

nswPorts

40 *years of* **Port Botany**

Acknowledgment of Country

NSW Ports acknowledges the Bidjegal, Gweagal and Gamaygal people of the Dharawal nation, the traditional custodians of the lands that include Port Botany. NSW Ports recognises that the traditional custodians have occupied and cared for this Country over many generations, and celebrates their continuing contribution to the life of Coastal Sydney.

This commemorative book, *40 Years of Port Botany*, commences in the 1950s with the considerations leading to the relocation of Sydney's trade activities from Sydney Harbour to Botany Bay.





Aerial view of Port Botany (2019)



Foreword

When Port Botany was commissioned on 10 December 1979, there were great expectations about its potential. At the opening, New South Wales (NSW) Premier Neville Wran described it as *“the most dramatic change ever in Australian ports”*.

Forty years on, Port Botany has cemented its place as the heartbeat of the NSW economy. It operates around the clock to handle your valued goods and delivers \$3.7 billion to annual Gross State Product. The good news is that this world class maritime facility still has huge capacity to handle forecast trade growth and is capable of accommodating the rapidly changing port supply chain needs.

To mark this anniversary, we have compiled these 40 highlights covering 40 years of Port Botany. We hope you enjoy celebrating the Port’s history and the milestones that have helped make Port Botany the premier port in Australia.

A handwritten signature in blue ink that reads 'Marika Calfas'. The signature is written in a cursive style with a horizontal line underneath the name.

Marika Calfas
Chief Executive Officer
NSW Ports
10 December 2019



Aerial view of Port Botany from the quay crane at Patrick Terminals, looking towards Bulk Liquid Berths 1 and 2 (2019)

The Making of a Port



The Port plan

The modern shipping container was developed in the 1950s and became a catalyst for a fundamental rethink about port needs in NSW. Vessel sizes were increasing and containerisation created the need for significantly more landside storage space. Sydney Harbour had limited capacity to meet either need.

Botany Bay was identified as the best choice to meet the State's expanding port needs.

The Botany Bay port plan provided:

- berth and storage opportunities with large flat areas of land
- a deep shipping channel, and
- proximity to distribution areas

The development involved the reclamation of 260 hectares of land from the Bay with wharves, berths and associated facilities behind a two-kilometre armoured embankment designed to absorb and dissipate large storm waves.

It was a mammoth undertaking that delivered a world class facility that could handle the largest vessels calling Australia – both at the time, and today – while also meeting the State's large bulk liquid needs.

“... additional and more efficient port facilities were required ... Port Botany offered the most suitable location for this development.”

~ from The Simblist Report,
November 1976

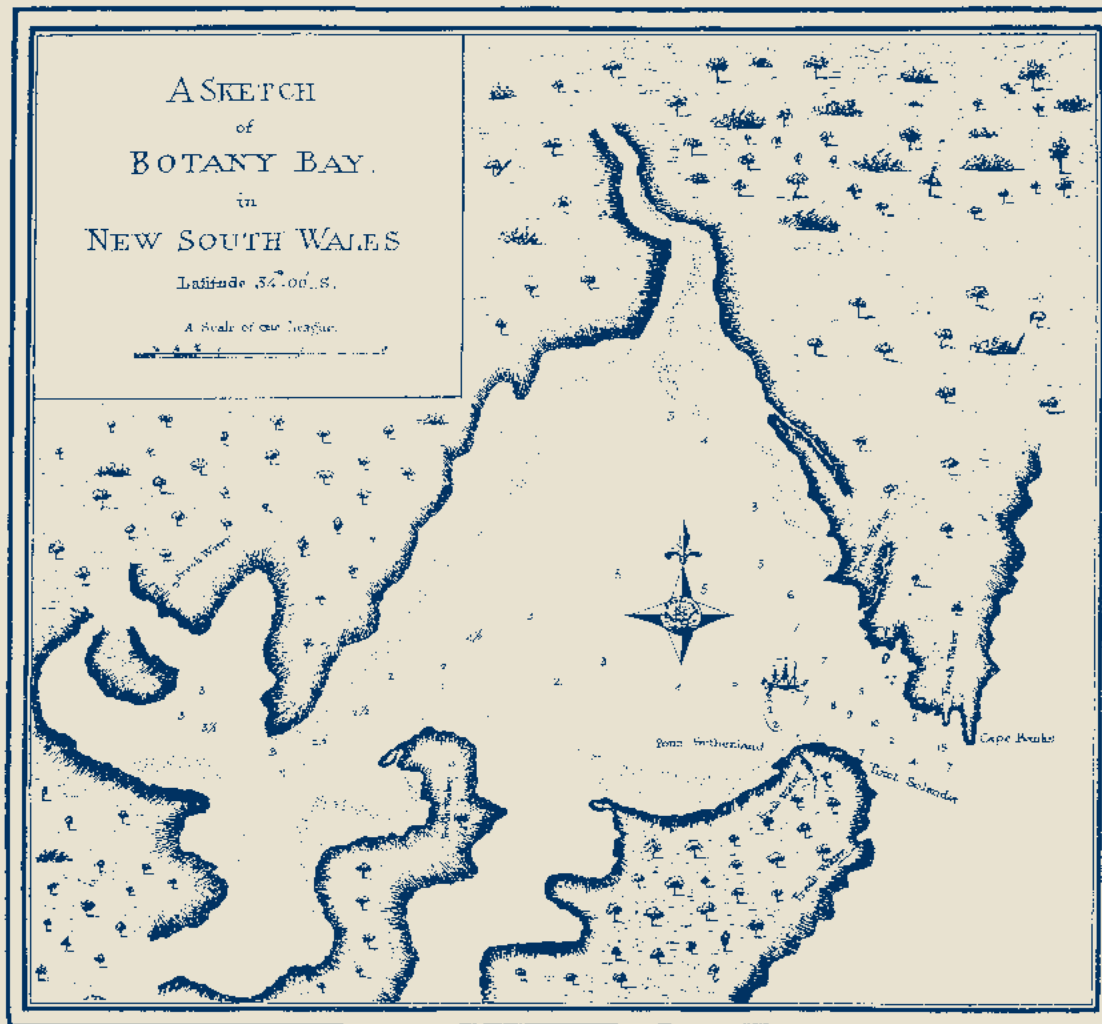
Containerisation

The first modern shipping container was developed in 1955 and by the late 1960s had evolved into the standard shipping containers we know today.

The term TEU (Twenty Foot Equivalent Unit) was coined in 1968.

One TEU = one 20 foot container and remains the most common measure of sea freight volumes.

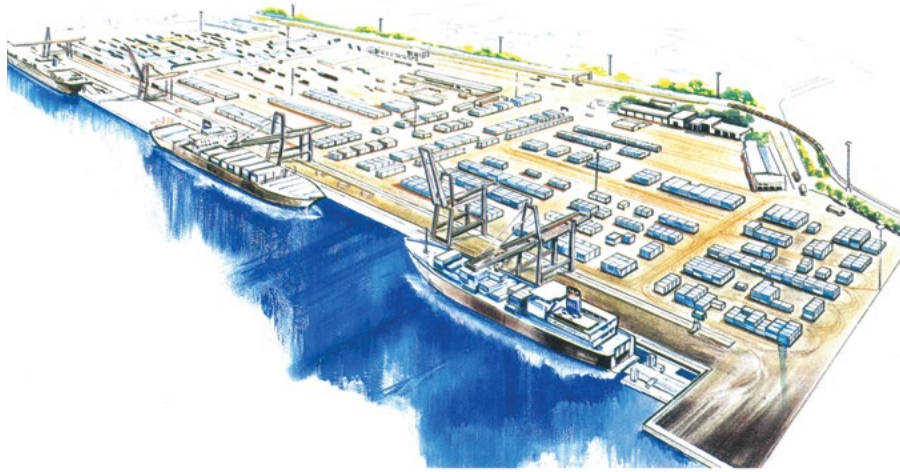
Containerisation revolutionised shipping and supported the post-war international trade boom by dramatically reducing transport costs and increasing efficiency.



