TRANSNET

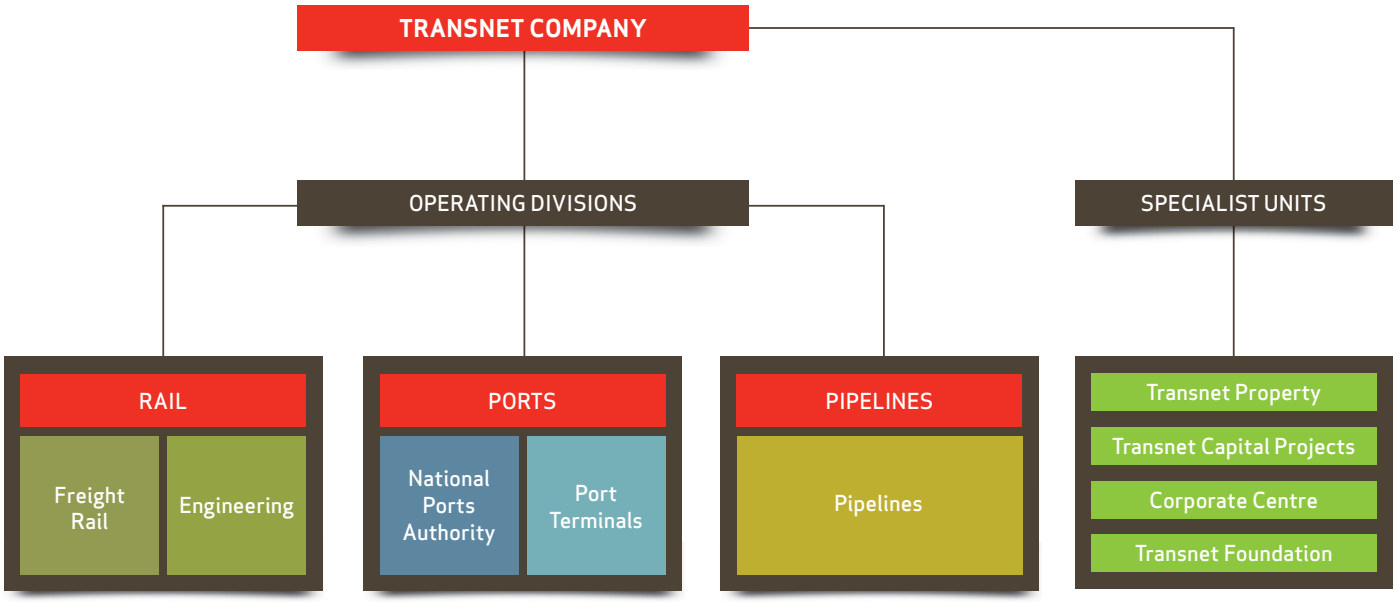
national ports authority


# PORT OF **DURBAN**

THE BUSIEST CONTAINER PORT IN SUB-SAHARAN AFRICA

# INTRODUCTION

Transnet National Ports Authority (TNPA) is one of five operating divisions of Transnet SOC Ltd – a state-owned company that forms the backbone of the South African freight logistics chain.




# TNPA's MANDATE AND VISION

TNPA owns, operates and controls South Africa's port system, consisting of eight commercial seaports along the South African coastline, on behalf of the State. It is responsible for the safe, effective and efficient economic functioning of the national port system. TNPA's role includes managing the port system in a landlord capacity and providing port infrastructure and marine services to the eight ports in Richards Bay, Durban, East London, Ngqura, Port Elizabeth, Mossel Bay, Cape Town and Saldanha.

Port infrastructure is provided in the container, dry bulk, liquid bulk, break-bulk and automotive sectors. Marine services provided include dredging, aids to navigation, ship repairs, marine operations and pilotage.

Our vision: "A system of ports, seamlessly integrated in the logistics network, that is jointly and individually self-sustainable through delivery of high levels of service and increasing efficiency for a growing customer base, enhancing South Africa's global competitiveness and facilitating the expansion of the South African economy through socially and environmentally sustainable port development".

