NORTH QUEENSLAND BULK PORTS CORPORATION

PORTLIFE

03

MACKAY • HAY POINT

Special delivery stacks up

Happy Dover arrives at the Port of Mackay with stacker reclaimer bound for Port of Hay Point.

Unlocking trade opportunities

An $11.64 million package to increase trade growth at the Port of Mackay.

Life under water

Marine pilots at the Port of Hay Point practise underwater escape and rescue scenarios.

Cowboys kicking goals

Community partnership sees Cowboy legends inspire the next generation.

Strong trade results despite Tropical Cyclone Debbie paint an optimistic future for our region

Trade growth at the Port of Mackay and Hay Point was on track for another record year in 2016-17 until the clouds rolled in during late March.

The impact of Tropical Cyclone (TC) Debbie was felt across the region and the Ports of Mackay and Hay Point weren't spared, with trade interruptions, serious flooding and damage to rail lines and some terminal infrastructure.

The Port of Hay Point lost about 11 million tonnes of coal trade. Although this is expected to be made up in 2017-18.

A focus on building trade at the Port of Mackay in the last financial year led to an uptick in throughput, despite the weather impacts. The port finished the financial year with a throughput of 2.9 million tonnes — the third best on record!

Notwithstanding the impacts of TC Debbie, NQBP remains one of Australia's largest port authorities, with more than half of Queensland's trade by tonnage passing through our four ports.

Stronger trade throughput ultimately means increased economic benefits for our port communities. That's why we are focusing on growing existing markets as well as attracting new customers.

In this edition of PortLife, you'll see how we have been working to improve infrastructure; attracting and facilitating the passage of different types of cargo through the Port of Mackay as it makes its way through our region.

We will continue to support terminal operators, tenants and customers to maximise growth opportunities, which provide local jobs. Our commitment to growing trade as well as the community is unwavering.

INVESTING TO UNLOCK TRADE OPPORTUNITIES

An $11.64 million package of infrastructure improvements is transforming the Port of Mackay into a safer, more efficient and more flexible trading hub.

To ensure the port is ready for trade growth, improvements include an upgrade to wharf fendering systems at Wharf 4 and 5, roadworks, removal of redundant marine infrastructure and the installation of new lead lights for marine pilotage.

General Manager Engineering and Development Dr Rochelle Macdonald said the program of works is aimed at increasing the port's capability, as well as improving safety and efficiency.

"One example includes the design changes we have made to allow roll-on roll-off cargo via Wharf 4," Rochelle said.

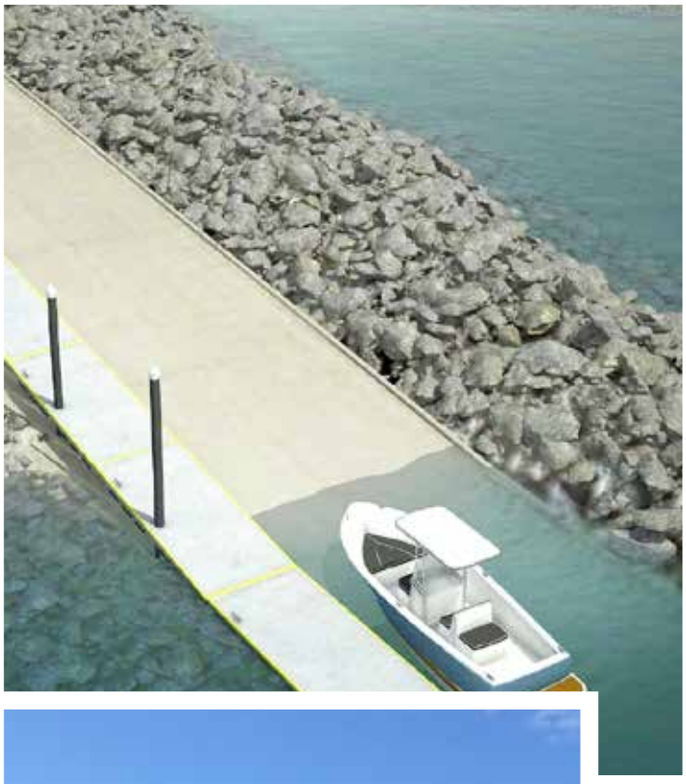
Roll-on roll-off trade, known as RORO, is any cargo that has wheels and can roll on and roll off a ship.