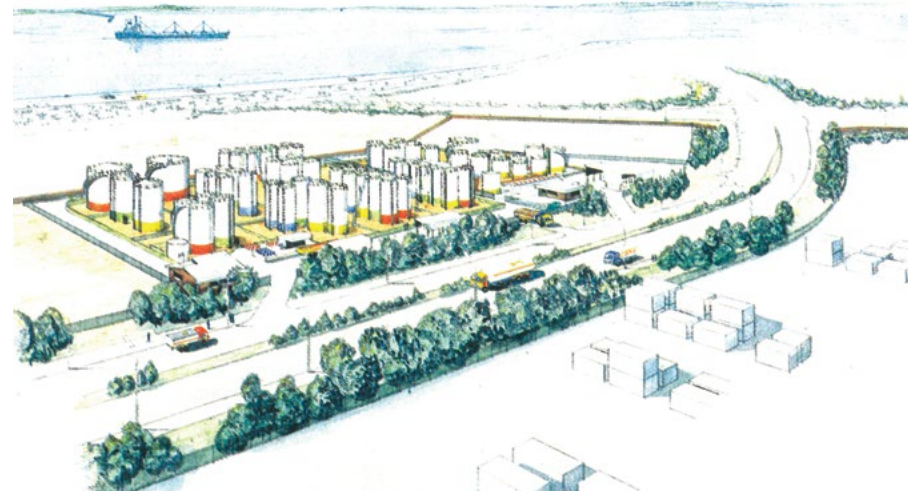
PRODUCED BY PHOTODUPLICATION

THE NATIONAL ARCHIVES

The first chart of Botany Bay, made by Captain Cook in 1770 during his around the world voyage on HMS Endeavour



Sketch of the planned container terminal on the northern side of Brotherson Dock (1978)



Sketch of the planned Bulk Liquid Chemicals Storage Area (1978)

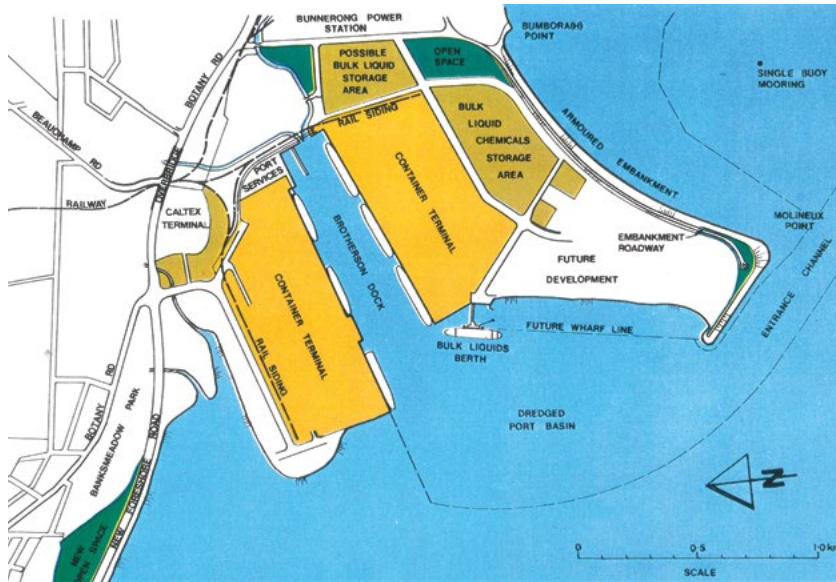
The planning – key dates leading to the construction of Port Botany

1969–1971

The NSW Government approved the development of port facilities in Botany Bay as a port for containers, bulk liquids and coal. The plan also included a channel dredged to 21 metres and the reclamation of 607 hectares of land stretching from Bumborah Point towards Sydney Airport.

1971

Dredging of the port approach channel and part of the initial port basin, along with reclamation works began.



Botany Bay port plan (1978)

“Botany Bay will be developed as Australia’s biggest container terminal.”

“The move was a big breakthrough and would guarantee Sydney’s ability to handle shipping traffic well into the 21st century.”

~ *The Daily Telegraph*, ‘Yes to Botany port plan’, 26 January 1977

1976–77

Construction works were put on hold while a NSW Government inquiry, known as the Simblist inquiry, into the development of a port at Botany Bay took place.

The Simblist inquiry concluded “... *additional and more efficient port facilities were required to supplement those in Port Jackson,*” and that “*Port Botany offered the most suitable location for this development.*”

While coal handling moved to Port Kembla, the development of the proposed container terminals and bulk liquid chemical storage facilities were given the go-ahead.



Construction around the Port Botany revetment wall (1978)



Brotherson Dock construction (1978)

The construction – key dates leading to the opening of Port Botany

1971–1973

Dredging of the port approach channel and initial reclamation work (13 million cubic metres of sand removed).

1971–1985

Creation of Sir Joseph Banks Park foreshore reserve using reclaimed sand from Botany Bay.

1974–1975

Construction of Foreshore Road to service Port Botany.



Counterfort wall unit pre-cast yard (1978)

1977

Completion of a 2 kilometre, \$55 million revetment wall at Port Botany.

April 1979

Construction of the first Bulk Liquids Berth and storage facilities complete.

December 1979

Construction of the first container terminal at Brotherson Dock complete.

February 1982

Construction of the second container terminal at Brotherson Dock complete.



Port Botany (2019)

40 Highlights for 40 Years

A New Era for Shipping in NSW





The first Bulk Liquids Berth at Port Botany (1979)

Opening of the Bulk Liquids Berth on 23 April 1979

The \$2 million Bulk Liquids Berth was officially commissioned by NSW Deputy Premier, Jack Ferguson, Minister for Public Works and Minister for Ports.

"Previously, much of the State's needs have been transported by road from Melbourne, and it (the new berth) will remove much of this dangerous cross-country traffic from our roads," said Deputy Premier Ferguson.

President of the Maritime Services Board, Mr John Wallace declared that the opening *"marked the first step in the culmination of some sixteen years of investigation, planning and construction of . . . the most modern port complex in Australia"*.



Premier Neville Wran at the official opening of Brotherson Dock (1979)

“The Brotherson Dock and the associated container terminals are part of the most dramatic change ever in Australian ports.”

~ Premier Neville Wran at the commissioning of Brotherson Dock

“... one of the most ambitious projects in Australian maritime history became reality.”

“Port Botany is an unequalled example of the most modern port facility in the world.”

~ *Ports of New South Wales*, 'Birth of Port Botany', vol. 2, no. 7, December 1979


Cover of The Maritime Services Board of New South Wales publication (1979)

On 10 December 1979, Port Botany's Brotherson Dock was formally opened, beginning a new era for shipping in Australia

Almost two decades in the making, the Port Botany development was described by Premier Neville Wran as "*one of the biggest and most complex engineering projects ever undertaken in NSW*". The new container complex gave Australia the most modern port facility in the world at the time.

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On 10 December 1979, the first container terminal was also declared open for business



The ANL Terminal at Port Botany (10 December 1979)

40 *years of* Port Botany

The container terminal was commissioned on the northern side of Brotherson Dock by the former Federal Minister for Transport, Peter Nixon. At the time the 42 hectare site was operated by ANL (Australian National Lines). It is now operated by Patrick Terminals.



The ANL Terminal at Port Botany (10 December 1979)

Port Botany in 1979

NSW Population = **5.1** million

2 container terminals
3 bulk liquid terminals

6 container berths
1 bulk liquid berth

1,936 metres of container quay line

Total container volumes **111,000** TEUs (1980–81)

Port Botany in 2019

NSW population = **7.5** million

3 container terminals
5 bulk liquid terminals and **2** gas terminals

12 container berths
2 bulk liquid berths

Over **3,796** metres of container quay line

Total container volumes **2.6 million** TEUs (2018–2019)

4



The opening of Port Botany more than doubled Sydney's existing container handling capacity and provided enormous potential for growth

Today, Port Botany is still servicing NSW's container, bulk liquid and gas supply chains. Through ongoing investments in equipment and infrastructure, the Port is able to adapt to the growing trade volumes and needs of the State and will continue to do so well into the future.



Foreshore Rd

Sir Joseph
Banks Park

Port Botany under construction (1979)

5



The total ten-year investment in the construction of Port Botany was \$275 million

Investment in Port Botany continues with billions of dollars invested to ensure it remains a world class facility. This includes the \$1 billion Port Botany Expansion (2005–2013).

6



Brotherson Dock is named after William Henry Brotherson, the former President of the Maritime Services Board, and a strong advocate for the development of Botany Bay as a world leading port facility

Mr Brotherson joined the Maritime Services Board in 1935, rising to the position of Commissioner in 1959. He served as the Maritime Services Board's President from 1965 until his sudden death in 1975, aged 57.



“... if Botany Bay was developed, this, in itself, would cause it to become progressively available for all port uses, including the needs of the container trade in the future.**”**

Mr W.H. Brotherson, President of the Maritime Services Board of NSW, 12 July 1967



The Hyogo Maru

The first container ship arrived at Port Botany's ANL terminal in March 1979

The vessel, the *Hyogo Maru*, berthed at 10am on 12 March 1979 and exchanged 150 TEUs. At approximately 180 metres long, it was around half the length of the largest vessels now visiting the Port.

The second container terminal at Port Botany commenced operations on 27 February 1982

The southern terminal of Brotherson Dock was operated by CTAL (followed by P&O Ports, and now DP World Australia) and brought the total container capacity of the Port to 600,000 TEUs per annum.

The terminal commenced operations with the arrival of the vessel *Jervis Bay* at dawn. The *Jervis Bay* had a total container capacity of 1,530 TEUs.

