity generation and monitoring energy usage at Port Kembla and Port Botany.

### NSW Ports Greenhouse Gas Emissions







## Container – the box that changed the world

In 2017 we proudly partnered with the Australian National Maritime Museum to develop a free, outdoor and educational interactive exhibition – *Container, 'The Box That Changed the World.'*

Housed entirely within six shipping containers each with a specific theme – Ship, Cargo, Port, Ocean, Build and Things, the exhibition invites visitors from our communities to explore the technical, economic, social and cultural impacts of containerisation and the role shipping containers play within our lives.

NSW Ports promoted the exhibition in local schools and provided transport for students to visit and experience it first hand.

### Outcome:

So far more than 230,000 people have attended the exhibition, which was held in Darling Harbour from October 2017 for 12 months before touring to regional centres in Wollongong and Wagga Wagga. The exhibition will next visit Narrabri and then Dubbo in 2019.



This initiative was delivered over and above the 2015 Sustainability Action Plan.





## Brotherson Dock Life Extension Project

NSW Ports has commenced a project to repair concrete damage and protect wharf structures at the Brotherson Dock. The project includes the innovative use of a hybrid cathodic protection (CP) system, which will protect the area of the wharf face above the water line that require a one-off energisation phase (compared to the traditional CP system which requires a continuous power supply). The CP system supplies electrical currents that suppress the corrosion reaction and has an expected life of 50 years. We will ensure that the electricity supplied to the CP system is offset by renewable energy generation.

### Outcome:

Sustainable protection systems for our wharf structures where the electricity consumption required is generated by renewable sources eg. solar energy.



This initiative was delivered over and above the 2015 Sustainability Action Plan.



## Enfield Intermodal Lookout

In April 2017 we opened the Enfield Intermodal Lookout which provides a walkway and viewing areas for public access in the southern precinct of the Enfield ILC.

### Outcome:

Open during daylight hours, the lookout is designed to take visitors on a journey of the site's history, the local environment and current operations. Key historical features on display include the repositioned rail turntable, the heritage-listed Tarpaulin Factory and Pillar Water Tank. Ecological features such as the Green and Golden Bell Frog ponds and newly established native vegetation on the slopes of Mt Enfield can also be viewed from the lookout.



## Community partnerships

We have expanded our partnerships with community organisations, particularly local schools and surf clubs to include:

- Funding to construct a new playground at La Perouse Public School.
- Continuing our sponsorship of the Permaculture Partners program which establishes and maintains food gardens and outdoor learning spaces at six schools around Port Kembla.
- Launching a new three-year sponsorship with Maroubra Surf Life Saving Club to support the Nippers program.
- Continuing our support of the Port Kembla Surf Life Saving Club.



This initiative was delivered over and above the 2015 Sustainability Action Plan.

A large container ship is docked at a port, with a tugboat nearby. The ship is covered in colorful containers, and the sky is blue with scattered clouds. In the background, another container ship is visible, along with port infrastructure and cranes.

# Our approach to sustainability

We have established a sustainability framework focused on the key risks and opportunities that are most relevant to our business and stakeholders.

To identify the issues that matter, we conducted a materiality review during the year using several processes, including an industry peer review, stakeholder feedback and employee workshops. Stakeholders consulted include community representatives, local councils, and government agencies, tenants operating in our ports and intermodal terminals and employees.

The results of the materiality assessment were grouped into four key sectors: Our Business, Our Environment, Our Community and Our People.

This framework helps define what sustainability means to NSW Ports, and highlights key issues we need to address to maintain the long-term viability of our business.

The *NSW Ports 2019 Sustainability Plan* provides an overview of the key issues and actions associated with each pillar.



# Global benchmarking

## United Nations Sustainable Development Goals

The *NSW Ports 2019 Sustainability Plan* includes icons at the beginning of each chapter to show the alignment between our sustainability actions and the United Nations Sustainable Development Goals.

For more information about these goals visit [www.sustainabledevelopment.un.org](http://www.sustainabledevelopment.un.org).



# Governance and management

We have developed a governance framework to guide our sustainability journey:

## NSW Ports Board

Responsible for corporate governance, policies and risk management, including those relevant to sustainability. Oversees and guides NSW Ports' sustainability approach and reporting requirements, and the management of Environment, Social and Governance (ESG) risk.

