

# A guide to land repair on potentially contaminated land

This guide will assist property owners who are undertaking land repair works which do not require a resource consent (known as a 'permitted activity'), on land that may be contaminated.

Small volumes of earthworks (soil disturbance of less than 25 cubic metres per 500 square metres and soil removal of less than five cubic metres) are permitted on potentially contaminated land, but larger amounts will require a resource consent.

Soil disturbance includes activities such as filling, levelling, trenching, scraping, and excavating soils.

## What is meant by potentially contaminated land?

Land may be contaminated if it has previously been used for a hazardous activity or industry.

Examples of a hazardous activity or industry include; service station, transport depot, sheep dip, engineering workshop, landfill, bulk fuel/chemical storage or orchards/market gardens where persistent pesticides have been used.

Hazardous substances that may be present in the soil, many years after the previous land use has ceased, include persistent pesticides (such as DDT), heavy metals (such as lead and arsenic), asbestos, solvents, petrol and diesel.

## What activities and industries are identified as hazardous?

A list of hazardous activities and industries, known as HAIL, is available on the Ministry for the Environment (MfE) website. Land where a listed hazardous activity or industry has taken place is referred to as HAIL land.

Visit the MfE website for details about the hazardous activities and industries list at [www.mfe.govt.nz/issues/hazardous/contaminated/hazardous-activities-industries-list.html](http://www.mfe.govt.nz/issues/hazardous/contaminated/hazardous-activities-industries-list.html)

## How do I know whether my property's land is potentially contaminated?

Environment Canterbury maintains a Listed Land Use Register (LLUR) which contains information about HAIL land and includes the contamination status of land where detailed information from site investigations is available. You can view the LLUR at [www.llur.ecan.govt.nz](http://www.llur.ecan.govt.nz)

The information on the LLUR is based on current and former land uses, property records held by Environment Canterbury and the local councils, as well as other reliable sources of information. Environment Canterbury and Christchurch City Council have been working together to identify HAIL land, so that land owners are able to manage any risks to human health and the environment as they undertake land repair works.

Verifying that a hazardous activity or industry took place on a property does not necessarily mean that the soil is contaminated – it is only an indication that the land is potentially contaminated and that hazardous substances may be present. The actual presence of hazardous substances can only be confirmed from soil sampling and laboratory analysis.

Landowners also need to be aware that the LLUR is not an absolute record of HAIL land within the city, so properties not included on the LLUR may still be potentially contaminated.

## National Environmental Standard for Assessing and Managing Contaminants in the Soil to Protect Human Health (NES)

### What is the NES and why do I need to know about it?

The National Environmental Standard for Assessing and Managing Contaminants in the Soil to Protect Human Health, or NES, came into effect on 1 January 2012.

The NES regulates land use and soil disturbance where land is or has been previously been used for a hazardous activity or industry. Land on which these activities have taken place is known as Hazardous Activities and Industries List (HAIL) land.

### What is the purpose of the NES?

The purpose of the NES is to ensure that soil affected by contaminants is identified and assessed before soil disturbance and/or land development activities take place, to protect human health. For land repair works the need for site assessments is triggered by significant soil disturbance and removal.

### I am repairing my land so why do I need to know about the NES?

If your land repair work involves soil disturbance (e.g. excavation or filling) or removal, and the land has previously been used for a hazardous activity or industry, then you need to know about the NES as it contains rules that will be relevant to your land repair works.

For more information about the NES contact the Council's Land Repair team, email [standards@mfe.govt.nz](mailto:standards@mfe.govt.nz) or visit [www.mfe.govt.nz/laws/standards/contaminants-in-soil/](http://www.mfe.govt.nz/laws/standards/contaminants-in-soil/)

## Permitted activity – soil disturbance or removal on a HAIL site

If there is HAIL land on your property you will not need a resource consent from the Christchurch City Council if your land repair work meets both of these NES requirements:

- You are disturbing less than 25 cubic metres of soil per 500 square metres of land
- Any removal of soil from the site is less than five cubic metres of soil per 500 square metres.