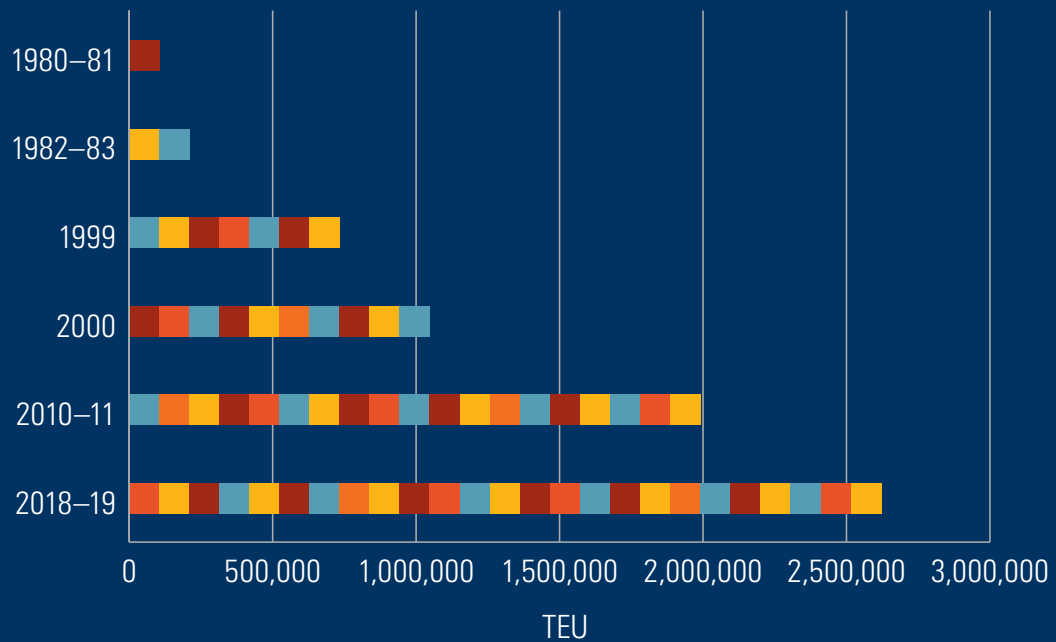


CTAL Terminal

ANL Terminal

CTAL terminal nearing completion (1981)

Container volumes at Port Botany



Today Port Botany handles

99.6%

of NSW's containers

Within three years of opening, Port Botany was handling nearly 60% of NSW's total container trade

Port Botany handled around 111,000 TEUs or 29% of NSW's container volume during its first full year of operation. By 1982–83, this number had almost doubled.

Today, Port Botany handles 99.6% of NSW's container volumes and has surpassed 2.6 million TEUs per annum.

Sir Joseph Banks Park at Botany Bay opened to the public in January 1985

Much of the \$4.7 million, 28.5 hectare park was developed using sand reclaimed during the development of Port Botany.

The park incorporates the site of the original Pleasure Grounds of the 1844 Sir Joseph Banks Hotel and is of social, historical and environmental significance.

In recognition of its importance, in 2018, NSW Ports launched a three-year partnership with Bayside Council and Conservation Volunteers Australia to carry out environmental conservation works at the site. Up to 600 volunteers are being engaged to rehabilitate areas of native vegetation which support native fauna.



Sir Joseph Banks Park

Aerial view of Sir Joseph Banks Park (2019)



Container vessel being discharged at Patrick Terminals (2019)



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Between 1985–86, a total of 794 vessels called at Port Botany, including 308 tankers carrying bulk liquids

Today, that number has almost doubled to 1,480 and there remains capacity for significantly more growth. Into the future, there is likely to be a slower rate of increase in vessel calls as ship sizes continue to increase.



The Maritime Union of Australia picket at Port Botany (1998)

In April 1998, Port Botany became one of a number of venues involved in the 'Australian waterfront dispute'

The dispute began over restructures within one of the stevedores which aimed to improve efficiency and productivity. It involved months of media coverage over both the protests and the ensuing court proceedings. While most of the industrial action occurred in Melbourne, protests were also held at Port Botany. The dispute ended with new enterprise bargaining agreements between the stevedore and the Maritime Union of Australia being signed on 2 September 1998.

Forecasts published in 1999 significantly underestimated the growth in NSW container volumes

Published at the mid-point between the commissioning of the Port and today, figures reported in the 1998–99 NSW Ports & Shipping Handbook forecast container throughput would more than double from 740,000 TEUs per annum to 1.6 million TEUs by 2020.

Growth has significantly exceeded expectations, reaching 2.6 million TEUs per annum in 2019.

FORECAST

ACTUAL

1999

2019

2019

740,000

TEUs

1.6 million

TEUs

2.6 million

TEUs



Containers at the DP World Australia terminal (2019)



Inside the Elgas cavern during construction (1999)

The completion of the Elgas cavern at Port Botany in 2000 dramatically increased LPG storage capacity, providing surety of supply

The Elgas cavern was commissioned in May 2000. Located 130 metres below the surface, the cavern can hold 65,000 tonnes of LPG. To put that into perspective, that is enough LPG to fill over 1.3 million taxicabs or heat 350,000 homes for a year. It also increased Australia's LPG reserves from three days to over 60 days.

