

## Gold Coast Desalination Project Landfill Remediation, Gold Coast, Qld



*Installation of specific design aspects to control landfill gas and leachate*

### Client: Gold Coast Desalination Alliance

E3 were engaged by the Gold Coast Desalination Alliance (GCDA) to design, manage, supervise and validate specific remediation areas. Two service easement corridors of 25m in width were to be installed through historical landfill areas. E3 developed the remediation strategy to remove all waste and install landfill gas and leachate management features to limit the risk to gas and impacted groundwater migration. Over 15,000m<sup>3</sup> of landfill material and 10,000 kilolitres of leachate were removed during the program. The backfilling operations included lime treatment (to mitigate acid soil sulphate issues), installation of soil gas vents (to prevent build up of landfill gases), placement of geofabric (to separate imported clean fill from the remaining surrounding landfill materials) and importation and the compaction of clean engineered fill.

During the entire works, E3 provided the following services:

- Visual inspections of the excavations;
- Collection and laboratory analysis of validation samples;
- Full time monitoring of environmental media such as:
  - Atmospheric particulate (dust and asbestos fibres) generation and controls;
  - Methane, hydrogen sulphide, volatile organic compound monitoring; Odour and landfill gas emissions particularly inside the trenches; and
  - Leachate disposal according to the requirements of Gold Coast Water.

*Experienced environmental supervision and contamination management*

The involvement of E3 in this project demonstrates our key skills in:

- Industrial site remediation and infrastructure development;
- On site application of comprehensive technical skills;
- Coordination and oversight of remediation contractors; and
- Expertise in evaluating environmental and human health risks.

PH10 – GCDA Easement Remediation