

Integrated screening level evaluation of megasite redevelopment

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Abstract Megasite redevelopment is often hampered by complex contamination and stakeholder networks. This calls for decision support to provide integrative yet transparent evaluation of redevelopment options to stakeholders with different expertise. We describe a new integrated method for the comparative evaluation of megasite redevelopment options. The method aims to support communication between stakeholders by visualizing consequences of adjustments and alterations in planning options at screening level. It enables an early evaluation of whether and how abandoned land may be assigned a sustainable and marketable land use. To this end, we use tailored data interpretation methods and integrate basic technical issues of soil and groundwater remediation processes, economic assessment of brownfields with a transparent market-oriented risk rebate, and the contribution of planned future land use to sustainable urban and regional development. Case study results show that this method supports the identification of: (i) sustainable and economically favourable land use options, and (ii) the most influential factors to be considered during redevelopment.

Key words brownfields redevelopment; integrated assessment; decision support; valuation of contaminated land; sustainable land use; remediation cost estimation