

Soil assessment and property owners

Finland's environmental authorities are building up a new data system on the state of soils, using valuable information contributed by property owners.

Until recently information about the state of Finland's soils has been kept in many different places, and its accuracy has varied greatly. But the environmental authorities are now compiling a single data system to contain all the relevant information about possible soil contamination problems.

So far the system contains data on almost 21,000 sites where harmful substances may have entered the soil. The authorities are now calling for help from property owners to improve the reliability of information on specific sites.

All landowners whose property has been preliminarily logged into the data system will be contacted personally in writing. Letters will be sent together with 'site reports' containing the specific details so far logged in the data system for each site. Property owners are asked to point out any inaccura-



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cies they notice in these details, and invited to contact their regional environment centre for more information if necessary.

Property owners are also asked to inform their tenants about the contents of the site reports.

After the soil data system has been amended according to the new information, it will be gradually taken into wider use by the Finnish Environment Institute, the regional environment centres and local authorities. The data system will then be continuously maintained and updated by the regional environment centres.

BENEFITS

Reduced risks, delays and costs

- No more new buildings on contaminated sites
- Fewer delays and unexpected costs
- Improved risk management
- More effective planning of soil remediation work
- Enhanced protection of groundwater and the environment

Clean, contaminated or uncertain?

The data system will not cover all properties in Finland, but only sites which are known or suspected to have become contaminated. There are almost certainly other contaminated sites in Finland where the details of contamination are not yet known to the authorities. **The environmental authorities will classify sites into three categories:**

Sites requiring assessment

1. Such sites are known by the authorities to have been used for activities involving substances that can harm the environment, and that may also have entered the soil. Even if soils have not always been contaminated in such cases, it is important that such risks are considered when changes in land use or building are planned, and also accounted for in the sale or rental of such properties. In many such sites the potentially harmful activities are no longer pursued.

Sites which must be investigated or remediated as necessary

2. In such sites, wastes or other substances are known to have reduced soil quality, creating potential health risks or damage to the environment. Such contamination may also reduce the amenity value of sites.

Sites where no remedial action is needed

3. Such areas include sites where soils have been cleaned up according to the authorities' requirements, as well as sites where detailed surveys have shown that soils are not significantly contaminated. In some of these sites certain forms of land use and development may still be limited.

Previous land uses important to note

Property owners often know more than the authorities about the history of their property and its previous uses.

It is important to include any information about previous land uses in the soil data system, as harmful substances can persist in soils for long periods. Contamination may be due to activities that ended decades ago. Detailed on-site surveys are often needed to find out whether harmful substances are really present in the soil or not.

Harmful substances may enter the soil due to single accidents or over a longer period of time through gradual leakage. In some cases soils may be contaminated due to the earlier practice of burying wastes in the ground. Harmful substances can also move through soils from place to place.

Activities associated with the risk of soil contamination include:

- fuel supply and storage facilities
- sawmills and wood treatment facilities
- landfills
- shooting ranges
- chemical laundries
- motor vehicle scrapping facilities

Harmful substances include:

- oils and petrol
- heavy metals (e.g. lead, copper, zinc, chromium and nickel)
- arsenic
- polyaromatic hydrocarbons (PAHs)
- polychlorinated biphenyls (PCBs)
- chlorophenols
- dioxins and furans
- pesticides



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Public information

Most of the information in the soil data system will be available to the public. The data system as a whole will be directly accessible to the national environmental authorities and local authorities' environmental, land use and building supervision officials, but reports on specific properties are available on request from the regional environment centres.

In providing information from the data system the en-

vironmental authorities apply guidelines that emphasise openness and good administrative practices, in accordance with the Environmental Protection Act and Finnish legislation on the freedom of information.

The data system is owned by the Ministry of the Environment, but maintained by the regional environment centres and the Finnish Environment Institute.

COVERAGE

The soil contamination data system contains information on:

- previous uses of sites
- substances that may be present as contaminants
- distances to groundwater areas, water supply intakes, lakes, rivers, homes and/or protected areas
- quantities of soils affected and possible remediation methods
- details of any sampling sites and sampling data
- geographical locations of sites
- contact information of landowners and other actors

The level of detail in this data varies greatly, since information has been compiled from very different sources, including:

- other data systems run by the environmental authorities
- regional environment centres and local authority environmental officials
- landowners and companies that have conducted soil surveys
- archives maintained by the national or local authorities
- military and civil guard archives, old local maps, aerial photographs or other such sources
- interviews

Changes in ownership or land use

Landowners are advised to ensure they are aware of the state of soils in their properties. The possibility of contamination should especially be considered whenever:

- the use of a property changes
- new buildings are erected
- a property is sold or rented out

Landowners are obliged to inform new owners or tenants about any factors that may have contaminated soils or groundwater.

The information in the new data system will help landowners to meet their obligation to

EASING THE EXCHANGE OF INFORMATION

pass on information about the state of soils in their property, even if data may not yet be comprehensive for all sites.

This obligation to provide information is enshrined in the Environmental Protection Act. In cases where landowners neglect to provide the necessary information and soil contamination later becomes evident, purchasers may claim for a price discount, compensation, or the cancellation of a sale contract.

For more information: www.environment.fi