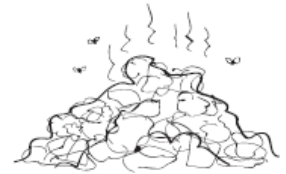


# ENVIRONMENTAL FOOTPRINT COMPARISON TOOL

*A tool for understanding environmental decisions related to the pulp and paper industry*



SOLID WASTE

## EFFECTS OF DECREASED RELEASE OF BOD/COD & TSS ON SOLID WASTE

### Effect of Incremental Treatment

Incremental treatment to achieve greater reduction of solids (TSS) or organic matter (BOD, COD, color, or AOX) will generally increase the amount of solid residuals produced at a wastewater treatment plant. This occurs because the techniques used to improve treatment often involve the use of chemical, physical, and/or biological processes that extract additional matter from wastewaters as solid material.

Examples of tertiary treatment technologies include coagulation/flocculation (chemical), filtration (physical), and specialized biological processes. The amounts of additional solid waste generated from incremental treatment of wastewaters vary greatly with the technology and application. To illustrate, the gelatinous sludge resulting from alum-based chemically assisted clarification (CAC) treatment is often low in solids content (0.2 to 0.5% solids by weight) and difficult to dewater. Laboratory and pilot-plant data suggest that sludge quantities could range from 53 to 289 pounds per ton (dry basis) of paper production.