



PERFORMANCE COMMITMENTS IMPROVEMENTS UNDERSTANDING

The responsible management of water at Port Waratah is critical to our operations and its sustainable use a key focus of continuous improvement programmes.

**Performance**

The Site Water Balance Model and water management systems at our terminals operated effectively throughout the year. During 2020, a number of rainfall events occurred that exceeded the storage capacity of our water management systems and resulted in localised overflows, as provided in our Environment Protection Licences and development consents.

Unfortunately, we did not achieve our target, experiencing six incidents at our Kooragang Terminal. The incidents were largely caused by limitations of controls or infrastructure, which has led to extensive investigations to review and improve controls through planned corrective actions. While the incidents were minor in nature, they were recorded and notified in accordance with our legislative requirements. In order of occurrence, the incidents were:

- In March, a hydraulic hose failed on a shiploader at Kooragang resulting in the discharge of approximately five litres of hydraulic oil into Newcastle Harbour. A floating oil-absorbent boom and absorbent mats were used to contain some of the oil in the harbour, the hose was replaced, and the failure mode was investigated to eliminate the potential recurrence of the incident.
- In May, washdown water was blown by extreme wind conditions from an onsite washdown activity onto a nearby public roadway. Spill response equipment was deployed to prevent further water entering a nearby public roadway drain. Residual water in the roadway gutter and drain pit were removed with a vacuum tanker and returned to site. A review of the pre-task hazard assessment has been undertaken to highlight potential weather impacts on tasks.
- Two incidents in July and September involved drainage systems on our shiploaders at Kooragang Terminal. These incidents were the result of blockages and leaks in the launders directing washdown water to the collection system. Small amounts of coal laden water discharged from the launders into Newcastle Harbour during these events. The blockages and leaks were repaired, and the machine returned to service. An inspection of the launders is undertaken following all shiploader washdowns to identify any potential issues with the launders prior to operation.

# WATER IS ESSENTIAL TO OUR OPERATIONS

*We understand the important role of water in our local environment and how we can use this resource sustainably*

- In October an underground fire main ruptured resulting in approximately 108kL of process water discharging into Newcastle Harbour at Kooragang Terminal wharf. The water supply system was shut down and the pipeline repaired.
- The final incident occurred in late December, when the conveyor drive fluid coupling fusible plug located on a shiploader, discharged oil due to reaching its temperature limit. This resulted in the release of the entire capacity of the fluid system (22.5 litres). Approximately seven litres of oil landed on the deck of the machine, and approximately 15 litres of hydraulic oil entered Newcastle Harbour below. A review of the type of fusible plugs in use on the shiploaders to an enclosed system type is in progress.

All incidents were investigated with corrective actions developed to minimise the potential for reoccurrence. We continue to invest significant time, effort and resources to eliminate water related non-compliances.

CASE STUDY

**Kooragang Water Management System Automated**

The water management systems at Port Waratah comprise substantial infrastructure of storages and connecting pipework, drains and pumping systems. The control of water onsite uses Programmable Logic Control systems that utilise field sensors and transmitters to monitor and control the storage and transfer of water.

During 2020, the last major storage at the Kooragang Terminal was integrated with the automated water management system, removing the need for personnel to manually operate transfer pumps, which often took place during the night and/or rain. The project involved a \$2.5 million investment to install new pumps, pipework and level telemetry that now automates the transfer of water to and from the storage. This major improvement to the water infrastructure enables the refinement of efficient system operation and maximises available storage.



Water Management Improvement Projects in 2020

# 16 CAPITAL PROJECTS

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## OVER \$4.3 M SPENT

IMPROVEMENTS

**Carrington:**

- Commencement of works on a third stormwater storage tank.
- Connection of a filtration system to the main water supply storage tank (reducing potable water consumption).
- Bank stability improvements to main storage dam.
- Installation of a pollutant trap to capture debris and vegetation.

**Kooragang:**

- Additional washdown controls on all shiploaders, including redesign of a trimmer flap and launder enhancements.
- The automation of water transfers to and from water storage facilities.
- Surface water drainage improvements.
- Assessed infrastructure to identify process water improvements for further investigation.



**Community feedback**

Water management remains one of the environmental concerns for our local community. The 2020 Local Voices Community Anchor Survey results showed that most participants view Port Waratah as a responsible water user, which is consistent with previous survey results. Survey responses also showed increased satisfaction in our management of potential water quality impacts to Newcastle Harbour.

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