

# Re:

Rethink, Reduce,  
Recycle, Recover,  
Reuse...and

Repeat it Every Day.



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Georgia-Pacific plays an essential part in the lives of consumers, whether at work, at home or at play. We provide quality products and brands—the simple, everyday necessities—that help make life easier and more enjoyable.

At GP, being an environmentally responsible company is also an essential part of who we are. We work to minimize any adverse impacts of our products and processes, promoting continuous improvement and practicing sustainable growth.



# Re:

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That's environmental leadership. Whether we're creating innovative new products, committing to stretch paper recovery goals, improving our efficiency in water and energy use, reclaiming and reusing waste, reducing greenhouse gases...or just doing what we've said we will do, Georgia-Pacific takes a comprehensive approach to the environment...continuously improving our performance and sustaining it with all of our actions.

Environmental excellence starts with our strategies, is implemented in our operations and extends across the entire supply chain to the marketplace with innovative ideas and products.

Read [more.](#)



## Resists Moisture, Fully Recyclable

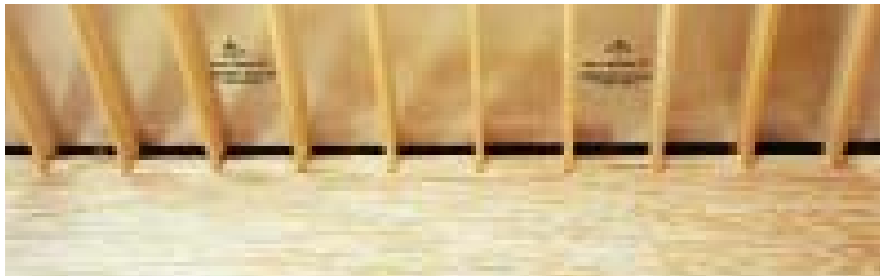
The corrugated box is a tremendous recycling success story, boasting the highest recovery rates of any paper or paperboard product, but until now many types of produce, poultry and seafood had to be shipped in non-recyclable, wax-coated packaging. With the introduction of Greenshield® packaging, GP tackled one obstacle to corrugated recycling. Greenshield, an alternative to waxed corrugated used in moderate moisture applications, is completely recyclable. Greenshield provides the moisture resistance needed for long-term refrigerated storage of produce, poultry and seafood and reduces the amount of corrugated packaging going into the waste stream.



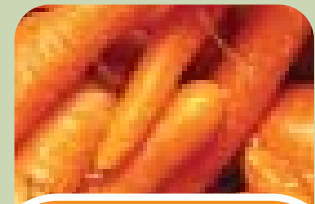
### A Better Cup for the Environment

Dixie's premium Insulair EcoSmart™ cup is an environmentally responsible cup that's easy to put your hands around. The cup utilizes 12 percent post-consumer recycled material due to an insulating middle layer made of 99 percent post-consumer recycled paper. It protects your hands from the heat, and it's good for the environment.

## Plywood and OSB for Energy-Efficient Homes



A layer of highly reflective aluminum foil applied to Plytanium® plywood and Blue Ribbon™ oriented strand board (OSB) sheathing adds an energy-efficient dimension to these construction mainstays. Energy Star® qualified products, GP's enhanced Thermostat® Radiant Barrier Sheathings reflect up to 97 percent of radiant heat. The products reduce heat gain in the attic and may lower air conditioning costs by up to 17 percent in hot climates. Homeowners can save on cooling costs, and the reduction in energy consumed helps reduce power plant emissions.



## “Greening” Up with NITAMIN®

GP's Nitamin® fertilizers are innovative nitrogen sources developed by GP chemists for use on crops and turfgrass. The Steady-Delivery® nitrogen release provided by Nitamin fertilizers helps farmers achieve higher crop yields and enables turf professionals to grow strong, healthy turf while applying less nitrogen than with commonly used quick-release fertilizers. The improved nitrogen use efficiency of Nitamin helps ensure a reduction in common forms of nitrogen loss that can negatively impact our rivers and streams.

# Reduce



## Stretching Wood Resources

GP Wood I Beam™ joists use 40 to 50 percent less wood fiber than 2x10 or 2x12 dimension lumber—without sacrificing performance. Constructed from oriented strand board and sawn or laminated veneer lumber (LVL), engineered products like Wood I Beam joists, GP Lam® LVL, Fiberstrong® rim board and other engineered lumber products are excellent for floor and roof systems. They also use smaller trees that require less time to grow.

