

# HOW WE RECYCLE PAPER

## About Us

Catalyst Paper manufactures a broad range of mechanical printing paper and pulp. Customers include retailers, publishers, commercial printers and paper products manufacturers in North America, Latin America, the Pacific Rim and Europe. With four mills located in British Columbia and Arizona, Catalyst has a combined annual production capacity of 1.9 million tonnes.

- » Crofton
- » Powell River
- » Port Alberni
- » Snowflake

## Contact

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Catalyst's Snowflake mill in northern Arizona produces recycled newsprint and specialties papers from 100% waste paper. With a total production capacity of close to 340,000 tonnes, this mill plays an important role in converting materials recovered through municipal recycling programs into high-quality paper for further use. Snowflake has a Forest Stewardship Council-certified chain-of-custody system.

## A Sustainable Approach

Using recovered paper to make new paper products offers a number of advantages. Most notably, it puts materials that would otherwise be waste to productive further use. This lightens raw-material demand and reduces the need for and the environmental impacts of waste disposal. And considerably less electricity is required to make new paper from old paper – only about one-third of what's needed when starting the process with wood chips.

## Old Paper Supplies

The main ingredients used in the recycling process are old newspapers, magazines and telephone directories, and other previously manufactured paper products. While we've become much better at recycling paper in North America, our recovery rate is only a little above 50%, while some European centres approach 75%. In fact, there is currently a shortage of waste paper available at economically viable costs, and export demand is making this situation worse. Better paper recovery, rather than demands for greater recycled content in paper products, should therefore be our top priority.

## Making it All Count

Catalyst maximizes the value of its supply of old newspapers and magazines by limiting chemical treatment and other processing. This results in more pulp production per tonne of waste paper. The resulting de-inked pulp is slightly duller in colour, but is entirely well-suited for use in newsprint and directory papers.

## Recycled Fibre Alone Won't Work

Paper fibres can be recycled only about five times before they begin to disintegrate. If we did not replace failing recycled fibres with new fibre, the world would be without paper in a matter of months. About 65% of today's paper production is based on fresh fibre, and some proportion of fresh fibre will always be required. That's why Catalyst is careful to ensure that its fresh fibre supplies are sustainably harvested, and to minimize the environmental footprints of the mills where that fibre is used.

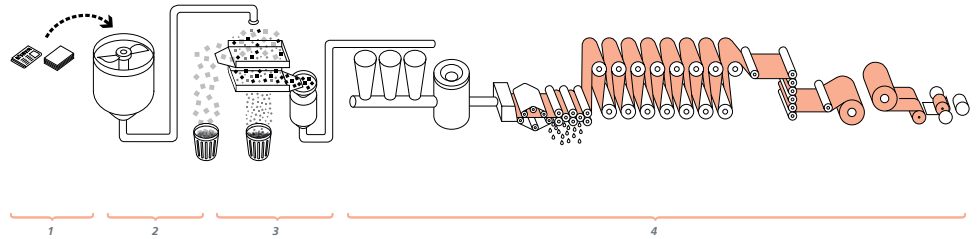
## Catalyst Cares About Certification

A Forest Stewardship Council chain-of-custody system at our Snowflake mill provides assurance that the large majority of the recovered paper used comes from post-consumer sources. This is consistent with Catalyst's strong support for forest management certification, and for independent validation of the environmental attributes of our products.



The mark of responsible forestry  
Cert no. SW-COC-003894  
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## The Paper Recycling Process



### 1. Waste Paper

Waste paper arrives via truck and rail and is stored in segregated piles including old newspapers, old magazines and telephone directories. Such materials are collected through recycling programs in the western and mid-western United States. "Pre-consumer" waste paper, including such things as printers' overruns, is also used.

### 2. Pulper

Waste paper is fed into a pulper – a large rotating drum where chemicals are added to brighten the wood fibres and scrub out ink. Ink particles are loosened and removed from the surface as the fibres rub together, resulting in what is referred to as de-inked pulp. Specific combinations of different types and grades of recovered waste materials are used, depending on the paper the pulp will be used to produce.

### 3. Cleaning

Screens and other mechanical devices separate ink particles from the pulp and remove contaminants. Contaminants range in size from large items such as tin cans, wood and metal; to smaller items such as staples, paper clips, stones and glass. Metal contaminants are recycled, while ink and clay fillers are collected and pressed for composting.

### 4. Papermaking

After multiple screening and cleaning stages, the paper fibres are ready to be turned into paper. A heavily diluted mixture of fibre in water is sprayed across wire screens which capture the fibres and release the water. The wet paper is then pressed between a series of rolls and finally dried with hot rolls. Large rolls of paper – the width of a city street and weighing many tonnes – are produced and then trimmed into smaller sizes to meet the needs of customers.

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