



Under the Resource Management Act 1991 (RMA), regional councils have a responsibility to investigate and monitor potentially contaminated land. Information collected is held in a database maintained by regional councils that is available to communities, regulators and environmental consultants.

A variety of industrial, commercial and farming activities can result in chemical contamination of soil, air and water. A site is considered to be contaminated when hazardous substances are at significantly higher concentrations than their normal levels, and there is likely to be a risk to human health or the environment. Potentially contaminated land is land that has been used for an activity that is more likely than other activities to cause contamination.

Many hazardous substances occur naturally in soil, air and water. For example, lead and mercury occur because of weathering of rocks or from geothermal activity. Many chemicals, particularly trace elements, are needed by

living organisms in order to live and grow. However, above a certain level even these chemicals can become toxic, interfering with the complex biochemical reactions of plants and animals.

Other hazardous substances do not occur naturally. Over time, some of these have become widespread in our environment. One example is the organochlorine DDT, formerly used as a pesticide. Other contamination may occur unintentionally, for example spills or leaks from storage tanks.

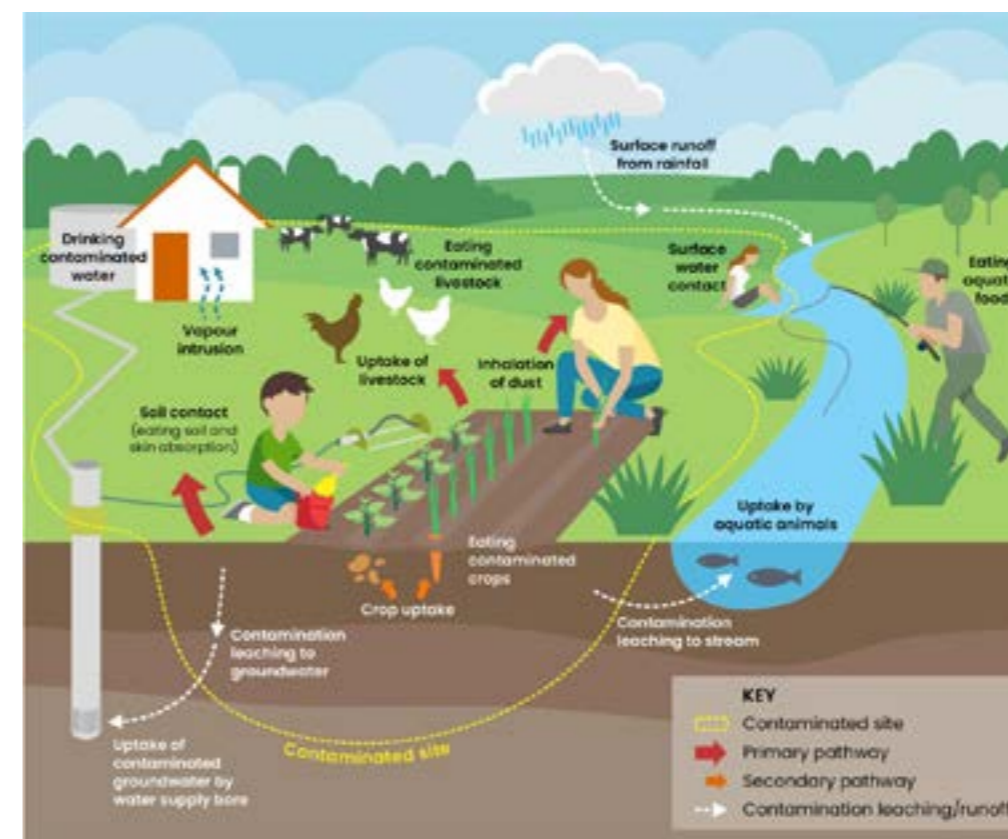
The Ministry for the Environment (MfE) has compiled a Hazardous Activities and Industries List (HAIL) of 52 specific land uses that can potentially cause contamination. Sites that may be contaminated include landfills, timber treatment sites, scrap yards, service stations and motor vehicle workshops, bulk chemical storage areas and metal foundries.

What we know

Since 1992, the Council has identified and investigated sites in the region that have the potential to be contaminated. This has included a number of investigations into sites that present a higher risk such as timber treatment plants, landfills, historic petroleum wells and pesticide storage sites.

There are 1,336 sites included in the existing database, known as the Register of Selected Land Use (RSLU). The

majority of these sites are in urban areas where commercial and industrial activities tend to be located, with the highest concentration in the Port Taranaki commercial area. The database contains sites where there have been investigations into soil contamination as well as sites where activities on the HAIL are known to have occurred.



Pathways by which contaminants can affect human health (MfE, 2012).