## Saving Energy, Helping the Environment

Some GP gypsum facilities use alternative waste energy for part of their energy needs. The Las Vegas, Nev., and Pryor, Okla., plants co-generate energy with local electrical utilities while the Long Beach, Calif., plant uses co-generated heat from an oil-pumping operation. Total annual energy savings from these plants could heat 13,000 average size homes. The Surrey, British Columbia, facility generates supplemental energy from methane, a greenhouse gas generated in landfills.

Georgia-Pacific continuously explores ways to minimize our impact on the environment—reducing raw material needs, water usage, air emissions and waste at the source.

## Source Reduction, One Towel at a Time

GP's unique dispensing systems for paper towels, tissue, napkins and soap have been proven to reduce consumption in away-from-home environments. The enMotion®, Cormatic® and System 3000® dispensers work by controlling the amount of towels or product dispensed. The enMotion "touchless" towel dispenser reduces waste at the source and improves hygiene for consumers.

Innovative product designs, including the Big Fold® C-fold replacement towel and the EasyNap® dispenser napkins, reduce usage and waste by 30 percent compared with other standard products. GP's Compact® coreless tissue and dispenser eliminate roll cores and reduce packaging waste by 96 percent.





### The Sky's the Limit: Camas Pursues Energy Efficiency

Georgia-Pacific's Camas, Wash., paper mill is tackling energy efficiency through participation in two innovative programs—Pacific Power's Blue Sky program and the U.S. Department of Energy's Save Energy Now program. Blue Sky is an alternative energy program that focuses on renewable wind power—an attractive form of clean alternative energy. GP is the largest participant in the Blue Sky program, buying enough blocks of Blue Sky monthly to offset 1,122 tons of carbon dioxide emissions.

Reducing natural gas consumption is the focus of the government's Save Energy Now initiative. GP Camas was one of 200 plants nationwide that participated in the innovative energy saving assessment.



### Finding a Better Way

**GP continues to make changes to manufacturing processes that have ongoing benefits for the environment:**

- In the past, solvents used in parts and equipment washers were a major source of hazardous waste at GP facilities. Through recycling, reuse or a change in solvents, GP facilities have reduced hazardous waste from cleaning solvents in 80 percent of the affected facilities, with many completely eliminating hazardous waste generation.
- Several years ago, GP made the move to elemental chlorine free (ECF) bleaching at all of its bleached paper operations.
- Our lumber facilities now use the more benign wood preservative ACQ for all treated lumber production.

### Using 100% of the Tree

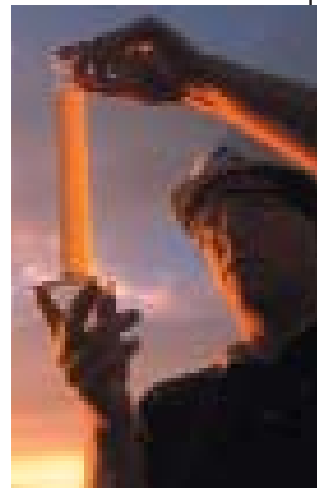
It's an old story, but one that is just as important today. GP manufacturing processes are planned to ensure that no part of the tree is wasted. Chips and wood waste from sawmills and plywood plants supply pulp and paper mills as well as plants that make hard-board and oriented strand board.



### Less Water, Cleaner Water

Water is a critical element in many of GP's manufacturing processes. We use creative and innovative methods to conserve, reuse and reduce water used in our processes, and to ensure that our process water is properly treated before being released. For example:

- GP's Toledo, Ore., containerboard mill is recognized as one of the best in the nation when it comes to efficient water use—with usage that is better than 90% of similar mills. Yet, in response to a recent drought, the mill reduced water consumption by an additional 2 million gallons per day. Toledo currently uses 4,510 gallons of water per ton of product, nearly 3,000 gallons a ton less than the industry average.
- The company's tissue mill in Gien, France, has reduced its fresh water use by 30 percent since 2005, and has been recognized by French environmental authorities for its use of "Best Available Techniques."
- GP's gypsum mills recycle and reuse millions of gallons of treated water every day through their virtually closed loop manufacturing systems.



