



## Environmental Services

### Site Assessment and Remediation Planning

#### Client

Rail Corporation NSW

#### Location

Macdonaldtown, Sydney  
New South Wales, Australia

*"Excellent communication with RailCorp and the Site Auditor. Very responsive to requests for information and open to technical discussions. Willingness to make changes / flexibility was excellent."*

Luke Speechley, Manager,  
Environmental Projects Unit  
Rail Corporation NSW

## Macdonaldtown Gasworks Assessment and Remediation Plan, New South Wales

CH2M HILL was commissioned by Rail Corporation (RailCorp) to conduct an Environmental Site Assessment at the former Macdonaldtown Gasworks within the Eveleigh Precinct. The property occupies an area of 2 hectares. The works were to provide an understanding of the potential liability issues associated with the old gasworks site and the potential risks posed to adjoining residential premises.

The contaminants identified included PAH, TPH, BTEX, phenolics, ammonia, metals and cyanide. On the basis of the assessment findings, the contamination was declared by the NSW Environment Protection Authority (EPA) to pose harm to human health and the environment, under the Contaminated Land Management Act, 1997. A Voluntary Investigation Proposal (VIP) was subsequently entered into with the NSW EPA for further delineation of the contamination.

Subsequently, CH2M HILL undertook a hydrogeological investigation which confirmed that the groundwater on site had been impacted. However, impacted groundwater was demonstrated to be migrating away from residential properties. Further delineation and characterisation of impacted areas were completed, followed by a review of remedial options for site clean-up. This work was undertaken to realise Rail Corporation's long term objectives of removing health risks and providing beneficial reuse of the site for rail-related activities.

A Remedial Action Plan (RAP) was developed for the site. The preferred options comprised combinations of feasible strategies to address the challenging site conditions such as heritage listed structures, residential sensitivity and limited site area. The RAP incorporated NSW EPA general approval processes, where applicable. The main remedial options included excavation and off site soil treatment and disposal, excavation and landfill disposal of general wastes and impacted soils, in-situ chemical treatment of residual source material and monitored natural attenuation (MNA), and implementation of a long-term Environmental Management Plan (EMP) to manage risks posed by residual contamination.