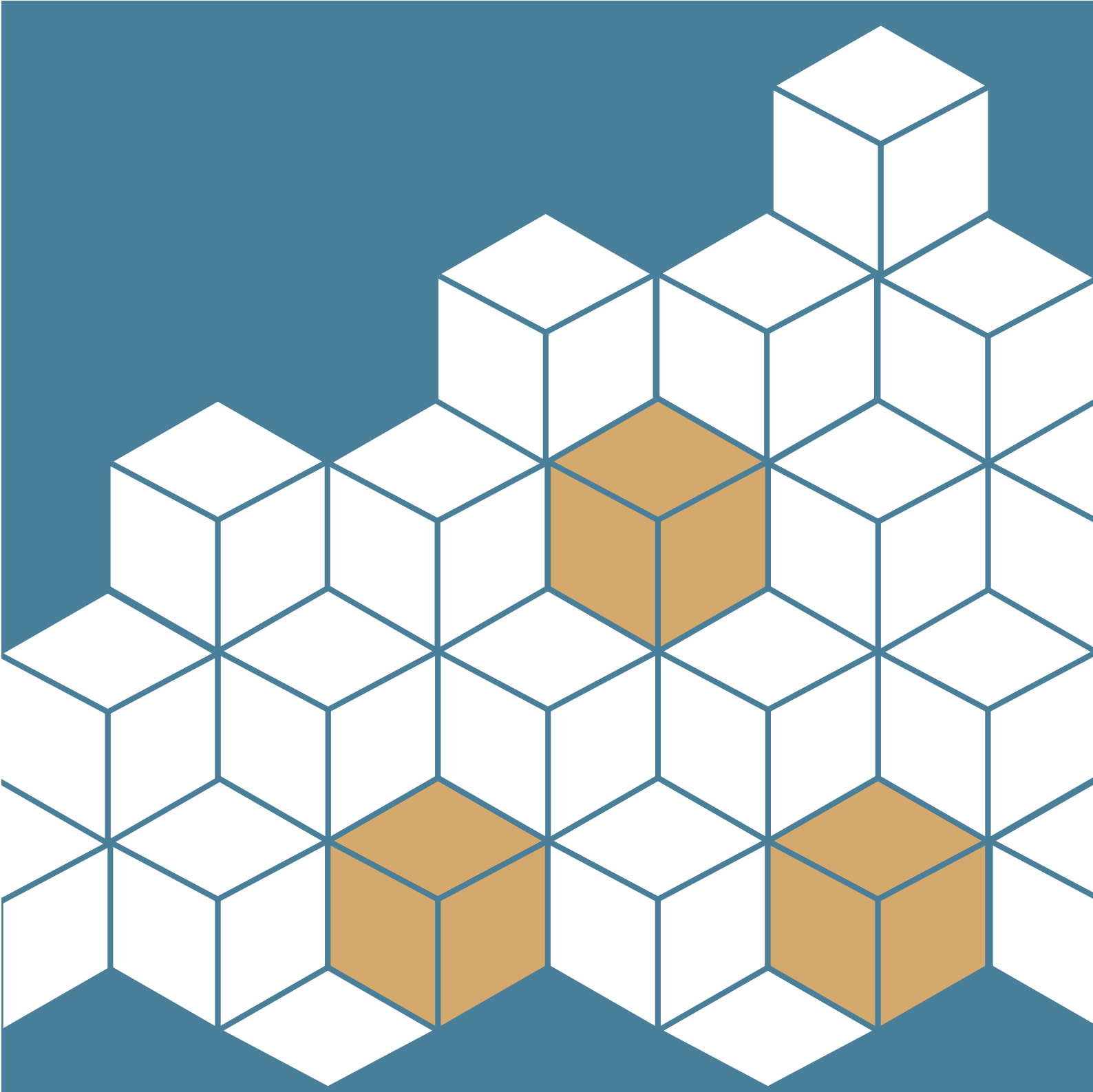

2019 RESPONSIBILITY REPORT

People • Customers • Trust

Packaging Corporation of America is an **ideas** and **solutions** company.

Our Packaging segment is known for its expertise in the manufacturing and sales of containerboard and corrugated products, and our Paper segment (Boise Paper) produces and sells consumer-brand office and business papers. Together, we are focused on bringing value to a growing number of customers around the world.

PCA is a large company with a small-company feel. Our customers enjoy wide-ranging resources, benefits of scale, as well as responsive service in the right place at the right time.

PCA's common stock is listed on the New York Stock Exchange under the ticker symbol **PKG.**

PCA is the third largest producer of containerboard and corrugated products in North America. We manufacture a complete range of high performing linerboard and corrugating medium at our containerboard mills and produce a wide variety of corrugated containers and displays at our converting facilities.

Boise Paper is the third largest producer of uncoated freesheet in North America. Our team is dedicated to providing high-quality products, outstanding customer service and industry-leading supply chain performance, with a product portfolio that includes office papers and printing and converting papers.

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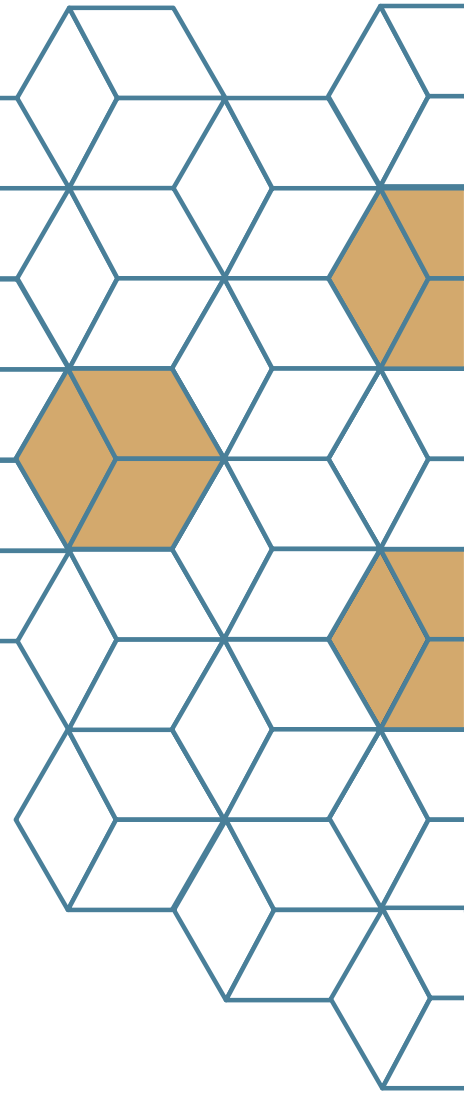


EXECUTIVE STATEMENT

June 30, 2020

The world has changed in significant ways since our 2018 Responsibility Report was published. We are currently navigating a global health crisis and its economic impact, events that no one anticipated as we ended the year 2019. As the situation unfolds, our top priority continues to be the health and safety of our people. I am proud, appreciative, and humbled by how our employees have responded to this crisis. They have continued to meet the needs of our customers while assuring we keep each other, our families, and communities safe.

PCA is one of the leading suppliers of packaging and paper products in North America. Our products and entire manufacturing process – from trees, to paper and corrugated packaging – are truly renewable, and sustainable. You will find that this report highlights PCA's ability to adapt, grow and thrive, and that we are committed to thinking and acting responsibly in all that we do. Our foundational approach to social, environmental and economic responsibility begins with our commitment to our people and in serving our customers.

PCA serves 17,000 customers in approximately 35,000 locations. In our view, those customers are at the top of our organizational chart. We work collaboratively to solve our customers' most difficult problems. We also engage with our customers in order to ensure that the "voice of the customer" resonates throughout all PCA's operations and is key in our decision-making.

We currently employ 15,500 people, working in over 100 facilities located in communities across the United States. We strive to offer a safe work environment, and provide an engaging culture that allows each person to grow and develop their skills in meaningful ways. Our people take pride in giving back—with virtually every plant and office taking the initiative to be involved in supporting efforts that benefit our local communities.

In 2019, our contributions toward building a more resilient world were recognized by three independent organizations. We increased our standing by over 300 positions with *JUST Capital*, we were named one of America's Most Responsible Companies by *Newsweek* (powered by Statista), and listed as one of the World's Most Admired Companies by *Fortune* magazine.

Mark Kowlzan
Chairman and CEO

We are publishing our third Responsibility Report for the benefit of all stakeholders. We have always taken a long-term view when it comes to running our business, with PCA's founding companies dating back over 150 years. Our resilience has been tested many times during our long history and it continues to be integral to our success. We will continue to build on our strengths. Our firm resolve to serve our customers and our people will not waver. Together we will navigate what lies ahead—with optimism, strength and confidence. We appreciate your continued interest in our progress toward our shared goals.

Sincerely,

Mark Kowlzan
Chairman and Chief Executive Officer

GENERAL DISCLOSURES

Sustainability Strategy

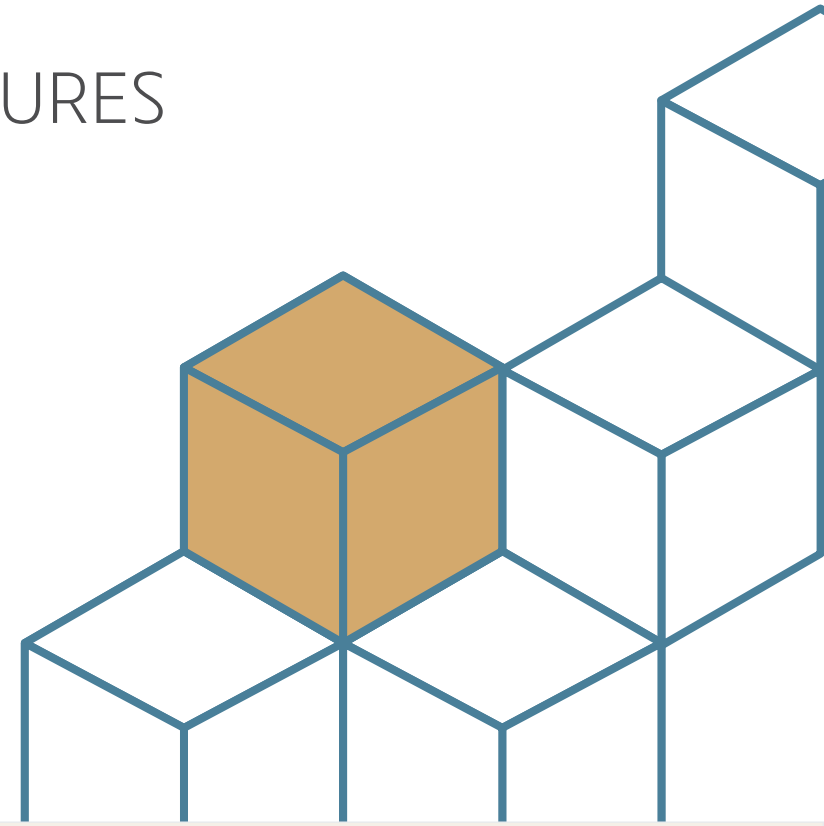
Stakeholder Engagement

Materiality

Key Impacts

Map of Locations

Goals



2019 Company Profile	Packaging Segment		Paper Segment
15,500 employees	**6** containerboard mills	**94** converting operations	**2** white paper mills
$7 Billion net sales	**4.2 million tons** of containerboard	**59.4 billion square feet** of corrugated product	**947 thousand tons** of uncoated free sheet
	17,000 customers 35,000 locations		**100 customers 400 locations**

Note: PCA's paper segment operates under the trade name Boise Paper, a Division of Packaging Corporation of America.

