



Project Profile

Sector: Risk Assessment

Project: Framework to Derive Numeric Targets for Contaminated Soil to Protect Human Health

Client: Scottish and Northern Ireland Forum For Environmental Research (SNIFFER)

Period: 1999

Land Quality Management won this contract to develop a tiered site-specific methodology to derive numeric targets for human health risk assessment on potentially contaminated sites. This is to support the regulatory members of SNIFFER to implement the Part IIA contaminated land provisions of the Environment Act. The project is intended to fill gaps where there are no existing UK guidelines and to complement other work in the area. The provision of a transparent, simple methodology based on the source-pathway-receptor framework will help promote consistency in the way risk assessments are conducted and regulated.

LQM is using its risk assessment expertise to develop an approach that can be adapted to the majority of contaminants on most sites. The only information this approach will require is:

- the contaminants present;
- the Tolerable Daily Intake (TDI) of each contaminant;
- the intended land use(s) of the site.

The approach involves easy-to-use formulae for the key pathways and receptors involved. Tier 1 contains a number of default assumptions about activity patterns, while Tier 2 may be used when a site or its users differ significantly from the defaults. It is supported by simple worksheets for each part of the procedure. This will ensure that the entire risk assessment process is traceable and all assumptions are justified.

The project is supported by a Steering Group including the Scottish Environment Protection Agency, the Environment Agency, the Northern Ireland Environment and Heritage Service, industry, and toxicologists.