



# Sheep dip sites

## HOW THEY CAN AFFECT YOUR LAND

If your property once had a sheep dip or footbath, it is possible that soil and/or water in the vicinity will be contaminated at levels that are unacceptable for residential or agricultural land use.

Previous owners may have filled in dip sites or broken up concrete bunding. However the effects of past activities may remain. Common evidence includes broken concrete rubble, depressions in the ground (where plunge dips might have been filled in) and large concrete pads set in the ground.

### Chemicals used for sheep dips

Disposal of dipping solutions, spillage and splashes of these chemicals leave contaminants in soil, which may leach into groundwater around dip and bath sites, draining platforms and holding pens. Some of these chemicals persist in soil for many years. For instance, arsenic does not degrade or break down.

Many of the chemicals historically used in sheep dips are hazardous to humans, animals and the wider environment. People exposed over a long time to arsenic and other insecticides like dieldrin and lindane may not become immediately sick, but over a lifetime may be predisposed to cancer and other serious illnesses. Exposure can happen through drinking contaminated water, skin contact with contaminated soil, or eating food grown in contaminated soil.

Because we don't have information on individual properties where the land use is unverified, we can only provide general guidance about your land. The only way to find out is to have the soil tested by a suitably qualified and experienced practitioner.

### Taking care

The Canterbury District Health Board advises anyone with a garden, regardless of whether the property is on the Listed Land Use Register, to follow some common sense precautions to minimise potential health risks when gardening or when children are playing outside.

Visit [www.cph.co.nz/your-health/contaminated-land](http://www.cph.co.nz/your-health/contaminated-land) for more information.

If you are weighing up whether to have the soil tested, think about the way you use your garden. If you follow the health board's common sense precautions, the risks are likely to be low.

The following activities may place you at slightly higher risk:

- You eat the eggs of your free range chickens
- You grow and eat root vegetables
- Young children play in and may eat your garden soil.

If these activities apply, you may like to change your garden activities, or have the soil tested.

## Drinking water quality

Investigations of sheep dip sites in New Zealand have shown that sheep dipping chemicals can contaminate ground and surface water. This is a hazard for livestock, humans and aquatic organisms, including fish and eels. Concentrations of organochlorine pesticides and arsenic that exceed the New Zealand drinking water standards have been measured in both surface water and in groundwater, including household bores downhill from former dip sites. If you have a household water bore on a property near a former sheep dip, contact Environment Canterbury for advice about having your water tested on 0800 677 748.

## Responsibility for contaminated land

According to New Zealand property laws, if you own a property, you are responsible for any contamination issues with it, even if you did not cause them, or weren't aware of them when you bought your land. This is called the 'buyer beware' principle. If you are renting a property you can ask your landlord to ensure your health and safety, which he/she is bound to do under the Residential Tenancies Act 1986.

## Prevent access to the former sheep dip

To manage a former sheep dip site, you might consider fencing off the contaminated area, including the draining platform and animal holding area. Fencing should be permanent and animals should not be able to graze in the area or through the fence. No foodstuffs should be grown within the exclusion zone. The area should be sign-posted to warn people.

In some circumstances capping or placing a barrier over the top of the site to prevent access may be appropriate. Professional advice should always be sought before undertaking any work on a sheep dip site. Care needs to be taken to make sure that any capped area is not disturbed.

## The history of sheep dips

In New Zealand sheep have been dipped in solutions of insecticide to protect against keds, ticks, lice and fly-strike since around 1850.

Between 1908 and 1993, annual sheep dipping or spraying was compulsory. Sheep dip chemicals were arsenic-based until the 1950s, with organochlorine (e.g. dieldrin, lindane and DDT) and organophosphate (e.g. diazinon) insecticides used after this.

For more information, visit the Ministry for the Environment website, [www.mfe.govt.nz](http://www.mfe.govt.nz) and search for Sheep Dips.



## Environment Canterbury identifies land which may be contaminated from current or historical uses

Land uses which may be hazardous include former orchards and market gardens, landfills, timber treatment and other industrial sites where harmful chemicals were often used, stored or disposed of. Environment Canterbury records these sites on the Listed Land Use Register [www.llur.ecan.govt.nz](http://www.llur.ecan.govt.nz).

Not all land which has been used for these hazardous activities or industries will be contaminated. The only way to find out is to have the soil tested. For more information, visit [www.ecan.govt.nz/HAIL](http://www.ecan.govt.nz/HAIL).