About our Sustainability Strategy

PCA's sustainability strategy is built on our core values: People • Customers • Trust. Our focus on succeeding through our people, and doing what's right for our customers continues to help make PCA a more sustainable company. This philosophy helps us earn greater trust from all stakeholders.

We consider ourselves an ideas and solutions company. Increasingly, customers are seeking packaging solutions that are sustainable. They also want to work with companies that are guided by strong moral and ethical standards. PCA has and will continue to rise to the challenge of meeting the ever-growing needs of our stakeholders. Together, we will build a greener and more resilient world. PCA is an established, world-class organization with a truly local focus. This local focus goes beyond our business dealings, and we pride ourselves on being a contributing member of the communities where we operate.

PCA products are made from a renewable natural resource, trees. Our supply of timber is grown to be harvested, which provides ecosystem services during the growth cycle, including sequestering carbon dioxide, clean water, and habitat for wildlife. PCA mills are powered primarily with biogenic fuels, a carbon-neutral and renewable form of energy. Our high-performing packaging products protect and help market our customers' products, which enrich people's lives and support our economy. And our paper products help others to share important information while reducing paper jams during printing with our 99.99% Jam-Free® performance guarantee—saving our customers time and frustration. At end-of-life, greater than 95% of our products are recyclable, and support the leading recycling rates for corrugated and paper products.

This report shares many of the specific actions we are taking and our progress to date, and the stakeholders we engage with to make a positive impact on our planet and society.

Global Reporting Initiative (GRI) Index

This year we are expanding our GRI Index to report many of our general disclosures to streamline our reporting process. The majority of these disclosures appear in our Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC), other SEC filings, and policies available on our website. You can find our index at the back of this report starting on **page 50,** as well as in the Sustainability section of our website www.packagingcorp.com/sustainability.

Stakeholder Engagement

PCA employees engage with our stakeholders on an ongoing basis. This occurs internally between one another, and externally with our various stakeholder groups. The primary stakeholder groups with ongoing engagement programs are employees and customers. Our employee engagement program, Your Opinion Counts, is extended to approximately 10,000 employees of PCA's corrugated products group. Our customer engagement program, Customer ConneXions, is currently offered to customers of PCA's corrugated products group. These programs help us focus our efforts to assure we are meeting our employees' needs and exceeding our customers' expectations, every day.

Employee Engagement, Your Opinion Counts

At PCA, we believe that people make the difference. Our culture encourages each person to do their best and to do what's right—for each other and for our customers. We hold ourselves accountable for results and continuously strive to be better. We survey our employees every two years to solicit their feedback about their work experience. Once the survey results are in, we then focus on turning our results into action so that we can make PCA an even better place to work.

We partner with an independent third-party research firm to tabulate and analyze the results of the survey to ensure the integrity of the process and anonymity of the respondents, which provides all employees the opportunity to respond openly and honestly.

Our most recent survey continued to have a high response rate, assuring us that the survey results strongly represent the feelings and opinions of our employees. Our 2018 employee engagement index trended upward and remained notably above the Global Manufacturing Benchmark index. In their survey responses, our employees reaffirmed our strong safety culture and also overwhelmingly agreed that they enjoy the work they do and it gives them a sense of personal accomplishment.

Customer Engagement, Customer ConneXions

Our customers know that a partnership with PCA isn't just about buying boxes. It's about building a relationship with a knowledgeable, trusted, committed source; adding value to their business; and actively contributing to their success in the marketplace.

PCA takes this responsibility very seriously. We survey our customers on an ongoing basis in an effort to measure the customers' perception of the relationship and to ensure we are delivering on our promises.

We partner with a thought-leader in the customer engagement space to help us develop survey tools and measure our performance against metrics that are important to our customers. The feedback we receive is shared and acted upon in a very timely manner and enables the voice of the customer to be central in our decision making.

CUSTOMER CONNEXIONS

The response rate for Business-to-Business organizations typically averages around 12 to 15%. PCA's response rate is significantly higher, indicating a high level of engagement between our employees and customers. Our Net Promoter Score is also significantly higher than other manufacturing organizations.

PCA's premise and business philosophy is: highly engaged employees lead to highly engaged customers. Our survey responses validate this statement because our customers repeatedly acknowledged the strong collaborative relationships they have with PCA's sales and customer service professionals.

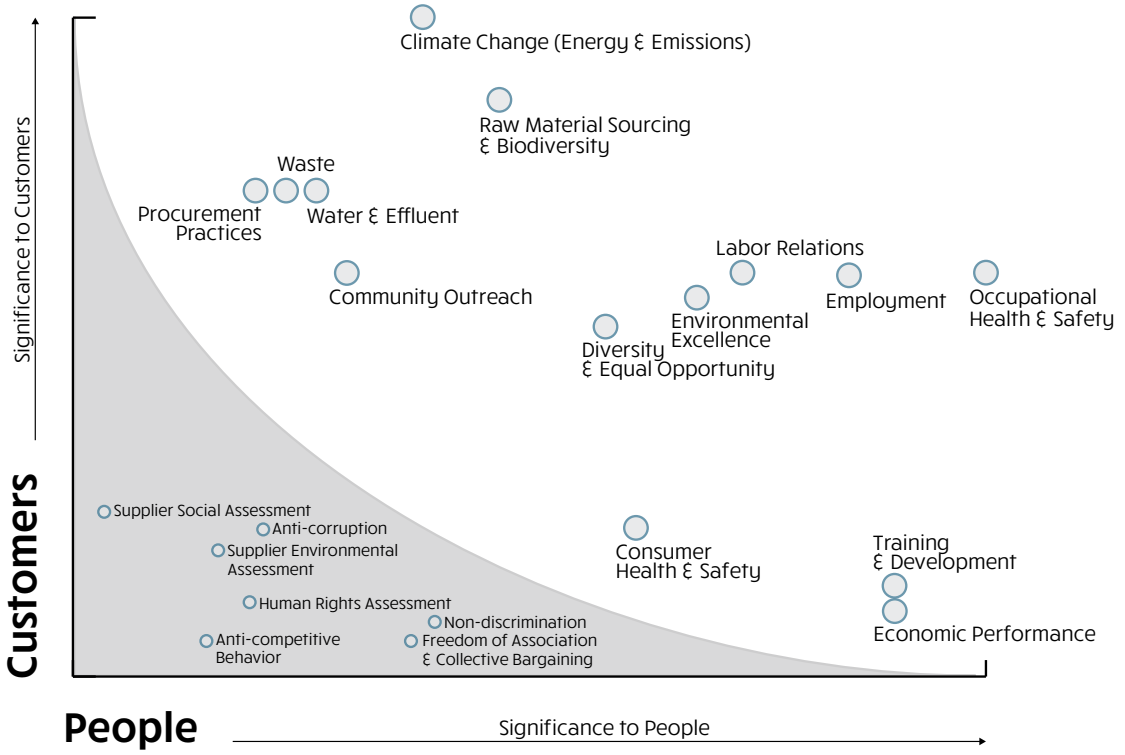
Materiality

To determine materiality we first considered information published by thought-leaders, data-driven reports on the needs and expectations of stakeholder groups like landowners and communities, as well as, and especially the needs of our employees and customers. In this process we were also informed by the materiality assessments associated with the Sustainability Accounting Standards Board (SASB) industry standards for Pulp & Paper Products, and Containers & Packaging, as well as investor surveys and metrics reported on by raters and rankers. Our corporate sustainability team members regularly attend major sustainability focused conferences and webinars to make certain we are educated as to best-practice, new opportunities, and attuned to expectations of stakeholders.

Resulting from our research, our materiality assessment started with a list of 21 topics. We engaged with our stakeholders to determine which topics are material to our business, and scored the data we gathered accordingly. In doing so, there was a clear bifurcation of the topics, and those in the bottom tier are considered immaterial. Fourteen topics are considered material, which align with 16 topic-specific GRI standards.

To determine significance of potentially material topics in this report we looked to the most impactful stakeholder groups, PCA employees—"people," and our customers. We surveyed over 100 employees to force-rank topics in the order they felt is most significant to PCA. We also conducted research on 45 of our largest customers to determine what each has deemed to be material to their organization. Our research includes: analysis of their public statements, policies, sustainability reports, and website content, as well as considering direct interactions we've had throughout the course of our relationship.

In our matrix displayed below we considered our two most critical stakeholders: our people, and our customers. Because the data were captured using different methods for each group, values were indexed based on the most significant topic so they could be plotted. Significance is an indicator for where we must focus our efforts to earn even greater trust from our stakeholders.



We believe PCA's culture, supported by our core values of people, customers, and trust, are the foundations of a sustainable company. For this reason, we aligned our material topic disclosures with the most suitable core value throughout this report—placing the highest rated topics as appropriate to the specific values: People • Customers • Trust.