# Recycle...

Georgia-Pacific goes full circle when it comes to paper recovery and recycling. Harmon Associates, a Georgia-Pacific company, is one of the world's largest buyers and sellers of wastepaper, and GP uses nearly 4 million tons of recovered paper and paperboard in its facilities...and, that's just part of the story.



## Paper Recycling:

### A Big Priority and Big Business for GP

American paper recycling was at a record high of 360 pounds per person in 2006, and global demand for wastepaper is climbing.\* Thanks to GP's Harmon Associates, the company is well-positioned to meet the recovered fiber needs of its tissue and containerboard facilities, while Harmon expands to meet demand outside of the company.

Harmon manages over 10 percent of the U.S. supply of wastepaper, purchasing nearly 6 million tons of recovered paper. Over 2 million tons of recovered paper are supplied to GP tissue mills, and another 1.2 million tons go to GP containerboard mills. Including wastepaper used by our gypsum division, GP uses nearly 4 million tons of recovered paper in its manufacturing operations.

## Recycled Walls

GP recycles enough gypsum drywall every year to cover the walls of 50,000\* homes.

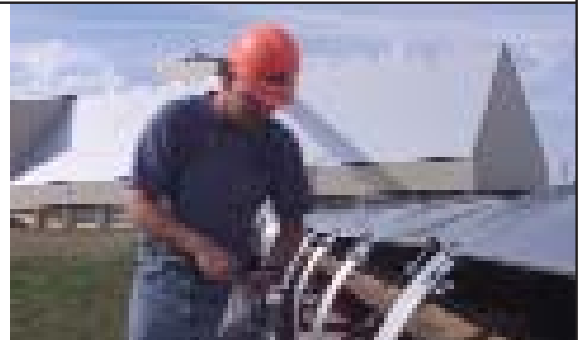
*\*Based on an average house that uses 10,000 sq. ft of wallboard.*

Georgia-Pacific uses some percentage of recovered paper in most of its paper and paperboard products including tissue and towels, office paper, containerboard and corrugated boxes. GP's Halsey, Ore., paper recycling facility diverts nearly 200,000 tons of wastepaper per year from West Coast landfills and uses it to produce bright white pulp without the aid of chlorine or chlorine compounds. The pulp is used for business papers and towel and tissue products.

Additionally, 100 percent of the paper that covers GP's ToughRock® gypsum drywall is recycled, and has been for nearly 50 years.

## Recycling Waste into Wallboard

Chemically identical to natural gypsum, synthetic gypsum, which was once landfilled, is created through flue gas desulfurization, a process that utilities use to scrub their air emissions to remove sulfur and sulfates. Working with the utilities, GP recovers more than 600,000 tons per year of this synthetic gypsum and converts it into gypsum drywall at GP facilities in Indiana and Washington.



\*American Forest & Paper Association

# Recover

## Choose GP Recycled Products

Georgia-Pacific is the largest producer of recycled away-from-home tissue products, offering more than 200 products that either contain recycled fiber or are made from 100 percent recycled fiber. GP's Envision® line of washroom and tabletop products meets or exceeds the U.S. Environmental Protection Agency's recommended guidelines for total and post-consumer recycled fiber content. Consumers who want paper towels, napkins and bath tissue with recycled content can choose Mardi Gras®, So-Dri® and Soft 'n Gentle® brands. In Europe, GP's Nouvelle brand is a 100 percent recycled bath tissue. For the away-from-home market, more than 95 percent of GP's Lotus Professional products are made from 100 percent recovered paper. Several Lotus products qualify for GP's "Smile" initiative, which is designed to eliminate a product's net contribution to landfill waste.



## A Place for Commercial Waste

Ecosource, GP's wastepaper processing operation, annually recycles 105,000 tons of pre- and post-consumer grades of wastepaper generated from both commercial and industrial sources. Two Ecosource locations, the largest at Green Bay, Wis., and a smaller operation at Muskogee, Okla., collect, sort and process books, magazines and industrial grades of wastepaper from paper mills, offices, universities, printers and all types of facilities. At the Green Bay facility, about 60 percent of collections are from a 300-mile radius. Within 24 hours, Ecosource turns wastepaper into high-value materials for GP mills or for sale on the open market.

