SCRUBBERS IT ALL STARTS Logging Sawmill/ A variety of systems clean the Trees used to make air and water used paper mill The Globe and Mail come from forests that are regularly inspected and either replanted as necessary or in paper production. Scrubbers, for RENEWABLE ENERGY example, clean the naturally regenerate. Of the 402 million hectares of forests Waste-based biomass, released steam. such as bark and in Canada, less than one sawdust, are used for million hectares are harvested over half of the each year (less than one half of I per cent of the total forest fuel (heat) energy at area). Canada has 91 per cent of its original forest cover, pulp/paper mills. more than any other country. The Globe and Mail work: Catalyst and NewPage, LUMBER AT THE MILL who operate under Pulp is a by-The bark is stripped from the trunks, forestry agreements on responsible fibre sourcing and sustainable forestproduct of lumber which are then cut into lumber. Wood chips – a production **BLEACHING** management practices
that are independently
certified. These suppliers
are covered by one or
more of Canada's byproduct of sawmill Chlorine-free operations – are used to bleaching is used MANAGED FORESTS duce paper, and sawdust in all newsprint Globe suppliers are signatories and bark are a ready source of biomass fuels. Trees processed paper production. of the Canadian Boreal Forest The premium Agreement and Great Bear through a sawmill produce Rainforest Agreement. paper is **PRESS** internationally recognized certifications for forests elemental Pulp mats enter presses chlorine free **Canadian Standards** that flatten Our new printing process **Association, Forest** the pulp into sheets and Stewardship Council and Sustainable Forestry extract water. The new KBA Commander Initiative. The Globe is CT presses are compact urging its suppliers to increase the amount of high-quality, third-party-certified newsprint available for purchase. The heat-set inks are dried rapidly using forced-air heating. This is not required for the paper running through the cold-set towers **HEAT SET** Heat set utilizes dryers to cure or "set" the inks. Heat-set presses use coated glossy and uncoated papers. A combination of **SUSTAINABILITY** vegetable, soy-based, and **MANDATE** UV inks are used at our print sites. The UV ink remains liquid until passed through UV lights, where it is dried. UV inks do not use solvents, and are free of volatile organic In its mandate for sustainable **OXIDIZER** Each press is equipped with a paper choices, The Globe and Mail: combination of heat-set and cold-set towers. Here the plates are inked, and then the image is A pollution-control device uses high temperatures to break Is opposed to illegal transferred to a blanket cylinder, which then down and destroy volatile organic compounds in the inks before they are released into transfers the ink to the paper. Each page position logging. has the capability of full colour. Recognizes that highconservation-value forests compounds. In heat-set need special protection. **CONTROL ROOM** printing an oxidizer is used to break down and Automated control systems are used for ink and Encourages its suppliers to provide high-quality water balance, positioning the image, and colour liminate VOCs, after the management. This digital workflow minimizes post-consumer recycled waste, maximizes output productivity, and nks are passed through optimizes image quality control. the dryers. Encourages the use of paper made with re-consumer reco **INSIDE THE PRESSES** PRESS PLANT LOCATIONS Requires its suppliers to Rollers apply ink track and work to reduce evenly to the the production of printing plates, B.C. Alta. persistent organic one plate each for N.L. pollutants in its product cyan, magenta, Sask. Man. supply chain. yellow and black Delta Calgary (added to make Encourages the supply of Ont. Que. text and line work paper that is bleached P.E.I. sharp). without the use of chlorine Estevan • N.B. A wide range of Encourages its suppliers to Halifax Anjou colours can be reduce the carbon footprint All sites are operated by N.S. created by associated with paper Vaughan Transcontinental Inc., with the combining production and exception of Estevan, which is different amounts transportation operated by Glacier Inc. of the four inks. Encourages its suppliers to make efficient use of power and water in paper production. FOREST RESOURCES Will promote its mandate CANADA'S LAND CLASSIFICATION PERCENTAGE REMAINING OF **USES FOR RECOVERED PAPER** with publishers, paper (MILLIONS OF HECTARES) (U.S. AND CANADA) ORIGINAL FOREST COVER suppliers, customers and advertisers Printing and Total forest and other Newsprint Packages Forest land Canada wooded land 402 writing 5% **— 25%** Will continue to work with - 310 12% -90% Norway non-governmental 86% Sweden organizations to create awareness of sustainability Finland 82% in the newspaper industry. Russian Fed. 68% Commits to examining its 66% Brazil own internal business processes with a view to Containers Indonesia 64% making environmentally 41% Malaysia 63% sound paper choices. U.S. 60% Chile 40% See The Globe and Mail's most likely New Zealand 29% complete mandate for Harvested subject to forest Germany 26% Tissue Other grades Other uses forest management China 21%

