



Cleanfills

■ Introduction

This fact sheet provides information for and encourages awareness among developers, earth-working crews, contractors and consultants on the importance of protecting cleanfills and the environment from contamination.

■ What is a cleanfill site?

Any commercial operation/site that accepts only cleanfill material

■ What is cleanfill material?

Material that will have no adverse effects on people or the environment after it is buried. Cleanfill material includes virgin natural materials such as clay, soil and rock

■ Cleanfill does not include:

- Combustible, putrefactive, degradable or leachable components
- Hazardous substances
- Products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices
- Materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances
- Liquid waste



For a complete list of acceptable, conditionally acceptable and non-acceptable waste materials, see the Ministry for the Environment "Guide to Cleanfill Management", available online at <http://www.mfe.govt.nz/publications/waste/cleanfills-guide-jan02.pdf>

■ The challenge

The term “cleanfill” has been stretched and modified over time. Many cleanfills throughout New Zealand mistakenly accept construction and demolition waste, contaminated soils, green waste and many other materials that can have an adverse affect on the environment.

Cleanfill sites that have accepted non-cleanfill materials may have to obtain long-term discharge consents that could require ongoing monitoring.

■ Environmental objective for cleanfills:

To ensure there is no site contamination and no leachate generation or adverse environmental effects from the deposited waste.

This can be achieved by identifying and enforcing the appropriate waste acceptance criteria.

■ Land re-development

Land re-development is occurring in many areas of the Auckland region. It is important that councils become aware of re-development, particularly where historical contamination may be an issue. This will help prevent cleanfill contamination in the future and ensure that the appropriate measures are put in place to minimise the effects of contaminants.

■ How can I tell if material is unsuitable for cleanfill disposal?

Odours and discolouration:

- Does it look or smell contaminated i.e. diesel or household refuse?

■ Find out the former land use(s)

- Check the history of the source site (e.g. an old service station/ industrial or horticultural land use) before starting earthworks and excavations
- Check with the ARC or relevant council for records of former land use, spills or pollution incidents
- Look at aerial photos of former sheep dip and horticultural sites, talk to landowners and neighbours and look for shelterbelts on the property (suggesting past horticultural use)
- This knowledge may indicate contamination that can't be seen or smelt such as arsenic, lead, DDT.

■ If you suspect contamination...

Stop work in the area and investigate the extent of contamination, noting location and possible sources etc.

If you suspect that the material you are disposing of does not meet the definition of cleanfill you should contact the ARC on 09 366 2000 and press 1. Otherwise talk to an environmental consultancy for advice about testing for contaminants and the appropriate action to take.

■ Cleanfill versus earthworks...what's the difference?

Material placed onto or into land is either cleanfill or landfill depending on the materials deposited.

Uncontaminated natural materials moved from one part of a site to elsewhere on the same or neighbouring site is an earthworks operation.

■ Testing for acceptability to cleanfill...

The Ministry for the Environment states that, "as a minimum, at least one sample per 1000m³ of fill material should be taken and analysed."

As a guideline, testing undertaken by an experienced contaminated site investigator should screen for a range of contaminants and should include:

- heavy metals such as arsenic, cadmium, chromium, copper , lead, nickel, zinc
- total petroleum hydrocarbons (TPH)

Depending on the land use history of the source site, and identified risk factors, the additional tests below may also be required:

- semi-volatile organic compounds (SVOCs)
- volatile organic compounds (VOCs)
- polyaromatic hydrocarbons (PAHs)
- organochlorine pesticides (OCPs)
- boron, cobalt, mercury and tin

Testing for other contaminants may be required depending on the source of the waste.



■ For more information

For information on cleanfills please see the following:

- <http://www.mfe.govt.nz/publications/waste/cleanfills-guide-jan02.pdf>
- ARC Contaminated Land Team, Regulatory Services

The ARC has another fact sheet, "Is this a Contaminated Site?" that provides information about the causes and effects of contamination. Copies are available online at www.arc.govt.nz or upon request.

How do I contact the ARC?

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