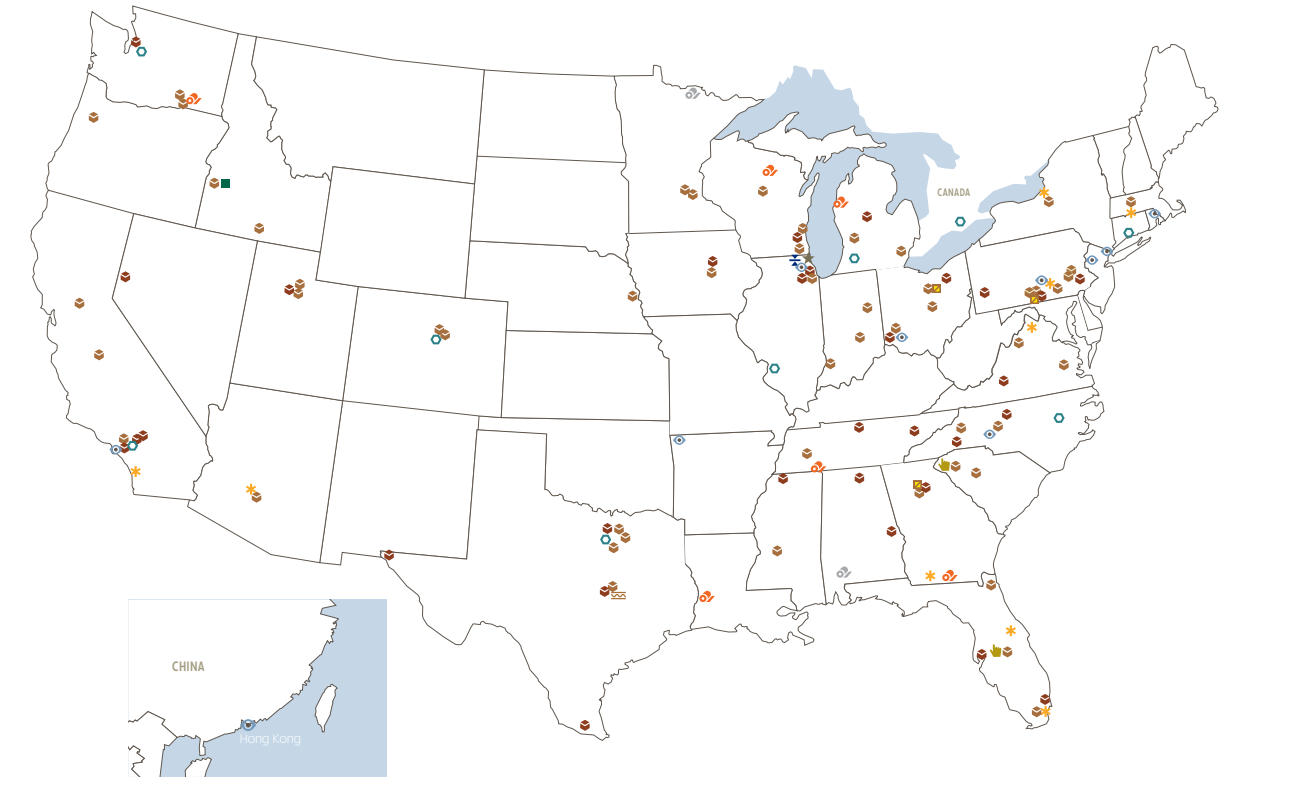
In 2019, we are reporting on the fourteen material topics as seen in the upper-right of the chart above. The topics which did not reach the significance threshold may still be important, however they did not garner enough support to be included in this report. If our stakeholders feel strongly about the materiality of any given topic, we hope they will engage us and be willing to enter into a constructive dialog.

Our next phase to enhance the value of our materiality assessment is to understand the impact and likelihood of material topics. To do this we leverage tools and frameworks which help us quantify risks and opportunities. For example, guidance published by the Task Force on Climate-related Financial Disclosures (TCFD), and the World Wildlife Fund (WWF) Water Risk Filter 5.0.

Key Impacts

PCA IMPACTS FOR MATERIAL GRI TOPICS	FIBER SOURCING	PULP AND PAPER MAKING	CONVERTING	SUPPORT, SERVICE, PROVISION	CUSTOMER USE	END-OF-LIFE, RECOVERY
Enviroment						
Materials	•	•	•			•
Energy		•	•			
Water & Effluents		•	•			
Biodiversity	•	•				
Emissions		•	•			
Waste		•	•			•
Environmental Compliance		•	•		•	
Social						
Employment		•	•	•		
Labor Management	•	•	•	•		
Occupational Health & Safety	•	•	•	•		
Training & Education	•	•	•	•		
Diversity & Equal Opportunity		•	•	•		
Local Communities	•	•	•		•	•
Consumer Health & Safety	•	•	•		•	•
Economic						
Economic Performance	•	•	•	•	•	•
Procurement Practices	•	•	•	•		

Map of Locations



PCA supports the American Forest & Paper Association: Better Practices, Better Planet 2020 Goals. For more information on these goals, please visit the sustainability section of the AF&PA website.

2020 Goals

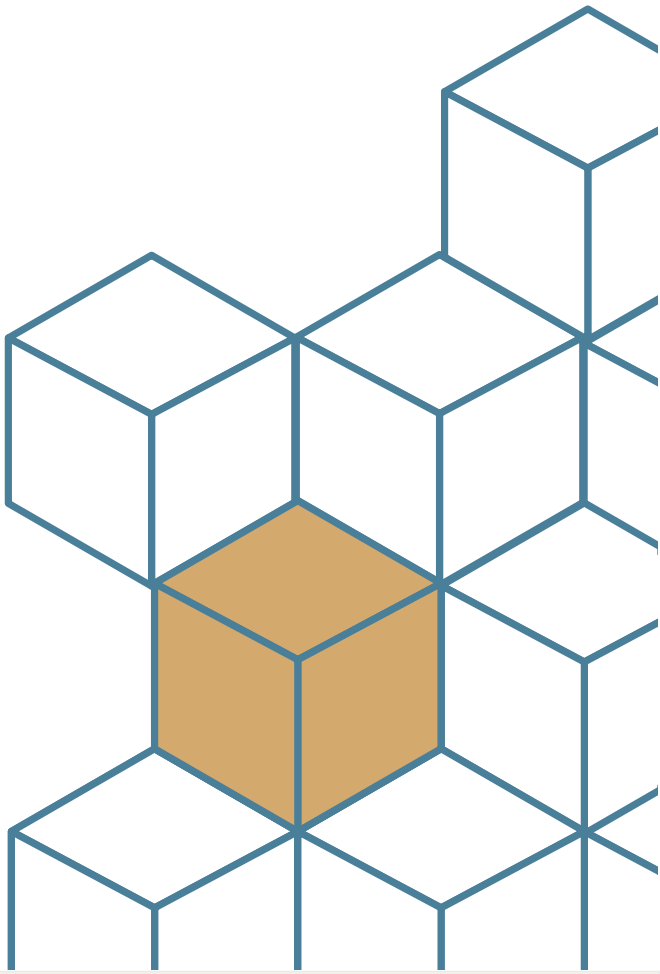
AF&PA Better Practices, Better Planet

Goal	Metric	2005 Industry Benchmark	2019 PCA Performance	2020 Industry Target	Status
15% reduction in greenhouse gas emissions (intensity)	Tons CO2-e/ton of product	**0.83**	**0.64**	**0.70**	**Achieved** **22.9%** reduction from industry benchmark
12% reduction in pulp and paper mills water use (intensity)	Gallons (Effluent)/ ton of product	**11,280**	**10,602**	**9,930**	**In Progress** **6.0%** reduction from industry benchmark
10% increase in purchased energy efficiency (intensity)	MMBTU/ton of product	**12.9**	**9.0**	**11.6**	**Achieved** **30.2%** increase in efficiency from industry benchmark
Increase fiber procurement from certified forestlands and certified fiber sourcing programs	Percentage	**23%** from certified forestlands **87%** from certified fiber sourcing	**30%** from certified forestlands **100%** from certified fiber sourcing	**Increase from benchmark**	**Achieved**
25% reduction of recordable incident rate	Recordable cases x 200,000/total hours worked	**2.6**[1]	**1.8**	**2.0**	**Achieved** **30.8%** reduction from industry benchmark

[1]The benchmark year for this goal is 2006.
Note (1): GHG and energy goals include both containerboard and white paper mills and converting operations.
Note (2): Water and fiber goals are containerboard and white paper mills only.
Note (3): "Tons of product" = Tons of containerboard and uncoated free sheet produced in 2019 (5,196 thousand tons)

PEOPLE

Occupational Health and Safety
Training and Development
Employment
Labor Relations
Diversity and Equal Opportunity



PCA's success is made possible by a highly engaged, results-oriented workforce operating in an entrepreneurial culture. At PCA we have a strong safety culture and a relentless focus on our customers. Our **people** are a differentiator in the marketplace because we place the right **people** in the right roles, and empower them to succeed.

As part of our materiality assessment, we surveyed over 100 employees on sustainability issues to determine which topics are most significant to them. Those topics are reported here in order of significance beginning with the highest-ranked. This section of our report includes topics essential to our **people,** their health and safety, their development, and how we strive to create a fair and inclusive workplace which enables them to flourish. Our **people** have written our history of success and growth, and they will create our future.

Occupational Health and Safety

PCA is committed to providing and maintaining a safe and healthy work environment for all employees. We approach our occupational health and safety objectives in multiple ways to best assure success. We invest in our people, ensuring they have the appropriate training and protective equipment, and we invest in our equipment to assure it is well-maintained, reliable and safe to operate. To realize our philosophy that all accidents are preventable and an injury-free environment is achievable, we have implemented a robust occupational health and safety management system.

Occupational Health and Safety Management (OHS) System

PCA's OHS management system includes elements intended to engage employees, define success, and provide practical guidance to achieve excellence. These elements include: management commitment, safety policy, safe work rules, employee training, safety meetings, employee involvement, safety committee, facility inspections, incident investigation, medical treatment/first aid, plant emergency organization, hazard/risk assessment, job hazard analysis, communication, industrial hygiene, ergonomics, and environment.[1] Our management system elements are also incorporated into contractual labor agreements, where applicable. Resources and tools that support the management system are available to employees on PCA's health and safety intranet site.

Workers Covered by an Occupational Health and Safety Management System

All employees, temporary workers, and contractors are subject to and are covered by PCA's health and safety management system. Contractor agreements require that foundational safety training is provided to workers and site-specific health and safety training is also provided by PCA.[2] PCA utilizes a third-party verifier to ensure contract workers receive adequate health and safety training, maintain written safety programs, and have a demonstrable history of safe operation.

Worker Training

PCA provides guidance and instruction for completing federally mandated training required under the OSHA Act.[3] Training is delivered in a variety of methods including classroom instruction, online modules, block training and on-the-job training.

In addition to the federally mandated OSHA training, each job classification has specific safety training provided prior to an hourly associate being placed in the job. Training includes task-specific safety requirements of that job and how to perform them as well as the required task-specific personal protective equipment (PPE). Training records are maintained by each location.

[1] PCA's Management System accounts for requirements outlined in OSHA's Illness and Injury Prevention Program and 29 CFR Subpart R 1910.261 "Pulp, Paper and Paperboard Mills" Additional guidance is provided through various standards written by the American National Standards Institute (ANSI), and Industry Practices.

