

Abstract

Environmental Evaluation of Land-Applied Pulp Mill and Municipal Biosolids

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In terms of disposal options, a form of waste that has received much attention in recent years in sludge, the by-product of wastewater treatment from both industrial and municipal sources.

Negative issues associated with traditional sludge disposal practices (e.g. landfilling or incineration) have resulted in an increased interest to find disposal alternatives such as applying the sludge, or biosolids, to land as a soil amendment for purposes such as agriculture, horticulture, and silviculture. The objective of this study was to assess the environmental impact of pulp mill and municipal biosolids land-application using a suite of ecologically-relevant biota. Based on the results of this study, it can be concluded that the practice of pulp mill and municipal biosolids land-application may indeed be a viable and environmentally-sound alternative to other traditional disposal methods. This study did not detect any obvious impact on biota from pulp mill and municipal biosolids land-application and run-off into receiving-water when compared to reference bioassays.