As a general guide, a typical household trailer holds about 0.6 to 1.0 cubic metres of soil, and a small truck usually holds about five cubic metres.

If you are not sure if your land repair works need a consent, you should check with the Council's Land Repair team before you commence your property's land repair works.

## What you need to be aware of when carrying out land repair works on HAIL land

The disturbance and removal of small volumes of contaminated soil is generally a low risk activity, provided the requirements around controlling exposure and disposal are met.

**To ensure that you meet the permitted activity requirements of the NES, the following general handling procedures must be followed for the excavation and handling of soils at the site:**

- The area of soil disturbance must be returned to an erosion free state as quickly as possible (e.g. soil is paved or grassed to prevent dust and limit runoff)
- The duration of soil disturbance must not exceed two months
- The volumes of soil disturbance and removal must not exceed 25 cubic metres of total soil disturbance per 500 square metres of land area, and five cubic metres if the soil is taken off-site
- Soil taken off-site can only be received by an approved disposal facility (see below)
- Controls must be put in place to minimise or remove means of human contact with the soil during the disturbance works – including site workers and occupants of neighbouring land who might come into contact with contaminants in dust or water moving off-site. See more details below.

In addition, the following measures are also recommended:

- Keep the area of excavation and soil disturbance to the minimum required to complete the works
- If you find discoloured or smelly soils, stop work and seek advice from the Christchurch City Council or Environment Canterbury
- Use a water sprinkler to dampen dust during dry, windy conditions but not so much that sediment is washed off the site
- Limit the duration of open excavations and contain runoff, within the excavation, during rainfall events
- Avoid stockpiling soil if possible. If you cannot avoid stockpiling, locate the soil within the excavation to prevent runoff, or implement sediment control measures to contain soil and sediment. If the stockpile is to remain for more than one to two days, cover it with a geotextile fabric or a polythene cover
- Clean the machinery and vehicles that have been in excavated work areas before they leave the site. Any excess soil or sediment removed from the vehicle should be contained and managed in the same way as stockpiled materials
- Secure excavated areas while work is in progress to prevent access by members of the public.

## How to limit people's exposure to contaminants in the soil

Workers undertaking land repair may be exposed to hazardous substances by ingesting soil, skin contact with impacted soil or inhalation of vapours. To reduce exposure, people on the work site should follow these steps:

- Wear personal protective equipment as needed e.g. nitrile gloves, protective eyewear, dust masks, half or full-face respirators – fitted with appropriate particulate filters
- Wear cloth coveralls, which should be placed in a plastic bag for storage and washed regularly, or disposable coveralls, which should be disposed of at the end of each day
- Minimise hand to mouth contact
- Do not eat, smoke or drink within the excavation area or after handling soils
- Wash hands and face prior to eating drinking or smoking
- Wear dust masks during dry conditions.

## Requirements for removal of soil

The land repair works may result in a surplus of soil which may be needed to be taken off-site. There are rules and requirements around the disposal of soils that may contain contaminants, to prevent the uncontrolled spreading of contamination.

Depending on the previous land use, soils that are to be taken off-site may need to be tested to find out if hazardous substances are present and if so, how much. The results of the testing will help to determine what facility will be appropriate for disposing of the soil.

The councils are currently establishing procedures for removing and disposing of potentially contaminated soils, including facilities where contaminated soil can be disposed. More information about this will be available soon. In the meantime, if you know that there is HAIL land within your property and you want to dispose of any of the soil from the HAIL land, we recommend that you contact a contaminated land specialist to establish what hazardous substances may be in the soil so that it can be taken to an appropriate facility.

If you would like to know more about land repair and the consent process visit [www.ccc.govt.nz/landrepair](http://www.ccc.govt.nz/landrepair)

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