## INFRASTRUCTURE

Capacity planning, development and maintenance

## MARINE SERVICES

Pilotage, tug and berthing services

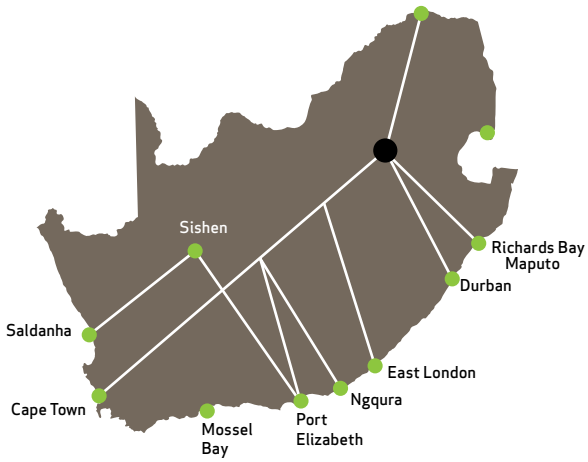
## DREDGING

Maintenance dredging and hydrographic surveys of ports

## LIGHTHOUSES

Providing navigational aids

## SOUTH AFRICAN PORT SYSTEM




# FAST FACTS

## TNPA ASSETS

**TOTAL**

R89.2bn

**8**
OPERATIONAL PORTS

COASTLINE OF
2 798km

**109 BERTHS:**

- 17 CONTAINER
- 32 DRY BULK
- 38 BREAK BULK
- 16 LIQUID BULK
- 6 AUTOMOTIVE

**57 MARITIME CRAFT:**

- 30 TUGS
- 8 PILOT BOATS
- 7 WORK BOATS
- 3 PILOT HELICOPTERS
- 4 DREDGERS
- 5 SURVEY BOATS

# THE NATIONAL PORTS ACT 2005

TNPA operates within a legislative and regulatory environment created by the National Ports Act 2005 (Act No. 12 of 2005).

In terms of Section 56 of the Act, there is a public process for service providers looking to provide port services and facilities. Guidelines for Agreements, Licences and Permits are available on our website at: www.transnetnationalportsauthority.net

## OUR CORE FUNCTIONS IN TERMS OF THE NATIONAL PORTS ACT NO. 12 OF 2005

**Landlord**

As landlord of South Africa's ports, the National Ports Authority is responsible for promoting its use and improving, developing and controlling the land use within these ports. We also have the power to lease port land under conditions determined by ourselves.

**Controller of Port Services and Facilities**

We are responsible for the provision of port services and facilities and may enter into agreements with, or licence other parties to provide them.

**Change Agent**

In terms of the Act we are responsible for ensuring South Africa's ports are transparently managed and that we provide non-discriminatory, fair and transparent access to port services and facilities. We are also responsible for advancing the previously disadvantaged and promoting their representation and participation in our terminal operations.

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**Controller of Ports Navigation**

In our role as controllers of port navigation, we make and apply the rules that control navigation within the limits of the South African ports and the approaches to them. We provide safe and secure ports and protect the environment within our port limits.

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**Coordinator with other State Agencies**

We are responsible for liaising with all the stakeholders of the South African port system.

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**Marketer and Administrator**

We are responsible for marketing the services available in South Africa's ports and ensuring that there are adequate, affordable, equitable and efficient port services and facilities available to the users of our ports.

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**Master Planner**

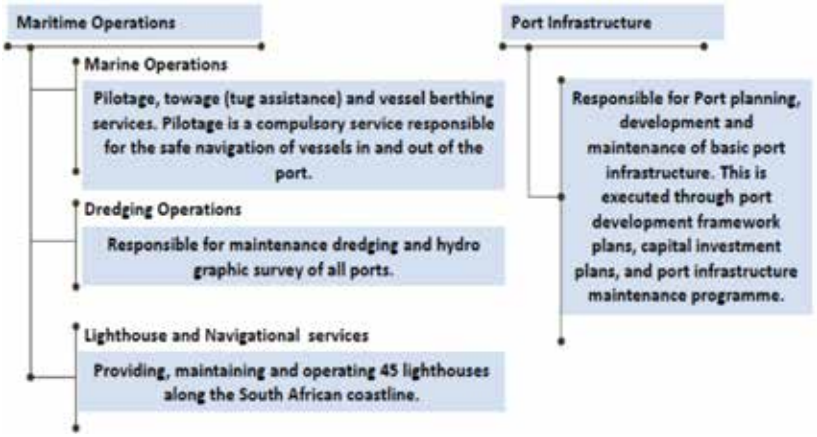
In our role as master planner, we plan, improve, develop and maintain port infrastructure.

# OVERVIEW OF THE PORT OF DURBAN

The Port of Durban is an 'Enterprise Driver' port that promotes enterprise development, growth and sustainability of the maritime value chain. As a premium gateway into Africa and the rest of the world, the Port serves as a strategic conduit and facilitator of trade. The strategic objective of the port is to ensure efficient port services, connectivity and capacity are provided in order to enable seamless cargo flows.

