

### ABOUT THE SITE

The Hunter Development Corporation (HDC), on behalf of the NSW Government, is undertaking a \$110M remediation strategy for the land on the former BHP Newcastle Steelworks Site at Mayfield.

BHP operated a major steelworks in the suburb of Mayfield, Newcastle, NSW from 1915 to 1999. The land is generally bound by the Hunter River to the northeast, Selwyn St to the south, Industrial Drive to the west, and OneSteel also to the west.

The overall site is roughly 150 hectares, and after many decades of heavy industrial use, it has some groundwater and soil contamination issues.

### THE REMEDIATION STRATEGY

The remediation strategy has been designed to contain contaminated soils and manage contaminated groundwater to a standard that allows industrial use of the site and addresses environmental protection of the Hunter River.

The remediation strategy is being undertaken in liaison with the relevant authorities, including the NSW Department of Environment and Climate Change (DECC) under a voluntary remediation agreement (VRA).

The contamination, which is common to steelworks sites, is largely confined to a 30 hectare area of the site identified as Area 1. However, remediation work is also required to the bulk of the remaining areas of the site as well.



THE SITE AND AREA 1

### STAGING OF THE REMEDIATION

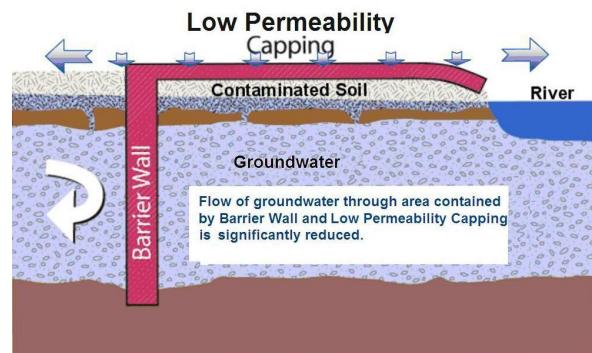
The remediation work is being undertaken in stages.

#### STAGE 1

Stage 1 construction work was completed in 2008, and involved primarily dealing with the contamination in Area 1. It included the following key components.

##### 1. Underground Barrier Wall to Area 1

The wall is designed to slow down and effectively stop the contamination problems caused by the horizontal flow of groundwater through Area 1. The wall reduces the flow of contaminants leaching into the waterway. The underground barrier wall is about 1.4 km long and with an average depth of about 30 metres.



CROSS SECTION OF BARRIER WALL

##### 2. Low Permeability Capping

Compacted low permeability material, about half a metre thick, was laid over the top of Area 1. The capping reduces the infiltration of rainwater, and also provides a barrier reducing the risk of direct human exposure to the contaminated soils.

##### 3. Land Shaping and Surface Drainage

The surface has been carefully shaped to drain surface run-off (rainwater) into two new large stormwater drains at the eastern and western ends of the site.

All components work together to reduce the amount of rainwater infiltrating the site and significantly reduces the movement of groundwater through the Area 1 contamination into the river.

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## STAGE 2

The Stage 2 works will involve the provision of low permeability capping, land shaping and surface drainage and other works to most of the remaining areas of the site.

### Stage 2 Design and Documentation

This phase of the Stage 2 works is proceeding, with a tender currently underway for the provision of detailed design and documentation services.

The construction phase is anticipated to proceed late in 2009, and the current VRA aims to have the remediation work in place by the end of 2012.

### INFRASTRUCTURE WORKS

In tandem with the remediation works it is also proposed to undertake key infrastructure works for the benefit of the overall site. These include new rail and sewer services.

#### New Rail Alignment

An existing rail line crossing the site is to be replaced on a new alignment to allow remediation to be undertaken and to better service the long term rail requirements of the future site developments. The design for the rail has development consent, and construction is anticipated to start later in 2009.

#### New Sewer Service

The old steel works relied on an onsite sewer treatment facility. This is to be replaced with a new service, currently proposed to involve a pumping station and rising main to connect into the Hunter Water system. Design work on the new sewer services is proceeding, and construction is anticipated to commence later in 2009.

### MONITORING OF THE WORKS

Remediation works on the site are also regulated by the Department of Planning through consent conditions, as well as by DECC through the voluntary remediation agreement (VRA) under the Contaminated Land Management Act 1997.

An independently chaired Community Consultative Committee (CCC), including representatives from the community, is also in place to provide two way information and feedback about the works.

### MANAGING IMPACTS

A Contaminated Site Management Plan (CSMP), including environmental management plan issues and other necessary measures to help manage the site, has been prepared and is regularly updated. It provides a guide to key activities and works undertaken on the site.

Environmental controls and monitoring is put in place to minimise impacts to the community and environment during construction. For example, the monitoring of air quality, noise and dust levels.

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

### THE FUTURE OF THE SITE

HDC is working closely with the key stakeholders on the site, including the Newcastle Port Corporation and OneSteel. With high quality road and rail links, as well access to one of Australia's largest deepwater ports and proximity to Newcastle CBD, the site has tremendous potential for industrial and port related uses.

### SUMMARY TIMELINE

- 1915** BHP starts Newcastle steelworks.
- 1997** BHP Billiton announces closure of steelmaking in Newcastle.
- 1999** Newcastle steelworks closes down.
- 2000** Demolition of old buildings starts.
- 2001** BHP Billiton Development Application approved. Consent issued subject to additional groundwater remediation.
- 2003** Remediation plan developed following extensive groundwater modeling.
- 2004** Demolition & removal of old buildings.
- 2005** Site contouring and drainage works designed & remediation strategy approved by DECC.
- 2006** Stage 1 (Area 1) remediation works start.
- 2008** Stage 1 remediation works complete.
- 2009** Detailed design and documentation of remaining remediation work undertaken.
- 2009** Necessary remediation works, contouring, capping, drainage & infrastructure on
- 2012** remainder of site in line with development.



AERIAL VIEW AFTER STAGE 1 REMEDIATION

#### More information:

[www.hunterdevelopmentcorporation.com.au](http://www.hunterdevelopmentcorporation.com.au)