## Meeting Federal Guidelines

GP is a leading supplier of tissue products to the federal government, providing products that meet their guidelines for post-consumer waste and total recycled fiber content.



# Reuse

Waste not. It's good business, and it's good for the environment. Whether reclaiming waste for energy or useful products, GP looks for ways to maximize resources and improve efficiency while producing quality products.



## Innovative Ways with Waste

By-products from Georgia-Pacific processes often end up paving roads, making grass grow or providing a strong foundation for highways.

The Savannah, Ga., and Wauna, Ore., paper mills use ash from their power boilers for road stabilization and building. At the Savannah River mill, it was first used to pave company roads and parking lots, but was then used for a community project that paved 290 miles of secondary county roads—saving Effingham County millions of dollars over the cost of asphalt.

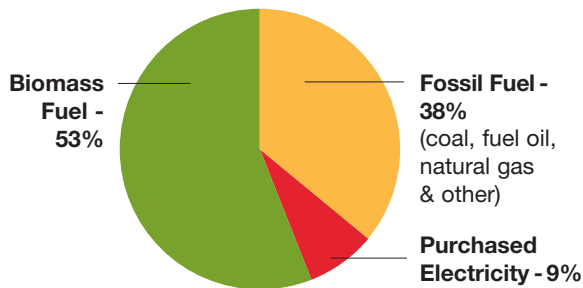
Paper mill sludge from the deinking process at the Nokia, Finland, plant is now used as a protective layer under local roads—a use that reduced the plant's landfill waste by 55 percent.

The Cuijk, Netherlands, paper mill had an excellent environmental track record but still wanted to find a better use for deinking residue. Through their persistence, they were able to use the waste to develop a specialty concrete product for use as road foundations.

Local farmers and turf growers benefit from waste that is turned into fertilizer in several GP plant communities. The Hondouville, France, consumer products facility developed Calciton<sup>®</sup>, a fertilizer to enhance soil quality, while the Halsey, Ore., mill annually turns 600 dry tons of recycled paper residual into a commodity valued by local farmers for the production of grass seed. Gypsum waste in Texas and California is even used as an agricultural soil amendment.

## Waste Fuels Our Facilities

Bark, wood residues and by-products from pulping are burned to create electricity at GP building products and paper plants. Known as biomass fuels, they supply 53 percent of the energy required for GP's operations. In fact, GP alone is responsible for 8 percent of the electricity generated from renewable biomass in the entire U.S. Biomass fuels reduce our dependence on fossil fuels and purchased electricity while reducing greenhouse gas emissions.



**GP's Annual Energy Use by Source**



## Keeping Construction Waste Out of Landfills

GP's Newington, N.H., gypsum facility is a leader in reducing construction waste destined for landfills. What started in the early 1990s as a pilot to recycle gypsum waste is now an ongoing recycling program with 50 construction contractors participating annually. The Newington plant recycles 8,700 tons of contractor material in a normal year, and contractors like the inexpensive and environmentally sound method of disposing of their gypsum waste. When the neighboring state of Massachusetts was researching ways to reduce construction waste in landfills, they called GP to learn from their experience.

Newington, like other GP gypsum facilities, also recycles its own off-specification product. It is processed and reused again to make more gypsum wallboard.



## Reusable Packaging Meets Marketplace Demands

GP is the only corrugated packaging manufacturer that offers reusable plastic containers (RPCs) as an alternative to traditional corrugated packaging. By considering diverse materials and design, GP meets specific and localized needs of our customers.

# Repeat

## A Framework for Environmental Performance

For more than 10 years, GP has actively tracked its environmental performance. We've reported our progress to our communities and the general public making sure our actions are transparent to all. We measure water consumption, air emissions, paper recovery, wood utilization and other activities—toward compliance with all permits, regulations and company expectations.

We document our efforts through comprehensive self-audits and third-party audit programs. Our employees who have environmental responsibility receive environmental training to keep them current on changing requirements and goals. Environmental excellence is recognized and rewarded at GP and is an important part of performance expectations.

