

Risk Based Land Management- Innovative and Cost Effective Means of Managing Contaminated Sites: Scientific Basis

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ABSTRACT

When legislations were first introduced for environmental protection, the emphasis was largely on risk that contaminants pose to human health and strategies needed to completely remediate the environment of contaminants. It is now widely recognised that drastic risk control, for instance cleaning up sites to background concentrations, or to levels suitable for the most sensitive land use is neither technically, nor economically feasible. For this reason, it is desirable to apply remedial approaches that reduce the risk of contamination while allowing the soil to remain on site. This approach to site remediation is gaining increasing acceptance worldwide and is commonly known as risk based land management (RBLM). The underlying basis of this technique is contaminant bioavailability and its implications to environmental and human health. There is however, a general lack of knowledge worldwide on contaminant bioavailability-toxicity relations and the implications of this to *in situ* site remediation. In this paper we present an overview of the underlying basis for risk based land management.