"It's go-go for RORO!" Rochelle said.

Works are under way and are expected to be completed in the first quarter of 2018.

To keep up to date with what happens behind the gates at the Port of Mackay, follow us on Facebook and Instagram.

PORT COMMUNITIES



COMMUNITY SAY IN PUBLIC PONTOON

A preferred public pontoon design has been chosen for Half Tide Tug Harbour at Hay Point after a community working group met with NQBP engineers and Royal Haskoning design experts.

Community members provided valuable feedback and discussed the proposed designs for the pontoon, working with the experts to identify which design would be best suited to the conditions at Half Tide boat ramp.

The preferred design will allow for queuing on both sides of the pontoon, as well as wheelchair access. It will also provide safe passage for the community to use for recreational purposes.

Funding for the pontoon was made possible after NQBP received a grant from the Queensland Government.

The next steps for the project will be the finalisation of the design documentation, obtaining the required approvals and issuing the tender for construction.

If you are interested in receiving updates on this project, please email communications@nqbp.com.au.

SPECIAL DELIVERY 'STACKS UP'

Half Tide Tug Harbour recently welcomed one of the port industry's biggest and most integral pieces of equipment — a stacker reclaimer.

Used to move stockpiles of coal at terminals, the stacker reclaimer made its way to BHP Billiton Mitsubishi Alliance's (BMA) Hay Point Coal Terminal.

General Manager Trade and Operations Brendan Webb said the pieces of the stacker reclaimer arrived into the Port of Mackay, where they were then transferred to a barge and moved south to Half Tide Tug Harbour for delivery.

"This highlighted the strategic value of having an integrated ports network and the vital role it plays in our regional economy," Brendan said.

"An integrated ports network means customers can move large equipment by sea, rather than by road, reducing their costs and the amount of truck movements needed on the highway.

"Break bulk cargo such as this stacker reclaimer is part of an expanding trade opportunity for the Port of Mackay."

A stacker reclaimer is about 65 metres long when the boom is fully extended and weighs in at a whopping 1,150 tonnes, equivalent to two Airbus A380s.

"A $17 million program of works at the Port of Mackay during the next year is budgeted as part of our strategy to further unlock the port's capability to attract new break bulk trade and continue to increase vessel numbers," Brendan said.

Managing the sediment that builds up in navigational channels

Wind, waves, tides and currents all work together constantly moving and resuspending the seafloor in the marine environment. Along the Queensland coast, the movement of this natural sediment generally moves from south to north and, in doing so, some remains trapped in port channels and berthing areas.

At the Port of Hay Point, more than 200,000 cubic meters, or 80 Olympic-sized swimming pools, of marine sediment accumulates over a three-year period. Most of this sediment is trapped in the deeper navigational areas, such as berth pockets, where vessels tie up to load from our offshore wharves.

A new study led by NQBP's Senior Manager Environment and Planning Kevin Kane has been examining options for sustainable ways to manage the build-up of sediment in the port's navigational areas.

"Accumulated sediment can result in high spots, which can create shallow water at low tide, that significantly affects the efficiency of a port and can pose a safety risk for shipping," Kevin said.

"Although there are some measures we can take to help reduce material settling in navigational areas, it is impossible to stop sediment building up completely or returning everything to the natural system.

"For this reason, preventative measures, such as maintenance dredging, are essential in managing sediment build-up and relocating it to another location — away from navigational channels and berth pockets.