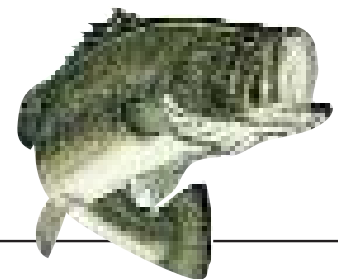
Environmental stewardship is not defined by a single event. It's about consistency, about an ongoing commitment to a way of thinking, operating and performing, and it's a commitment that's repeated every day.

### Reducing Greenhouse Gases

Since 2000, Georgia-Pacific has been voluntarily monitoring global production of greenhouse gases at our manufacturing facilities. At the end of 2006, GP had reduced its direct emissions by more than 11 percent, indirect emissions by 6.2 percent, and neutral biomass emissions by 7 percent. These absolute reductions in all categories reflect GP's successful energy efficiency efforts. The company's Greenhouse Gas Inventory Protocol aligns with global standards, including those developed through ISO 14064 and the World Resources Institute/World Business Council for Sustainable Development. GP periodically has these inventories third-party certified.

### Studying Fish Life

GP works to understand and minimize the impact of its actions on the environment—including aquatic life. A major research project at the Palatka, Fla., paper mill studied process changes and their impact on bass and mosquito fish in local streams. The aquatic ecosystem project used new scientific techniques and garnered "special recognition" in the American Forest & Paper Association's Environmental & Energy Achievement Awards.



## On "Clean" Track in Mexico

GP's Toluca, Mexico, tissue plant is certified as part of Mexico's Industria Limpia or "Clean Industries" program. Similar to EPA Performance Track in the U.S., plants must have an environmental management system in place to be considered for the designation.

## Chemical Plants on EPA Performance Track

Demonstrating their commitment to exemplary environmental management, the Albany, Ore.; Columbus, Ohio; Conway, N.C.; Russellville, S.C.; and Vienna, Ga., chemical plants have been accepted into the U.S. Environmental Protection Agency's National Environmental Performance Track. This program recognizes top environmental performers and incorporates concepts of public reporting, community involvement and continuous improvement.

# Renew

Though no longer a timberland owner, GP renews its commitment to sustainable forestry every day through responsible wood procurement practices, compliance with the Sustainable Forestry Initiative® (SFI) Standard and through support for state forestry and regional landowner associations.

## Mapping Our Support for Private Landowners

Private individuals own 58 percent of the nation's forests and as much as 70 percent in some Southern states. That's why Georgia-Pacific dedicates significant resources to supporting this group that is so critical to sustaining forests. Through its Forest MAP<sup>sm</sup> program, GP provides professional



help to nearly 800 private landowners who manage 890,000 acres of forestland. GP foresters help landowners develop exemplary forest management goals, sustain plant and animal populations, and improve their stewardship over time, while supplying wood and wood fiber for forest products.

## Collaborating for Longleaf Pine

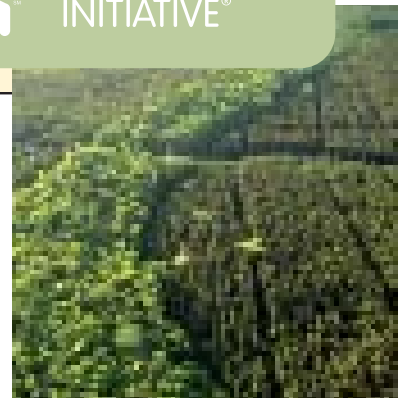
**GP is working with the National Wild Turkey Federation on a longleaf pine restoration project on some 1,500 acres of land, including 500 acres of land enrolled in GP's Forest MAP landowner assistance program.**

## Finding a Way: Measuring Forestry BMPs

Georgia-Pacific was challenged with measuring compliance with forestry Best Management Practices (BMPs) that protect water quality. GP had accurate information for lands on which it supervised harvesting, but needed additional data to comply with SFI program standards. Working with a private forestry consulting firm, GP helped pioneer a third-party monitoring system that more accurately captures BMP compliance in the areas where GP operates. The program is an excellent example of cooperation among forestry interests to meet sustainable forestry goals.

## Verifying Our Wood Procurement Practices

GP's North American wood and fiber supply has been certified to the Sustainable Forestry Initiative (SFI) Program Standard by international auditing firm PricewaterhouseCoopers. As part of its SFI commitment, the company helps fund landowner and logger education programs that raise the level of professionalism and spread sustainable forestry practices. The SFI program is designed to integrate the growing and harvesting of trees for useful products with the protection of wildlife, water quality, plants, and soil and air quality.