The NSW Ports Board meets at least five times per year and has adopted the 30 Year Master Plan for implementation.

## People and Culture Committee

## Audit and Risk Committee

## NSW Ports Executive Leadership Team

Responsible for the development and implementation of NSW Ports' sustainability framework and strategy.

Our sustainability governance framework forms part of our broader corporate governance program.

# Sustainability reporting

## **NSW Ports has committed to providing:**

**An annual sustainability scorecard** covering data relative to the indicators nominated in this NSW Sustainability Plan 2019. Where indicators are aligned with Global Reporting Initiative (GRI) metrics, the relevant GRI identifier will be provided.

**A comprehensive Sustainability Report** every three years as part of our updated Sustainability Plan.





## Sustainability indicators

NSW Ports has adopted the following metrics as indicators of its sustainability performance:

Indicators	Reporting Frequency
Total economic contribution to Gross State Product	3 Years
Total employment generation (direct and indirect)	3 Years
Total volume on rail (TEU) for containers at Port Botany	Annual
Volume of key dry bulk products on rail (tonnes) at Port Kembla	Annual
Number of Board and Executive level meetings which specifically consider enterprise risk management	Annual
Area of industrial zoned land surrounding Port Botany, Port Kembla, Enfield ILC and Cooks River Intermodal Terminal	3 Years
Total greenhouse gas emissions – NSW Ports (Scope 1 and 2)	Annual
Greenhouse gas emissions intensity – Whole of Port	3 Years
Number of environmental incidents resulting in a regulatory response – Whole of Port	Annual
Community awareness and opinion survey	3 Years
Environmental complaints from community – Whole of Port	Annual
Number of community consultative committee meetings held	Annual
Percentage of safety actions completed by due date	Annual

