

# Land remediation

The vast majority of sites investigated in Taranaki show no evidence of contamination and those sites that are high-risk have been cleaned up. There was a substantial effort made in the 1990s to identify sites and, where necessary, undertake further investigation and remediation. Sites in the Taranaki region that have the potential to be or could currently be considered contaminated continue to be identified and investigated.

Under the *Resource Management Act 1991 (RMA)*, regional councils have a responsibility to investigate and monitor potentially contaminated land. Since 1992, the Council has systematically identified and investigated sites in the region that have the potential to be contaminated because of historical land use. We record any sites and details of investigations in the Register of Selected Land Uses (RSLU) database, which we also maintain, and provide support to the district councils when review of scientific or technical information is required. Information in this database is publicly available.

## Monitoring sites

Contamination of sites can result from historical activities and industries where hazardous substances have been inappropriately stored, used or disposed of, largely because of lack of knowledge or appropriate legislation at the time. Since the early 1990s, the Council has identified and assessed such sites, including, for example, old landfills, sites where in-ground fuel tanks have been removed, and ex-timber treatment plants.

In January 2012, the *National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (NES)*, came into effect. The NES uses district council land use consenting processes to ensure potentially contaminated sites are identified and investigated, and if need be, remediated or cleaned up.

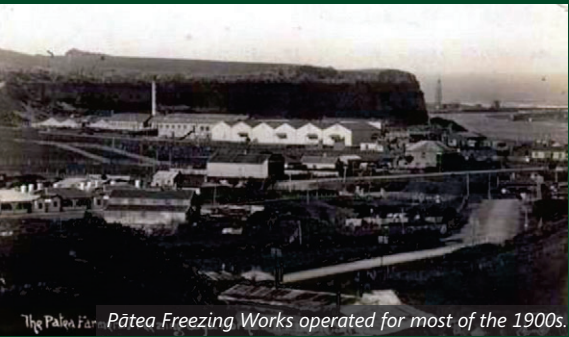
During district council consenting processes, five specified activities trigger NES assessments—subdivision, change of land use, disturbing the soil, sampling the soil or repairing/replacing underground fuel storage systems. In such cases, applicants must identify and investigate any area of potential contamination and remediate (or clean up) the site if necessary, before consent is granted. The Council's RSLU database is a starting point for such investigations.

## Site categories

Council categorises sites in the RSLU database using a number of terms set out in the RMA and guidance documents prepared by the Ministry for the Environment:

- ▷ 'Contaminated' means that the site poses, or is reasonably likely to pose, an unacceptable risk to public health or to the environment.
- ▷ If the site is 'managed' then a strategy is in place to prevent the on-site contamination from causing harm.
- ▷ If the site is 'verified HAIL' (Hazardous Activities and Industries List), then the site has been identified as being used (or having been used) by an industry which has or has had the potential to contaminate the land with hazardous substances.
- ▷ 'Remediated' means that the site has been cleaned up to satisfy the guidelines or controls relevant to the desired land use.

# Pātea Freezing Works - the clean up



The Pātea Freezing Works operated for most of the 1900s.

## Background

The freezing works in Pātea operated for 100 years and was a major employer in Pātea and southern Taranaki generally. The works closed in 1982 with a loss of 800 jobs. The derelict site was left in a dangerous condition with drums of acid, asbestos in the structural cladding and insulation, and polychlorinated biphenyls (PCBs), a type of chemical used in electrical gear. A fire at the works on 6 February 2008 resulted in the evacuation of hundreds of townsfolk because of fears of airborne asbestos in the smoke.

To provide interim protection to the residents following the fire, the site was stabilised with a polymer glue to prevent any dust from leaving the site while investigations were undertaken to assess the extent of the environmental and health concerns associated with the site. During this time the PCBs and drums of acid were removed from site by Council staff.



Removal of above-ground structures.

## Site remediation

Following the Council's investigation works the then Minister for the Environment, Trevor Mallard, announced government funding of \$1.5 million to help with cleaning up the site, following a joint approach from the Council and the South Taranaki District Council.

The Council developed the scope for the remediation work and, following a tendering process, AECOM was commissioned by STDC to undertake the remediation of the site. A remediation plan was approved by the Council, the appropriate consents sought and granted, and work began in November 2009. AECOM's subcontractor, Nikau Contracting Limited, were contracted to remove the asbestos as well as demolish and dismantle the structures. Air monitoring was undertaken throughout the duration of the works to ensure airborne asbestos fibre levels remained within required public health guidelines beyond the site boundary, while the Council monitored the ecological health of the adjacent estuary.

The demolition and dismantling of all above ground structures was completed by the end of February 2010. Notably, the chimney was brought down by excavators on 19 February, 2010. This involved asbestos (lagging) being removed from the boiler house and the fans and ducting associated with the chimney prior to the chimney coming down.

In March 2010, the excavation of concrete slabs and footings began. Concrete was crushed for reuse as fill material on site and soil was stockpiled and mechanically screened to remove asbestos containing materials. Some soil was removed and disposed of off site. The main concrete reservoir was cleaned of debris and the accumulated rainwater filtered before it was backfilled. Two steel-framed sheds were dismantled for their reuse by part owners of the site.

Remediation was completed according to the Remediation Plan in June 2010. On 30 June 2010, Nikau Contracting Limited submitted a 'clearance statement' to the Council which was approved, signalling the completion of the work and compliance with the resource consents.



The remediated site, 2014.

## What's the story?

Overall, the RSLU data indicates that the vast majority of sites investigated in Taranaki show no evidence of contamination, and that those sites that are high risk have been cleaned up.

*'The vast majority of sites investigated in Taranaki show no evidence of contamination.'*

Of the 1,336 sites listed as potentially contaminated in the Taranaki region, none poses an unacceptable risk.

The vast majority, 96% or 1,283, have been found to have no contamination, or some contamination that presents no risk because the site is managed. For example, if a potentially contaminated site is sealed for car parking it would be considered managed, posing no unacceptable risk.

Only 18 sites (or 1.3% of the total number of sites) have required remediation, all of which has been completed to an acceptable standard.

| Site category  | 2009 | 2014 |
|--|------|------|
| No contamination found   | 757  | 754  |
| Some contaminants present but site meets guidelines—no unacceptable risk | 480  | 529  |
| Remediated to acceptable standard  | 16   | 18   |
| Verified HAIL—not yet assessed   | 28   | 35   |
| Contaminated—risk unacceptable   | 0    | 0    |

*The Register of Selected Land Use database statistics for 2009 and 2014.*

Since 2009, the number of sites with no evidence of contamination has decreased slightly, whilst the number of managed sites has increased by 8%. However, this can be the result of new sites identified when properties are developed or when properties already existing on the RSLU are subdivided.

There has been a small increase in the number of remediated sites and the number of HAIL sites awaiting further assessment since 2009, but the total number is still low. Most verified HAIL sites are historical oil wells. However, the increase in verified HAIL sites since 2009 is the result of an increase in clandestine drug laboratories (P-labs) discovered by New Zealand Police, and subsequently entered on the RSLU.

The 24 historical oil sites that are part of the verified HAIL site category do not currently store hazardous substances. However historical activities could have left a potential legacy or future possibility of soil contamination. Whilst liability rests with current site occupiers, site inspections have revealed no indications of past contamination at these sites. Present day activities are much less likely to result in contaminated land because of stringent rules and regulations under both resource management and hazardous substances legislation.

### Find out more



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