[2] PCA has an internal Safe Operating Practice Instruction dedicated to practices of outside contractors, in addition to Safe Practices for Outside Contractors, available on our website.

[3] Identified training includes federally mandated OSHA training under 29CFR1910.261

Health and Safety Leadership

To lead the implementation of the OHS management system, PCA has a health and safety group that consists of a senior vice president, vice president, senior directors, corporate managers, regional managers and facility health and safety professionals. Collectively our leaders have demonstrated safety excellence for decades, and many team members hold professional certifications including Certified Safety Professional (CSP), and Certified Hazardous Material Manager (CHMM).

Our leaders strive to be strong mentors for the next generation of health and safety leaders at PCA, and work collaboratively within our industry safety committees.[4] These committees work to raise awareness, share ideas and best practices, as well stay current on trends, regulations, and shared opportunities within the industry. The health and safety group meets throughout the year for training, performance and program reviews, and strategic planning.

Health and Safety Audit Program

PCA's policy requires health and safety audits to be conducted every three years at minimum. Audits are conducted by corporate and facility health and safety professionals. Their findings and recommendations are shared internally.

Employees are instructed and encouraged to report workplace hazards along with corrective actions. Reporting of hazards can be communicated through entry into our electronic work order system, verbally with a supervisor, other members of management, or joint health and safety committee members, as well as the PCA Hotline. Employees are free to report workplace hazards without fear of reprisal.[5]

Incident Investigation

PCA provides written instructions on how to report and investigate near misses, first aid treatment, doctor visits, restricted duty cases and lost time accidents. We use investigation techniques designed to identify root causes, and develop corrective actions utilizing the hierarchy of controls. Work-related incidents are entered into an electronic incident reporting database for tracking and notification. Incident trending and analysis is performed utilizing functions in our reporting database. Reports are used to identify leading causes of incidents, root causes and corrective actions. Data is used to develop improvement plans for incident and injury reduction.

Health Services

PCA maintains and has available health and emergency response services at all its locations. PCA paper mills have either registered nurses, licensed practical nurses, EMT's or paramedics onsite during the day and either onsite or on call after hours. These licensed medical professionals provide services such as spirometer testing and audio-metric examinations. In addition to these services, they offer many health and illness procedures such as blood pressure screens, health consultations, health education and over the counter medications. All employees are encouraged to visit the medical facility to discuss any health issues or concerns they may have at any time.

PCA's converting operations have access to a 24/7 nurse triage line. All plants maintain first aid supplies and have employees certified in CPR and first aid. Corporate policy requires at least two individuals on each shift maintain CPR and first aid certifications.

[4] PCA leaders actively participate in trade association safety committees for the Fibre Box Association (FBA), American Forest & Paper Association (AF&PA), the Pulp and Paper Safety Association (PPSA), and the Technical Association of the Pulp and Paper Industry (TAPPI).

[5] This is supported by union contractual language known as "Right to Act" as well as PCA's Business Principles and federal law (U.S. Department of Labor-Whisteblower Act).

Worker Participation, Consultation, and Communication

All PCA paper mills have union contracts which include language concerning hourly associate's participation in safety activities. This participation consists of safety committees which meet regularly to discuss issues, concerns, identify opportunities to mitigate potential hazards, and serve as information exchange sessions. Hourly associates also play pivotal roles within departments and include safety coordinators and auditors during shutdowns. In addition, United Steelworkers (USW), International Association of Machinists (IAM) and PCA's management have annual contractual roundtable meetings. Employee participation in the roundtable include union leadership, hourly employees, and management. Topics discussed include best practices, trends, and issues. Action items are identified and tracked to completion by the moderator and union officials.

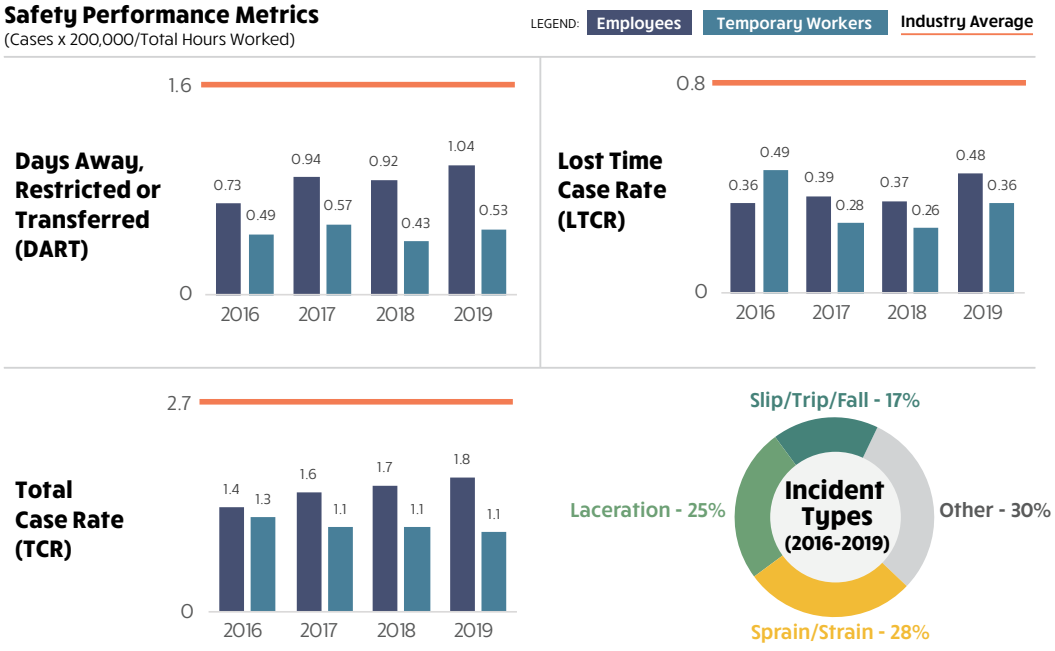
PCA's converting operations maintain joint health and safety committees which meet monthly. Minutes are kept and posted where all employees have access. Committee members are represented by all shifts, including management and hourly employees. Safety committees participate in safe plant operating assessment, incident investigations, and inspections. Other employee participation options include being a member of the plant emergency organization. In addition, *Effective Joint Health and Safety Committee* training is being completed at all USW represented locations.

Promotion of Worker Health

Subsidized full-time employee benefits includes medical, dental, and vision, access to an Employee Assistance Program (EAP), short term disability, life insurance and health screening services. The EAP includes mental health, general health concerns and topics and is available for employees and family members. Communication for these services are provided through posters and email.

PCA partners with Catapult Health Service, whose goal is to empower individuals to improve their health through preventive health check-ups and health fairs held at the worksite. Events are free to employees and families.

Safety Performance Metrics
(Cases x 200,000/Total Hours Worked)



Training and Development

The capability and engagement of our workforce is one of PCA's greatest competitive advantages. That engagement, as well as the skills and knowledge of those on our team are key to PCA's ongoing success. Now, more than ever, continuous learning and development are essential. We strive to keep PCA and our employees at the leading edge. Our premise is that investing in education and development will enhance personal growth while creating value for the larger organization, our customers, and communities.

In that investment, we offer and make available a range of resources to all employees. We also offer a number of job-specific programs designed to both keep employees current, as well as to enhance their continuing professional growth. In addition, PCA provides several educational programs and opportunities to those that have demonstrated both interest and ability to grow in management and leadership roles.

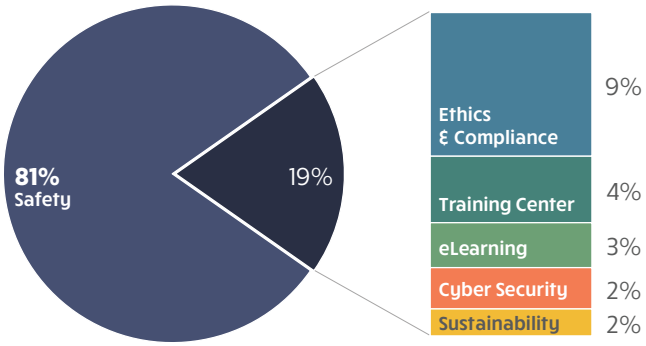
Training Programs and Hours of Training

This year we expanded our reporting to include several additional categories which we track centrally or can reliably estimate hours of training where records are retained locally. We are making efforts to track more educational activities occurring across the company. Based on reported data we averaged 10.5 hours of training per employee in 2019.[6]

Training by Subject/Category

PCA offers a wide array of educational opportunities for employees.

This chart shows the breakdown by subject or category for the calendar year 2019.



Safety

Safety training is a key element of our Occupational Health & Safety Management System. Our production employees complete on average 12 hours per year as well as ad hoc training as appropriate. Our monthly training program covers a wide range of topics throughout the year including: powered industrial truck safety, hearing conservation, personal protective equipment, lockout/tagout, confined spaces, blood borne pathogens, electrical safety, and fire safety. Records for these programs are retained locally, so we assume 12 hours per hourly associate for a total of 130,692 hours.[7]

Training and Resource Center

PCA's Training and Resource Center provides education for our employees on a variety of subjects, including basic and advanced corrugating and converting techniques, corrugator and plant scheduling, and transportation. Our experienced staff provides leadership, training, operational assistance and industry knowledge to assist PCA's box plants in achieving their goals. In 2019, we had 231 employees participate for a total 6,308 hours.

[6] Calculation based on training hours reported and 15,521 employees. Without including safety and ethics and compliance training, the average training hours per employee was 1.1 in 2019.

[7] Calculation based on 10,891 hourly employees. Salaried employees are also trained, but not considered in this estimate.

Cyber Security

Data fraud or theft and cyberattacks have been considered top global risks in terms of likelihood since 2012. To heighten our protection against cyber threats we set out to find new and innovative ways to protect ourselves beyond the digital space. PCA recognized social engineering as the main avenue malicious actors use to gain access to digital assets.

We conducted research and found that humor played an important role in helping adults learn, and we wanted to avoid long, PowerPoint type courses. In February 2019, PCA launched a new training program which utilizes short, comical videos which are easy to follow and understand. These videos cover topics such as: phishing, data protection, physical security, and sharing sensitive information. In our first year our employees completed 7,190 courses per month on average, totaling 3,955 hours.[8]

Ethics and Compliance

PCA holds ethics, integrity, and lawful conduct as essentials. To assure our high standards are upheld, we require salaried and supervisory employees to participate in and complete periodic online education on topics like: antitrust, protecting confidential information and intellectual property, conflicts of interest, financial integrity and fraud, insider trading, sexual harassment, and employment law. We also conduct in-person training for sexual harassment. In total, 14,137 hours of ethics and compliance training were completed in 2019. Our most broadly assigned course was completed by over 6,600 employees.

