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SUSTAINABLE MANAGEMENT OF SEDIMENTARY RESOURCES: A CASE STUDY OF THE EGADI PROJECT

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Abstract

Multiple activities carried out on coastal areas expose marine sediments to contamination and their management has a great socio-economic importance with a high impact on economic development of coastal areas. However, there is an increasing shift towards the use of more sustainable approaches for managing ‘contaminated’ sediments. Using a case study of the Favignana Harbour in Italy, this paper evaluates three approaches for the management of these sediments. The results of simulations carried out by SiteWise™ software show that the use of contaminated sediment as filling material for Confined Disposal Facilities has lower environmental footprint than treatment and reuse of sedimentary resources on shore. The implications for these results for the development of effective policies and practices by all key stakeholders are discussed.

Key words: dredging, footprint, green and sustainable remediation, LCA, LCC, natural resource management, sediment, SiteWise™

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