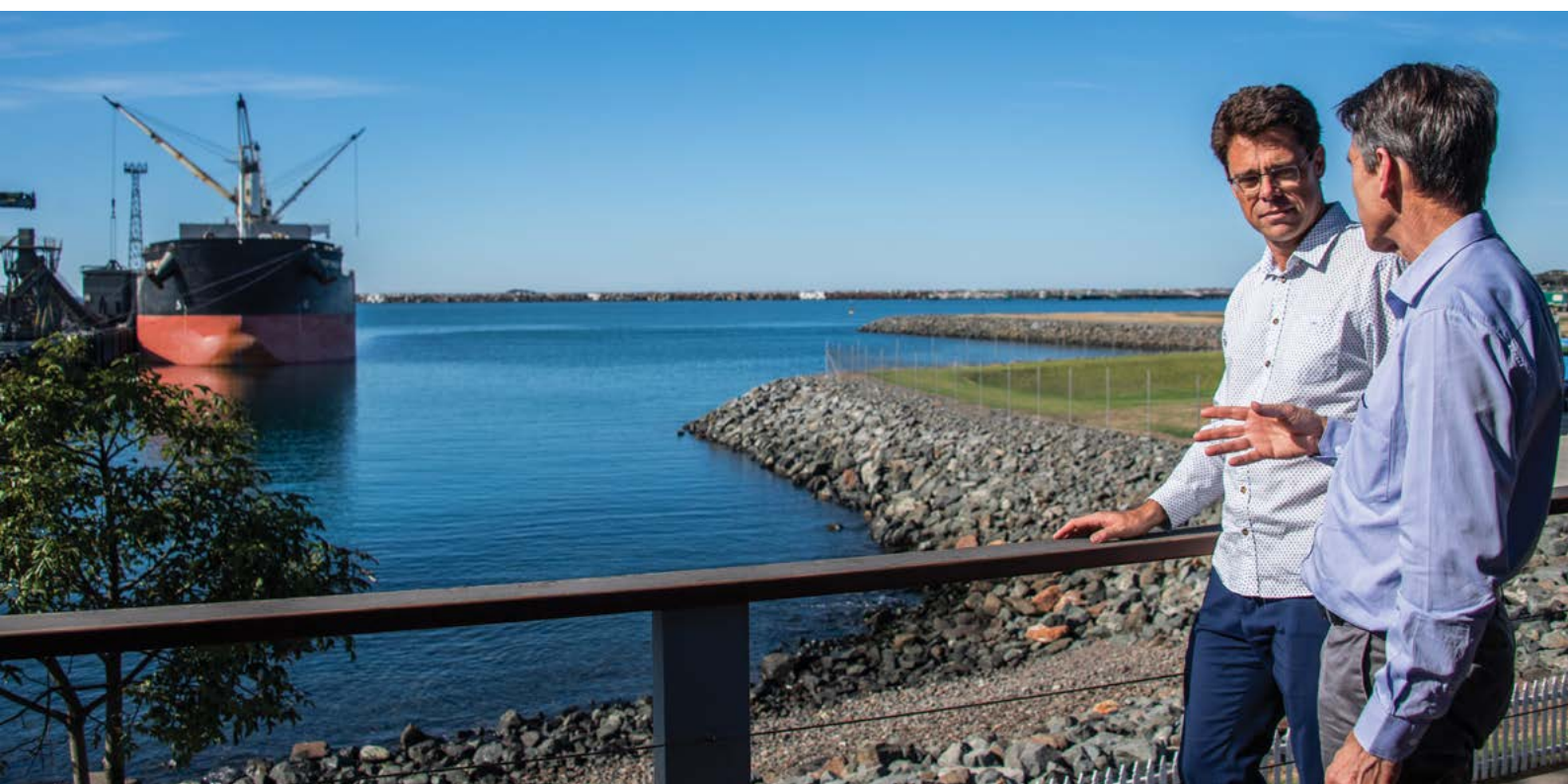
# Understanding our stakeholders

We recognise the importance of working closely and transparently with our stakeholders to understand their interests and needs. We engage in different ways with a range of stakeholder groups, including customers, shareholders, community groups and our employees.

Our main stakeholder groups, their key interests and concerns and how we engage with them:

Stakeholder group	Engagement mechanism	Key topics
<b>Customers (including tenants and port users)</b>	<ul style="list-style-type: none"> <li>• Correspondence (including information reporting, meetings and phone calls)</li> <li>• Customer complaint and feedback channels</li> <li>• Digital and social media channels</li> <li>• Participation in forums and with industry associations</li> </ul>	<ul style="list-style-type: none"> <li>• Performance and pricing matters</li> <li>• Emerging industry issues</li> <li>• Business improvement initiatives</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Meetings and focus groups</li> <li>• Group-wide surveys</li> <li>• Digital and social platforms</li> </ul>	<ul style="list-style-type: none"> <li>• Health, safety and wellbeing</li> <li>• Communication and engagement</li> <li>• Performance and Leadership</li> </ul>
<b>Shareholders</b>	<ul style="list-style-type: none"> <li>• Meetings</li> <li>• Correspondence</li> <li>• Digital channels</li> </ul>	<ul style="list-style-type: none"> <li>• Environment, social and governance matters</li> <li>• Business performance including financial performance</li> <li>• Business strategy</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>• Consultative committees</li> <li>• Correspondence (including meetings, phone calls and newsletters)</li> <li>• Community events</li> <li>• Sponsored activities</li> <li>• Digital and social platforms</li> <li>• Media</li> </ul>	<ul style="list-style-type: none"> <li>• Local community impacts (e.g. noise, odour)</li> <li>• Environmental issues and impacts</li> <li>• Developments and business activities</li> <li>• Supporting local communities</li> <li>• Environmental and community activities and initiatives</li> </ul>

Stakeholder group	Engagement mechanism	Key topics
<b>Government, industry bodies and regulators</b>	<ul style="list-style-type: none"> <li>Stakeholder meetings, industry roundtables and briefings</li> <li>Site tours</li> <li>Business engagement forums</li> </ul>	<ul style="list-style-type: none"> <li>Freight policy</li> <li>Operational efficiency</li> <li>Infrastructure and land use planning</li> <li>Environmental protection</li> <li>Business strategy</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Supplier meetings, briefings and workshops</li> <li>Site tours</li> <li>Feedback surveys</li> </ul>	<ul style="list-style-type: none"> <li>Supplier performance (behaviours and outcomes)</li> <li>Health, safety, environment and quality metrics</li> <li>Ethical business practices</li> <li>Continuous improvement</li> <li>Joint collaboration opportunities</li> </ul>
<b>Media</b>	<ul style="list-style-type: none"> <li>Correspondence (including meetings and phone calls)</li> <li>Media releases</li> <li>Digital and social media</li> </ul>	<ul style="list-style-type: none"> <li>Strategy and future direction</li> <li>Business initiatives</li> <li>Operational issues</li> </ul>



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# OUR BUSINESS







# Our Business

Our business includes our approach to governance, our assets and the way we conduct our operations.

