

REMEDIATION OF BARANGAROO – THE FACTS

This fact sheet provides an overview of contamination across Barangaroo, and what is being done by the Barangaroo Delivery Authority to remediate the former Millers Point Gasworks.

Key Messages

- **No cost to taxpayers for remediation. Barangaroo South developer payments will cover any state liability for remediation.**
- **The Barangaroo Delivery Authority will pursue legal proceedings where necessary to recover remediation costs from the responsible parties**
- **The Barangaroo Delivery Authority will ensure the remediation process is carried out without unacceptable risks to human health and the environment.**
- **The remediation process will address the requirements in Department of Environment, Climate Change and Water's declaration.**

1.0 Site History/Overview

Like many post industrial sites, Barangaroo has some below-ground contamination.

On Barangaroo, the main sources of contamination are:

- from the Millers Point Gasworks (which operated on site 1840 -1921 on a site which included Barangaroo and Hickson Road);
- unclassified fill used during reclamation for the port construction (circa 1951-1972); and
- use of the site as a ports maintenance area.

The remediation of contaminated areas across Barangaroo will be managed during all phases of the development. This means managing the contamination so that people have no unacceptable exposure to the contamination and the environment is adequately protected.

2.0 Have contaminated sites been successfully managed in Sydney before?

It is common for contaminated sites to be successfully remediated and turned into urban parklands. There are at least 20 in the Sydney area alone including sites in the northern, eastern and the inner west suburbs such as:

- * The award winning urban park on the former Tempe Tip site
- * Sydney Park on the former brickworks/tip at St Peters
- * Sydney Olympic Park

The venue of the Sydney 2000 Olympic Games had been used for uncontrolled land filling for many years, which resulted in wide-spread contamination. A massive remediation project was undertaken for the redevelopment of the area as the major games venue. Buried waste at the majority of the area was removed and transferred to designated waste containment areas. These areas were then capped, landscaped, and turned into parkland.

Following on from Sydney's lead London has redeveloped a contaminated urban area for their 2012 Olympic Site.

3.0 What is the main remediation issue?

The major source of contamination is expected to come from the former Millers Point Gasworks.

The above ground structures associated with the gasworks were demolished between 1922 and 1925, but underground structures including tanks were left on site.

4.0 Who owned and operated the gas works?

The Millers Point Gasworks was operated by Australian Gas & Light Company which is now Jemena Limited.

5.0 What is the remediation site?

In 2007, the Department of Environment, Climate Change and Water (DECCW) publicly declared parts of Barangaroo, a portion of Hickson Road and parts outside the Barangaroo site as an “investigation area”. (See **Photo 1 – Area marked in blue**).

In the “investigation area”, further studies were undertaken during 2007 to 2009, including drilling of more than 200 bore holes across the entire 22-hectare Barangaroo site. In addition, the City of Sydney undertook testing of Hickson Road, and other testing was conducted at 30 to 38 Hickson Road.

Following review of these test results, in May 2009, DECCW declared specific portions of Barangaroo (around 2 hectares of the 22-hectare area of Barangaroo) and of Hickson Road as a “remediation site”

(See **Photo 1 – Area marked in red**) under the provisions of the *Contaminated Land Management Act 1997*.

You can read more about the CLM Act process at DECCW’s website at

<http://www.environment.nsw.gov.au/clm/faq.htm>

The “remediation site” area roughly corresponds to the area of the former Millers Point Gasworks, and is significantly smaller than the original “investigation area”.

The DECCW declaration makes the “remediation site” subject to a statutory remediation process.

6.0 What is the gasworks contamination?

When DECCW declared parts of Barangaroo and Hickson Road a “remediation site”, it described the contamination on the “remediation site” as gasworks waste, that is, waste tar resulting from the operation of a gasworks plant.

In particular, DECCW has identified the following as the contaminants on the “remediation site”: polycyclic aromatic hydrocarbons (PAHs); benzene, toluene, ethylbenzene and xylenes (BTEX); total petroleum hydrocarbons (TPHs); ammonia; phenol and cyanide.