Regarded as the busiest port in Sub-Saharan Africa, the Port of Durban is South Africa's premier container, automotive, liquid bulk and cruise port. It also caters for dry bulk, break bulk and multipurpose cargo services as well as ship repair, naval, fishing and recreational facilities.

A full range of port and marine services is provided as depicted in the diagram right:




In 2016, 86 million tons of cargo was handled through the Port of Durban, which comprised 60% of South Africa's total container imports and exports.

An exciting new development is the Integrated Port Management System (IPMS): an holistic, web-based, end-to-end system that integrates Marine Operations, Terminal Operations, Systems and Reporting across South Africa's eight ports, on a single platform. IPMS provides users with access to a wide range of near real-time operational information – that is accessed centrally 24/7 - on which to base sound decisions that will improve port efficiency and performance.

The Port of Durban is divided into five precincts focusing on different services as follows:

**Island View Precinct:**

- Petroleum
- Chemicals
- Dry bulk - Minerals
- Dry bulk - Agricultural
- Vegetable Oils
- Lubricants

**Container Precinct:**

- Pier 1 = 700 000 TEUs
- Pier 2 = 2 400 000 TEUs
- Draft = 12,2m
- Throughput = 2 770 004 TEUs

**Point and Recreational Precinct**

- RORO Terminal
- Project cargo
- Multi-purpose Terminal
- Cruise Terminal

**Maydon Wharf Precinct**

- Dry bulk - Agricultural
- Liquid bulk - high flash oils
- Multi-purpose Terminal
- Break bulk

**Bayhead Precinct**

- Ship Repair
- Ship Building

# OVERVIEW OF THE PORT OF DURBAN Cont...

In 2017, 88 million tons of cargo were handled through the Port of Durban which is a 3% growth from the previous year. The container throughput handled holds a market share of more than 50% of Port of Durban volumes and 58% of South Africa's total container volumes.

As part of the Smart Port Initiatives, the Port of Durban has an Integrated Port Management System (IPMS), which is a holistic, web-based, end-to-end system that integrates Marine Operations, Terminal Operations, Systems and Reporting on a single platform. This system provides users with access to a wide range of near real-time operational information – that is accessed centrally 24/7 – on which to base sound decisions that will improve port efficiency and performance.

The latest innovations to improve service is the establishment of Joint Operations Centres – the first of which was launched in Durban. The Ops Centre can be centrally viewed from TNPA's head office and gives a full view of the port including vessels at anchor waiting to come in and showing activity taking place at each berth. Similar to the airline industry's planning system, the Ops Centre enables pro-active decisions to be made. In future Ops Centre will be integrated across the ports system, so users in one port can see what is happening at other ports.

The Durban Gauteng freight corridor is a critical growth area and major container expansion drives a great deal of this port's development, ensuring that increasing demands and international standards are met and exceeded. In the short-term to medium-term, this involves the expansion of the container precinct in Pier 1 on the Salisbury Island where capacity will be increased from 0.7 million TEUs p.a. to 2.4 million TEUs p.a.

## FAST FACTS
### PORT OF DURBAN ASSETS

| TOTAL | 58 BERTHS (44 IN OPERATION) | 20 MARITIME CRAFT: |
|---|---|---|
| R249bn | 8 CONTAINER<br>13 DRY BULK<br>12 BREAK BULK<br>8 LIQUID BULK<br>3 AUTOMOTIVE<br>1 PASSENGER | 8 TUGS<br>2 PILOT BOATS<br>5 LAUNCHES<br>2 PILOT HELICOPTERS<br>1 FLOATING DOCK<br>1 LUXURY PASSENGER VESSEL<br>1 DEBRIS COLLECTION BOAT |

