

Land-use related cost estimates for contaminated site development: consequences of uncertainty for planning and investment decisions

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Abstract Cost estimates for subsurface remediation codetermine important decisions in brownfield redevelopment. However, in many countries, a common standard for estimating these costs is still lacking. In Germany, for example, a number of independent models exist. These models differ in many respects, such as the degree of detail of input information, the way that data uncertainties are accounted for, and the complexity of functional relationships between input parameters and remediation cost estimates. We have analysed and compared the feasibility of three cost models with input data from three different investigation levels at a demonstration site in Germany. The results show how cost estimates and their ranges may change over time as new information becomes available, and that individual estimates and limited data may result in strong under- or overestimation of costs. Further, we discuss the consequences of forecast uncertainty for decision making and the potential combination of the advantages of single models.