EFFECTS OF RECYCLED FIBER USE ON WATER USE

Fine Paper Sector

The fine paper sector includes a large number of product types. The product most commonly examined for environmental footprint trade-offs with respect to recycling is office paper (also known as copy paper or, in the industry's terminology, uncoated free sheet). This section, therefore, focuses on uncoated free sheet/copy paper.

Where fine paper is manufactured at mills with virgin pulping, the most commonly produced virgin pulp is bleached kraft (sulfate). Therefore, the co-benefits and trade-offs examined in this section compare recycled copy paper manufacturing with copy paper manufactured from virgin bleached kraft pulp.

A number of mills can produce both virgin pulp and recycled pulp for use in copy paper. Therefore, in many situations, increasing recycled content will require examination of how the increase affects the water reuse practices at specific mills. The available literature suggests, however, that in general, water use and effluent flows from deinked copy paper mills will often be significantly lower than those from bleached kraft mills manufacturing copy paper. This is confirmed by statistical analysis of NCASI site-specific data.

Table R6.

Mill Description	Effluent Flow (m3/tonne)	Reference
Bleached kraft (sulfate) pulp production plus coated fine paper manufacture (no number presented for uncoated fine paper)	60 to 100 (sum of pulp and paper values)	Springer 2000
Deinked pulp production plus coated fine paper manufacture (no number presented for uncoated fine paper)	40 to 70 (sum of pulp and paper values)	Gottsching and Pakarinen 2000
Recycled newsprint mills	10 to 20	
Bleached kraft (sulfate) pulp mills using Best Available Techniques	30 to 50	EC BREF 2001
Deinked mill using Best Available Techniques	18 to 15	
Typical virgin copy paper mill	86	Paper Task Force 2002
Typical recycled copy paper mill	43	

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