

ENVIRONMENT

SYDNEY PORTS PLAYS A SIGNIFICANT ROLE IN MANAGING TWO OF NSW'S MOST PRECIOUS NATURAL RESOURCES – SYDNEY HARBOUR AND BOTANY BAY. OUR AIM IS TO PROTECT THE ENVIRONMENT FROM ADVERSE IMPACTS ASSOCIATED WITH THE PORT AND ITS OPERATIONS.

OUR PERFORMANCE AGAINST OUR 2006/07 COMMITMENTS

- ✓ → **DEVELOP AND IMPLEMENT A SUSTAINABILITY POLICY**

The Sydney Ports' Sustainability Policy was approved by our Executive and Board on 11 April 2008. Implementing the policy to all Sydney Ports and Sydney Pilots Service departments is a commitment for the organisation in the 2008/09 year.
- **DEVELOP A CLIMATE CHANGE STRATEGY AND ENGAGE STAFF AND TENANTS TO REDUCE GREENHOUSE IMPACTS, INCLUDING RESEARCH INTO RENEWABLE ENERGY OPTIONS SUITABLE TO PORT OPERATIONS**

Preliminary research has been completed which has illustrated the scale of developing an organisation-wide approach to climate change. Sydney Ports believes external assistance is needed to further develop the strategy, with focus on a climate change risk assessment and investigation of renewable energy options. These areas will be key elements of our climate change strategy for 2008/09.

A tenant sustainability forum was also established to create a platform to share information about climate change, sustainability and environmental management. For further details see the Port Operators and Supply Chain section of this report.

Sydney Ports has also reviewed new government legislation surrounding Greenhouse Gas reporting and the upcoming Emissions Trading Scheme. At this stage Sydney Ports will not be required to formally report emissions data, however details of our emissions footprint is included in this report.
- ✓ **SUBMIT THE DRAFT SECTION 170 REGISTER TO THE HERITAGE OFFICE, LISTING SYDNEY PORTS' VARIOUS HERITAGE ASSETS**

An action within the Sydney Ports' *Heritage Asset Management Strategy* (HAMS) was completion of a Section 170 Heritage Register. Our register was completed and forwarded to the Heritage Office in September 2008.

The Register comprises information on the history of each heritage item; a physical description of the item; an assessment of its heritage significance; a recommended listing (either state or local); and information such as the condition of the item and any management issues. Our register contains a total of 43 items, of which 23 are proposed as state listings.
- **PREPARE A HERITAGE MANUAL FOR STAFF TO ASSIST IN HERITAGE ASSET MANAGEMENT**

Following the submission of our Section 170 Register, appropriate staff were briefed on our heritage assets and ongoing discussions will result in a Heritage Manual for all staff to follow during maintenance and management of these assets. This manual will be finalised in 2008/09.

Key: ✓ Achieved → Continuing X Not achieved

DISCUSSION POINTS

COMMENCEMENT OF PENRHYN ESTUARY WORK

Sydney Ports prepared the *Penrhyn Estuary Habitat Enhancement Plan* to outline the rehabilitation of Penrhyn Estuary including monitoring and management before, during and after construction of the new container terminal at Port Botany.

The \$8 million rehabilitation started with construction of a temporary shorebird roosting island, transplantation of seagrass and propagation of saltmarsh seeds. The temporary island has been built to provide a high tide roosting area for the migratory shorebird species that will frequent the estuary prior to the completion of the rehabilitation work. This island will later be replaced by three permanent bird roosting islands.

An additional 2.4 hectares of saltmarsh habitat will be planted and the existing intertidal flats will be expanded to 13.8 hectares. These areas will help attract and provide additional feeding and roosting habitat for migratory shorebirds. Also, the seagrass habitat will be increased to about 6.5 hectares in the project area to attract more fish and marine life.

Sydney Ports is committed to protecting and enhancing these habitats as well as making the area accessible to the local community via a viewing platform and bird hide.