How we do business is as important as what we do, and we are committed to being ethical, responsible and transparent in our actions. Central to this is setting and embedding governance procedures and policies that drive a consistent, systematic approach in daily operations. This minimises the potential for business disruption and secures our reputation as a trusted partner of choice for customers and other stakeholders. We act ethically and in compliance with national and international law.

## Creating sustainable trade growth

NSW Ports delivers, supports and actively promotes efficient operations and sustainable modes of freight transport to meet current and future demand. Our 30 Year Master Plan provides a long term approach to managing our assets for current and future operations and trade growth needs.

We collaborate with our stakeholders to improve the efficiency of port and supply chain operations – on the waterside and land. This includes road and rail transport in and around the ports and intermodal facilities. We are always looking for new ways of working, to support the sustainable development and management of our assets. This includes advocating for road and rail network improvements and traffic policies that promote efficient road and rail transport, including the increased use of higher productivity vehicles on port and intermodal road networks and the development of a network of intermodal terminals to support growth in rail usage.

## Corporate governance

### Code of Conduct

All directors, employees and contractors are expected to comply with our Code of Conduct and report any suspected breaches. Our Whistleblower Policy provides an avenue for reporting of suspected fraud, corruption and misconduct while protecting disclosers from retaliation or victimisation.

### Ethical business practice

NSW Ports is committed to operating ethically and transparently in all business areas. From utilising a systematic approach to analysis and reporting of company risk, to reviewing and improving our people management and procurement processes, we see ethical business practice as part of sustainable development.

We promote our Corporate Values of Care; Collaboration; Passion; Integrity; and Accountability through regular dialogue with staff and give appropriate recognition to those who excel in their implementation.

We also believe that respect for human rights is fundamental to our values, our long term sustainability and growth of our business and the wellbeing of the communities in which we operate. We are committed to tackling the risks of modern slavery in our business and procurement supply chains and implementing actions to address those risks.

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**“We promote our Corporate Values of Care; Collaboration; Passion; Integrity; and Accountability through regular dialogue with staff and give appropriate recognition to those who excel in their implementation.”**

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## Policy dialogue

NSW Ports proactively engages with relevant stakeholders across all levels of Government and various industry associations.

Where new policy considerations relevant to NSW Ports or our industry are raised, or required, we work constructively with stakeholders to develop the best evidence-based policy outcomes while maintaining the international competitiveness of our industry and value for our customers.

NSW Ports representatives participate in business engagement forums and similar events organised by industry associations, customers and government agencies to communicate on public policy issues relevant to our business and related supply chains.

## Risk management

The NSW Ports Risk Management Framework describes how we proactively and systematically identify, assess, monitor and report on key risks facing the business and

how these are effectively mitigated. This framework comprises both:

- An established risk assessment cadence, methodology and tools.
- A systematic approach to analysis and reporting of risk performance and control effectiveness.

The risk management framework is based on the International Standard for Risk Management (ISO 31000). Material risks are regularly reported to the Board.

## Responsible procurement

NSW Ports is working to minimise resource consumption and waste through the better use of land, infrastructure, renewable energy and recycled materials. Wherever possible we consider resource optimisation, retention, and re-use.

We are integrating sustainable design principles into our land use plans, development policies, tenancy agreements and port developments.





