Macdonaldtown Gasworks
Remediation

Planning for Remediation

Remediation of the gas works is a legislative requirement and is regulated by the Department of Environment, Climate Change and Water (DECCW). DECCW incorporates the Environmental Protection Agency (EPA).

The proposed remediation has been declared as a Major Project under Part 3A of the NSW Environmental Planning and Assessment Act 1979 and therefore will be assessed by the NSW Department of Planning. The NSW Department of Planning will consult with various other government agencies, including DECCW during their assessment of the Project Application.

The Environmental Assessment will identify the remediation options, describe the preferred process and assess the environmental impacts. The matters to be addressed within the Environmental Assessment will include:

» Soil Contamination
» Heritage
» Waste
» Air Quality
» Transport and Traffic
» Surface Water and Groundwater
» Noise and Vibration
» Geotechnical Information
» Visual Amenity
» Flora and Fauna
» Stakeholder and Agency Consultation

A Preliminary Environmental Assessment has been prepared and submitted to the NSW Department of Planning.

Director General's Requirements are currently being prepared by the NSW Department of Planning, in consultation with other government agencies.

Community and agency consultation.

An Environmental Assessment (forming part of the project application) will be submitted to the NSW Department of Planning and will address all the Director General's Requirements.

Once received by the NSW Department of Planning, the Environmental Assessment will be placed on public exhibition for at least 30 days.

The local community will have an opportunity to view and comment upon the Project Application during this time.

At the conclusion of the exhibition period the project team will prepare a response to address any issues raised in submissions to the NSW Department of Planning.

The NSW Department of Planning will then make their determination of the Environmental Assessment.

This Environmental Assessment for the remediation of the site does not cover future uses. Following remediation it is proposed that the land will continue to be used for railway purposes consistent with the present zoning.

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Site Features – Ecology

It is expected that during remediation the majority, if not all vegetation will need to be disturbed to allow contaminated material to be treated. A Flora and Fauna Report has therefore been prepared based on the removal of all vegetation from the site.

The report assesses the impact of the proposed works on the ecological values of the site as per the requirements of the NSW Environmental Planning and Assessment Act 1979 (EP&A) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC). Existing documentation including vegetation mapping, threatened species records and the results of previous surveys were reviewed. To complement the existing studies, a field survey was performed by a Flora and Fauna specialist.

The Flora investigation found:

» The site has non-local native and exotic trees around the margin of the site. The ground layer is covered by exotic species or is bare ground. A total of 53 flora species are present; including two local native species, seven planted non-local native species and 44 exotic species.

» One threatened species (a single tree) was recorded; Syzygium paniculatum (Brush Cherry). This species typically occurs within littoral and riparian rainforests. The Brush Cherry was considered to have been introduced and manually planted, and is therefore not considered to be of significance in the site setting.

The Fauna investigation found:

» Six fauna species were observed, (common mynah, grey butcherbird, Australian Magpie-lark, welcome swallow, masked lapwing and garden skink) and are considered to be tolerant of changes to their environment and are commonly found in urban and highly modified landscapes.

» One threatened animal species, the Grey Headed Flying Fox (Pteropus poliocephalus), was considered to have the potential to forage within the Macdonaldtown site but there was no evidence found on site of any activity.

The impacts on flora and fauna were assessed by the standard assessment process set out by the EP&A and EPBC acts, and concluded that the proposed works are unlikely to significantly impact on regional biodiversity.

Disturbance of the existing vegetation is an unavoidable consequence of remediating the site. However, the Project Team recognises the importance of these vegetation issues to adjacent residents on Burren Street and is committed to working with our neighbours to decide how this boundary will be replanted.

With appropriate revegetation there is an opportunity to improve both the biodiversity and appearance of the site.