Further environmental works have already taken place with the transplantation of mangroves from Penrhyn Estuary to sites in southern Sydney. Mangrove removal from the estuary was necessary to secure saltmarsh habitat and protect shorebird feeding and roosting sites. Sydney Ports sought new homes for the mangroves, which saw mangrove seedlings and plants less than one metre tall removed by hand and transplanted to two locations in the Sutherland Shire – the banks of Port Hacking on the Hacking River and Alford's Point on the Georges River. The projects are being completed by Sutherland Shire Council, National Parks and Wildlife Service, NSW Maritime and Abigroup.

Collection of saltmarsh seeds and stem pieces is complete for 2008 and propagation has begun. More than 200,000 seeds will be propagated at two nurseries around Sydney to be planted within the estuary in 2009.

Sydney Ports has been monitoring key environmental aspects of Penrhyn Estuary, including shorebird feeding and roosting observations and water quality. We will continue to gauge the success of the estuary's rehabilitation. Regular updates of monitoring results are posted on our website.

PORT BOTANY EXPANSION DREDGING WORKS

Dredging commenced at Port Botany in August 2008 as part of the first stage of the \$1 billion port expansion. Dredging the bay will ensure the capacity to accommodate the expected doubling of trade through the port over the next 20 years. The dredging process should take about 18 months.

A silt curtain has been installed around the dredge area to confine sediment and to protect the wider Botany Bay environment.

A cutter suction dredge is being used to reclaim an area between the existing Brotherson Dock and the end of the third runway adjacent to the Patrick terminal. During 2009 a larger dredging vessel will complete the process.

A second silt curtain has been installed around an area of seagrass adjacent to Foreshore Beach to ensure this natural habitat is also protected from sediment generated by dredging. As expected, an operation of this size will have some short-term effects on the waterways but these curtains should reduce the impact and ensure there are no long-term effects to the environment and minimal disruption to recreational users of the bay.

Water quality monitoring has already commenced in order to set a baseline against which to measure turbidity or cloudiness resulting from the dredging. Monitoring will continue throughout the dredging process on a daily basis. Monitoring reports are available from www.sydneyports.com.au.

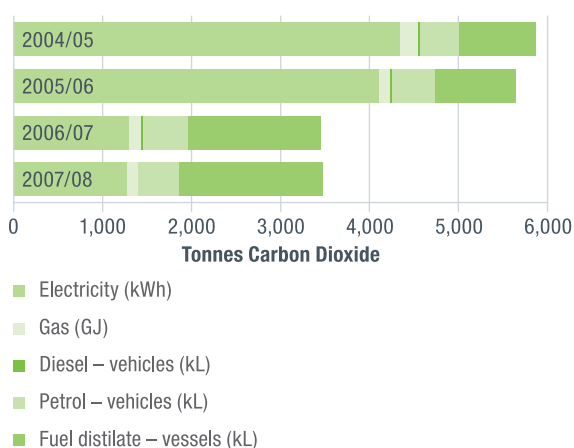
EMISSIONS TRADING/CLIMATE CHANGE RESPONSE

In view of the increased global and national focus on climate change and the potential for climate change to directly impact our organisation and Sydney's port operations and operators, we believe it is important that we lead by example with actions that acknowledge and mitigate impacts of climate change, consistent with our commitment to be an environmentally-aware state-owned corporation.

Sydney Ports is currently investigating a range of initiatives which will help us address the impacts of climate change on our organisation. Next year, Sydney Ports will conduct a Climate Change Risk Assessment on its port operations and infrastructure. We will also address the issues by reducing our resource usage. See Resources section on page 10 for details.

The Federal Government has recently released its response to the impacts of climate change in the form of new legislation. Sydney Ports, as a state-owned corporation, is fully supportive of the Government's work towards a National Greenhouse Emissions Reporting Scheme and a Carbon Pollution Reduction Scheme. For more details, refer to Resources section on page 10.

DIRECT AND INDIRECT CARBON DIOXIDE EMISSIONS 2004/05 TO 2007/08



Note: The above table illustrates different calculated emissions to that presented in the 2006/07 report. This is due to a review of our monitoring system which was incorrectly calculating our total emissions. The recalculation, found our 2006/07 emissions were actually 3,463 tonnes of carbon dioxide as opposed to the reported 4,884 tonnes of carbon dioxide.

