



GROUNDWATER RISK ASSESSMENT

For the assessment of the risk to controlled waters posed by a site, initial reference is made to Environment Agency (EA) generic water quality guidance.

Utilising the water quality standards and hydrogeological and hydrological setting of the site, a qualitative assessment can be made of the risk posed by the site to the surrounding groundwater and surface water regime. This methodology utilises the Source-Pathway-Receptor basis advocated in the Environmental Protection Act 1990.

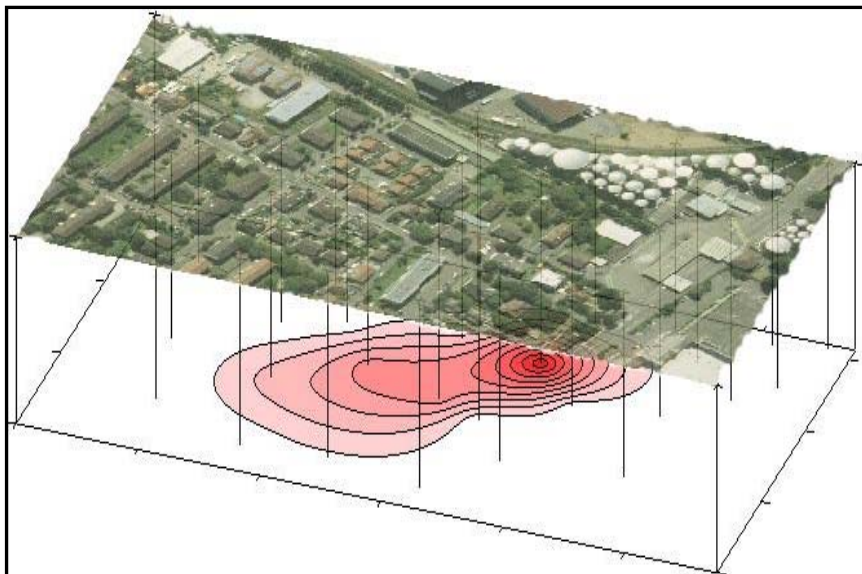
If the qualitative assessment identifies a potential risk, this risk can be quantified by referring to the Environment Agency's Remedial Targets Methodology.

This methodology utilises a multi-tiered approach to assess the risk posed to controlled waters from contaminants within the soil, leachate

concentrations and the groundwater itself and thus determine the level of remediation necessary to protect the groundwater and surface water receptors.

At the completion of each tier, a remedial target is calculated. With the progression through the tiers additional processes such as dilution and attenuation are included within the model. More information is required for each tier but confidence increases with regard to the impact of the identified contamination on the receptor.

This approach gives the opportunity for sites with levels of contamination above generic guidance to be dealt with quickly, often without the need for active remediation. For sites that require remediation, risk assessment techniques can significantly reduce the costs of clean-up by providing authoritative remedial targets above generic guidance.



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