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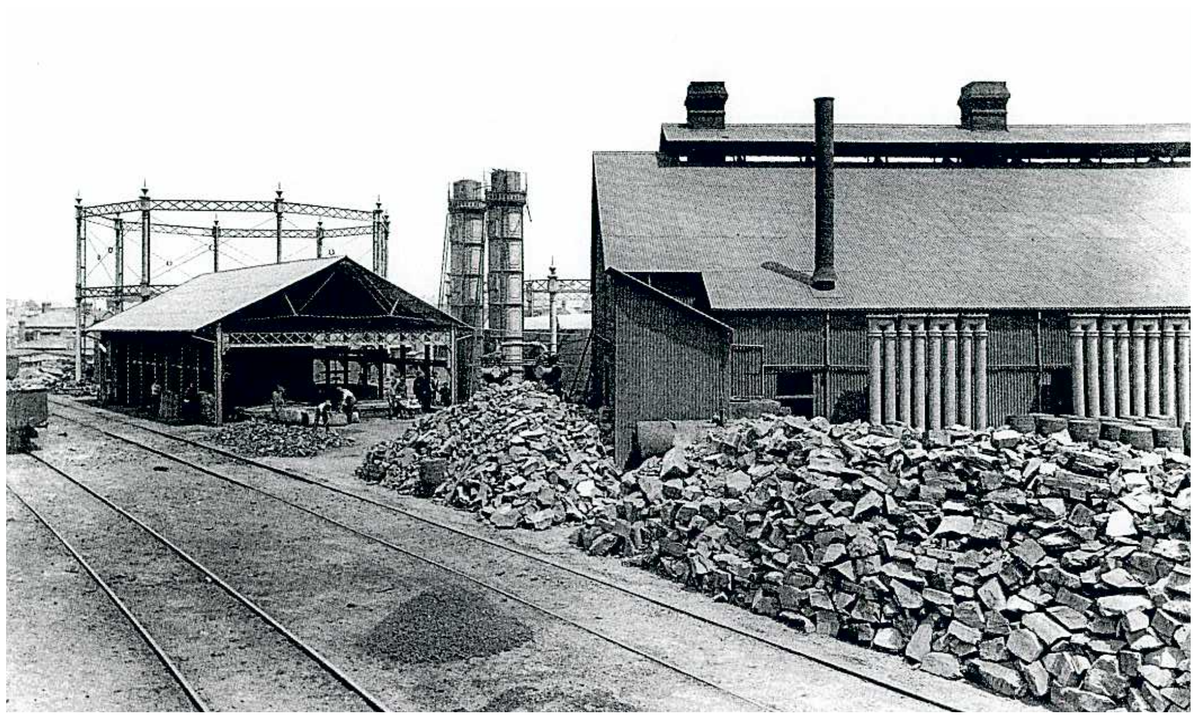
Site Features – Heritage

The RailCorp Gasworks were constructed in 1892 and operated as a production and storage facility (as part of the Eveleigh Railway Workshops) until 1958.



The triangular site contained a number of buildings similar to the sheds seen at Eveleigh, as well as offices, machinery, roads and railway tracks.

There were two gasholders containing gas which provided light for trains and station buildings. The southern gasholder still stands and is the steel structure you can see. **The southern gasholder will be protected during the proposed remediation works and retained on the site after remediation**. Gasholders were once common across Sydney, but are now extremely rare. The Southern gasholder may be the last standing in NSW.

The other gasholder was demolished when the Gasworks was decommissioned leaving only a brick ring (annulus) at ground level just north of the standing gasholder.

An archaeological testing program was recently completed. The aim was to determine the condition of the expected archaeological remains from previous buildings. Five trenches were excavated in areas where remains of the former buildings were expected. Archaeologists cleared, cleaned, photographed and recorded the contents of the trenches.

Based on the findings of the test program the only historical remains of the site, apart from the gasholders consist of the floors, paths, roadways and railway tracks from the former Gasworks.

The buildings used to house the retorts and the purifiers do not appear to be substantial, and this was confirmed by the results of the test excavation. They were shed like structures and would not have represented innovative design in their own right. It is likely that the Eveleigh Railway Workshops had or still has similar structures.

The annulus for the northern Gasholder appears to be almost completely preserved; however, there was no evidence of any specific equipment relating to the gas manufacturing process on the site.

These remains will need to be removed during the excavation of the site as these items are either contaminated or are located above material that is contaminated.

During the remediation, the historical remains across the site will be recorded in the same way as the five test trenches, so that a photographic and written history of the site may be kept by RailCorp and the library at the Heritage Branch of the NSW Department of Planning. The material in the Heritage Branch Library will be available to the public.

