

Fact Sheet

Remediation of former Newcastle Steelworks site



September 2006

Why remediate?

The Regional Land Management Corporation (RLMC), on behalf of the NSW Government, is making the former Newcastle steelworks site at Mayfield ready for a new era of industrial development.

After extensive research and modeling the RLMC has developed an environmentally sound and effective remediation strategy. The total cost of the strategy is expected to be around \$110 million.

The site has some groundwater and soil contamination from its previous industrial uses. This contamination, which is common to steel or gas works sites, is largely confined to a 30 ha part of the site.

The RLMC's remediation strategy has been designed to contain contaminated soils and manage contaminated groundwater to a standard that allows industrial usage of the site and addresses environmental protection of the Hunter River. It expands the remediation plan in BHP Billiton's 2001 Development Application for the site for which development consent was given, subject to the need for further groundwater containment works. The strategy now includes these works.



The RLMC's remediation strategy has four components

- 1. Install an underground barrier wall around part of the site.** The wall will be 1.4km long. It will extend 45 metres underground at its deepest point with an average depth of 31 metres. It is designed to block the horizontal flow of groundwater moving through the main area of contamination. Excavation to such depths will be possible using a bentonite slurry. The pressure from this slurry holds the excavation trench open allowing an impermeable but flexible wall to be built.
- 2. Improve drainage across the site.** Two new main stormwater drains and two new detention ponds will be built on the site, along with improvements to other stormwater pipes. This work will address the flooding that currently occurs on parts of the site.
- 3. Regrade the site.** Earthworks will regrade the site so that rainwater runs off into stormwater drains.
- 4. Cap the site.** A half a metre thickness of compacted low permeability material, such as coal washery reject, will be laid on top of the site. Capping the site reduces the infiltration of rainwater, and also provides a barrier preventing exposure to soil contamination.

All four components work together to reduce the amount of rainwater infiltrating the site and the movement of groundwater through the contamination into the river.

The first stage of works (new stormwater drainage and underground barrier wall, as well as capping and contouring of priority areas) will start in May 2006 and will be completed by 2008. Remediation (contouring and capping) of the remainder of site will occur in line with development but is required to be completed by no later than 2012.

Has this remediation approach worked elsewhere?

This approach to remediation has been successfully used in other projects in Australia and overseas. A similar soil-bentonite wall, 1km long and 33m deep, was built in 1987 at the Raytheon & Company site, south of San Francisco Bay. More recently, a former landfill on the banks of the Alexandra Canal at Tempe in Sydney has been remediated for industrial and open space land uses using a combination of soil-bentonite barrier walls and site capping.

Regulation and monitoring of the works

The Department of Environment and Conservation (DEC) has approved the strategy.

Remediation works on the site will be regulated by the Department of Planning through consent conditions generated under the Environmental Protection and Assessment Act 1979 and by DEC by way of a Voluntary Remediation Agreement (VRA) under the Contaminated Land Management Act 1997.

An independently chaired Community Consultative Committee (CCC), comprising representatives from the community and RLMC, is also in place to provide two way information and feedback about the works. For more information about the CCC visit the RLMC website at www.rlmc.com.au.

Construction impacts

An Environmental Management Plan has been prepared. This plans sets out the environmental controls which will be put in place to minimise impacts to the community and environment during construction. Air quality, noise and dust levels will be monitored.

Given the nature of the works, equipment used, the distance of the construction area from surrounding neighbours, and the safeguards put in place, construction impacts are expected to be minimal.

The future of the site

With access to one of Australia's largest deepwater ports and proximity to Newcastle CBD and to a high quality transport network, the site has tremendous potential for industrial and port related uses.

Former steelworks site redevelopment timeline:

- 1915-1999** BHP Billiton operates steelworks on the site.
- 1997** BHP Billiton announces closure of steelmaking.
- 2000** Demolition of old buildings starts.
- 2001** BHP Billiton Development Application approved. Consent issued subject to additional groundwater remediation.
- 2003** RLMC established
- 2003-2004** Remediation plan expanded following extensive groundwater modelling.
- 2004** Demolition & removal of old buildings complete.
- 2005** Site regrading and drainage works redesigned.
- Sept 2005** Remediation strategy approved by Dept of Environment & Conservation.
- 2006** Priority remediation works start.
- 2008** Priority remediation works complete.
- 2008-2012** Contouring and capping of remainder of site in line with development.



More information:

www.rlmc.com.au. The RLMC website contains answers to frequently asked questions about the remediation works.

Phone: 1800 197 867. The RLMC has established a toll free project information line for feedback or questions about the works.