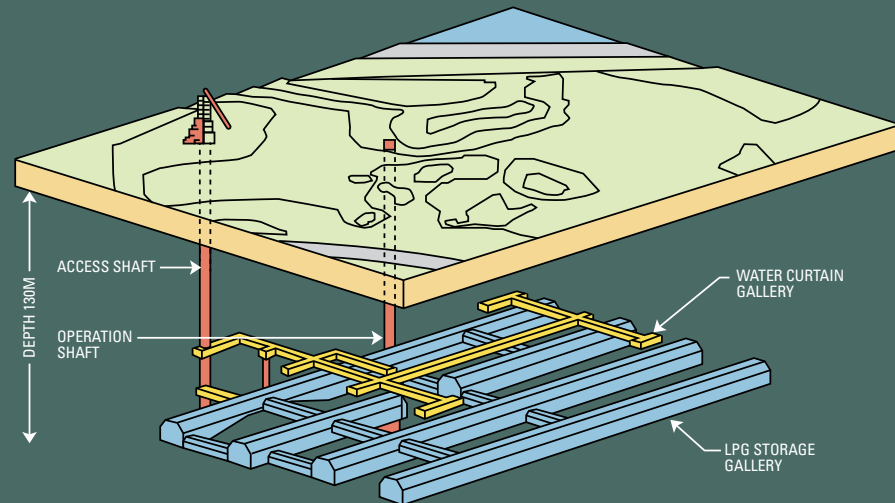


Diagram of the Elgas cavern at Port Botany



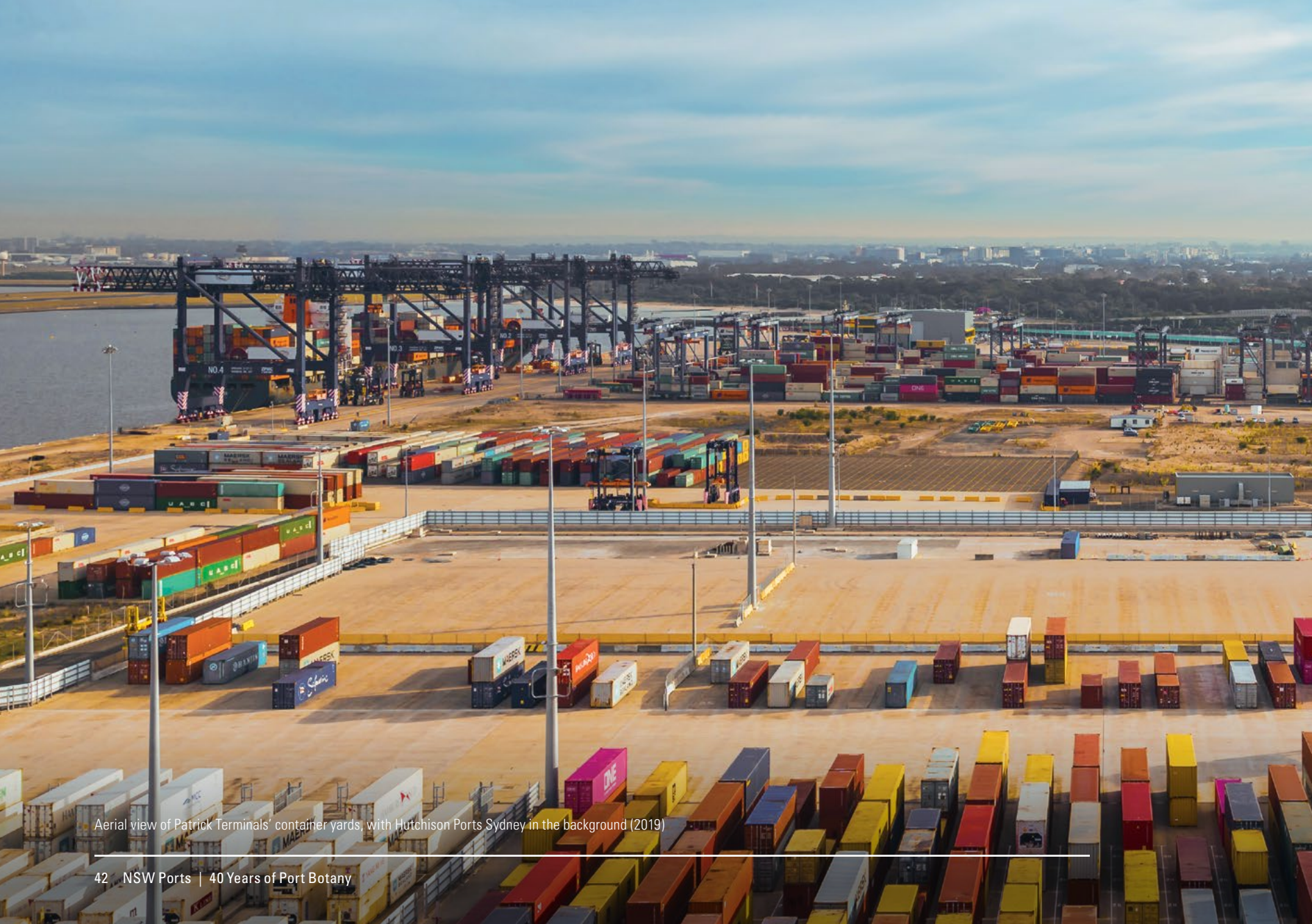
1 million TEUs

15



In June 2000, Port Botany reached the milestone of 1 million TEUs per annum

Australian imports had been growing steadily from the 1990s, averaging 7.2% annual growth in volume. Australian export growth also spiked in the early 2000s due to the depreciation of the Australian dollar and the 2000 Sydney Olympic Games.



Aerial view of Patrick Terminals' container yards, with Hutchison Ports Sydney in the background (2019)

40 Highlights for 40 Years

The Growth of Port Botany



Planning for the single biggest expansion of Port Botany, the '\$1 billion Port Botany Expansion', commenced in 2001

The Port Botany Expansion project was designed to cater for long term trade growth and included the design and construction of the third container terminal for Port Botany, alongside the procurement and awarding of the third stevedore contract.

Following a consultation and planning approval process, a Commission of Inquiry was held into the project in 2004.

In 2005, development approval was secured for the expansion of port facilities at Port Botany.

Along with the expansion of Port Botany, the development included community facilities such as a state-of-the-art boat ramp, lookouts and pathways.

The project also included the rehabilitation and expansion of Penrhyn Estuary to create a secure estuarine environment and the Banksia Street Pedestrian Overpass to connect Sir Joseph Banks Park to the foreshore.



Artist impression of the Port Botany Expansion (2009)



The Port Botany Expansion under construction (2009)



Counterfort unit precast yard (2009)



16

continued



As part of the construction of the Port Botany Expansion, 215 precast concrete counterfort wall units were manufactured on-site

Each individual unit weighed 640 tonnes and was installed on the seabed by a purpose-built crane barge.

16

continued



The \$1 billion Port Botany Expansion delivered outstanding results that exceeded safety, community, environmental, productivity and quality benchmarks

The project doubled Port Botany's container handling capacity and also provided:

1,850

metres of additional
quay line for 5 extra
shipping berths

60

hectares of
reclaimed container
terminal land

road and rail

access to the
new container
terminal area

After being selected as the Port's third stevedore in 2009, Hutchison Port Holdings (now known as Hutchison Ports Sydney) commenced terminal construction work at the site in 2012.



Precast counterfort wall units for the wharf structure, awaiting installation (2009)



Sweep bar at Port Botany (2018)

Sweep bar dredging work was carried out at Port Botany in 2005 to regrade the seabed at Brotherson Dock

While dredging work had been undertaken as part of the initial port development, this was the first time since the Port's opening, 25 years earlier, that seabed maintenance had been needed. The work spread out high spots of accumulated seabed sediments.

The second sweep bar campaign took place in 2015, 35 years after the development of the Port, to cater for larger vessels.

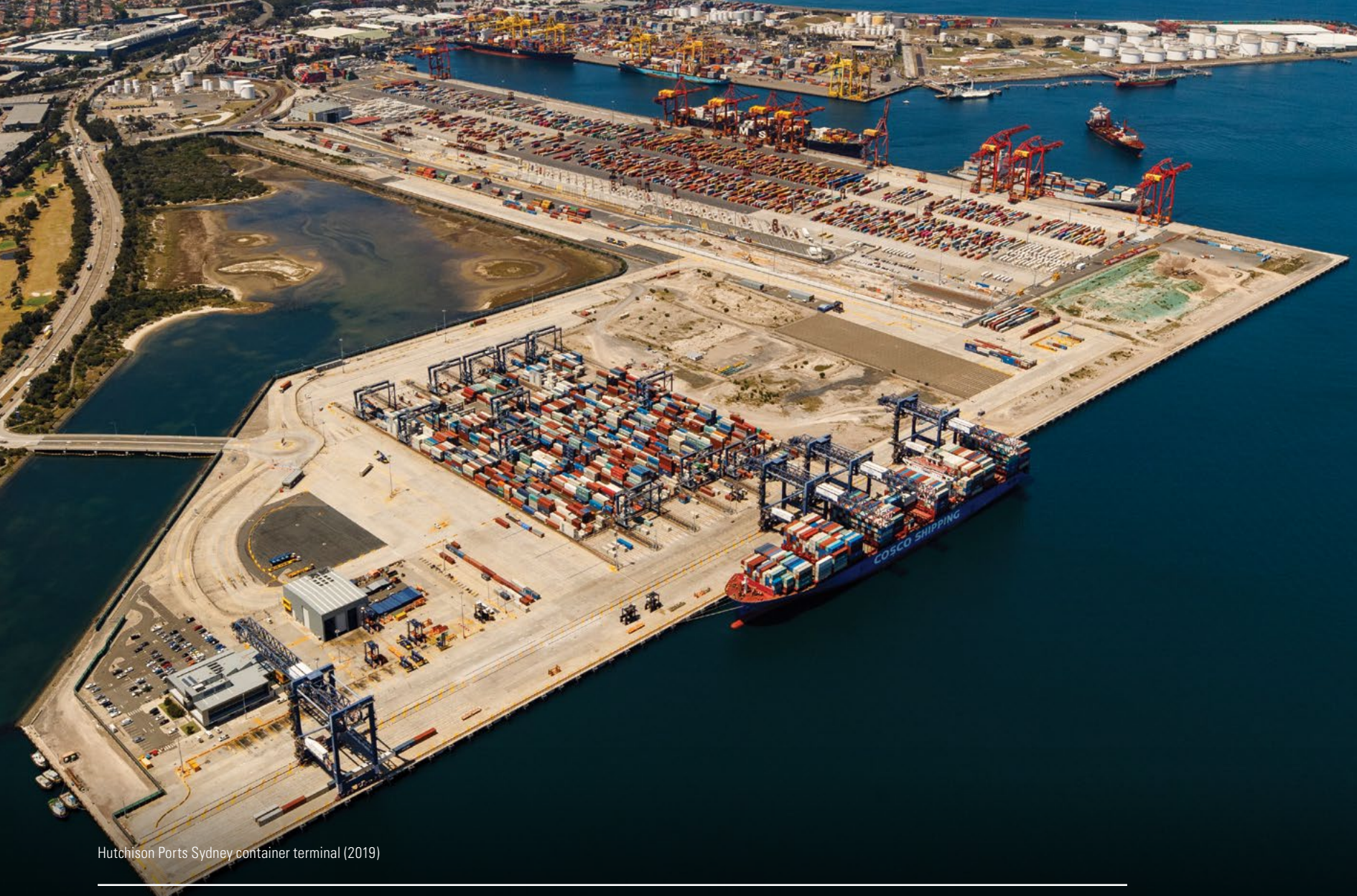
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Total container trade through Port Botany passed 2 million TEUs for the first time in 2010–11

Machinery and transport equipment and other miscellaneous manufactured goods accounted for the highest import volumes in NSW, while chemicals and cereals were the highest export commodities.

Container operations at Enfield Intermodal Terminal (2018)





Hutchison Ports Sydney container terminal (2019)

Port Botany's third container terminal commenced operations on Hayes Dock in 2013

The arrival of the *Forum Fiji* ship on 6 November 2013 marked the start of operations for Hutchison Port Holdings at Port Botany. However, it was on 24 July 2014 that the site was officially opened by the Premier of NSW, the Honourable Michael Baird MP.

The new terminal was Sydney's first semi-automated terminal.

Hayes Dock is named in memory of the late John Hayes who served as interim CEO of Sydney Ports Corporation at the time of its creation in 1995, replacing the Maritime Services Board. He was also the Executive Officer of Policy and Planning and instrumental in the establishment of the third container terminal at Port Botany.

