

The former Fitzroy Gasworks site has a long industrial history and was heavily contaminated. To ensure the site is clean and safe for future development, the Environment Protection Authority Victoria (EPA) issued a clean-up notice. Enviropacific was appointed by the State Government to remediate the site

Detailed information regarding the remediation process is provided below, including:

1. Why The Site Was Cleaned Up
2. Outcomes Of The Remediation Process
3. Overview Of The Site
4. Remediation Phases

Why the site was cleaned up

Historical gasworks activities at 433 Smith Street and 111 Queens Parade, Fitzroy North resulted in soil and groundwater contamination.

Built in 1859, the Fitzroy Gasworks was a key supplier of gas to the Melbourne area, until production ceased in 1927, with the site remaining operational as a workshop and gas storage facility until the 1970s. The site was redeveloped into its current layout in the early 1980s.

The site comprises two parcels of land, the former gasworks, previously occupied by light industrial units, and Yarra Council's public works depot. Structures in the form of the Valve House and a Porter Prefabricated Iron Store were assessed as being of historical and social significance.

EPA Victoria issued a clean-up notice for the site in 2014, with works initiated to address the requirements of this notice. Department of Treasury and Finance appointed Enviropacific to complete remediation of the site under the supervision of an EPA accredited auditor. Remediation works were undertaken across the former gasworks and Council depot sites, as both areas were affected by contamination. The site has now been successfully remediated.

Enviropacific is a privately owned, market-leading, specialist infrastructure service provider, delivering sustainable engineering and applied science solutions to make environments and communities safer and healthier. The company was formed in 2001 and has extensive national experience in the remediation of contaminated sites similar to the former Fitzroy Gasworks. Enviropacific leverages industry knowledge, expertise and project management to improve environments and to help stop, prevent and reverse environmental damage.

Outcomes of the remediation process

Remediation of the former Fitzroy Gasworks involved a range of activities on site, with the aim of achieving a statement of environmental audit. This audit determined that the site is suitable for future development.

Remediation activities have achieved the following outcomes:

- Soil quality is suitable for development
- Groundwater quality is suitable for development
- Mitigation and management of residual soil vapour
- Protection of the existing community and future residents that may one day live on the site.

Overview of the site

The site is located in Fitzroy North, at 433 Smith Street and 111 Queens Parade, and has an area of 3.9 hectares. It is surrounded by the suburbs of Fitzroy, Clifton Hill, and Collingwood. A map is provided below showing the site and adjacent roads: Smith Street, George Street, Queens Parade and Alexandra Parade.



Map of the former Fitzroy Gasworks. Site A – Council Depot Site, Site B – Former Gasworks Site.

Remediation Phases

Remediation of the former Fitzroy Gasworks site involved four phases which are outlined below. Phase 1A, Phase 1B, Phase 2 are for the former gasworks and former council depot remediation. Phase 3 is for the additional works within the former gasworks.

**Phase 1A: Development of a Draft Strategy (complete)
(June-August 2018)**

Phase 1A set the foundation for the project through preparation of the draft Remediation Action Plan and the analysis of data from prior investigations to develop a Data Gap Analysis report. Preparatory planning documents, including a draft Asset Protection Plan, draft Cultural Heritage Management Plan and a draft Interim Works Plan (outlining the site conditions at the completion of the remedial works) were developed as part of Phase 1A. An independent EPA auditor was appointed to verify and approve the remediation, certifying the final condition of the site is suitable for the future land-use.

Phase 1B: Site Investigation and Strategy Finalisation (complete) (September-December 2018)

During Phase 1B, Enviropacific conducted additional site investigation and developed a finalised remedial strategy with an associated program of works.

Works undertaken during Phase 1B included:

- Field visits and investigations by project team members including heritage consultants, flora and fauna specialists, and the EPA auditor
- Drilling sample boreholes using a mobile drilling rig (geoprobe or similar) within the vicinity of the three gasholders and within the footprint of the existing buildings
- Test pit excavations that further investigated and visually inspected the underlying geology
- Hand-augering holes for additional soil testing above major utilities that run north to south through the centre of the site

Contaminants

The key contaminants in soil at the site were:

- Coal tar
- Associated organics including Total Petroleum Hydrocarbons, Benzene, Ethylbenzene, Toluene, Xylenes, and Polycyclic Aromatic Hydrocarbons
- Cement bounded asbestos has been found in four locations (asbestos was removed from buildings prior to demolition)

The key contaminants in groundwater at the site were:

- Coal tar
- Benzene
- Naphthalene
- Ammonia
- Cyanide

Results of Phase 1B

The results of the investigations enabled the finalisation of the Remediation Action Plan and provided additional information to finalise the specifications in relation to demolition, retention, excavation and the remediation process.

Prior to the commencement of remediation works, site management plans and procedures were prepared by Enviropacific and approved by the site Superintendent. Selected documents were approved by government bodies (Department of Environment, Land, Water and Planning and City of Yarra).

These plans and procedures describe the methods in which the site is established, managed and maintained throughout the remedial works.

Phase 2: Remediation Works Former Council Depot (complete) (May 2019- Mid 2020)

Phase 2 remediation works have now been completed. These works included demolition of buildings and concrete slabs; excavation and removal of soil; and the transfer of soil to an approved processing facility.

This statement of environmental audit has been obtained, enabling the current redevelopment works to begin.

The Porter Prefabricated Iron Store was removed from its current location to allow for site remediation works. Development Victoria have completed extensive refurbishment of the structure and have relocated it to a new location in Fairfield Park to enable the community to appreciate it for many years to come.

The Valve House was retained due to its historical and cultural significance and will be incorporated into the future development.

Phase 3: Additional Works Scope (complete) (June 2021 – October 2022)

Phase 3 remediation works have now been completed. In June 2021, Enviropacific Services was engaged by the Department of Treasury and Finance to carry out additional excavation and remediation works. This included additional excavation and remediation works to facilitate future basement construction as part of the development, allowing management of any further contamination by a remediation specialist rather than a construction contractor.