## Sustainability actions for Our Business

### Action

Develop a sustainability reporting framework to provide a clear and transparent representation of our sustainability indicators and results

Develop a NSW Ports Sustainable Procurement Policy

Determine the relationship between key operational improvements (e.g. rail transport of containers) and environmental outcomes (e.g. reduced emissions) for NSW Ports' assets and supply chains

Progress Stage 1 of the rail capacity enhancement program at Port Botany (due for completion in FY2023)

Update the existing long-term land-use hazard and risk for Port Botany for land-use and emergency management planning

Introduce a NSW Ports Sustainable Development Code for consistent inclusion of sustainability elements in all port and intermodal developments

Complete energy audits of road, rail and common user infrastructure lighting for the roll out of LED lighting

Obtain Infrastructure Sustainability Rating for design and construction of the Brotherson Dock Life Extension Project

Advocacy for protection of ports, intermodals, freight corridors and surrounding industrial lands

Engagement with government agencies on improved road connections to Port Botany

Review and update the Port Botany Traffic Management Plan

### Action

Develop the Port Kembla Port Productivity Dashboards to monitor day to day operations using vessel, cargo, road and rail data

Establish monitoring and data management systems for key environmental factors (such as wind, solar, noise) and investigate relationships between operational activities and environmental parameters

Complete a road traffic study at Port Kembla to monitor road traffic volumes and assist with land use planning and impact assessment

Update economic benefits studies for Port Botany and Port Kembla



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# OUR ENVIRONMENT





# Our Environment

Our environment includes the surrounding natural environment and the local ecological communities in which we operate, both marine and terrestrial.

We are committed to supporting and maintaining the natural environmental values of the locations where we operate, and to minimising adverse impacts on the surrounding environment. We actively conserve ecological and cultural heritage values at our sites for the benefit of current and future generations.

## Carbon management and climate change

NSW Ports is working to actively reduce the intensity of energy and water use at our assets, through transition to energy efficient lighting, plant and equipment and renewable energy sources and supply. We have achieved a 20% reduction in greenhouse gas emissions since FY15.

We recognise the importance of addressing climate change and are committed to playing a role in the transition to a low carbon future through our action plan. We proactively engage with stakeholders to identify and address emerging environmental issues to develop appropriate adaptation measures for long-term resilience.

## Environmental compliance

NSW Ports maintains a comprehensive environmental management system for compliance which includes an overarching Environmental Management Plan (EMP) at each of our sites.

The NSW Ports EMPs set the standard for environmental management and our tenants are required to report compliance with these plans.

We work on a process of continuous improvement by regularly monitoring potential environmental impacts and considering future environmental impacts/risks.

## Ecological and heritage conservation

NSW Ports is committed to the conservation of sensitive ecological and cultural features at each of our four assets.

We maintain breeding ponds and associated habitat areas for the endangered Green and Golden Bell Frog at Port Kembla and Enfield. We have partnered with Conservation Volunteers Australia to restore native vegetation in Sir Joseph Banks Park at Botany and restore wetlands and monitor frog populations at Port Kembla.

Cultural heritage items at Enfield, including the Pillar Water Tank and Tarpaulin Factory are on public display from the Enfield Intermodal Lookout. The Mobile Block Setting Steam Crane at Port Kembla was repaired and repainted in 2018 and its associated rail wagons are currently being refurbished.

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**“We have achieved a 20% reduction in greenhouse gas emissions since FY15.”**

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# Sustainability actions for Our Environment

## Action

Continued implementation of the Environmental Ship Incentive for Port Botany and Port Kembla

Complete heritage conservation works on the Mobile Steam Crane at Port Kembla to preserve local heritage values

Assess the risks of firefighting foams and evaluate replacement options to better protect human health and local environmental conditions on land and in the water

Develop a noise model for Port Botany to plan for buffers and controls

Complete whole of site energy and air emissions inventories at each location to identify opportunities for improvement and measure the benefits of new initiatives

Establish a noise monitoring network at Enfield

Complete Enfield revegetation works

Continue partnership with the University of Wollongong's Port Kembla off shore anchorage research project

Continue partnership with Conservation Volunteers Australia and Bayside Council to restore vegetation in Sir Joseph Banks Park

Maintain and update environmental management plans and compliance tracking programs

Continue to maintain established Green and Golden Bell Frog habitat areas at Port Kembla and Enfield





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# OUR COMMUNITY









# Our Community

Our community includes our residential neighbours, visitors, community organisations, local businesses and stakeholders.

NSW Ports aims to contribute to the building of strong, inclusive communities that thrive for the long term by investing in, and supporting our local communities and organisations.