# Trends

## Building Better Indoor Environments

Georgia-Pacific develops innovative products that can help improve interior environments. GP's DensArmor Plus® interior drywall is the first gypsum drywall to be GREENGUARD Indoor Air Quality Certified and GREEN-

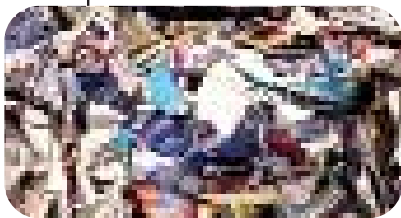
GUARD Children & Schools™ Certified for low emissions. The product incorporates a moisture-resistant core and substitutes mold- and moisture-resistant glass-mat facings for traditional paper facings. The Dens™ family of gypsum products, including DensGlass Gold® (pictured), resists mold and provides durability and moisture forgiveness within wall assemblies.



## GP Packaging Plants Earn SFI Label

Forty GP Packaging plants have earned the right to use the Sustainable Forestry Initiative® (SFI) Certified Sourcing label. To meet the criteria for this product label, two-thirds of a company's packaging raw material must originate from mills with certified wood fiber procurement systems or recycled paper sources. This is a visible way for GP and our customers to demonstrate a commitment to environmentally sustainable packaging.

In addition, GP's low-emissions resins work has positive implications for GP, our customers and consumers. Responding to the needs of fiberglass insulation and high-pressure laminate manufacturers, GP has developed low-formaldehyde-emitting resins that improve indoor air quality and help our customers meet GREENGUARD certification requirements when our resins are used in their products. Our low-formaldehyde resins also improve our customers' workplace environments while significantly reducing facility emissions.



## Pushing for Greater Recovery

U.S. paper producers have set a goal of recovering 55 percent of the paper produced in the United States by 2012. In 2006, the industry recovered a record high of 53.4 percent of the paper consumed in the U.S., up from 33 percent recovered in 1990. GP is part of this effort, led by the American Forest & Paper Association, and uses nearly 4 million tons of wastepaper annually.

## GP and "Green" Building

Wood-frame construction that uses dimensional lumber like 2x4s and 2x6s to frame homes and plywood or other wood panels for sheathing is the traditional building method in North America. GP supports wood-frame construction as a sustainable practice that uses products derived from North America's fast-growing and renewable forests. The company supports both national and regional green building programs. These programs provide blueprints for energy-efficient, healthy, durable and comfortable homes that reduce utility bills and help protect the environment.



Headquartered at Atlanta, Georgia-Pacific is one of the world's leading manufacturers and marketers of building products, tissue, packaging, paper, cellulose and related chemicals. The company employs approximately 50,000 people at more than 300 locations in North America, South America and Europe. The familiar consumer tissue brands of Georgia-Pacific Consumer Products LP include Quilted Northern<sup>®</sup>, Angel Soft<sup>®</sup>, Brawny<sup>®</sup>, Sparkle<sup>®</sup>, Soft 'n Gentle<sup>®</sup>, Mardi Gras<sup>®</sup>, So-Dri<sup>®</sup> and Vanity Fair<sup>®</sup>. Georgia-Pacific away-from-home products include the popular enMotion<sup>®</sup> hands-free towel dispensing system and the Envision<sup>®</sup> line of recovered content paper products. Dixie Consumer Products LLC, a Georgia-Pacific company, manufactures the Dixie<sup>®</sup> brand of disposable cups, plates and cutlery.

Georgia-Pacific has long been among the nation's leading manufacturers and suppliers of building products to lumber and building materials dealers and large do-it-yourself warehouse retailers, with brands such as Plytanium<sup>®</sup>, Ply-Bead<sup>®</sup> and Wood I Beam<sup>™</sup> offered by Georgia-Pacific Wood Products LLC and DensArmor Plus<sup>®</sup>, DensGlass Gold<sup>®</sup> and ToughRock<sup>®</sup> offered by Georgia-Pacific Gypsum LLC. For more information, visit [www.gp.com](http://www.gp.com).



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