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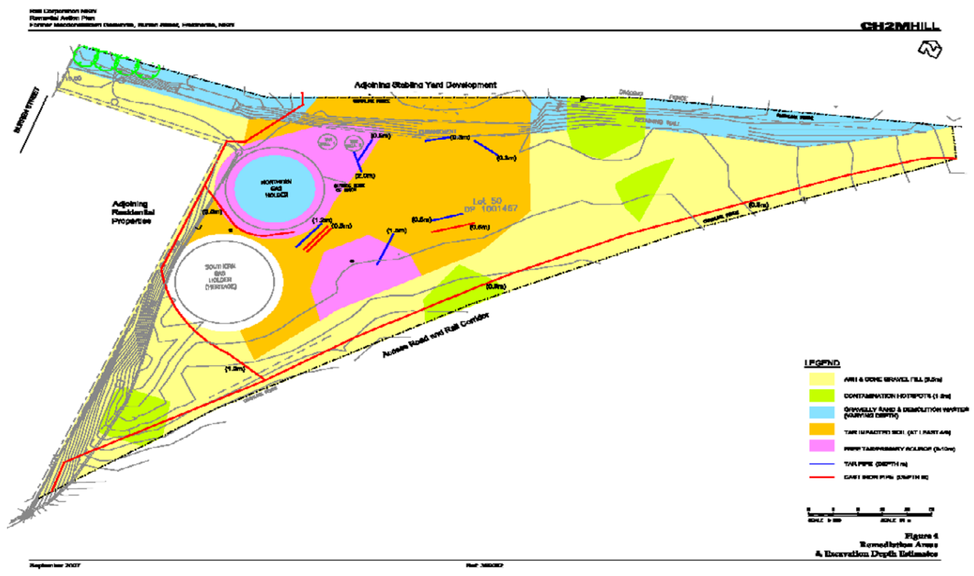
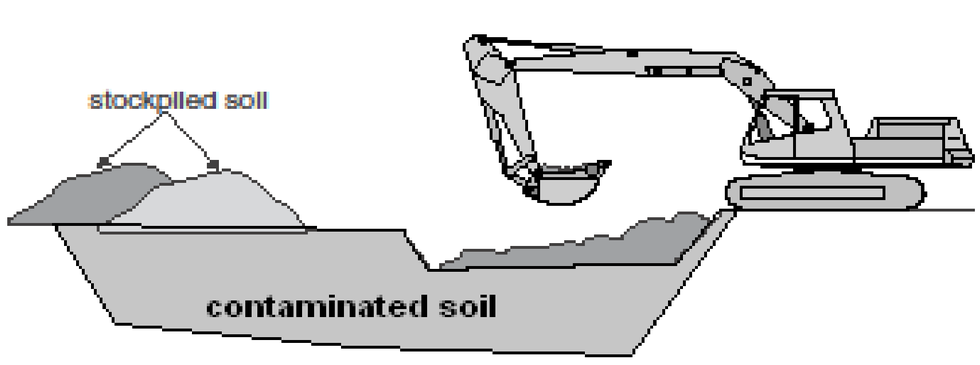
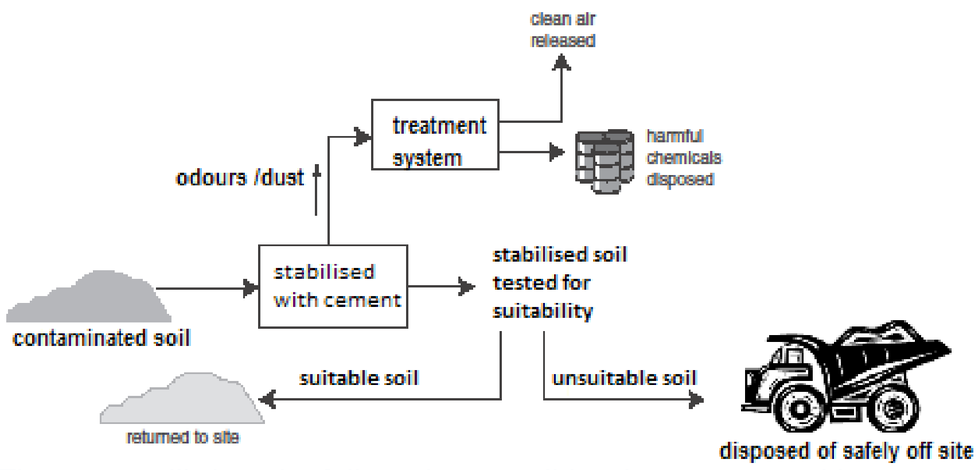
Remediation Process



Site Plan Showing Locations of Contaminated Soil





The process likely to be followed once soil has been excavated is illustrated in the figure above.

The remediation works are required to remove hydrocarbons, trace metals and asbestos from fill materials and soils in parts of the site.

Remediation works will restore the site to a condition suitable for continued railway use in accordance with the current zoning.

Specialist trials and studies are currently being completed to enable the remediation methods to be tailored to the specific site conditions, including the proximity of neighbouring residents.

The remediation method most likely to be adopted will involve the excavation of contaminated soil, which will then either be disposed off-site or subject to stabilisation. Soils may be treated by stabilisation on site, or at a licensed off-site location. Following this treatment, some soils may be suitable for reuse on the site, while others may be disposed to licenced landfills.