NSW Ports took over the management of Port Botany with a 99-year lease from the NSW Government

The creation of NSW Ports was the next step in the evolution of the management of Port Botany. The Port was originally managed by the Maritime Services Board. It was replaced by the formation of the Sydney Ports Corporation in June 1995. In April 2013, NSW Ports (a private consortium of investors including AustralianSuper, IFM Investors, Q Super and Tawreed) was awarded a 99-year lease of Port Botany. Along with Port Botany, NSW Ports is also responsible for Port Kembla, Enfield Intermodal Logistics Centre and the Cooks River Intermodal Terminal.



View of Port Botany from the Bulk Liquid Berth (2019)



Aerial view of Bulk Liquid Berths 1 and 2 (2019)

The second Bulk Liquids Berth (BLB2) commenced operations in December 2013, increasing the capacity of liquid and chemical handling at Port Botany

The BLB2 is a multi-user berth and is positioned adjacent to the original Bulk Liquids Berth (BLB1) which has been in operation at Port Botany since 1979. With average occupancy rising to around 80% at BLB1 prior to the opening of BLB2, the new facility was designed to support the ongoing growth in refined fuels and chemicals.

The BLB2 was officially opened by the Honourable Mr Duncan Gay MLC, Minister for Roads and Ports, on 21 February 2014.



Aerial view of Terminals' storage tanks at Port Botany (2019)

The opening of two bitumen supply facilities in 2013 and 2014 made Port Botany the hub for NSW's bitumen needs

Port Botany now handles 99% of NSW's bitumen requirements, playing a critical role in supporting the State's infrastructure and building needs.

The bitumen facilities allow for product to be blended in addition to supply, storage and distribution capabilities. This significantly increases product and supply flexibility.

One facility is owned and operated by Vopak and the other by Puma Energy through an agreement with Terminals Pty Ltd.



AutoStrads at Patrick Terminals (2019)

On 8 October 2015, Patrick Container Terminals (now known as Patrick Terminals) officially opened its newly expanded and semi-automated AutoStrad Terminal at Port Botany

The expansion involved the development of an integrated container terminal on its existing terminal land plus the adjoining newly reclaimed 17.6 hectare site, called the Knuckle. The project increased Patrick Container Terminal's footprint and quay length.

The manual straddle fleet at the terminal was replaced with 45 automated straddle cranes (AutoStrads) at a cost of \$600 million. As a result of the project, Port Botany now has two semi-automated container terminals.



Aerial view of Enfield Intermodal Logistics Centre (2019)

The start of rail operations at Enfield Intermodal Logistics Centre (Enfield ILC) in May 2016 was an important step towards increasing the number of containers moved by rail to and from Port Botany

Growing the movement of containers by rail will increase port efficiency and sustainability. Enfield ILC, located in Sydney's central-west, has dedicated freight rail access to Port Botany, as well as connections to regional and interstate rail corridors.

Since 2018, the intermodal operations at Enfield ILC have been undertaken by LINX Cargo Care Group.



2.6 million TEUs

DP World Australia's container terminal (2018)

25



Container volumes at Port Botany continued to grow, reaching 2.6 million TEUs in 2019

There are predictions NSW container volumes could triple to over 7 million TEUs in the next 30 years. Port Kembla has been identified by the NSW Government as the State's next container terminal once Port Botany reaches capacity. Port Kembla is well positioned to service the growing population of Sydney's west and the south west of NSW and has already been approved for development.

\$190 million is being invested to double 'on-dock' rail infrastructure capacity at Port Botany

The project includes investment of \$120 million from NSW Ports to deliver 'on-dock' rail infrastructure and \$70 million from Patrick Terminals to deliver automated rail operating equipment at the container terminal. Once completed, this Stage 1 investment will double Port Botany's on-dock rail capacity to 1.5 million TEUs. When investment at all three stevedoring terminals is complete, Port Botany will have capacity to handle 3 million TEU on rail. This will help reduce the overall growth of truck movements around the Port.



NSW Ports CEO, Marika Calfas and Patrick Terminals CEO, Michael Jovicic at Patrick Terminals, marking the start of the first stage of the project to double 'on-dock' rail infrastructure capacity (2019)



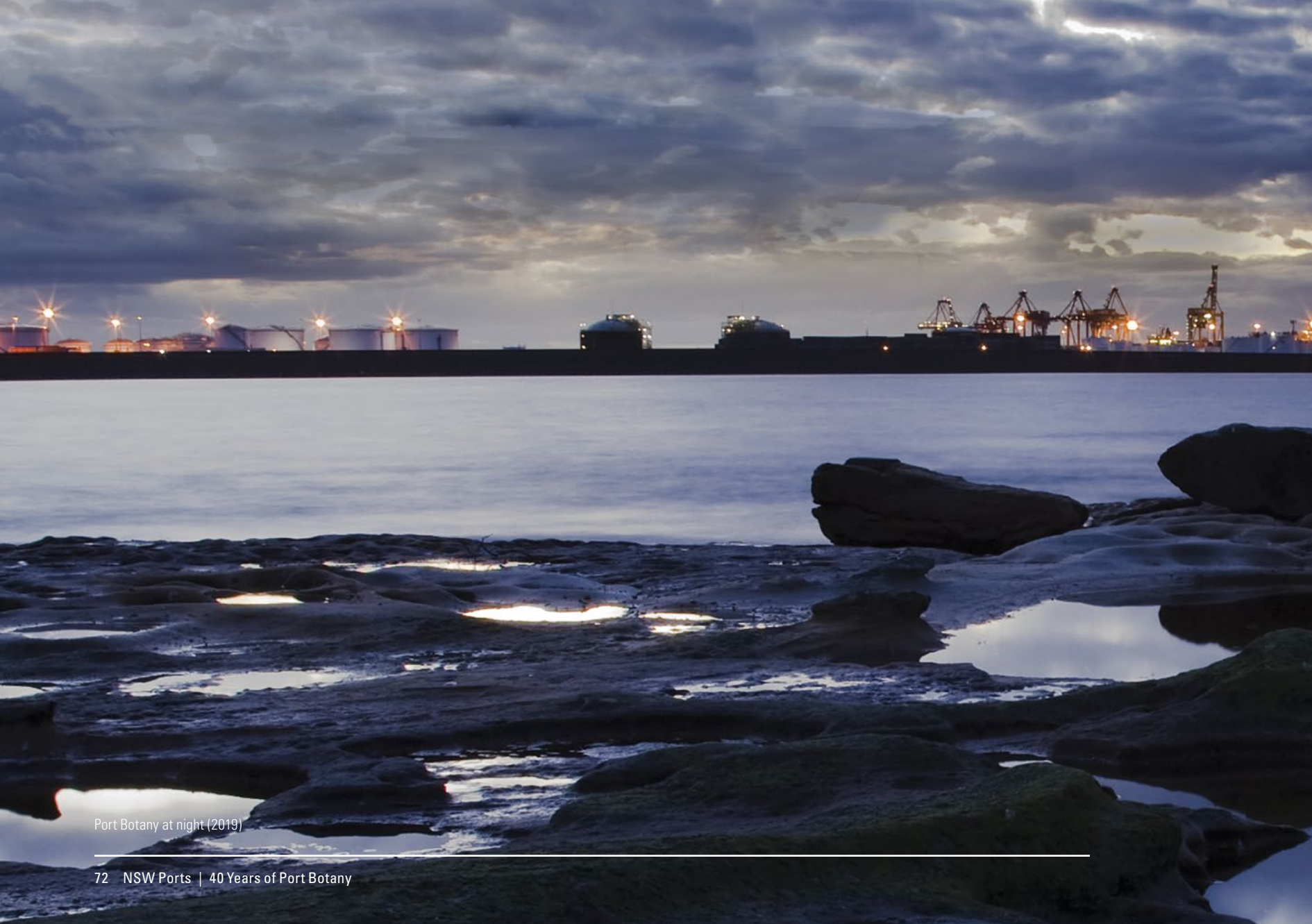
The *Seroja Enam* featuring a container capacity of 8500 TEU at Patrick Terminals – Sydney AutoStrad

Ship sizes have been rapidly increasing over the past five years, with the arrival at Port Botany in July 2019 of vessels capable of carrying 9,400 TEUs

Vessels with a capacity of 1,000–2,000 TEUs were common in the years after Port Botany opened. 4,200 TEU vessels first arrived in September 2002.

Vessel capacity has continued its rapid growth with the arrival of the first 6,000 TEU vessel in 2014, the first 8,000 TEU vessel in 2016 and the first of the 9,400 TEU vessels, *Maersk Skarstind* and *MSC Elma*, in 2019. At around 300 metres long and 48 metres wide, the *Maersk Skarstind* and *MSC Elma* are the size of three consecutive football fields and as high as a 15-storey building.

Port Botany is capable of servicing vessels larger than 12,000 TEUs today.



Port Botany at night (2019)

A long-exposure photograph of a port at night. The foreground is dominated by dark, wet rocks with small pools of water that reflect the lights from the port. In the middle ground, a large body of water stretches across the frame. In the background, a city skyline is visible, with numerous lights from buildings and cranes glowing against a dark, cloudy sky. The overall mood is serene and industrial.