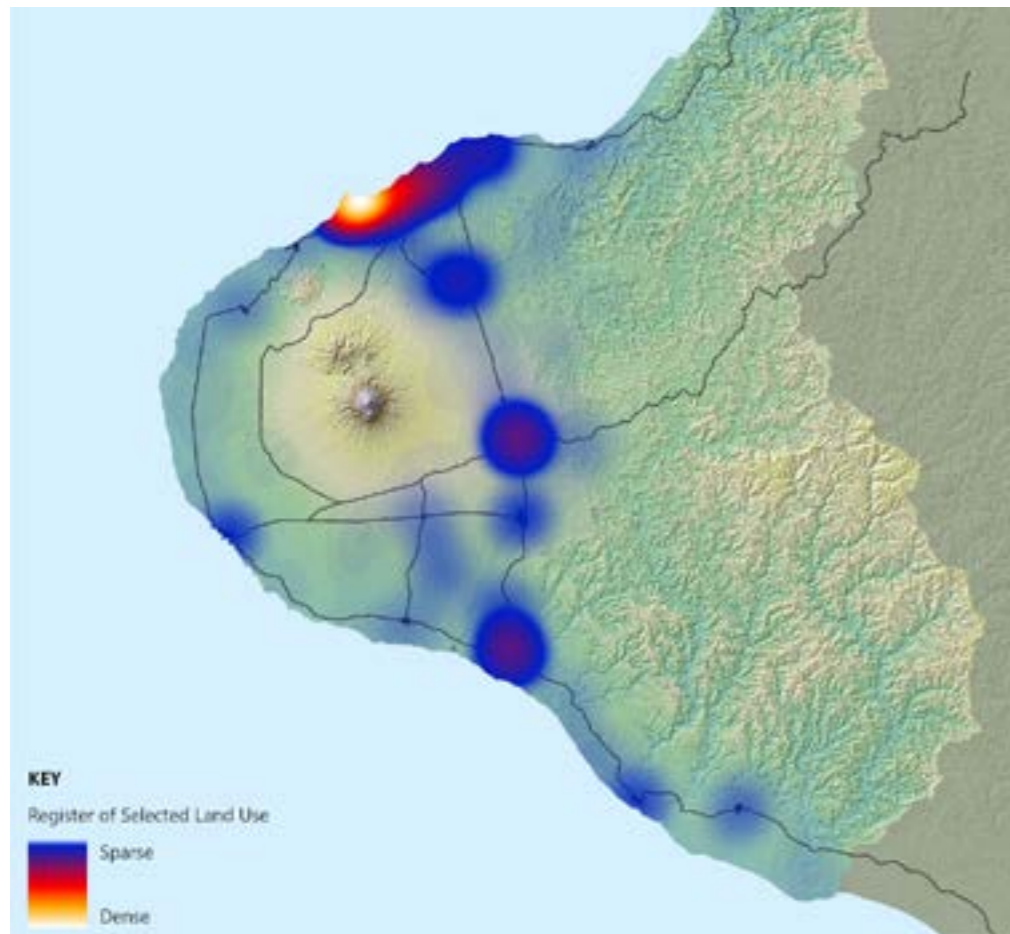
1,336
sites
in the Register of Selected Land Use

56%
no contamination
40%
low-level contamination

18
contaminated sites
have been
remediated

0
sites
present an unacceptable
risk to the community





Distribution of sites in the Register of Selected Land Use database.

None of the sites in the RSLU database are considered to present an unacceptable risk to the environment. The majority had no contamination, or had some contaminants

present but satisfied relevant guidelines for the type of land use.

Category of sites in the RLSU database	Number of sites
No contamination found	754
Contaminant/s present but site meets guideline values – no unacceptable risk	529
Remediated	18
Verified HAIL – risk not assessed	35
Contaminated – risk unacceptable	0

Remediation of a number of sites was partially or wholly funded by the Council where significant risk to the environment existed. This included the former Pātea Freezing Works, in conjunction with South Taranaki District

Council (STDC) and the Government, after a 2008 fire at the derelict site exposed asbestos and other hazards. The Council carried out air and ecological monitoring throughout the remediation process.

Present day activities are much less likely to result in contamination of land because of greatly improved regulation of hazardous substances and processes. If a significant issue were to arise, primary responsibility rests with the site owner. Regional councils in some circumstances may apply for grants from MfE's Contaminated Site Remediation Fund, either to assist council initiatives or on behalf of landowners.

What we're doing

The Council is part of a national regulatory group that works closely with MfE to refine the contaminated land management framework. One of the long-term projects of this group is to improve the consistency of data held and reported by regional councils. This will create a clearer nationwide picture and more uniform processes across regions, but requires a significant amount of work to implement.

Along with changes in information technology, the national data consistency project has required the creation of a new contaminated land database for Taranaki. The existing sites have been transferred to this database and are being reassessed under the updated classification schemes. Work is also under way to digitise all physical records and verify existing information.

In 2012, the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (the NES-CS) came into effect. This requires district councils to use their consenting processes to ensure potentially contaminated sites undergoing development are identified, investigated and, if necessary, remediated or otherwise managed to protect human health. The regional council database supports this function.

With the introduction of the NES-CS, the majority of new contaminated land information now comes from investigations undertaken when land is subject to subdivision, a change of land use, or development that involves significant soil movement. Owners or developers must engage suitably

qualified environmental professionals to assess the site and, if necessary, create plans for remediation or management of soil contaminants. These reports are recorded in the Council's database for future reference.

The Council continues to work with other regulators and the professional sector to ensure all information relating to soil contamination is collated in a central database and made available to interested parties.

Where we're heading

Once all entries in the new database have been reclassified and validated, the existing public website portal will be upgraded to include significantly more information. Additional functionality may be added to automate distribution and collection of data. This will greatly improve public access to the database and reduce the reliance on manual information requests.

As well as an update to the range of activities in the HAIL since the RSLU database was created, there have been significant changes in industry within Taranaki over the years. Therefore, identification of additional HAIL sites, both old and new, is an ongoing component of contaminated land management. Aerial photography is one resource commonly used for site identification and recent nationwide projects have expanded the online availability of aerial imagery. Though this process is currently manual, a 2021 Government technology initiative has trialled the use of computer-based neural networks to automatically locate certain HAIL sites after being trained on existing datasets. Such tools will play an increasing part in the sector in coming years.