# PORT OF DURBAN OPERATIONAL BERTHS DETAILS

| CARGO TYPE | TERMINAL | OPERATIONAL BERTHS | BERTH CAPACITY | MAXIMUM PERMISSABLE DRAFT |
|---|---|---|---|---|
| Container | Durban Container Terminal - Pier 1 | 2 | 700 000 TEUs | 105/106 - 12.2m<br>107 - 12.2m |
| | Durban Container Terminal - Pier 2 | 6 | 2400 000 TEUs | 108/109 - 12.2m<br>200/201 - 12.2m<br>202 - 12.2m<br>203 - 12.2m<br>204 - 12.2m<br>205 - 12.2m |
| Break Bulk | Maydon Wharf | 6 | 4 million Tons | MW 3 - 11.6m<br>MW 4 - 11.6m<br>MW 7 - 9.3m<br>MW 9 - 9.3m<br>MW 12 - 9.3 m<br>MW 15 - 9.3 m |
| | Point | 6 | | B - 9.9m<br>C - 12.6m<br>D - 12.6m<br>E - 12.6m<br>0 -11.6m<br>P - 10.3m |
| Automotive | Point Car Terminal | 3 | 900 000 units | G - 12.6m<br>M -11.6m<br>Q/R - 10.3m |
| Dry Bulk | Island View (IV) + Bluff | 4 | 12.1 million Tons | BCA 1/2 - 9.7m<br>BCA 3 - 8.5m<br>BCA 4 - 10.m<br>IV 3 - 12.2m |
| | Maydon Wharf | 9 | | MW 1 - 11.6m<br>MW 2 - 11.6m<br>MW 5 - 9.3m<br>MW 6 - 9.3m<br>MW 8 - 10m<br>MW 10 - 9.3m<br>MW 11 - 10m<br>MW 13 - 11.6m<br>MW 14 - 11.6m |
| Passangers | Point | 1 | | N - 11.6m |
| Liquid Bulk | Island View Precinct | 8 | 19.5 million kiloliter | IV 1 - 12.2m<br>IV 2 - 12.2m<br>IV 4 - 10.0m<br>IV 5 - 12.4m<br>IV 6 - 12.4m<br>IV 7 - 12.2m<br>IV 8 - 12.2m<br>IV 9 - 12.2m |

*The maximum permissible draft shown for the berths above serves as a guide for the planning of vessels. These drafts are, however, only valid on the date of the latest sounding and should it be intended to accommodate vessels at the maximum draft shown, the Harbour Master should be timeously advised to arrange for fresh soundings, if necessary.

As the landlord, TNPA handles all aspects of port management and control, license oversight and compliance, including the maintenance of port infrastructure, which encompasses quays, buildings and the leasing of all land for port-related activities.

We pride ourselves on being a strategic partner for all port users with a strong service delivery orientation.

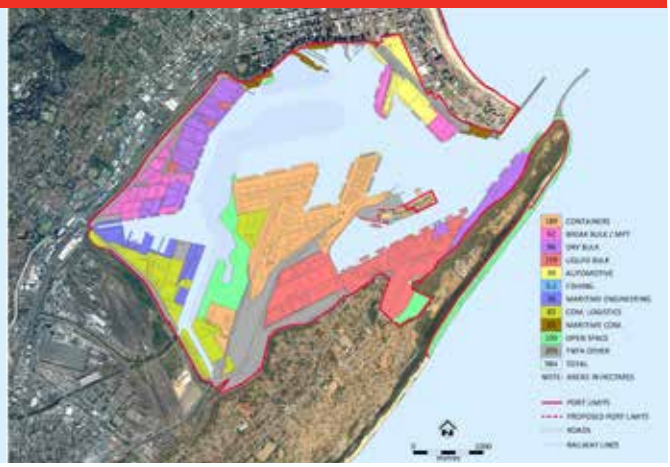
# MARKET DEMAND STRATEGY

Transnet's Market Demand Strategy (MDS) is a R336.6 billion capital investment programme designed to expand and modernise South Africa's port, rail and pipeline infrastructure over a seven-year period (ending in 2019), to promote economic growth and meet market demand.

Durban's capacity expansion plans, aligned with the MDS, include:

## PORT OF DURBAN – SHORT-TERM LAYOUT

1. Point-Passenger Terminal at AB Berth
2. Maydon Wharf-Quay Wall Rehabilitation
3. Bayhead Park-Operation Phakisa
4. Durban Container Terminal, DCT Berth Deepening
5. Island View liquid bulk precinct- IV Berths reconstruction

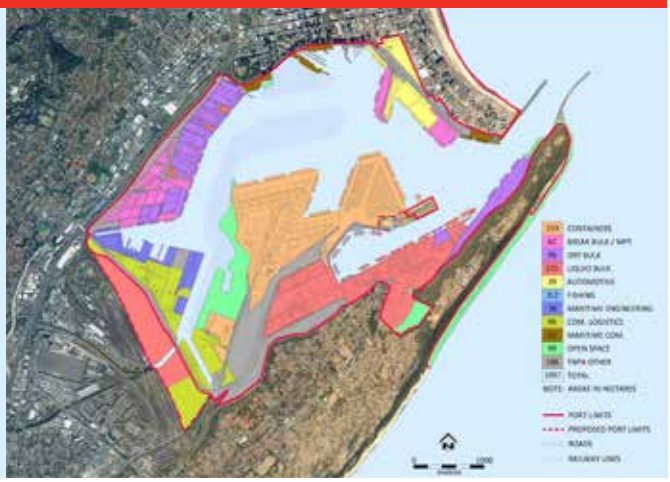


## PORT OF DURBAN – MEDIUM-TERM LAYOUT

1. DCT-Pier 1 expansion with Salisbury Island infill
2. Island View-Build additional 4 liquid bulk berths
3. Acquire land at Ambrose Park and increase the commercial and logistics space.