40 Highlights for 40 Years

Did You Know?



Nearly 1 in 4 Australians, or around 6 million people, have a share in Port Botany through their Australian superannuation funds

NSW Ports is 80% owned by Australian superannuation investment funds including AustralianSuper, IFM Investors and Q Super, representing over 6 million Australian superannuation fund members.

The Port helps provide a secure investment for the retirement of many Australians.



Port Botany operates 24 hours per day, seven days a week

By operating around the clock, the Port is able to service the trade needs of businesses across NSW and support the lifestyles of everyone living in the State. Port Botany also plays a central role servicing the needs of Australian exporters to reach global markets.





Port Botany at night (2019)

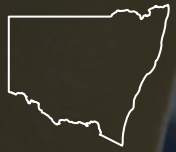
| 30



Port Botany contributes \$3.7 billion a year to NSW Gross State Product (GSP)

That's \$2.2 million per vessel visit to the Port.

For the last 40 years, the Port has also been supporting the community through employment opportunities. In 1979, 25% of Sydney workers depended either directly or indirectly on Port Botany for their livelihood. Today, Port Botany supports around 25,000 jobs, of which 33.5% of workers live locally.



\$3.7bn annual contribution
to NSW GSP



\$2.2m per vessel visit



25,000 jobs



Container cargo contents provide a window into Australian industry and consumption

In 2019, our major imports include manufactured articles (toys, furniture, games etc), machinery and transport equipment, food stuffs, beverages, plastics and rubber.

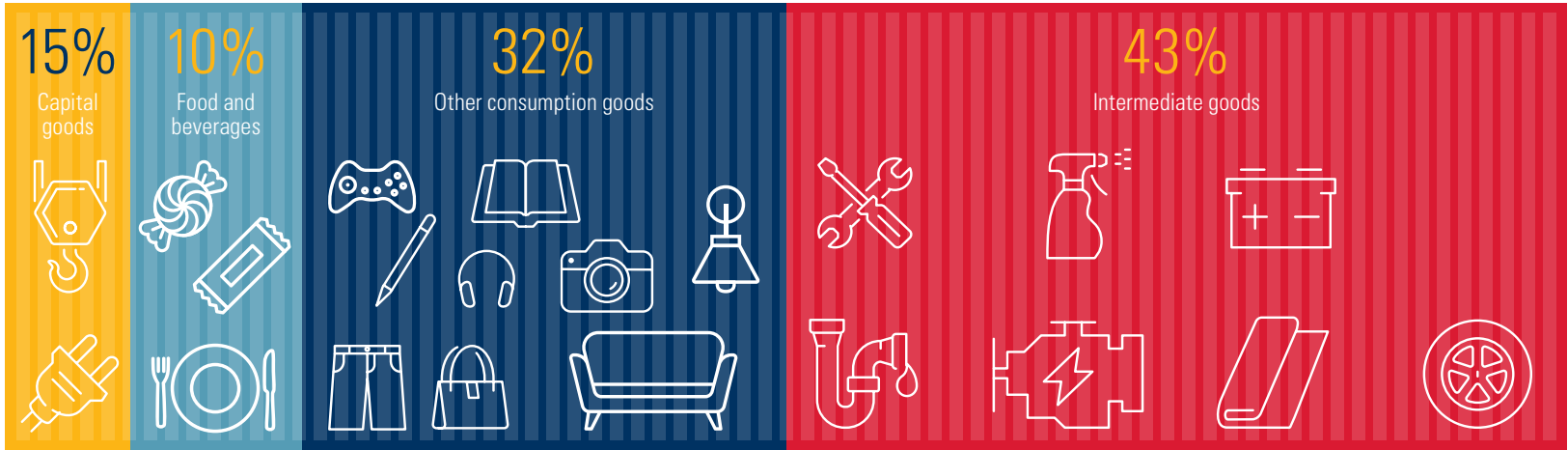
Our major exports are paper, base metals, food stuffs, beverages, wood timber and articles, manufactured articles (toys, furniture, games etc).



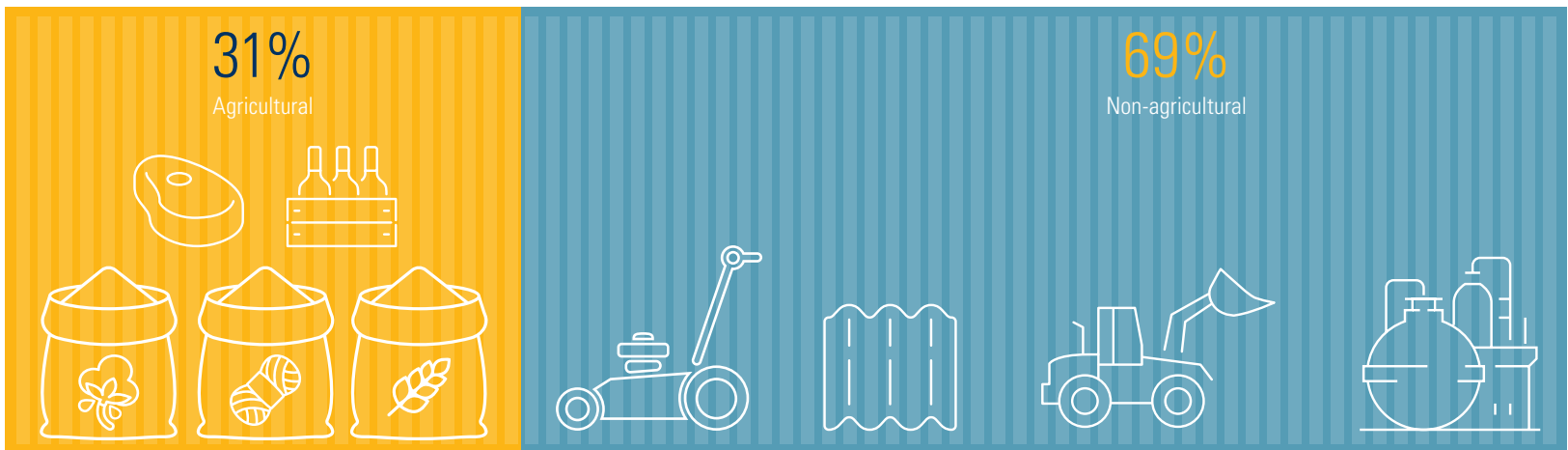
Port Botany can handle specialised and unique cargo – even a giraffe!

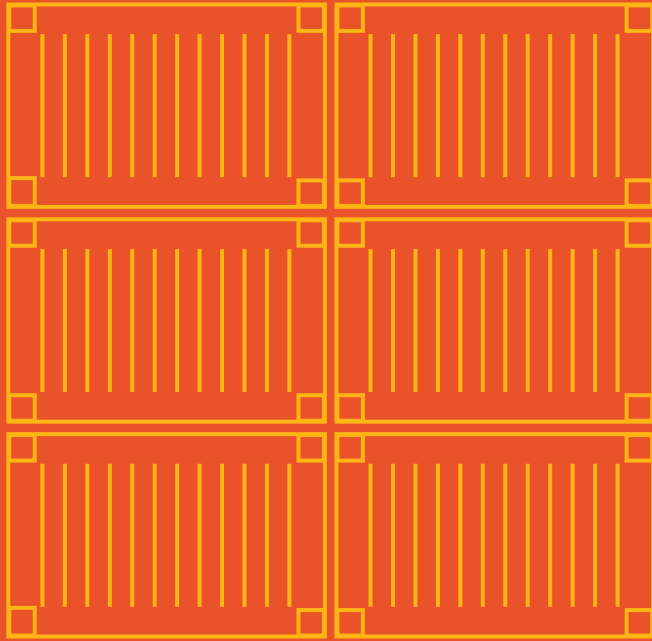
On the evening of 24 February 2017, a 15-month giraffe named Mtundu arrived at Port Botany on board the vessel *Hammonia Galacia*, in a purpose built container. The giraffe had travelled from Auckland Zoo and was heading to its new home at Mogo Zoo on the south coast of New South Wales.

