



## PROJECTS

### ENVIRONMENTAL AUDIT

Audit28

## Voluntary Audit: Large Dairy Processing Facility, Balcatta WA, for a Multinational Food Processor



A voluntary audit was undertaken for the purposes of obtaining independent expert technical advice in relation to contamination issues, to assist in changing a site classification.



The Site had been developed from a greenfield in the 1970s as a dairy processing facility, including milk processing, milk beverage and ice cream production. Various hazardous goods were utilised for cleaning, refrigeration, & vehicle fuelling purposes. Various historical spillage incidents ammonia & trade waste effluent had occurred from the food production, effluent waste treatment plant & fuel underground storage tanks (USTs), resulting in soil and groundwater contamination. Several site investigation events, groundwater monitoring campaigns & remedial works at spill sites had occurred over a prolonged period. As a consequence, the Site was classified as 'Possibly contaminated - investigation required'.



The site is in the process of being acquired- part of the purchase agreement is for an investigation and remedial works to address any contamination issues, to enable the site to be re-classified as suitable for ongoing commercial/ industrial development.

A comprehensive desktop PSI was conducted to consider the site history, previous environmental incidents, conduct a gap-analysis, develop an initial Conceptual Site Model, & a detailed Sampling & Analysis Plan (SAP). Potential contaminants of concern included:

- petroleum hydrocarbons
- pesticides
- nutrients
- metals
- asbestos containing materials (ACM) in uncontrolled fill

A detailed site investigation was conducted including 100 soil & 30 groundwater monitoring bores in all areas of environmental concern (AECs). However, no soil impacts were observed above applicable guideline levels & no asbestos was found in fill.



Groundwater beneath the site however contained organochlorine pesticides, arsenic, nitrate & nitrite in discrete plumes associated with known spillage areas, at concentrations exceeding drinking water guidelines & ammonia above domestic non-potable (DNP) guidelines. Although the site is located within a Public Drinking Water Supply Area (PDWSA) no risk to human health was identified from solute transport modelling results which indicated little potential for migration to unacceptably impact on identified sensitive receptors. Although the DNP for on-site use was exceeded, the pCoCs involved only had aesthetic concerns, with no potential health issues at the observed groundwater concentrations. Groundwater was also found not to pose a risk to environmental receptors including down gradient wetlands.

The Site was re-classified as *Not contaminated - unrestricted use* after the audit, in line with the Auditor's recommendation.

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