

# GHG Emissions Analysis for Alternative Wastewater Byproduct Disposal Practices

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**Abstract:** The aim of this study is to provide the theoretical framework for the environmental impact assessment from alternative practices regarding byproduct management from wastewater treatment facilities. This will include alternative sludge management practices for beneficial uses, like agriculture or forestry in contrast to landfill disposal. Apart from the theoretical framework, a case study from a wastewater treatment facility will be investigated and sludge quantities produced will be analyzed in terms of GHG emissions saved, after comparisons of a baseline scenario to sludge reuse scenarios. The analysis will be facilitated with the use of the open US EPA Waste Reduction Model.

**Key words:** GHG emissions, Sludge Management, Wastewater Treatment