Approaches for assessing sustainable remediation

Sustainable remediation seeks to reduce direct contaminant point source impacts on the environment, while minimizing the indirect cost of remediation to the environment, society and economy. This paper presents an overview of available approaches for assessing the sustainability of alternative remediation strategies for a contaminated site. Most approaches use multi-criteria assessment methods (MCA) to structure a decision support process. Different combinations of environmental, social and economic criteria are employed, and are assessed either in qualitative or quantitative forms with various tools such as life cycle assessment and cost benefit analysis. Stakeholder involvement, which is a key component of sustainable remediation, is conducted in various ways. Some approaches involve stakeholders directly in the evaluation or weighting of criteria, whereas other approaches only indirectly consider stakeholder preferences. MCA methods are very useful when comparing remediation alternatives, since they allow for a joint assessment of many types of indicators; however the available tools and methods differ substantially, for instance in their selection of indicators, approaches to stakeholder involvement and uncertainty analysis.

General information
State: Published
Organisations: Department of Environmental Engineering, Water Resources Engineering
Contributors: Søndergaard, G. L., Binning, P. J., Bjerg, P. L.
Number of pages: 5
Publication date: 2016
Peer-reviewed: Yes
Event: Abstract from 6th joint nordic meeting of remediation of contaminated sites (NORDROCS 2016), Espoo, Finland.
Electronic versions: Soendergaard_shortpaper.pdf
Source: PublicationPreSubmission
Source-ID: 127628792
Research output: Research - peer-review Conference abstract for conference – Annual report year: 2016