Sustainability

As part of our fiber sustainability and chain of custody program we provide annual training to a large population of PCA employees. Content varies between woodlands and mill staff and those at our packaging plants, and the depth varies by job function. We also prepare internal auditors to ensure each location maintains ongoing conformance to the standards. We provide a mix of on-demand content as well as live webinars. Records for salaried employees are maintained centrally and hourly records are retained locally.[9] In 2019, we reached in excess of 8,000 employees for a total of 2,600 hours completed.

eLearning

Learning online is a proven solution for enhancing the skills of our employees. eLearning offers courseware so that employees geographically distributed across the United States may access quality content without the need for travel.

Resources Available	
Books	29,491
Skillsoft Courses	6,782
Custom Courses	571
Videos	4,402
Other Resources	2,179

Thousands of eLearning assets are available to all employees. The majority of our online resources are available 24 hours/day, 7 days/week; this benefit is available at no cost to PCA learners. Examples include:

Online Language Learning (Rosetta Stone)
Courseware for 38 languages.

Training & Development
A robust selection of courseware, executive summaries and videos on a range of skills and desktop applications.

PCA Learning Library
Custom content developed by PCA Subject Matter Experts on a variety of topics.

PCA eLearning was first offered in 2001 and has seen over 6,000 individual learners complete 36,500 courses. In 2019, a total of 1,269 employees completed courses, 853 men and 416 women, for a total of 4,527 hours.

[8] Assuming three minutes per training video and test question.
[9] Assumed 15 minutes of training for 80% of our hourly box plant employees (7,433), plus centrally maintained records.

Career Currency and Development

Online Maintenance Training (TPC)
Available for maintenance teams to enhance and develop their skills.

Dimensions of Professional Selling (DPS)
A four-day course held in two sessions two to three months apart. In 2019 6 women and 39 men participated, for a total of 45.

Leadership Development
Several initiatives and programs have been developed internally to grow PCA's leaders of tomorrow and improve the strengths of our current front-line, functional and general management leaders. Examples include:

Leadership Excellence and Professionalism (LEaP)
A series of proven best practices delivered in focused training modules that describe what excellent leadership is and how excellent leaders behave. Modules are tailored based on the results of our employee engagement survey. In 2019, this was offered to all managers, and utilized in all converting operations.

Leadership Development Program (LDT)
Intended for those currently demonstrating deep engagement, initiative and promise. This 11-week program, spread over six-to-nine months is positioned to support the growth of current employees that have potential to report to the General Manager level within 2-5 years. In 2019, we had a class of 10, two women and eight men participated.

Generational Investment for Tomorrow Program (GIFT)
College recruits or others deeply engaged and demonstrating leadership potential. Participants rotate among, and learn-across, operational roles with an intent of furthering PCA's bench-strength.

Educational Assistance
PCA established the Educational Assistance Program to support salaried employees in developing their capabilities through reimbursement of costs incurred in degree-pursuit programs. Additionally, some participants of our Internship/Co-op program qualify for tuition reimbursement.[10]

2019 Educational Assistance Participation and Contribution

Employees		Co-op		Total
Women	Men	Women	Men	
38	38	3	6	85
$406,600		$61,600		**$468,200**

[10] Qualifications include minimum GPA of 3.0/4.0, at least one semester as a co-op or intern, and must be in their senior year of college.

Employment

PCA strives to be the employer-of-choice and attempts to treat all employees accordingly, in a Golden-Rule work environment.

Employment decisions including hiring, performance appraisals, promotions and discharge are based on an employee's qualifications, skills and performance without regard to race, color, age, national origin, ancestry, religion, religious creed, sex, sexual orientation, gender, gender identity, gender expression, physical or mental disability, medical condition, genetic information, marital or military status or other characteristics covered by Title VII of the Civil Rights Act of 1964 as amended and other applicable federal and state law. PCA will not tolerate discrimination of any employee on such basis.[11]

People are critical to how PCA attracts our customers and their business. Accordingly, people are essential to our success and we place a high priority on attracting talented and engaged employees. Retaining those who we recruit and develop is paramount as we work toward achieving our objectives.

2019

15,500
Employees

99.9%
Full-time

99.7%
In the USA

New Employee Hires
by age, 2019

	Total	Women	Men
18-24	770	131	639
25-34	1,024	176	848
35-44	596	100	496
45-54	418	77	341
55-64	191	32	159
65+	11	3	8
Grand Total	**3,010**	**519**	**2,491**

Employee Turnover
by age, 2019

	Total	Women	Men
18-24	504	118	386
25-34	701	112	589
35-44	455	67	388
45-54	389	73	316
55-64	388	60	328
65+	174	31	143
Grand Total	**2,611**	**461**	**2,150**

Benefits Provided to Full-Time Employees

Over 99.7% of PCA employees are full-time, working in the United States.[12] PCA provides comprehensive health and welfare benefits to its employees, including participation in medical, dental and vision coverage plans, health and flexible spending accounts, supplemental life insurance, disability coverage and paid vacation. PCA provides medical and parental leave in accordance with U.S. laws. Examples of benefits include:

Health Care: Medical plans that meet Affordable Care Act requirements are offered to both salaried and hourly employees. Prescription drug, vision and dental plans are also available to many employees, as well as Flexible Spending Accounts.

Disability Coverage: Long Term Disability (LTD) plan for salaried and hourly employees.

Parental Leave: Coverage allowed in accordance with the U.S. Family Medical Leave Act (FMLA).

Vacation Days and Holidays: Paid vacation and holidays are made available to all full-time employees.

Retirement Provision: Both salaried and hourly employees covered by a defined contribution plan and/or defined benefit plan.

Life Insurance: Life Insurance at a value equivalent to 1.5 times the employee's annual salary. Business travel insurance is also available to many employees that travel on behalf of PCA.

Stock Ownership: Available as an option in several employee thrift plans, including PCA's primary defined contribution plans.

[11] See our Statement of Business Principles for additional information.

[12] In 2019 we had 19 part-time employees. We had 26 employees at our Hexacomb® plant in Tillsonburg, ON, Canada, and 14 at our design center in Hong Kong.

Recruitment

PCA is making a focused investment in attracting and employing people with the right skills and expertise to build on our strong foundation of employee excellence. We recruit at numerous colleges and universities around the country, including:

State	College/University
AL	Auburn University University of Alabama University of South Alabama
CA	California Polytechnic State University
FL	Florida State University University of Florida
GA	Georgia Institute of Technology University of Georgia Valdosta State University
ID	University of Idaho
IL	College of Lake County DePaul University Loyola University Northern Illinois University University of Illinois at Chicago University of Illinois
IN	Purdue University
LA	Louisiana Tech University McNeese State University University of Louisiana
ME	University of Maine
MI	Ferris State University Michigan State University Michigan Technology University Western Michigan University

State	College/University
MN	Iron Range Engineering University of Minnesota
MS	Mississippi State University
NC	North Carolina State University
ND	University of North Dakota
NY	Rochester Institute of Technology
OH	Miami University
SC	Clemson University
TX	Lamar University Texas A&M University University of Texas
VA	Virginia Tech
WA	Central Washington University Eastern Washington University University of Washington Walla Walla University Washington State University, Tri-Cities Washington State University
WI	University of Wisconsin, Eau Claire University of Wisconsin, Platteville University of Wisconsin, Stevens Point University of Wisconsin, Stout

Labor Relations

PCA's Labor Relations department supports our operations in employing a best-in-class workforce through ensuring our hourly employees are compensated at a fair market rate, and are provided with competitive benefits.

Communication Mechanisms

We provide multiple avenues for our employees to voice concerns or complaints, so they may be addressed appropriately. Employees may contact a local supervisor or manager, their designated human resources (HR) representative, or contact our VP of Labor Relations directly if there is a Title VII concern. We also have a 24/7 ethics hotline should employees wish to remain anonymous. Many of our locations are unionized, and every labor contract has a grievance clause.

For our packaging plants, we employ a team of HR professionals who support areas which make up multiple local management teams. Each of our mills has at least one dedicated HR professional, due to the size of the operations. In all cases, these professionals aim to resolve problems at their root, engaging directly with whomever may have a grievance and working diligently to reach a resolution.

Changes in Operations

Operational changes within PCA operations are addressed in accordance with any collective bargaining agreements in-place at that time/location. These include:

Work Week and Work Start Times

Union labor contracts set the start of a work week and the normal work shift schedule.

Shift Schedule Changes

Employees seeking to select or change their work shifts may be allowed based on collective bargaining agreements.

Weekend Overtime

Union labor contracts require an advance notice to employees scheduled.

Elimination of a Shift or Jobs

Bumping rights based on seniority and ability of affected employees may be allowed in union labor contracts.

PCA complies with US Law and under the WARN Act, a 60-day advance notice is provided of any plant closings that are intended to be permanent and involve 50 employees or more. We also provide similar notice for any plant closures not covered by the WARN Act.

Overtime Reduction Initiative

As a result of our biennial employee engagement survey, PCA partnered with the United Steelworkers (USW) to launch a pilot program in 2017 to reduce the overtime rate at the 26 plants whose hourly associates are members of their union. We began by providing USW with robust data on absenteeism, turnover, and overtime. Working collaboratively with the USW, we identified new ways to achieve the productivity necessary to meet the needs of our customers, without having to work excessive hours. Collectively these plants reduced their overtime by 9% between 2017 and 2019.

Diversity and Equal Opportunity

Our objective is to succeed through our people. Doing so requires an engaged, collaborative and productive workforce. Individual as well as collaborative work and contributions are essential. We achieve these objectives by developing, promoting and maintaining a culture and an environment of respect and inclusion. These principles, as well as our environment, are designed to develop and promote strong and increasing engagement of all PCA employees.

PCA is proud to be an equal opportunity workplace and is an affirmative action employer.[13] PCA maintains policies prohibiting discrimination or harassment on the basis of race, color, age, national origin, ancestry, religion, religious creed, sex, sexual orientation, gender, gender identity, gender expression, physical or mental disability, medical condition, genetic information, marital or military status or other characteristics covered by applicable law. PCA policy also prohibits retaliation against any individual who has complained of harassment or discrimination or who has cooperated with an investigation of any such complaint.