"Excavation" is digging up the contaminated soil using earthmoving equipment such as backhoes and excavators. The excavated soil is then managed to prevent exposure to weather conditions and to prevent the site and surrounding land users from coming into contact with this material.

"Stabilisation" involves mixing the excavated soil with a harmless substance like cement that causes it to harden. The mixture dries to a solid form that prevents contamination being released into the environment. Stabilisation essentially 'traps' the contamination in place.

Soils that have been stabilised will be tested, and only the material that has been demonstrated to have been remediated successfully will remain on site. Any stabilised material that is not suitable for reuse on site will be disposed to a licensed landfill.

Once remediation is complete, the site will be resurfaced with clean soil (known as virgin excavated natural material VENM) and then revegetated.

The remediation process will be overseen by an independent site auditor who is accredited by DECCW.

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Construction Management

It is anticipated that remediation works will be performed between the hours of 7.30am and 5.30pm on weekdays and 7.30am and 3.30pm on Saturdays. All work will be undertaken in accordance with NSW Department of Planning approval and requirements of other Government agencies.

The following measures are being investigated to minimise the impacts on nearby residents:

AIR QUALITY – Likely Impacts and Proposed Mitigations

During the remediation works dust and odours could potentially be generated by the following activities:

- Stockpiling and handling (loading / unloading) of soils
- Haulage of soils across site roads
- Fugitive dust emissions from exposed surfaces

As such, dust particulates will be minimised by:

- Use of a negative air pressure tent to cover areas where tar requires remediation
- Wetting exposed soil and roads in the site
- Covering all stockpiles except those actively being processed

Odours will also be mitigated by:

- Use of a negative air pressure tent
- Using an odour suppression system on the site boundary

Even with these measures in place, at times there may be odours experienced beyond the site boundary. A monitoring program for odours, particulate and dust levels will be undertaken throughout the remediation works to ensure that they remain within limits set as part of the project approval.

VISUAL – Likely Impacts and Proposed Mitigations

The visual impacts of works to surrounding areas will be minimised by:

- Use of a tent to screen excavation works in areas where tar requires remediation
- Use of site fencing with dust screens
- Stockpiles to be no greater than 5m in height
- Contain all required works to within the boundaries of the site

NOISE – Likely Impacts and Proposed Mitigations

Noise will be generated during the operation of:

- excavation equipment
- trucks accessing the site
- as well as the operations of ventilation equipment associated with the negative pressure tent.

RailCorp are committed to minimizing possible impacts upon neighbours and note that some processes may require specific noise controls. This could include measures such as:

- acoustic controls at source eg dampeners and barriers around fans and ventilation equipment
- Screens and barriers around the boundary of the site

Dilapidation surveys of adjacent structures may also need to be undertaken prior to works commencing. The contractor will liaise directly with owners of potentially impacted properties to arrange access to document the existing condition of these structures.

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Managing Traffic

Contaminated and treated material will be removed from site during remediation. Because of the limited size of the site and the type of contamination, it is not possible to remediate the entire volume of contaminated material on-site.

A proportion of the material will need to be transported to other locations. It is estimated that as much as 22,500m^3 of material/soil may need to be removed from the site.

Various options for the transport of the material/soil have been examined. Rail has been discounted due to the adverse impact the activity would have on existing day to day commuter and freight services. Road transport has therefore been determined as the most appropriate means of removing the material from the site.

Based on the amount of material to be removed from site, it is estimated that there may be up to 1,400 truck movements during the entire remediation process. During peak periods we estimate that there will be approximately 6-7 truck movements per hour.

Access to/from the site will be via the road which runs adjacent to the Bankstown / Illawarra railway corridor connecting the site with Erskineville Road. RTA Accredited Traffic Controllers will be deployed at this point to ensure that the movement of vehicles is safe and non-disruptive for normal traffic and pedestrians.

Access to the site via the security controlled gate on Burren Street will be limited to exceptional circumstances.

The material to be transported from site will either be moved to a licensed off site treatment location or a licensed waste disposal facility. All truck routes between the Macdonaldtown site and the eventual destination will be restricted to the arterial road network.

Access route to site showing left and left out turns at Erskineville Road

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Working with the community

The Project Team is committed to keeping the local community involved in the planning processes and the eventual remediation project. In addition to using this session and the project information line (1800 013 342) to discuss issues of importance and provide us with your feedback, community members will also be able to comment on the Environment Assessment documents during the public exhibition period.

Details of the exhibition will be provided in the next newsletter, which will be distributed following lodgment of the Environmental Assessment.

This work is a legislative requirement and for the long term protection of the environment, however it is important that it is undertaken in a manner that considers the needs of our neighbours.

Thank you for your ongoing interest in the remediation project.

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