## PORT OF DURBAN – LONG-TERM LAYOUT

1. Rationalise Bayhead Rail Yards to provide additional land to increase the commercial and logistics space.



# PRECINCT STRATEGY

In support of the MDS, the National Ports Act of 2005, and TNPA's port strategy, the Port of Durban has been divided into five precincts, each with its own management team. Each team oversees a range of functions: Real Estate; Operations; Security; Safety, Health & Environment (SHE); Infrastructure Planning and Development; Harbour Master and Marine Services; and all other supporting functions within their precincts. The objectives are to promote an effective and seamless flow of cargo, optimise land utilisation and marine resource allocation, and meet projected growth targets.

## CONTAINER PRECINCT

The Port of Durban is South Africa's premier container port and the main port serving the KwaZulu-Natal province, the Gauteng province and the Southern African hinterland.

Salient features of this precinct include:

- Leased Land = 1 621 464m$^2$ or 162.1464 hectares
- Number of Tenants = 1
- Total number of Berths = 8
- Total Capacity = 3.1 million TEUs


Durban Container Terminal consists of two terminals. Pier 1 has two operational berths used for container operations, and 3 800 ground slots providing capacity for 0.7 million TEUs, as well as a five-berth area with no fixed superstructure used as lay-by berths.

Pier 2 has six operational berths and 15 704 ground slots, providing capacity for 2.4 million TEUs.

The berths at this precinct are approximately 12.8m deep, however the permissible draft is 12.2m at the operational berths. Until the berths are deepened larger Super and Post Panamax vessels can only call at these berths when partially laden.

## 2016/17 VOLUMES HANDLED, INCLUDING FULL AND EMPTY IMPORTS, EXPORTS AND TRANSHIPMENTS.

| CARGO TYPE | BERTHS | VOLUME 2016/17 | BERTH CAPACITY | UNIT |
|---|---|---|---|---|
| Container | Pier 1<br>105/106, 107 | 2770 004 TEUs | 3,100,000 | TEU per annum |
| | Pier 2<br>108/109,<br>200/201,<br>202, 203,<br>204, 205 | | | |

While most containers (imports and exports) travel by road, future plans include moving most of the containers by rail, which calls for expanding rail intermodal capacity to match corridor and inland capacities, with longer train configurations.

In addition to the short-term projects aligned to the MDS (Pier 1 Salisbury Island infill to create additional berths, and berth deepening and lengthening at Pier 2's North Quay), other improvements include:

- Dredging works to the basin, turning circle and approach channels.
- Reclamation of backup areas and surfacing to serve the stack area.
- Implementation of traffic management systems and widening of Bayhead Road and Langeberg Road to serve the Pier 1, Pier 2 and Island View terminals.

## POINT AND LEISURE PRECINCT

This precinct handles a variety of cargo including automotive, fruit, general cargo (eg steel, bagged rice, project cargo and containers). It is also home to the Passenger Terminal.

Infrastructure consists of:

- An Automotive Terminal which serves as the gateway to KwaZulu-Natal and Gauteng regions, as well as a transhipment hub for SADC. The terminal is connected to the hinterland and strategic corridors through a road and rail network. In order to service global demand, the terminal has diversified to handle trucks, construction vehicles, as well as high and heavy equipment. This is the preferred transhipment hub for Southern African markets. The automotive terminal receives over 300 vessel calls per annum and boasts three berths, offering a draft of 10.3m – 11.6m. It offers value-added services such as data dotting, car washing, vehicle processing and storage.
- Three dedicated berths (G, M and Q/R as one berth) for the car terminal providing capacity for 520 000 units per annum. Major Original Equipment Manufacturers (OEMs) that use the Durban Car Terminal include AMH, Toyota, Ford, BMW and Nissan. The car terminal is serviced by road and rail. The maximum permissible draft for the car terminal is between 10.3m and 11.9m.
- Berths O/P dedicated to the Fruit Produce Terminal and accessible via road and rail, with a maximum permissible draft of 10.3m to 11.6m.
- Berths C, D and E dedicated to Transnet Port Terminals for general cargo - serviced by road and for containers - both by road and rail. The maximum permissible draft is between 9.9m and 12.6m.
- N-shed - Currently utilised as the Passenger Terminal, however plans are underway for a new purpose-built Passenger Terminal at A/B berth.
- Tug jetty where TNPA Marine Fleet is berthed. This fleet includes tugs, pilot boats and other smaller work boats.
- Helipad for TNPA helicopters used in the transportation of pilots to and from vessels.
- Ocean Terminal Building, Security and Durmarine Buildings house mainly administrative and security personnel. Durmarine Building can also serve as the alternate port control tower in the event of an emergency.

