

Interreg project Sullied Sediments: Set-up of a Decision Support Tool for the remediation of contaminated sediments

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Introduction:

As part of the European Interreg project *Sullied Sediments*, a decision support tool (DST) for the remediation of contaminated sediments is being set-up. The aim of this project is to create a knowledge sharing platform on the different remediation techniques for contaminated sediments that are currently available. The ultimate objective is to make the decision on an optimal remediation technique easier for soil remediation experts, policy makers, problem owners and other stakeholders in Europe. The DST can also be used as a first step in BATNEEC evaluations used for sediment remediation projects.

Methods: Firstly, the consortium carried out extensive research on the current available remediation techniques for contaminated sediments in Flanders. This included in-situ techniques such as monitored natural attenuation (MNA) and capping and ex-situ techniques such as excavation. The feasibility and estimated cost price of the ex-situ techniques largely depends on the various possibilities for processing, transporting and dewatering of sediments, which also needed to be investigated.

This data could then be used as a database for the decision support tool.

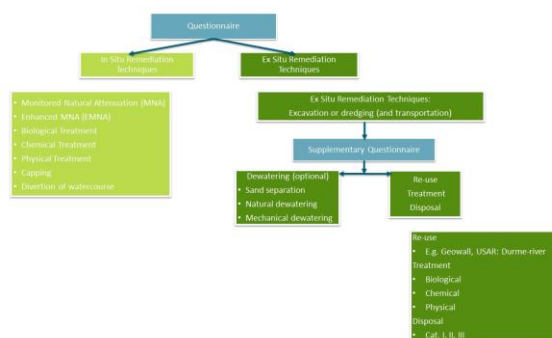


Fig. 1: Decision flow for the DST.

Results: In the decision support tool, the user will be asked to answer a number of questions. These questions relate to, among other things, the contamination situation, the geotechnical properties of the sediment, the properties of the watercourse, the

remediation objective, the duration of the remediation works and the impact on the environment.

Based on the answers given by the user, the DST will make a selection of the techniques that are suitable for this specific contamination situation. In case of ex-situ techniques, the user may have to fill in a number of supplementary questions, in order to make a selection between the different dewatering techniques and processing options.

The various remediation techniques will be further explained in technical information pages in which a description of the technique will be given and the advantages and disadvantages will be explained in more detail. Furthermore, these technical information pages will also give an idea of the cost price of the technique.

Discussion: The DST is still under construction. An important part of the web-application will be reserved for stakeholders, such as watercourse managers and contractors. These authorities still need to be consulted and are asked to provide (new) insights which can be included in the decision-making process of the tool.

The tool is meant to be updated regularly in order to be able to provide the most recent information on contaminated sediment remediation techniques.

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