## Community engagement

We have established community consultative committees for Port Botany, Port Kembla and Enfield ILC which meet regularly to exchange information about operational and development activities and community issues. We also keep the community updated by publishing information on our website, social media and community newsletters.

## Community investment

We maintain a community sponsorships and donations program to support local initiatives by non-profit organisations.

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“We have established community consultative committees for Port Botany, Port Kembla and Enfield ILC which meet regularly to exchange information about operational and development activities and community issues.”

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## The Dalfram Memorial

NSW Ports collaborated with union representatives, Wollongong City Council, the Port Authority of New South Wales and representatives of the Chinese community to establish a new memorial for the Dalfram Dispute at Port Kembla.

Local waterside workers took industrial action for 10 weeks in 1938–39 refusing to load iron onto a ship called Dalfram in protest against the Japanese invasion of the Chinese city of Nanjing. The dispute attracted international attention at the time as workers and the local community banded together and made personal sacrifices to oppose what was seen as a significant military threat.

The Dalfram Memorial commemorates the significant struggle for peace and was installed in time to celebrate the 80th anniversary of the dispute in November 2018.



# Sustainability actions for Our Community

## Action

Provide sponsorships and donations to organisations that benefit local communities and the environment

Complete the regional tour of the public exhibition *Container: the Box that Changed the World*

Establish a forum for regularly communicating and collaborating on sustainability initiatives with port and intermodal tenants

Undertake a stakeholder and community perception survey of NSW Ports business

Regularly host community consultative committees at Port Botany, Port Kembla and Enfield

Continue to host collaborative sustainability events (such as Business Clean Up Australia Day) with staff and tenants at our ports



## The Gabriella Memorial

In 2016 NSW Ports installed a new memorial and hosted a commemorative service to mark the 30<sup>th</sup> anniversary of the Gabriella incident at Port Kembla. The Gabriella capsized suddenly while unloading heavy cargo in August 1986, resulting in the deaths of two marine surveyors who were trapped on board at the time.

Family members of one of the deceased surveyors, and many workers who were involved in the incident response, attended the commemorative service which was held at the newly relocated memorial in Port Kembla Heritage Park.





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# OUR PEOPLE







# Our People

Our people includes all employees and contractors of NSW Ports.

We recognise our people are key to our success. We are committed to creating an inclusive, engaged work environment and investing in our people to support the delivery of our business strategy. Our key area of focus is developing a strong and resilient workforce through embedding our Values program, on-the-job training, internal communications, mentoring and training and development.

## Health and safety

We place the highest priority on the health and safety of our workforce, customers and local communities. We take our responsibility to provide safe systems of work across our operations seriously. Understanding and managing safety risks and driving continuous improvement is central to our approach. We also train our people about being safe at work and communicate the importance of taking responsibility for personal safety and the safety of other people.

In the event of an incident, we are prepared to respond rapidly and minimise impacts to our people, the surrounding community and the environment. We regularly test our emergency response procedures to ensure they are working effectively.

## Diversity and inclusion

At NSW Ports, we embrace the advantages of a diverse and inclusive workplace in which individuals from varied backgrounds and perspectives are welcomed, encouraged and given the opportunity to contribute to their full potential. Our workforce reflects the diversity in Australian society and our local communities.

During the year, we recognise events that support and promote diversity, culture, health and wellbeing.

We are proud to have a workforce with 49% female employment, including female representation on our executive team.

## Employee engagement

We are committed to creating an organisational culture that motivates and supports our people to deliver their personal best. We recognise that this delivers high performing individuals who are committed to NSW Ports which in turn plays a role in supporting the long-term success of our business.

NSW Ports launched an employee engagement survey in 2017 to understand what we do well and where we can improve. Employee engagement survey participation has increased year-on-year with strong results reflecting the investment in our people.

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**“We are committed to creating an inclusive, engaged work environment by investing in our people to support the delivery of our business strategy.”**

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# Sustainability actions for Our People

## Action

Continue to hold regular staff WHS Committee meetings

Continue to undertake regular workplace inspections and Executive due diligence reviews

Develop and implement a comprehensive professional development training program for staff, including targeted skills development and succession planning

Continue to survey staff engagement levels every 2 years while updating and implementing the staff engagement action plan.

Explore the opportunity for undergraduate work experience placements with universities in NSW