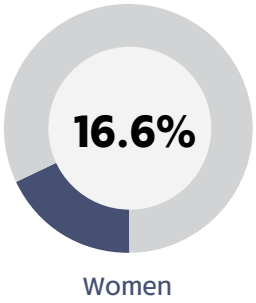
Diversity of Governance Bodies and Employees

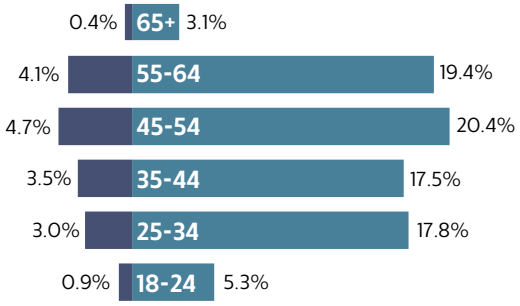
PCA's board of directors has adopted a policy under which it will actively seek out qualified diverse candidates for consideration when seeking new directors.[14]

Employee Population

PCA is committed to developing, promoting, and maintaining a culture and environment of respect and inclusion.

Data presented for calendar year 2019, as of 12/31/2019.



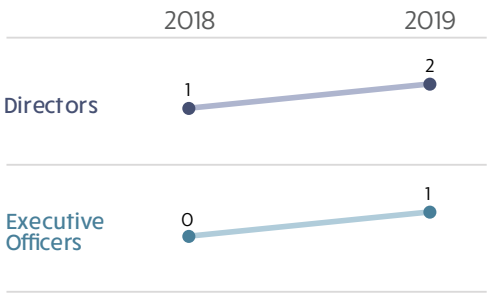


Board of Directors	Women	Men
Over 50 years old	2	10

Executive Officers	Women	Men
30-50 years old	–	2
Over 50 years old	1	7

Officers	Women	Men
30-50 years old	1	2
Over 50 years old	2	19

Female Directors and Executive Officers



[13] Equal Employment Opportunity and Affirmative Action
[14] Nominating and Governance Committee Charter

CUSTOMERS

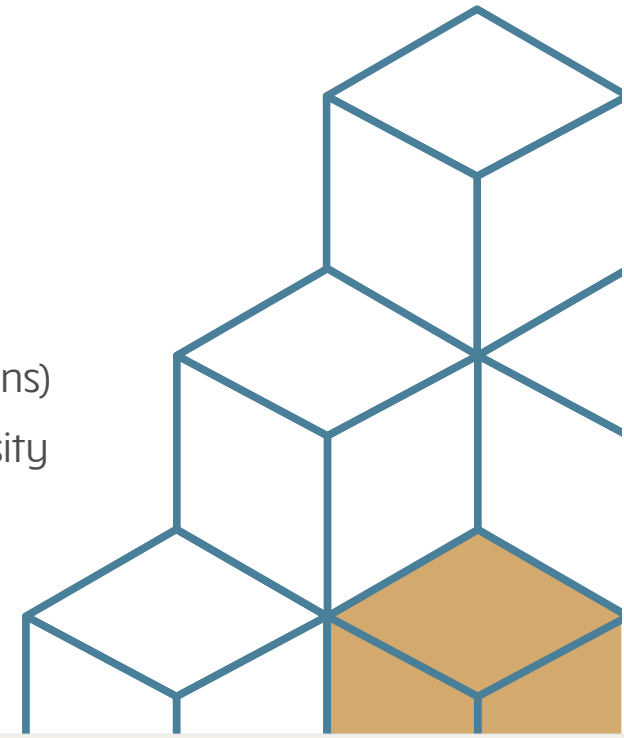
Climate Change (Energy and Emissions)

Raw Material Sourcing and Biodiversity

Water and Effluents

Waste

Procurement Practices



The cornerstone of our business is the strong relationship between our **customers** and our people. Our initial premise for building strong relationships is listening. We realize that the key to offering responsive customer service is never taking our **customers** for granted—so we actively seek to improve our understanding of their business and how we can support their growth with our products and services. We do what's right for our **customers,** not what's easy. Our simple rule at PCA is: We do the "hard to do."

In engaging with this key stakeholder group, our materiality assessment determined significance by the number of customers who are managing a particular topic because it is material to their business. We conducted research on 45 of our largest customers by analyzing public information related to sustainability and corporate responsibility.

Our **customers** care significantly about the sustainability of the products we provide. We've known for decades that it's not just about the materials we use, but how we source them and where from—our **customers** want to know materials in their value chain were procured responsibly and sustainably with minimal impact to the environment and society. We also found our customers are concerned about climate change, and many are putting forth significant efforts to reduce their impact in their own operations, and seek to influence their suppliers to do the same.

Topics in this section are reported in order of significance in the eyes of our **customers**—because if something is important to them, it is important to us. At PCA we put the **customer** at the top of the organizational chart. We work to ensure the voice of the **customer** resonates through all of PCA's operations.

Climate Change

As the world continues to develop, significant economic, social and environmental changes are inevitable. PCA believes that the combination of the trends we see and their outcomes will drive strong and growing interest in sustainable living and development. For PCA, and our customers and prospects in particular, this is a key opportunity. While growing demand for packaging is an obvious outcome, what that packaging is made from and how it is manufactured will be a differentiator. PCA's position and strategy around development of packaging solutions from renewable, first-use wood fiber, manufactured substantially with energy self-supplied from renewable biogenic sources will position us well as we strive to be both supplier and employer of choice.

Many of our customers have set goals to reduce their greenhouse gas emissions, some have also set contextual or science-based targets for 2030 and beyond. Despite the seemingly bleak outlook often presented about our climate, we believe PCA is well positioned to continue to demonstrate our resilience in the face of any major global event. This is primarily due to the will and exceptional abilities of our people; the substantial investments we have already made in reducing our environmental impact; our agility and responsiveness in the marketplace; and our conservative financial approach. PCA is uniquely positioned to serve our customers today, and well into the future.

Climate and Other Related Risks and Opportunities

As the world continues to develop, significant economic, social and environmental changes are inevitable. PCA believes that the combination of the trends we see and their outcomes will drive strong and growing interest in sustainable living and development. For PCA, and our customers and prospects in particular, this is a key opportunity. While growing demand for packaging is an obvious outcome, what that packaging is made from and how it is manufactured will be a differentiator. PCA's position and strategy around development of packaging solutions from renewable, first-use wood fiber, manufactured substantially with energy self-supplied from renewable biogenic sources will position us well as we strive to be both supplier and employer of choice.

Recyclable and Renewable Packaging

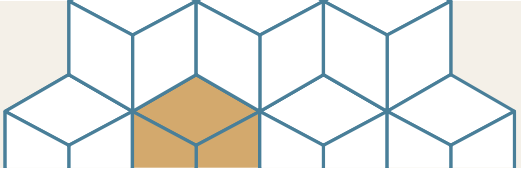
Most major consumer packaged goods (CPG) companies have stated goals to source more sustainable packaging in response to ocean plastic, litter (which negatively impacts their brands), and a desire to reduce greenhouse gas emissions in their supply chains. While the definition of "sustainable packaging" may vary company to company, wood fiber used in our boxes is both recyclable[15] and renewable by every definition. The US corrugated recycling rate has hovered around 90% since 2011. Corrugated packaging works to protect the investments of our customers in the manufacture and transport of their products, both from an economic and environmental standpoint, as they are distributed around the world.

Workability Due to Extreme Heat

The primary and most likely effect of climate change is extreme weather events, including extreme heat and humidity. In certain parts of the world, this is likely to cause reductions in working hours. Projections based on RCP 8.5, a climate model which represents a "business as usual" or a "worst-case" scenario, predict average global warming of 2.3°C above pre-industrial levels by 2050.[16] The scenario provided by this model indicates it is unlikely for extreme heat and humidity to pose any greater threat to working hours in 2030 than they do today in our areas of operation. The primary activity which was evaluated for impact is harvesting activity occurring in the US Southeast, Midwest, and Pacific Northwest, where our mills are located.

[15] Certain add-ons to our products like wax or other coatings, and certain applications with direct product contact where residues are left behind, may impact recyclability.

[16] Presented by McKinsey Global Institute in their January 2020 Climate Risk and Response report.



Growing Global Demand/Pressure on Resources

With population growth and positive shifts in income will also come continuing increases in demand for products and services. Increased global demand will challenge available resources if adjustments in production of packaging, including sourcing of materials and manufacturing energy, are not made. We see this as an opportunity due to our commitment to ensure sustainable and responsible sourcing of renewable raw materials, as well as our use of renewable energy.

Urbanization and Ecosystem Impacts

Continuing worldwide human population migration from rural areas toward or directly into cities is resulting in significant land use shifts driven by development with resulting impacts on ecosystems and in land available for human food production.

Concerns Regarding Climate Change

In parallel to the growth of the global middle class, there is growing acknowledgement within the existing middle class of the pressure humans and our preferred lifestyles are placing on ecosystems. Further, that continuing expansion in use of combustion-powered electrical generation, transportation, as well as heating and cooling is almost certainly causing higher atmospheric CO_2 levels. The global population is increasingly concerned with the impact of fossil fuel use on our climate, including higher temperatures and rising sea levels.

Demand for Access and Disclosure

The combination of a more educated global population, accompanied by greater availability of information, has resulted in increasing demands for transparency into the values, operations and behaviors of businesses—especially related to resource utilization and climate resilience.

Accountability of Business

The increased visibility into how businesses operate accompanied by the ease and scale of communication made possible in an internet and social media era has made it increasingly possible for individual citizens to hold entities accountable for their actions (or inaction).

Energy

Improving energy efficiency and expanding use of renewable sources is the central component of our sustainable energy strategy. Much of our focus has been on utilizing biofuels which are byproducts of our manufacturing process, predominantly wood-waste (bark) and black liquor solids. We also purchase supplemental fuels, some of which are also carbon-neutral.

Mill energy usage is tracked and compared to internal and external benchmarks on a routine basis. Energy benchmarks for individual unit processes within a mill are tracked and compared to historical usage and targets. Energy usage is discussed in daily production meetings and systems are in place for operators and managers to evaluate usage and pricing data in real time to make decisions on how to operate our mills most efficiently and economically based on current energy information.[17]

Combined Heat and Power (CHP) and Self-Generated Electricity

The majority of our mills utilize CHP processes wherein high-pressure steam is routed to steam turbines to generate electricity on-site. Subsequently, exhaust steam from the turbines is utilized for both pulping and papermaking processes.[18] Two of our mills, Tomahawk, Wisconsin and International Falls, Minnesota, also self-produce and utilize hydroelectricity.

Energy Reduction

Through significant strategic investments, our mills have improved their energy efficiency by replacing fixed speed with variable speed electrical drives. Over the past decade, several PCA mills have increased capacity for biogenic fuel types and replaced coal with combustion of lower emitting fuels like natural gas.