"The big decision is how to effectively manage sediment removal while making sure we continue to operate a safe and efficient port. Is the right outcome to put the material back into the natural system or are there other alternatives that offer a longer-term sustainable solution?

"To help inform and guide an assessment of long-term solutions, representatives from a variety of backgrounds and community groups have been brought together to develop a set of objectives and values for consideration as part of the decision-making process.

"Bringing this group together was invaluable in helping us to understand what was important to each group, and to ensure that these values are considered when deciding how best to manage the accumulation of sediment.

"We found that as expected, a range of values were of different importance to different groups, but in general some were held in common, such as the environment, cultural heritage, port economics and operation, health and safety, social implications, innovation, and importantly, World Heritage values.

"We then used this 'values-based' approach (understanding what is important — or of value — to others) to help compare a range of sediment relocation options.

"This gave us an understanding about how each proposed option performed against those values.

"We weighed up these options, not just to see how well a range of alternatives could deal with the current sediment accumulation at the port, but also how they might cater for the long-term needs of the port and support a strategy of at least 25 years."

The outcomes of the study are currently being considered.

A feasible long-term maintenance strategy for managing navigational channels is likely to include:

A number of operational changes to extend the time required between maintenance dredging by keeping some of the sediment moving and reducing the rate of sediment accumulation.

Traditional maintenance dredging techniques, as these are the only feasible means of removing and relocating accumulated sediments.

A feasibility study to determine if dredged maintenance material could be used for habitat restoration, and what opportunities exist in the region.

Continued at-sea relocation of material to the existing approved relocation area within the Port's limits, supported by long-term, industry-leading management, permits and compliance.

To support our environmental management, we will continue with the well-established Marine Water Quality, Seagrass and Fringing Coral Monitoring Programs at the Port of Hay Point and the Port of Mackay.

To read more about Sustainable Sediment Management (SSM) or view the SSM video visit our website — www.nqbp.com.au

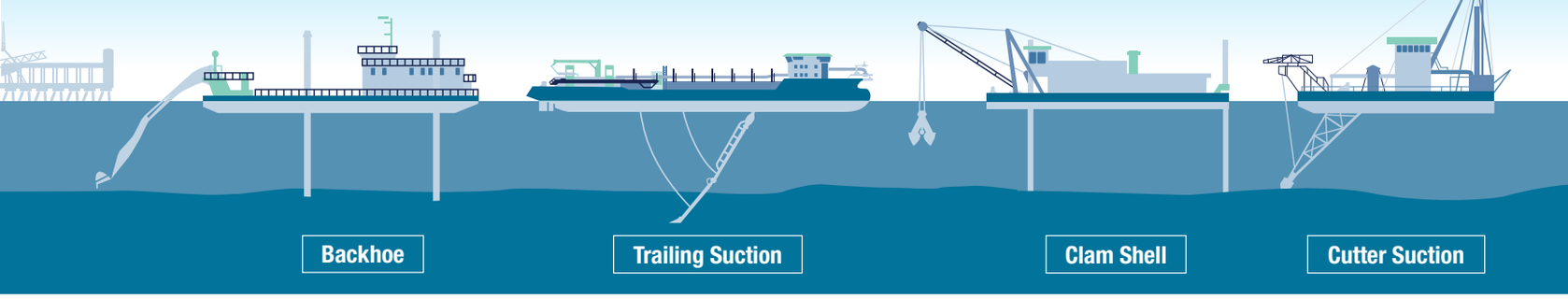
SHIPPING CHANNELS AND DREDGING

As an island nation, ports will always play a key role in our economy by allowing exports and the importation of essential supplies like building products and fuel. Our shipping channels are therefore as important as roads and railways are to our national economy.

Additionally, ports are critical in supporting regional industries such as mining, beef and sugar cane – ensuring our export commodities can reach customers and grow the economy. For these reasons, dredging is a vital part of operating a safe and efficient port.

