BRISBANE AIRPORT AUSTRALIA

BRISBANE'S NEW RUNWAY

ENVIRONMENTAL MANAGEMENT

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OVERVIEW

- Dredging process
- Delivering sand to the runway site
- Environmental management

CURRENT AS AT
JUNE 2019

One of the world's largest and most experienced dredging contractors, Jan de Nul (Australia) Pty Ltd, undertook the dredging and reclamation works on the 360ha new runway site.

DREDGING IN MORETON BAY

- One of the newest ships in the Jan de Nul fleet, the Charles Darwin trailer suction hopper dredge, arrived in Brisbane in June 2014 and began dredging marine sand from Middle Banks in Moreton Bay for Brisbane's new runway site.
- 11 million cubic metres of marine sand was dredged from a carefully-selected site adjacent to the Port of Brisbane's main shipping channel.
- The sand was an extremely clean product, free of all contaminants and with negligible levels of fines or silts. It was of a superior quality and consistency and was the ideal material needed to create a solid base for the new runway.
- The dredge footprint was carefully selected to avoid sea grass pastures and areas with a high abundance of marine life.
- By avoiding those areas the dredging did not interfere with Moreton Bay wildlife such as dolphins, whales, dugongs or marine turtles.
- Dredging was confined to a long, narrow linear footprint with gentle sloping batters.
- The dredge extracted only clean marine sand without digging and infringing on the deeper soil layers.
- No significant noise, visual, or landscape impacts affected Moreton Island communities.
- The selected area also avoided other users of the Bay, such as commercial and recreational fisheries and tourism operators.
- A 24/7 real-time monitoring program was put in place to ensure strict adherence to all water quality standards.

DELIVERING SAND TO THE RUNWAY SITE

- The sand was pumped to the new runway site through a pipeline up to 8.5 kilometres long at its furthest point.
- Transport water was taken from the Brisbane River at the mooring location and mixed with the sand in the ratio of 5:1 for pumping purposes.
- For each load of 30,000m^3 of sand, up to 150,000m^3 of water was also delivered to the reclamation site for management prior to release.

1. All vegetation cleared from the new runway site was mulched on site and mixed with topsoil for eventual use in landscaping the site.

2. The suction head on the Charles Darwin acted like a giant vacuum cleaner and sucked up only clean pristine sand from the dredge site at Middle Banks in Moreton Bay.

SEDIMENT PONDS

- Temporary sediment ponds were constructed on the new runway site to contol the flow of water.
- The water was contained on site within the primary reclamation bund and tail water ponds to allow any sediment to settle to the bottom before being released back into the Kedron Brook floodway via the airport's new major drainage system.
- No water was released until it met the strict water quality discharge requirements.

ENVIRONMENTAL MANAGEMENT

- Brisbane Airport Corporation (BAC) obtained all relevant federal, state and local government approvals for the sand extraction from Middle Banks in Moreton Bay.
- BAC had a federally approved Construction Environmental Management Plan (CEMP) in place based on the findings identified in the Environmental Impact Statement and Major Development Plan (EIS/MDP) process. Refer to: bne.com.au/newrunway
- The Queensland Government's Moreton Bay Sand Extraction Study (MBSES) (2005), the studies undertaken during the EIS/MDP, and BAC's own subsequent pilots (2008), (2011), showed sand extraction had a negligible effect on the Bay.
- Trial dredging in 2008 conducted at the new runway dredge site demonstrated no harmful effects occurred in the environmentally sensitive areas either side of the extraction footprint.
- Sand was taken from the same Moreton Bay site to build the airport in the early 1980s and again in the early 1990s for the construction of the International Terminal with no harmful impacts.
- BAC and its contractor Jan de Nul had dedicated professional environment teams to implement the approved CEMP and oversee a range of successfully proven environmental management strategies for both on and off airport land.