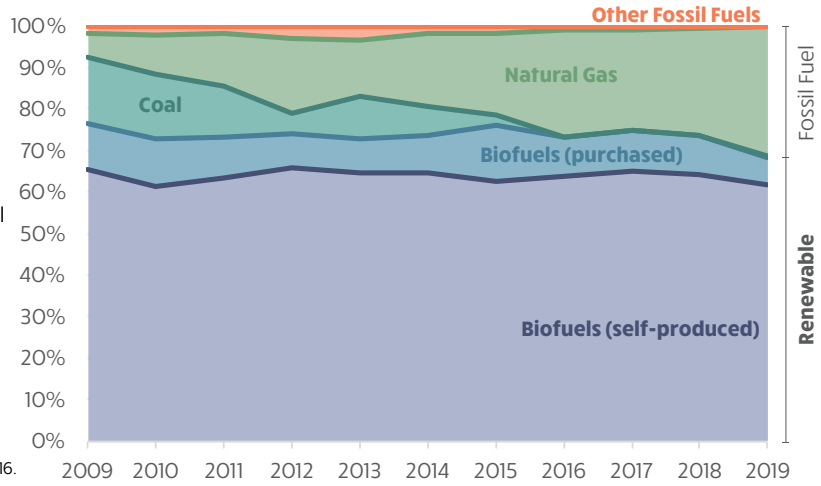
Mill Energy by Fuel Type

PCA mills predominantly use biogenic fuels to power stationary equipment.

Additionally, we invested in our mill system to combust lower-emitting fossil fuels, like natural gas in place of coal.

In 2009 coal made up 16% of our process energy, compared to 0.1% in 2019.

Note: DeRidder and Wallula mills data included as of 2015, Jackson and International Falls mills as of 2016.



[17] Packaging plants account for less than 5% of our total energy consumption—they predominantly utilize purchased electricity and natural gas. Our full-line plant boilers combust natural gas to produce and supply steam to corrugators as well as for building heat.

[18] Our Filer City mill is currently our only mill which does not combust woody biomass as fuel. We are in the process of installing a bubbling fluidized bed boiler which will allow the mill to do so. The estimated reduction in greenhouse gas emissions from this project is 40,000 tonnes of CO_2-e per year.

Energy Modeling

All PCA mills have a computer model of their energy system which is used to identify energy reduction opportunities. Multiple smaller capital projects are identified by the model and executed each year at all mills. When any capital project is identified, the model is used to determine the optimum energy balance for the new installation and to quantify the benefit of the project after it is installed. Mill and corporate personnel work together so opportunities identified at one mill may be quickly implemented at other mills.

Examples of Capital Investment in Energy Improvements

Tomahawk

We built an enclosure over the wastewater treatment lagoon at our Tomahawk medium mill to facilitate the capture of methane gas, which is used as fuel for our boilers, while reducing greenhouse gas emissions. This generates an average 108,500 GJ of energy per year, which is enough to power 2,745 US homes.[19]

Counce & Valdosta

We upgraded our recovery boiler and turbine generator assets to increase the use of internally generated wood waste and black liquor as energy sources to increase our capacity to self-generate electricity. These projects substantially increased energy efficiency. This investment added approximately 3 million GJ of biogenic, carbon-neutral energy to our portfolio, which enables the mills to reduce consumption of fossil fuels.[20] This would require over 2,800 acres, or 4.4 square miles of solar panels to generate this same level of renewable power.[21]

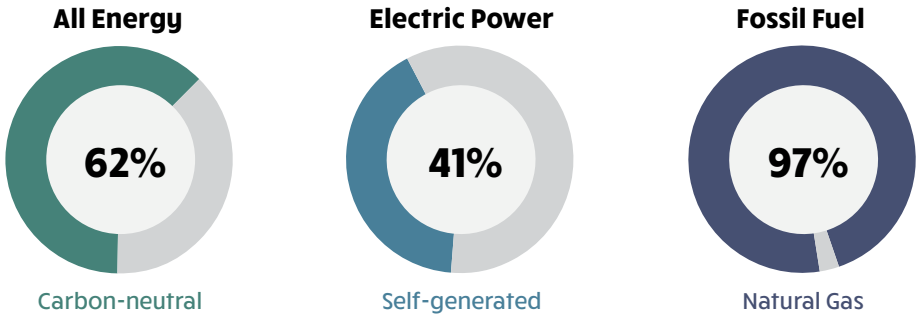
Energy Consumption

Within and Outside of the Organization (million GJ)

	2016	2017	2018	2019
Renewable fuel	73.1	72.9	73.3	70.3
Non-renewable fuel	30.4	27.8	30.6	32.6
Electricity and Steam	9.4	9.0	9.7	9.8
Hydroelectricity	0.3	0.4	0.3	0.3
Total	**113.2**	**110.1**	**113.9**	**113.0**

Energy Performance Metrics

all locations, 2019



[19] Based on U.S. EIA 2018 average annual electricity consumption of 10,972 kWh.
[20] Based on the difference in average energy production from biogenic fuels before the project (2005-2011), and since the project (2012-2019).
[21] 2013 National Renewable Energy Labs (NREL) report, based on Large PV generation-weighted average land-use, 3.4 acres/GWh/yr.

Emissions

PCA is one of the largest producers of containerboard, corrugated packaging products, and business paper in the United States. The scale of our production requires significant amounts of energy and resources. Much of those energy requirements are at our pulping and papermaking operations. Those needs are met in large-part via electric and steam self-generation and leveraging combustion of renewable, current-carbon, biogenic fuels. While doing so creates greenhouse gas emissions, the majority are reported as biogenic CO_2 production, and accordingly do not contribute to PCA's carbon-footprint. Combustion of biomass, does however result in net additions of methane and nitrous oxide to the atmosphere. Emissions of these pollutants are included as part of our scope 1 emissions.

Greenhouse Gas Emissions Inventory and Accounting

Today we track all direct (scope 1),[22] indirect (scope 2), and the vast majority of applicable other indirect (scope 3) emissions at our mills and packaging plants for which we have operational control.[23]

Greenhouse Gas Emissions

Direct, Indirect, and Other Indirect (million metric tons CO_2-e)

	2016	2017	2018	2019
Scope 1	1.94	1.84	1.94	2.03
Scope 2	1.38	1.34	1.28	1.22
Scope 3	-	-	1.00	1.01
Total	**3.32**	**3.18**	**4.22**	**4.26**
Biogenic CO_2	6.54	6.52	6.55	6.29

Note (1): Previously reported Scope 1 data was revised to include all company owned landfill emissions for comparability purposes.
Note (2): In 2019 PCA had 1,233 metric tons CO_2-e emissions from unrecovered refrigerant. (Refrigerants included: HFC-32, HFC-134a, HFC143a, and HFC-227ea)
Note (3): Scope 3 data reported in 2018 was revised to include all categories previously stated in this report.

We compile our greenhouse gas inventory following the World Resources Institute and *World Business Council for Sustainable Development Greenhouse Gas Protocol for Corporate Accounting* with the help of Schneider Electric's sustainability data management platform, Resource Advisor™, which we have utilized since 2013. In 2018, we moved to full implementation of invoice collection and data scraping across our packaging plants and added our containerboard mills in 2019. We utilize invoice data for electric power, natural gas, propane, and solid waste among other minor sources contributing to our footprint. Where invoice data was not readily available, manually reported data was applied and estimations were made for the small percentage of remaining gaps based on consumption patterns within a plant or of like plants.

Scope 3 Inventory

In 2019, we made significant strides to expand our scope 3 inventory. Our inventory now includes the following upstream categories: purchased goods and services, capital goods, fuel- and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, and employee commuting. As well as the following downstream category: downstream transportation and distribution.

Life Cycle Assessment (LCA) of Products

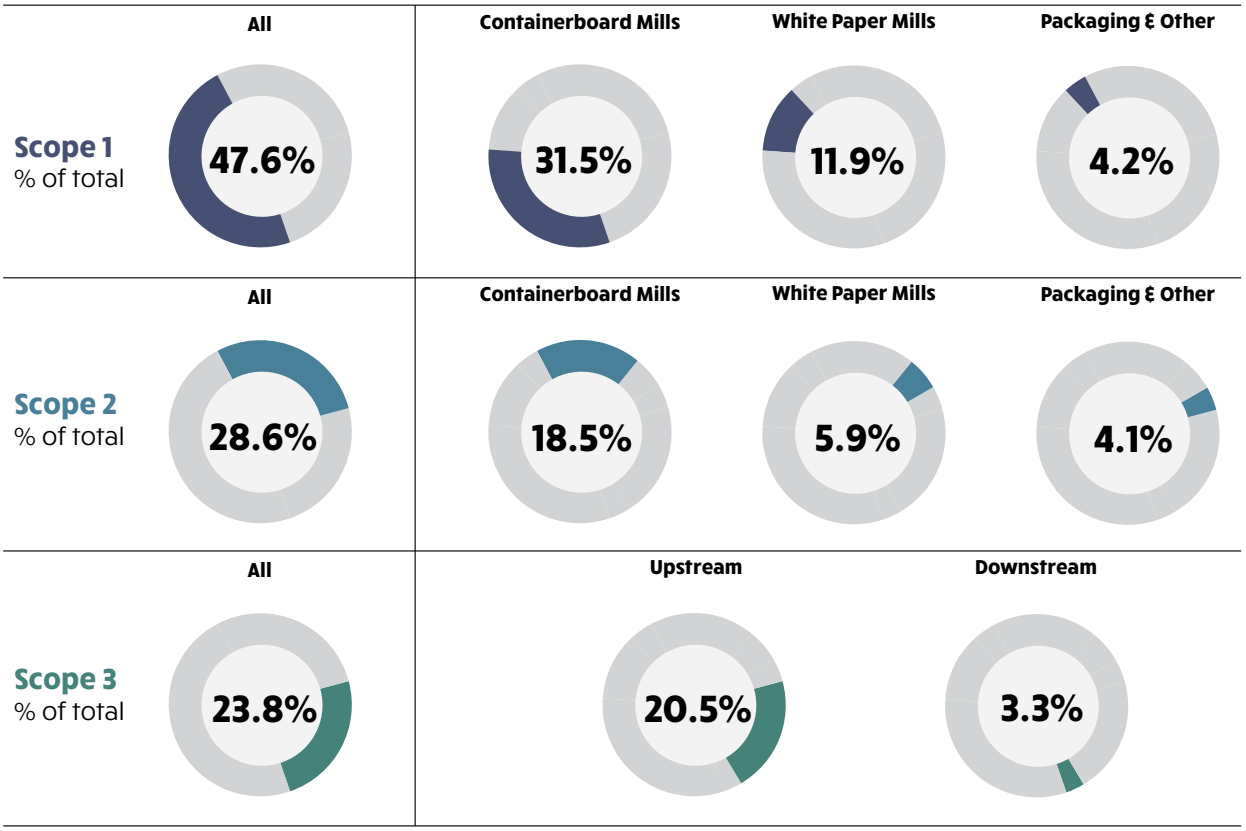
For both our corrugated and paper products, we provide data to our trade associations to conduct life cycles assessments for the entire industry. The most recent LCA for corrugated products was published in 2017 (2014 data). The industry average corrugated product had a global warming potential of 0.533kg CO_2-e/kg of corrugated.[24]

The most recent LCA for printing and writing paper products was published in 2010 (2006/2007 data). The industry average ream of office paper had a global warming potential of 4.25kg CO_2-e/ream.[25]

[22] Greenhouse gas emissions from company-owned landfills are reported on a one-year lag due to the complex nature of the calculation and the length of time required for data aggregation necessary for computation. For example, we take into account .
[23] IIn 2018, we began tracking emissions for our regional, in-house trucking fleet, our corporate headquarters, and our technical center.
[24] Using the flow accounting approach. For an executive summary of the 2017 corrugated LCA, please visit corrugated.org.
[25] Using the flow accounting approach. For an executive summary of the 2010 printing and writing paper product LCA, please visit afandpa.org.