Dredging can either be capital dredging (new channels and berths) or maintenance dredging (necessary to maintain existing and approved shipping channels). The majority of dredging undertaken at NQBP's ports is maintenance dredging.

Different types of dredging ships



Requirements

1. **Disposal of dredge material is in accordance with the National Australian Guidelines for Dredging and London Protocol.**
   - Toxic or hazardous material cannot be disposed of at sea.
   - Dredge material is not placed on or close to coral reefs.

2. **Approval sought:**

   Great Barrier Reef Marine Park Authority
   - **Sea dumping permit –** regulates dredge material to be relocated to a Dredge Material Placement Area (DMPA) at sea.
   - **Marine Park permit –** regulates certain activities taking place within the Marine Park.

   Queensland Government
   - **Development permit** to dredge and dispose at sea.

   Federal Government
   - **Department of Environment and Energy** (where the DMPA is not in the marine park)

3. **Dredging undertaken outside key environmental sensitive cycles.**

4. **Consultation with Technical Advisory Consultative Committee.**

Environmental Monitoring

Strict controls are in place to monitor impact on the local environment.

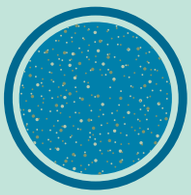

Seagrass and Benthos


Invasive Marine Pest


Inshore Fringing Coral Program


Marine Fauna


Sediment Quality


Sediment Distribution


Marine Water Quality Program

Life under water

Spending time at Mackay's Memorial Swim Centre on a 30-degree day is usually a great way to relax and cool down.

But for marine pilots, relaxing is the last thing on their mind as they spend time strapped in a caged seat continuously being overturned in deep water.

Regularly practising escape and rescue scenarios is a serious component of the marine pilots' training, enabling them to safely navigate all 50-metre-plus ships into and out of the Ports of Mackay and Hay Point.

At the Port of Hay Point marine pilots must get to and from their piloting jobs by helicopter.

Moving over water at any speed is hazardous, but doing it by helicopter at low level, and at night, adds another dimension to the importance of reaction time.

"Should a significant malfunction occur, the amount of warning available to aircrew, mission crew and passengers is limited, and that's where Helicopter Underwater Escape Training (HUET) comes into its own by markedly increasing the chances of surviving such an incident," RHO Aviation's Mark Eagleson said.

With more than 27 years' helicopter experience as an aircrewman, including Army Aviation, Emergency Medical Services and Border Protection flying, and also as a HUET instructor, Mark has trained in excess of 5,000 military and civilian students in emergency scenarios, including NQBP's marine pilots.

"The course teaches you the skills you need to escape a submerged helicopter, and once you have the techniques, they can be adapted to whatever aircraft you are operating," Mark said.

Pilotage Services Manager Bryce Bathe said safety is NQBP's first priority, and marine pilots are critical to ensuring safe and efficient port operations.

"NQBP continues to support pilot competence and safe pilotage through our competency training and development program, which was established in consultation with Maritime Safety Queensland," he said.

And while being repeatedly turned upside-down in deep water would not be on the top of most people's to-do lists, marine pilots enjoy the challenge and experience.

"While the training is a little nerve-wracking, it's a great reminder of what's at stake every time we fly to or from a ship," Shift Coordinator Ian Bennett said.

COWBOYS KICKING GOALS IN 2017

It has been a fantastic year for the North Queensland Toyota Cowboys, both on and off the field.

Our support for the Cowboys is centred on shared values of community, leadership, innovation and integrity, and it's our partnership with the club that helps inspire the next generation to make positive life choices.

During the year, our community partnership has seen visits from Cowboys legends Brent Tate and Matthew Bowen to our port communities as part of the Bulk Ports Blitz program.

The first blitz in April made its way to Mackay, where the team spread messages of healthy eating and staying active to local school students. The Cowboys were also impressed by the skills shown at the open junior rugby league training session, which took place at Brothers Bulldogs.