In making the port accessible to the public, this precinct is also home to the BAT Centre, known for hosting live jazz music and supporting local up-and-coming artists. It also covers the Victoria Embankment area up to Wilsons Wharf, a popular venue with a variety of restaurants and a craft market.

The leisure part of the precinct includes the Maritime Museum, Yacht mole, restaurant and Bat Centre Recreation Centre.

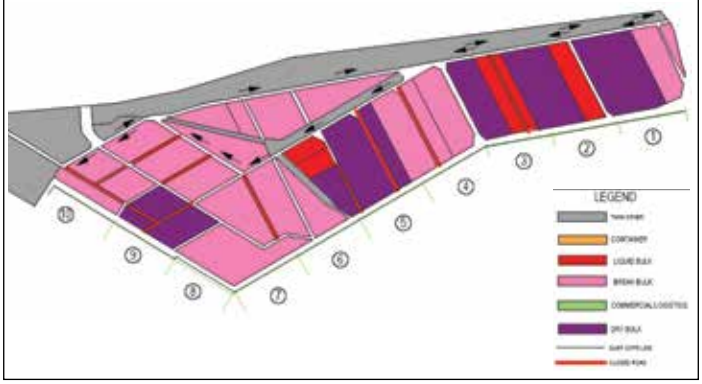
The precinct also boasts the Port of Durban's leisure craft, Isiponono meaning "the beautiful one". The leisure boat is used to conduct port tours and has a capacity to host 80 people.

To book the Isiponono please contact: **Renise Feyerabend on 031 361 8574.**

## MAYDON WHARF PRECINCT

The Maydon Wharf precinct currently has 27 terminals operated by 16 terminal operators. These include five major dry bulk terminals, four major break bulk terminals, five major multi-purpose terminals and three liquid bulk terminals.

The plan below provides a futuristic view of how terminalisation could be achieved, by consolidating leases, closing roads, implementing uni-directional traffic flows, and rationalising berths for improved berth planning.




Salient features of this precinct include:

- Leased Land = 1 210 000m$^2$ or 121 hectares
- Number of Terminal Operators = 16
- Total number of Berths = 15
- Total Capacity = 3.6 million Tons (break bulk) and 11 million Tons (dry bulk)

The precinct strategy includes vacating all non port-related tenants by 2020, integrating operations by consolidating adjoining smaller leases, and creating terminal complexes with dedicated berths. Ageing infrastructure is being refurbished and improved infrastructure maintenance plans are being implemented.

A major focus is on decongestion plans, which entail reducing road freight volumes and increasing rail freight; a deproclamation of roads to facilitate the flow of trucks and to reduce access points; introduction of a one-way traffic system, and improving security management to optimise traffic flow.

## ISLAND VIEW PRECINCT

The Island View Precinct is a petro-chemical hub in the Port of Durban. The majority of land is occupied by terminal operators involved in the movement and storage of South Africa's petrol, diesel, chemicals, aviation fuel and vegetable oils.

Salient features of this precinct include:

- Leased Land = 1 230 847m$^2$
- Number of Tenants = 15
- Total number of Berths = 10
- Number of Storage Tanks = 962
- Total Capacity of Storage Tanks and Silos = 1 845 762m$^3$

Vessels call at the different berths or terminals to offload liquid bulk cargo, which is pumped to and stored in tanks within the precinct.

Liquid bulk distribution from storage tanks takes place by pipeline, road and rail tankers. Approximately 24 000 trucks move through the Island View Precinct on a monthly basis. In addition to liquid bulk cargo, dry bulk products are also handled within the precinct.

The Island View Precinct is linked directly to the operation of fuel pipelines, as well as nearby oil refineries Engen and SAPREF. The refineries are linked to the offshore Single Buoy Mooring (SBM), which is used for the import of crude oil.

Refined products are stored within the precinct and thereafter moved inland by means of the Durban to Johannesburg Pipeline (DJP) and the new multi-product pipeline which will eventually replace the DJP.