(annual) **0.9**

at tgam.ca/sustainability

activities 144

4%

WHAT YOU CAN DO
Demand improvements to
recycling systems nationwide.
About 35 per cent of all paper
products that enter single-stream
recycling systems is diverted to landfill
largely due to contamination from such
things as broken glass and liquid waste
from food and drink containers. That works out to about one in three issues of The Globe and Mail. RECYCLED CONTENT IN THE NEWSROOM The Globe and Mail is printed on recycled-fibre-content paper as product quality, availability and price allow. The demand for high-quality recycled-content paper far outstrips supply in North America. content to the main news hub. Editors, graphic artists and designers select the content, edit and present the next day's paper. Each page is then sent electronically to the printing plant. THE GLOBE AND MAIL across the organization, helps make The Globe office more nitiatives the team has discounted transit passes or staff, recycled paper for photocopiers, green bins for composting and waste audits to uncover opportunities for increased recycling. The team's efforts are **TRANSMISISON** Pages are sent to the press plants by fibre-optic network. The pages are onto plates, which in turn, are used to transfer

COLD SET The inks used in cold-web offset printing dry through evaporation and absorption into the paper. Cold-set presses are restricted to uncoated paper stock, such as newsprint.

AT THE PRESSES

The new presses

All waste paper is

stored in bins and

recycling company

picked up by a

newsprint and premium paper are fed into the

PLATE IMAGERS

Higher-resolution

plates are used for

the heat-set towers

SINGLE-COPY CONVEYOR

3,000-pound rolls of

PAPER

FOLDERS

WHAT YOU

CAN DO

Recycle thi

newspaper

The paper is cut, folded

STACKER

DISTRIBUTION

More than 17,000

retail outlets across

Canada and about

150,000 individual subscribers receive The Globe Monday to

Saturday. To ensure timely

delivery each morning, more than 100 trucks go to each of

The Globe's six printing plants across Canada every night, and

deliver to areas such as

Newfoundland, Vancouver

The Globe travels by truck,

plane, bus or ferry.

sland and Northern Canada,

and collated into a

broadsheet format.

Newsroom

Recycled paper

All of the mills used to

produce The Globe track

water use, greenhouse-

undergo regular audits as part of an environmental management system.

Waste and trunks unsuited

to lumber are chipped into

Wood chips are pulped

without the use of

Distribution

chemicals

using mechanical

grinding and heat,

and report fibre loss,

gas emissions and

electricity use, and

CHIPPER

small pieces.

THE FINAL **PRODUCT** Sections are inserted together to make a complete newspaper. The newspapers are then bundled together, and loaded onto delivery trucks, each responsible for a different

FOREST PRODUCTS ASSOCIATION OF CANADA; KBA

use 25 per cent less power than similarly structured tional presses. Automated inking keys and image registration systems reduce waste and save energy. The press has a maximum hourly output of 90,000 copies per hour, more than double The Globe's capabilities before the redesign. The newspaper is printed in sections, and each

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newspaper needs two or three press runs to be completed.

NINIAN CARTER/TONIA COWAN/DANIELLA STEGNE/MELISSA WHETSTONE/MICHAEL BIRD/THE GLOBE AND MAIL SOURCES: ABITIBIBOWATER; METAFORE; CANOPY; TRANSCONTINENTAL;