Under the current legislation Sydney Ports is below the threshold for emissions reporting and will not be required to obtain emissions permits. However, we still believe that the reduction of our carbon footprint is important. In 2007/08 Sydney Ports' activities resulted in the release of 3,475 tonnes carbon dioxide-equivalent.

GREEN PORT GUIDELINES CHECKLISTS

In 2007/08 Sydney Ports received four *Green Port Guidelines* checklists. Within these checklists port tenants committed to the sustainability challenge by considering and including environmental features within their developments, including on site water treatment, use of low sulphur diesel fuel, green procurement checklists and timer and sensor lighting.

EARTH HOUR

Sydney Ports participated in Earth Hour for the second time as part of the NSW Government's commitment to increase awareness about climate change. Sydney Ports' sites switched off lights for one hour, including our head office and the Overseas Passenger Terminal at Circular Quay, and several of our tenants' sites. Due to security and safety issues, some port areas and infrastructure could not participate in Earth Hour.

CLEAN UP AUSTRALIA DAY

Sydney Ports participated in Clean Up Australia Day for the first time this year. As part of the nationwide Business Clean Up Australia Day, staff from Sydney Ports and DP World volunteered to collect rubbish on Tuesday 26 February 2008 at Yarra Bay and at Molineux Point. A total of 45 participants collected about 85 kilograms of rubbish. Yarra Bay and Molineux Point were chosen because of their frequent use by the local community and proximity to the port area.

BIODIVERSITY

Sydney Ports' general approach to managing biodiversity is to: prevent adverse impact from shipping activity; improve ecological habitats that are part of the port estate and development activities; and to ensure other activities, such as construction, do not impact on biodiversity. Examples of how Sydney Ports achieves this include: taking a lead role in oil spill prevention and response; enhancing Penrhyn Estuary and frog habitat at Enfield; careful environmental planning and assessment processes prior to any works and implementing mitigation measures during construction and operations.

ENVIRONMENTAL NOTICES

There were no environmental notices issued against Sydney Ports in 2007/08 – down from two in 2006/07.

Our approach to environmental management is based on the requirements of ISO 14001:2004. Its focus is to integrate the identification and management of environmental risks and issues across all business functions and processes at all levels of Sydney Ports. This makes environmental management an integral part of the way Sydney Ports does business.

DANGEROUS GOODS AUDITS AND FINES

Sydney Ports recognises that the dangerous and hazardous goods moved through Sydney's waterways every day by port customers is a significant concern for residents and landowners located near port areas.

We play a vital regulatory role in approving the conditions under which such goods are handled and stored in port areas. We investigate, and where necessary, initiate legal action against breaches of dangerous goods regulations.

There were 1,288 dangerous goods audits conducted at container terminals by Sydney Ports in 2007/08 – up from 568 in 2006/07. The number of dangerous goods penalties issued by Sydney Ports in 2007/08 was 908 – up from 895 in 2006/07. We increased our audit rate to ensure greater compliance by the industry with regulations.

WATER QUALITY

Operating in sensitive environments such as Botany Bay and Sydney Harbour means any pollution from port-related activities such as dredging, construction and storage of chemical and fuel products can result in significant impacts on water quality – both surface and groundwater.

Sydney Ports undertakes inspections and audits to ensure such activities meet environmental safety requirements. We also respond to and investigate incidents such as spills or leaks and if required, prosecute those who create marine pollution.

There were 191 marine pollution reports to Sydney Ports in 2007/08, with none being a result of our activities and none sourced from commercial shipping operations. The number of marine pollution reports in 2006/07 was 192, with four caused by commercial shipping.





COMMITMENTS FOR 2008/09

- » Complete a Climate Change Risk Assessment.
- » Continue participating in events such as Clean Up Australia Day and Earth Hour to raise environmental awareness.
- » Continue habitat enhancement works and environmental protection of Penrhyn Estuary for the Port Botany Expansion project.