The Island View Precinct strategy focuses on:

- Developing land use categories describing the type of cargo handling that will be allowed,
- Establishing land use principles including operations, efficiency and compliance principles for each of the land use categories within the precinct,
- Selecting appropriate tenants for vacant land within the precinct via an open tender process,
- Ensuring that the road infrastructure within the precinct is maintained,
- Provision of adequate, affordable and efficient port services and facilities,
- Transformation of port operations – greater participation of historically disadvantaged persons.

## SHIP REPAIR AND BAYHEAD PRECINCT

Prince Edward Dry Dock

## INTRODUCTION OF THE PRECINCT

### The Ship Repair and Bayhead Precinct

The Ship Repair and Bayhead Precinct is home to one of the oldest dry-docks in the country, the Prince Edward Dry Dock as well as the heavy engineering workshop known as Workshop 24. The precinct provides ship repair services such as maintenance and ship repair to tugs, and small habour craft, general engineering work and steel fabrication, as well as manufacture and maintenance of navigation buoys.

### Dry Dock

Dry dock capacity in the Port of Durban is provided by the Prince Edward Dry Dock. Originally constructed in the 1920s, the 350.52m long dry dock can be split by means of an inner caisson into two docks (an inner dock of 137.16m and an outer dock of 206.91m). Removing the outer dock caisson and placing the inner dock into the emergency position extends the length to 362.17m. The dry dock is 33.53m wide and 12.5m deep.

The Prince Edward Dry Dock is equipped with seven cranes of varying capacities (1 x 50t, 1 x 25t, 2 x 8t and 3 x 4t).

Facilities include:

- Workshop 24 - a heavy engineering workshop with 2 700m$^2$ under cover,
- Wharf space and a repair quay with a depth of 8m,
- Wharf carnage on both jetties, as well as the largest shot blast shed in the greater Durban area.

Operation Phakisa, designed to unlock the country's ocean economy, has seen the ship repair precinct embarking on a major refurbishment of the dry dock and Workshop 24. It includes the replacement of crane rails and the procurement of new jib cranes, forklifts, compressors and a new floating dock syncrolift.

# NEW BUSINESS DEVELOPMENT

The New Business Development (NBD) department is responsible for identification, investigation and implementation of new business development initiatives and projects in the Port of Durban. This role entails pursuing and supporting new business development initiatives including Concession Projects normally known as Section 56 Projects in the Port of Durban which are implemented as per Section 56(1) of the National Ports Act No.12 of 2005.

The concession/S56 projects are agreements entered into principally for the operation of a port terminal or a port facility and include the lease of land and infrastructure and the exclusive right to operate the relevant port terminal or port facility. These agreements may only be entered into by the Authority in accordance with "a procedure that is fair, equitable, transparent, competitive and cost-effective".



## CRUISE TERMINAL RFP

One of the current projects is the establishment of a dedicated cruise terminal facility to boost Durban tourism industry and facilitate the development of economic spin-offs for the industry and the city of Durban. On 31 May 2017 TNPA announced Kwa Zulu Cruise Terminal PTY LTD, a consortium between MSC Cruises SA and Africa Armada Consortium (a black empowerment partner) as the preferred bidder for the new cruise terminal at the Port of Durban. This project entails a 25-year concession for the design, development,financing, construction, operation, maintenance and transfer of a Cruise Terminal at "A" and "B" berths at Point Precinct, Port of Durban.

## LOT 100 RFP

The Lot 100 Request for Proposal involves a 25-year concession for the design, development, financing, construction, operation, maintenance and transfer of a Liquid Bulk Terminal for handling of refined petroleum products at Lot 100 site in the Port of Durban. This RFP was advertised between 17 July 2016 to 12 August 2016 in local newspapers and on Transnet and National Treasury websites. The briefing session was held on 17 August 2016 with 114 companies in attendance. The bid was closed both in Durban and Johannesburg TNPA offices on 31 October 2017. The announcement of the Preferred Bidder is expected in 2018/2019.

Other upcoming projects include the concessioning of the Floating Dock at the Bayhead precinct, the concessioning of dry bulk terminals at Maydon Wharf and the liquid bulk terminals for petroleum and chemicals at the Island View precinct.

## RADICAL PORT REFORM

TNPA is looking to open up the Oceans Economy and redistribute the value proposition that the ports offer, to a wider range of role players and stakeholders. As ports are a catalyst for growth, our ports play an incredibly important role in addressing the three scourges plaguing South Africa: unemployment, poverty and inequality.

The first radical step we are taking is embracing the Internet of Things and pioneering digital projects in our ports that are in line with the 4th Industrial Revolution. This will form part of our Smart People's Port Project which involves harnessing the power of technology and applying it in our port.