2019 containerised imports through Port Botany



2019 containerised exports through Port Botany

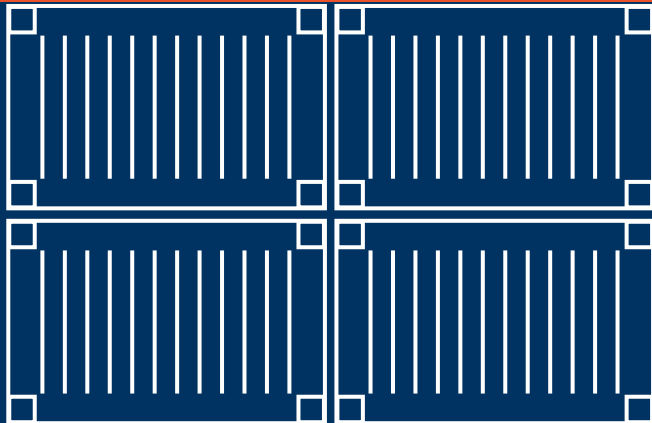




Exports

60%

of containers shipped overseas are empty



40%

of containers shipped overseas are full

32



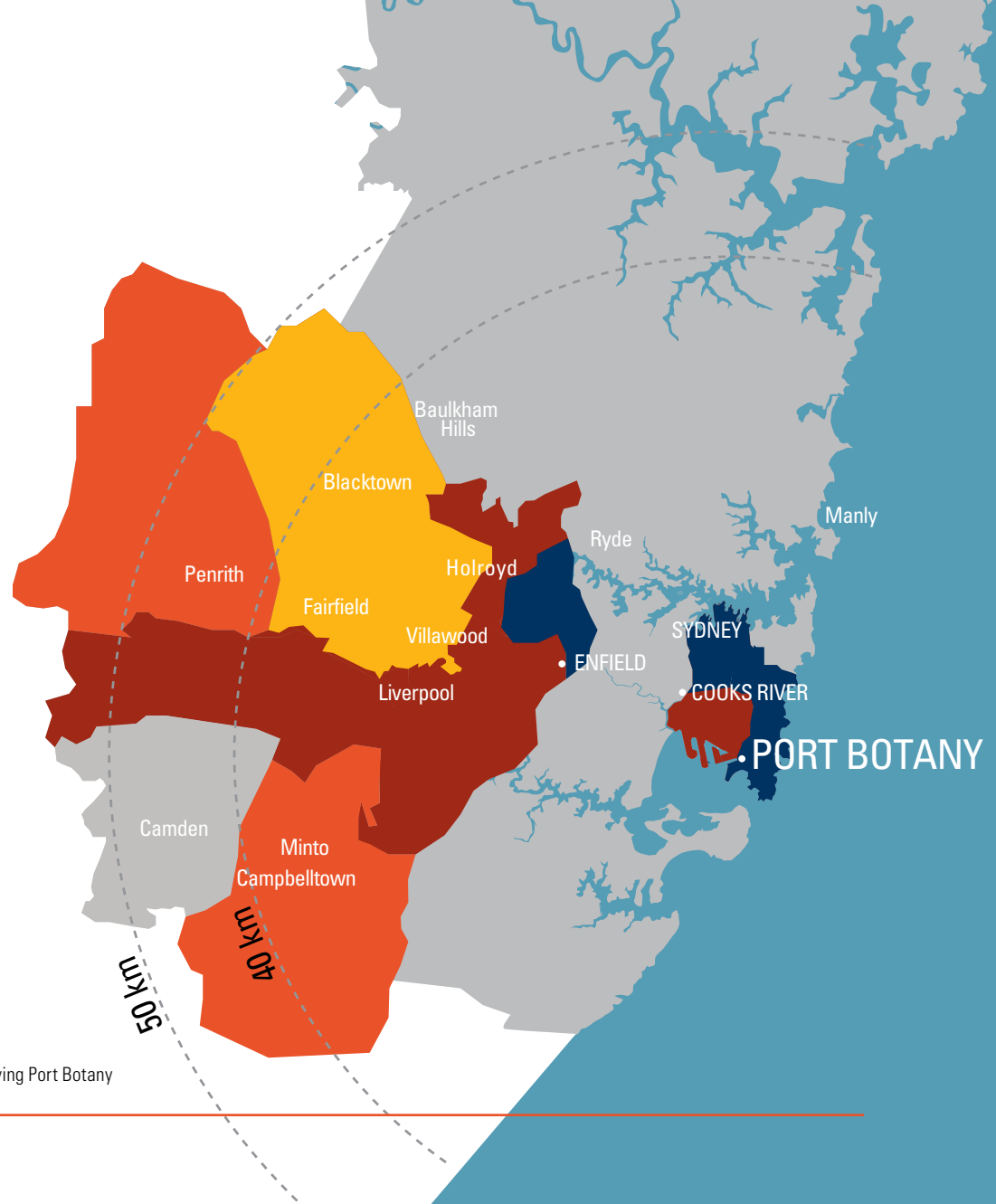
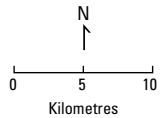
For every 10 full containers being imported,
only 4 are exported full of goods

Port Botany is primarily an import destination, reflecting the demand of the local economy. 60% of containers shipped overseas are empty, ready to be repacked with new goods to be shipped to Australia or another destination.

KEY

- 80,000 to 170,000 TEU
- 45,000 to 80,000 TEU
- 30,000 to 45,000 TEU
- 20,000 to 30,000 TEU
- 0 to 20,000 TEU

Note: Distribution mapped by local government areas in 2014



Map showing the distribution of import containers after leaving Port Botany



33



80% of all import containers travel no further than 40km from Port Botany and 90% travel less than 50km

There are many factors that come together to make Port Botany Australia's premier port, including its location within Australia's largest population centre.

60% of the NSW population is located in Greater Sydney which means goods imported through Port Botany do not have to travel far to reach the main consumers – people and businesses. Short transport distances also reduce costs and ensure efficiency of the Port's supply chains.

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The pilotage time for ships from pilot boarding to berth arrival at Port Botany is less than one hour

The pilot's role is equally important as that of a captain. Although captains are experts at navigating their vessels, they are not experts on the regulations and specific environments of each port at which their vessels call. Therefore, captains require the local expertise of a marine pilot to ensure that their vessel and its crew and cargo arrive at their next port of call in a safe and efficient manner.

The extremely short pilotage time is due to the Port's short shipping channel and contributes to efficiency and turnaround times for vessels.

Pilot ship at Port Botany (2019)





Bulk Liquid Berth 2 and Vopak storage tanks (2019)

Port Botany is the primary bulk liquid and gas port in NSW

Made up of two bulk liquid berths, it is Australia's largest common user bulk liquids facility.

For NSW, Port Botany currently handles:



99%
of bitumen



98%
of LPG



90%
of bulk chemicals



30%
of refined
petroleum fuels



15%
of aviation fuel

42% of all goods in a Sydney household, including food and beverages, are imported in containers via Port Botany

A 24-hour stoppage would cost \$9 million to the economy and if the Port were to shut down for 2 weeks, there would start to be a shortage of items in supermarkets and retail stores.

Examples of household goods imported through Port Botany

Bathroom imports



Taps



Sinks



Handles



Toilets

Living/Bedroom imports



Televisions



Windows



Sofas



Coffee tables



Wardrobes



Pillows



Artwork

Kitchen/Dining imports



Tiles



Lights



Crockery



Ovens



Chairs



Air conditioners



Chandeliers

Garden imports



LPG



Solar panels

37



Port Botany is the only port in Australia with 'on-dock' freight rail at each of its three container terminals, increasing efficiency by removing the need for double handling of containers

The Port is also connected by dedicated freight rail to a network of metropolitan intermodal terminals and beyond this, is connected by rail to regional intermodal terminals. Today, 86% of regional exports to Port Botany arrive by rail.



On-dock rail at DP World Australia (2019)



LINX train arriving at Port Botany (2019)

Every 1 million TEU moved by rail reduces trucks on the roads around Port Botany by 900 trucks per day

NSW Ports' goal is to move 3 million TEUs per year by rail by 2045.

Continued focus on this goal has already increased the number of containers moved to and from Port Botany by rail by 52% since 2015. Port Botany now has the largest number of containers moved by rail of all Australian ports (436,000 TEUs in 2018–19).



Trucks delivering and receiving containers through the Automated Stacking Cranes at Hutchison Ports Sydney (2019)

Port Botany is the only container port in Australia with a regulated truck booking and penalty system

Implemented by Sydney Ports Corporation, this initiative formally commenced in 2012. It has removed truck queuing at the container terminals and delivered world class truck turnaround times along with savings to importers and exporters.

40

The roads at Port Botany were named after the vessels of the First Fleet

Street names include Friendship Road, Charlotte Road, Penrhyn Road and Prince of Wales Drive, after First Fleet convict transports, while Fishburn Road and Golden Grove Road are named after storeships of the First Fleet. Sirius Road is named after the First Fleet Naval ship, HMS *Sirius*.

Simblist Road was named after the 1976 inquiry which reaffirmed the construction of the port.

The use of historic references to name streets has continued through expansion work at Port Botany.