7.0 What is a Voluntary Management Proposal?

Under the *Contaminated Land Management Act 1997*, a Voluntary Management Proposal (VMP) involves a process for the management of a remediation site.

A VMP sets out the investigation and/or remediation works that would be carried out by the VMP proponent (or its agents) in order to address DECCW’s requirements in its declaration.

The VMP proponent prepares the proposal, consults persons responsible for the contamination (such as the polluter or the owner(s) of the remediation site), and submits the proposal to DECCW for approval. If satisfactory, DECCW approves the proposal, and once the works in the VMP have been carried out to DECCW’s satisfaction, DECCW will issue a notice that the declaration of the area as a remediation site has ended. When the VMP works have been carried out, the VMP proponent can seek to recover the costs of carrying out the VMP (see below).

The Barangaroo Delivery Authority, as owner of part of the “remediation site”, has prepared a VMP for the remediation. Under the VMP process, the Barangaroo Delivery Authority will develop a ‘Remediation Action Plan’ for approval by DECCW. This Remediation Action Plan will identify the remediation works that should be done on the “remediation site” in order to address DECCW’s requirements.

8.0 Who is carrying out the remediation works?

Remediation means removing, dispersing, destroying, reducing, mitigating or containing the contamination. The Barangaroo Delivery Authority has, and continues to, actively take steps to investigate and remediate the “remediation site” to ensure that DECCW’s requirements are addressed.

Once the Remediation Action Plan is approved by DECCW, the Barangaroo Delivery Authority will implement the remediation works. This is despite the fact that the Barangaroo Delivery Authority has neither caused nor contributed to any contamination in the site.

9.0 Who is responsible for the contamination?

Under the *Contaminated Land Management Act 1997*, a person who caused the contamination (such as a polluter) is considered a person responsible for contamination.

The operation of the gasworks resulted in contamination of the site, the consequence of which is now the subject of the specific site declaration by DECCW, including the statutory requirement for remediation of the "remediation site".

Ultimately, those parties whose actions resulted in contamination of the "remediation site" are responsible for the cost of remediation.

10.0 Who will pay for the remediation?

The remediation process itself will determine the final extent of liability held by those responsible for the contamination.

The Barangaroo Delivery Authority will initiate the remediation works, funded by developer payments, and then will pursue legal proceedings where necessary to recover remediation costs from the responsible parties.

11.0 Will the taxpayer have to pay for remediation?

No. Payments from the developer of Barangaroo South will pay for any state liabilities for the remediation.

12.0 When is the remediation process likely to commence?

The Barangaroo Delivery Authority expects the remediation process to commence in late 2010.

The Barangaroo Delivery Authority is currently carrying out a Human Health and Ecological Risk Assessment based on the requirements of DECCW and the results of that assessment will be certified by an independent site auditor.

All remediation works will be carried out under approved works plans which are subject to formal Department of Planning and DECCW approval processes.

13.0 What material can remain on site?

The Barangaroo Delivery Authority has engaged an independent site auditor who is certified by DECCW.

The public can be assured that no contaminated materials deemed unsafe by the independent auditor can remain on site or be used on site. For example, no materials can be used in the reconstruction of the headland unless they have been stabilised and certified as safe and satisfactory for that use by the independent auditor.

Contaminated material which cannot be stabilised and reused on site in accordance with relevant regulations will be taken off site by safe means and appropriate deposited in a licensed waste facility.

14.0 How will dust be managed as materials are removed?

Extensive dust mitigation measures will be put in place, including the use of, for example, dust suppression methods and tented enclosures for excavated areas.

15.0 How will truck movements be managed during remediation and other works on site?

Truck movements in and off the site will be approved as part of a construction environmental management plan which is part of the project application for each part of works to be undertaken on the whole site. These applications are subject to formal exhibition processes.

Photo 1