## SOCIO ECONOMIC DEVELOPMENT

*Superstructure*


*Maritime Intervention*

*Infrastructure*

*Mandela Day CSI*

At TNPA Corporate Social Investment (CSI) responds to business challenges, including the development of critical skills and environmental challenges. Philanthropic CSI support focuses on community upliftment and improving the quality of life in our communities. TNPA's CSI programme consists of four pillars, namely: Maritime Intervention, Infrastructure, Superstructure and Philanthropic CSI.

MARITIME INTERVENTION: Involves the execution of high school intervention initiatives aimed at enhancing the teaching and learning of Maritime Studies, Maths and Science. Initiatives include Career Day.

INFRASTRUCTURE: The construction of multi-purpose classrooms and the establishment of science laboratories.

SUPERSTRUCTURE: The installation of equipment required for the teaching and learning of Maths, Science and Maritime Studies.

PHILANTHROPIC: Responding to community needs via community outreach programmes.

The Port of Durban's CSI programme is discharged in the South Durban Basin through 15 adopted high schools located in Umlazi, Lamontville, Isipingo, Wentworth, Merebank, Clermont and Umbilo.

# SMART PEOPLE'S PORT

TNPA has embarked on an exciting journey to create a digitally smart, safe and secure port system with the infrastructure and capacity to promote economic growth, job creation, transformation and sustainable benefits for port communities. Its Smart People's Ports Programme (SPPP) is an integrated solution that seeks to create a single view of port connected logistics, operations, infrastructure, assets, traffic and trade flows using the latest digital technology.

The intention of the programme is to make South Africa more competitive by reducing transport costs through improving the efficiency and reliability of the transport logistics chain.

## KEY OBJECTIVES:

- Manage and use the existing infrastructure eco-system in an efficient manner
- Reduce traffic congestion within the port vicinity
- Improve connectivity in-and-around port operations and precincts
- Establish intelligent infrastructure across Transnet's integrated system of ports
- Optimise the flow of information to promote efficient trade on a single platform using wireless connectivity
- Create an integrated logistics chain that will establish the port system as an integrated trade gateway

## BENEFITS:

- Wi-Fi connectivity in-and-around ports
- Reduced congestion
- Integrated view of port activities to improve operational efficiencies
- Tracking of port assets for capacity utilisation
- Automated incident management

## KEY SMART PEOPLE'S PORT PROJECTS:

Joint Operations Centres (JOCs) in all eight ports: This allows port operations to be viewed centrally in real-time and helps the Authority to track port performance and ease up bottlenecks through collaborative effort with the port community, resulting in improved efficiency and vessel turnaround times.

Integrated Port Management System (IPMS): A web-based solution introduced across the ports in 2015 to automate various marine processes that previously were carried out manually.

Order-to-Cash e-commerce system: The Order-to-Cash system seeks to modernise how TNPA operates by creating a single view of our port system and making transacting more effective and efficient. Through the use of technology, the Smart People's Port programme will intelligently collect real-time information in order to allow integrated planning, integrated monitoring of our processes and reporting throughout the value chain. The new e-commerce platform affords TNPA customers 24-hour access to

the ports and empowers them to use a self-service facility with limited administration dependency on TNPA. Customers are able to interact with TNPA across various channels including TNPA's call centre and online.

The platform also offers self-service functionality where clients can log in, maintain their own profiles, place sales orders, view current credit limits as well as view and download invoices and statements.

Port of Durban's Big Data Project: The Port of Durban is about to roll out a Big Data project that demonstrates how the Internet of Things can be used in the African port context. This involves the rollout of a unique ICT solution built on a SAP S/4HANA database where data is received in real-time through various drones, surveillance cameras, sensors and tracking technologies and all information is consolidated in a single control centre. This enables processes in the port to be analysed in real-time and reliable forecasts for the next few hours to be made.

### Wireless Broadband

- Access to shore wireless connectivity for:
  - IPMS pilot to shore
  - Dredger to shore
  - Port employees
  - Port community
  - Terminal operators
  - Mobile device connectivity

### Digital Telematics Technology

- Truck/hauler location tracking and turn-around time data
- Real-time tracking of port assets ie. Tugs, pilot boats, port operation vehicles/assets, fire Engine

### Scalable Sensor Infrastructure

Berth occupancy data

### Drone Services

- Above and beneath water quay wall and port infrastructure inspections
- Dredging level management
- Hull inspection and hull cleaning compliancy
- Business continuity management and incident investigation management

### Mobile Applications

- Port case and incident management app to enable streamlining of complaints and issues reported while ensuring improved accountability, transparency and communication with port stakeholders, users, government and community.
- Deviation notification management

CONTACT DETAILS

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