Sirius Rd

Pentryn Rd

Golden Grove Rd

Friendship Rd

Charlotte Rd

Fishburn Rd

Prince of Wales Dr

Simblist Rd

Aerial map of Port Botany

References

1979, 'Port Botany: realisation of a 200-year dream', *All A'Board: The Maritime Services Board of NSW*, no. 25, pp2–2, 7

(Highlight 1)

1979, 'The Big Day', *All A'Board: The Maritime Services Board of NSW*, no. 31, p2

(Highlights 2, 3)

1979, 'Port Botany is opened', *All Hands: The journal of the Australian National Line*, December, p1, 5

(Highlight 3, 7)

Anderson, D, 2014, *Fifty years of Australia's trade*, Department of Foreign Affairs and Trade

<https://dfat.gov.au/about-us/publications/Documents/fifty-years-of-Australias-trade.pdf>

(Highlight 15)

Australian National Construction, n.d., *Port Botany Expansion*
http://www.ancr.com.au/port_botany_expansion.pdf

(Highlight 16)

Brotherson, W.H. *The Port of Sydney – Container Facilities*, Paper given at a Forum conducted by the Australian Institute of Management, Sydney, July 1969

(Highlight 6)

Brotherson, W.H. *Historical Aspects of the Port of Botany Bay*, Paper presented to the Seminar on the Development of Botany Bay as an Industrial Port Complex, Sydney, October 1969

(The Making of a Port, Highlight 6)

Bureau of Transport Economics, 1985, *Container Terminal Productivity in Port Botany: CTAL Terminal, 1983*

https://www.bitre.gov.au/publications/1985/files/op_070.pdf

(Highlights 4, 7, 8, 9, 27)

Carew, E, 2002, *First Port Future Port – Celebrating 100 years*, Sydney Ports Corporation

(The Making of a Port, The Planning, The Construction, Highlights 1, 2, 3, 5, 8)

Conservation Volunteers Australia, 17 August 2018, *New partnership with NSW Ports to revitalise Sir Joseph Banks Park*, media release

(Highlight 10)

December 1979, 'Birth of Port Botany', *Ports of New South Wales*, vol. 2, no. 7, pp 1–5

(Highlights 2, 4, 5, 30)

December 1979, 'ANL: Container terminal opens for business', *Ports of New South Wales*, vol. 2, no. 7, pp 7–9

(Highlight 3)

EnergyAsia, 22 January 2013, *Caltex starts up bitumen import terminal to supply New South Wales state*, media release

(Highlight 22)

Elgas n.d., *The Elgas Cavern*

<https://www.elgas.com.au/welcome-to-elgas/gas-suppliers-lp-gas-bottles-cylinders>

(Highlight 14)

Euro Petrole, 2013, *Puma Energy completes Australian bitumen acquisition*, media release

(Highlight 22)

Hutchinson Ports, 11 November 2013, *Port Botany's newest stevedore starts operations*, media release

(Highlight 19)

iContainers, N.D., *The History of the TEU (Twenty-foot Equivalent Unit)*
<https://www.icontainers.com/us/2019/08/06/history-of-teu-twenty-foot-equivalent-unit/>

(The Making of a Port)

KPMG, 2019, *Quay conclusions: finding the best choices for additional port capacity in NSW*

<https://assets.kpmg/content/dam/kpmg/au/pdf/2019/quay-conclusions-best-choices-additional-nsw-port-capacity.pdf>

(Highlight 34)

Laing O'Rourke, n.d., *Port Botany Terminal 3. Sydney. Australia*
<http://www.laingorourke.com/our-projects/all-projects/port-botany-terminal-3.aspx>

(Highlight 16)

Navin Officer Heritage Consultants, January 2003, *Cultural Heritage Assessment of the Proposed Port Botany Expansion*
(The Planning, The Construction)

NSW Office of Environment & Heritage, 16 April 2018, *Sir Joseph Banks Park*

<https://www.environment.nsw.gov.au/heritageapp/ViewHeritageltemDetails.aspx?ID=1210025>

(Highlight 10)

NSW Ports, 26 November 2013, *Minutes of the Port Botany Community Consultative Committee – Meeting No. 1*
<https://www.nswports.com.au/assets/Uploads/Publications/PB-CCC-Minutes-Meeting-01-26-November-2013.pdf>

(Highlight 22)

NSW Ports, 21 February 2014, *NSW Ports BLB 2 – Official Opening*, media release

(Highlight 21)

NSW Ports, 17 December 2014, *Final Minutes of a Meeting of the NSW Ports Cargo Facilitation Committee* (No. 6/2014)

<https://www.nswports.com.au/assets/Uploads/Publications/NSW-Ports-CFC-Minutes-Dec-2014.pdf>

(Highlight 17)

NSW Ports, 2015, *Navigating the Future: NSW Ports' 30 Year Master Plan*

<https://www.nswports.com.au/assets/Uploads/Publications/NSW-Ports-Master-Plan-2015.pdf>

(Highlight 33, 38)

NSW Ports, 9 May 2016, *Operations commence at Enfield Intermodal Logistics Centre*, media release

(Highlight 24)

NSW Ports, 27 February 2017, *Giraffe on the move*, media release
(Highlight 31)

NSW Ports, 17 August 2018, *Restoration Project to enhance Sir Joseph Banks Park*, media release
(Highlight 10)

NSW Ports, *Port Development Plan 2019–2023*
(Highlights 26, 30, 36, 38)

NSW Ports, n.d., *Port Botany Expansion*
<https://www.nswports.com.au/community-and-environment-hub/project-compliance/port-botany-expansion/>
(Highlight 16)

NSW Ports and Shipping Handbook 1998/99
(Highlight 13)

NSW Ports, *Update October 2019*
(Highlights 9, 25, 29, 31, 32, 34, 35, 37, 39)

NSW Ports, 2019, *Sustainability: Our business at a glance*
<https://sustainability.nswports.com.au/sustainability-of-nsw-ports/our-business/>
(Highlight 20)

NSW Ports, 2019, *Who we are*
<https://www.nswports.com.au/about-us/who-we-are/>
(Highlight 28)

Patrick Terminals, 17 September 2018, *Port Botany Terminal Environmental Management System: Annual Environmental Management Report 2017*
<http://www.patrick.com.au/documents/Patrick-PBT-Annual-Environmental-Management-Report-2017-updated-17-Sep-18.pdf>
(Highlight 23)

Patrick Terminals n.d., *History of Patrick*
<http://www.patrick.com.au>
(Highlight 23)

R. Robinson, H.B. Milloy, E.M Casling, 1985, *Container Terminal Productivity in Port Jackson and Port Botany*
https://www.atrf.info/papers/1985/1985_Robinson_Milloy_Casling.pdf
(Highlight 9)

SH Simblist QC, *Botany Bay Port and Environment Inquiry (1976)* ('The Simblist Inquiry')
(The Making of a Port, The Planning)

Shell, 27 June 2014, *Shell invests in NSW bitumen supply*, media release
(Highlight 22)

Sydney Living Museums, n.d., *First Fleet Ships*
<https://sydneylivingmuseums.com.au/stories/first-fleet-ships>
(Highlight 40)

Sydney Ports Corporation, *Annual Report 1998*
https://media.opengov.nsw.gov.au/pairtree_root/69/f1/27/c1/8b/c9/4b/f5/8f/a6/06/b6/94/dd/02/e2/obj/SPC_1998.pdf
(Highlight 19)

Sydney Ports Corporation, *Annual Report 2000*
https://media.opengov.nsw.gov.au/pairtree_root/90/34/50/73/e9/34/49/3a/83/83/86/fc/95/fe/d0/1f/obj/SPC_2000.pdf
(Highlights 9, 15)

Sydney Ports Corporation, *Annual Report 2009/10*
https://media.opengov.nsw.gov.au/pairtree_root/30/5d/79/41/d3/99/df/05/4e/d0/b7/9a/a8/ef/9f/d3/obj/document.pdf
(Highlight 19)

Sydney Ports Corporation, *Annual Report 2010/11*
https://www.parliament.nsw.gov.au/la/papers/DBAssets/attachedpaper/webAttachments/1941/SPC9843_SPC_Annual_Report_2011_WEB_2.pdf
(Highlights 9, 16, 18)

Sydney Ports Corporation, *Annual Report 2011/12*
https://www.portauthoritynsw.com.au/media/1914/sydney_ports_annual_report_2011_12_final_as_tabled_221112.pdf
(Highlight 19)

The Maritime Services Board, *Annual Report 1985/86*
(Highlight 9, 11)

Urban Asset Solutions, 23 May 2012, *Patricks Knuckle Expansion*, media release
(Highlight 23)

Vernier, C, 2019, *Patrick: Celebrating 100 years: 1919–2019*, ArmstrongQ.Pty Limited
(Highlight 12)

Williams, T, June 1979, 'The first berth in Port Botany', *Ports of New South Wales*, vol. 2, no. 5, pp 3–6
(Highlight 1)

World Shipping Council n.d., *History of Containerization*
<http://www.worldshipping.org/about-the-industry/history-of-containerization>
(The Making of a Port)

'Yes to Botany port plan' 1977, *The Daily Telegraph*, 26 January, p1,4
(The Making of a Port)

Photo credits

The *Hyogo Maru* image by Kingsley Barr **(Highlight 7)**

The Maritime Union of Australia picket at Port Botany image by Jeremy Piper **(Highlight 12)**



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