Most recently, another blitz was held at Sarina over two days and included a free junior rugby league skills and drills session, and visits to Sarina State High School, Sarina State School, Alligator Creek State School and St Anne's Catholic Primary School. You couldn't wipe the smiles off the kids' faces!

A strong local port needs a strong community for the future, and as proud North Queenslanders, we look forward to seeing the Bulk Ports Blitz program continue in our port communities for the next two years.

After another fantastic year on and off the field, all we can say is GO COWBOYS!

TRADE FACILITATION

'BIG THINGS' HAPPENING AT THE PORT OF MACKAY

With infrastructure improvements under way at the Port of Mackay, benefits are expected to flow to the region, with an increase in the amount of break bulk cargo coming through the gates.

Break bulk cargo can be anything from oversized equipment through to pre-fabricated construction cargo, often used in the mining and agricultural industries.

Trade Development Manager Darren Fursman believes planned upgrades make the port more attractive for transport and logistics companies.

"This, combined with new development projects in the region, means we can expect to see more mining haul trucks, excavators and shovels coming straight into Mackay, instead of via Brisbane or Townsville," Darren said.

"The Port of Mackay is truly a leading service centre in the region — offering ready access to the Bowen and Galilee Basins, as well as a major Mining Equipment, Technology and Services (METS) hub in the adjacent suburb of Paget.

"We also have the largest break bulk storage area in the region — 800 hectares of land is available for staging, pre-assembly and pre-commissioning of machinery and equipment, and this includes 55 hectares of wharf-side storage.

"Additionally, we can offer our customers the opportunity to transition laydown areas to bonded warehousing and distribution centres.

"While every cargo is different and presents a unique set of challenges, we have the capacity, experience, flexibility and availability to meet our customers' break bulk trade needs."

The Port of Mackay offers reliable access to berth space across four multi-use wharves and can accommodate roll-on roll-off (RORO) vessels up to 200m length overall and 32.2m beam. It also has on-site quarantine wash down facilities.

TENANT PROFILE

Practically plastic products

With leading industries increasingly dependent on high-quality plastics for mechanical durability and safety, Justin Smith and his Elite Plastic Fabrications team are proud of their reputation for building solutions.

From their Mackay Harbour factory in Satellite Crescent, Elite specialises in plastic fabrication and engineering, the manufacture and supply of piping systems, and plastic welding and repairs for the mining, automotive, sugar, marine and agricultural industries.

"There is not a major industry in central and north Queensland that we do not service, which makes our harbour-side address an ideal manufacturing location and distribution point," says Justin Smith, who has been Managing Director of the family-run business since 2006.

"Combined, the Elite team has more than 50 years' experience in plastic fabrication, which is a huge advantage for us in meeting our customers' needs and quality standards.

"We have recently added polyurethane spraying to our range of capabilities while maintaining our reputation for producing top-quality water cartage tanks, machinery guards and specialised fittings," says Justin.

Elite is also a supplier of leading brands of plastic sheeting, rods, pipes and hoses.

"Pump and motor guards, conveyor and electrical covers, battery box covers, and windscreen protectors are just some of the products made to order at our Mackay factory," Justin said.

Quality workmanship and materials are important to Elite and nowhere is that more apparent than in their range of custom-built mobile water tanks used for dust suppression.

Using High Density Polyethylene (HDPE), the tanks are designed with a baffle system that assures a smooth drive even when negotiating corners or braking at higher speeds.

"These tanks can be fully customised and are ideal for unpaved dirt roads, construction sites, heavy haul roads and land development," Justin said.

"We are very proud of this product, and rightly so, say our customers."

Elite Plastic Fabrications Pty Ltd
66 Satellite Crescent
Outer Mackay Harbour

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SMART PORTS · BRIGHT FUTURE

Mackay Office · 07 4969 0700
Level 1 Waterfront Place,
Mulherin Drive, Mackay Harbour