Breakdown of GHG Emissions by Scope, Location Type/Classification

2019



Greenhouse Gas Emissions Intensity

2019 (metric tons CO_2-e/ton of product)

Containerboard Manufacturing	Containerboard Transportation	Corrugated[1] Manufacturing	Corrugated Transportation	White Paper
Manufacture of containerboard (scope 1+2 of containerboard mills/ton of containerboard)	Transportation by truck and rail from containerboard mills to converting facilities (scope 3 containerboard transportation/ton of containerboard)	Combining and converting of containerboard into corrugated product (scope 1 + 2 of full-line operations/ton of corrugated product)	Transportation by truck from converting facilities to customer locations (scope 3 corrugated transportation/ton of corrugated product)	Manufacture and converting of white paper products (scope 1+2 of white paper mills/ton of uncoated free sheet)
0.50	0.02	0.10	0.02	0.80

[1]Intensity figure based on PCA full-line operations only, to include both combining and converting.
Note: Reporting of containerboard/corrugated is split into distinct parts to provide our customers with ultimate flexibility depending on whom they would like to compare PCA products to, as well as considering transportation where our accounting may overlap in scope 3.

Air Emissions

We calculated nitrogen oxides (NO_x), sulfur dioxides (SO_2) and Particulate Matter 10 (PM_{10}) based on emission factors derived from stack testing and/or from our Continuous Emissions Monitoring Systems (CEMS). These factors are used to calculate our emissions based on the type and volume of fuel we combust and the efficiency of our control equipment.

(thousand metric tons)

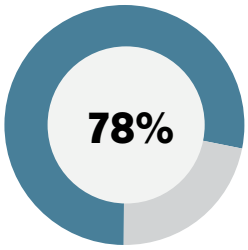
	2016	2017	2018	2019
Nitrogen Oxides (NO_x)	6.7	6.4	6.4	6.6
Sulphur Dioxide (SO_2)	1.9	2.0	1.4	1.5
Particulate Matter 10 (PM_{10})	-	-	-	1.6

Note: 2019 is our first year reporting Particulate Matter 10.

Raw Material Sourcing

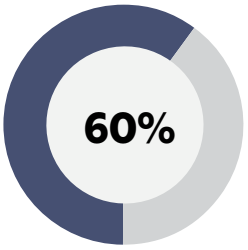
Wood fiber is a renewable resource and the essential material used to make our products. PCA's mill system utilizes both first-use (virgin) fiber and recycled content. Our white paper mills also source a small amount of market pulp. First-use fiber is sourced almost exclusively from the United States, with less than one percent sourced from Canada (Ontario and Manitoba) by our International Falls white paper mill. We procure wood from timberland, both private and public, in the form of roundwood and in-field chips. We also procure residuals from sawmills in the form of chips and sawdust.

First-use Fiber



Roundwood & In-field Chips

Recycled Fiber



Post-consumer

Responsible and sustainable procurement of fiber is both a key policy and principle at PCA. PCA's commitment to practicing and supporting sustainable forestry and responsible wood fiber procurement is communicated both internally and externally. Internally, our Sustainable Forestry Policy is required to be posted at all manufacturing sites as part of our certification program, and is also readily available on our company intranet. Externally, all PCA approved wood suppliers receive our policy through an annual correspondence. Prior to delivery, we assure that suppliers are adequately insured and incorporated, and are able to meet our terms. Once approved, and a purchase order has been submitted, PCA woodlands managers and foresters verify the accuracy of the information. Our wood management system tracks and catalogs details of our wood and fiber sourcing, including county of origin. PCA's policy is incorporated by reference in our Terms and Conditions for the Purchase of Wood Fiber Goods in every transaction, and is available on our website.[26]

Wood Fiber Sourcing

(thousand tons)

	2016	2017	2018	2019
First-use Fiber (green tons)	14,234	14,439	14,668	15,021
PEFC Certified	26%	27%	26%	26%
FSC Certified	3%	5%	4%	4%
FSC Controlled Wood	19%	19%	70%	70%
Recycled Content	967	1,013	1,083	1,053
Market Pulp	4	5	4	7

Note: All data in thousands of air-dried short ton, except for first-use fiber reported as thousands of green short tons.

Our packaging plants source containerboard (linerboard and corrugating medium) and corrugated sheets. The majority of our containerboard comes from PCA mills or trade partners. To assure our containerboard and sheets come from non-controversial sources, all containerboard sourcing is controlled centrally by PCA's containerboard sales department (CBS). Sheet purchases are only allowed from CBS approved vendors. All suppliers are evaluated as part of our Due Diligence System and Risk Assessment.

[26] https://www.packagingcorp.com/addendum-for-wood-fiber-goods

Due Diligence System and Risk Assessment

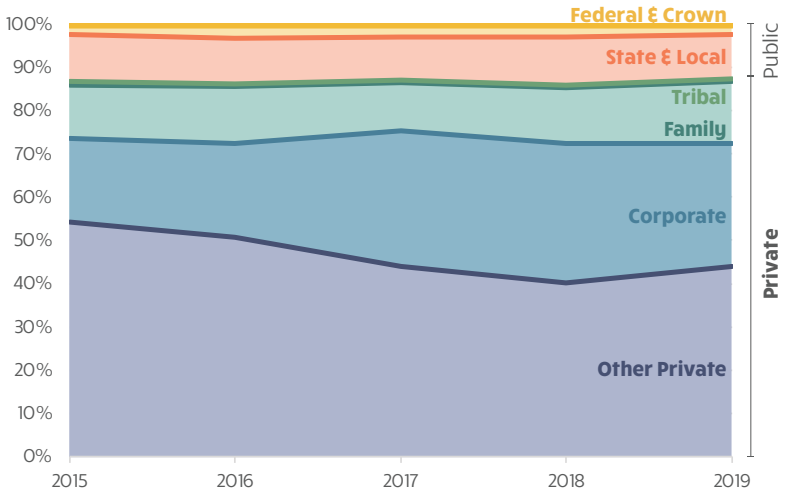
PCA uses a Due Diligence System in conformance with the Sustainable Forestry Initiative® (SFI) and Programme for the Endorsement of Forest Certification (PEFC)[27] standards to avoid controversial sources in our supply chain. Each year we evaluate the conterminous United States and Canada for all of our operations which source wood fiber. Additionally, all of our mills have successfully audited to the Forest Stewardship Council® (FSC®)[28] US Controlled Wood National Risk Assessment (NRA), and FSC Canada Controlled Wood NRA.[29] These efforts help us assure we avoid sourcing conflict timber or otherwise illegally harvested wood, genetically modified forest-based organisms, species which are included in Appendices I to III of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and wood from land converted to other vegetation types.

We evaluate our sources at both the origin (country) level and supply chain level, as well as the effectiveness of social laws. The USA and Canada both have effective social laws, relatively strong law enforcement, and low levels of corruption. For these reasons, our 2019 assessment determined there is negligible/low risk that PCA supplies originate from controversial sources. The FSC US NRA identified 11 mapped areas of specified risk for high conservation values which are in PCA's supply area. More details on our mitigation options and conservation partners we selected are provided in the biodiversity section of this report.

Direct Sourcing of Wood Fiber by Landowner Classification

PCA sources 87% of roundwood and in-field chips from private landowners.

By doing so, we provide economic incentive for landowners to continue to plant trees.

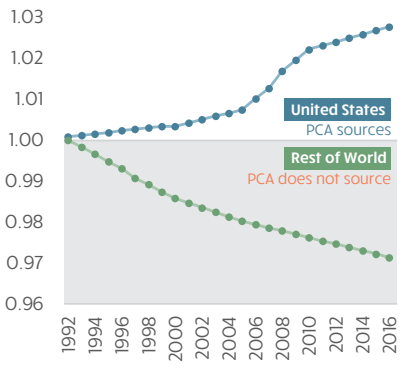


Zero Deforestation

For the past five years we have directly sourced 87% of our first-use fiber from private landowners, which is consistent with the broader US forest products industry. This is important because healthy end-markets for timber are part of what keeps these forests as forests. Without appropriate economic incentives like timber grown for harvest, landowners may elect to convert to different land-uses like human food agriculture and livestock, which are the leading causes of deforestation globally.[30] Additionally, PCA takes steps to mitigate risks when sourcing from specified counties that have a higher risk of conversion due to urbanization.

Deforestation is a significant issue in many parts of the world. Between 1992 and 2016 the world lost roughly 327 million acres of forestland. Conversely, during the same time period the United States added 19.3 million acres of forestland. According to the U.S. Department of Agriculture, between 1953 and 2017, the amount of standing timber increased by 60%.[31]

Forest Area (% of land coverage)
Index, 1992=1



SOURCE: World Bank

[27] (PEFC/29-31-222) (PEFC/31-29-09)
[28] (FSC-C139165) (FSC-C020415)
[29] Only applicable to our International Falls, MN mill.
[30] http://www.fao.org/state-of-forests/en/
[31] U.S. Department of Agriculture. (2019). Forest Resources of the United States, 2017: a technical document supporting the Forest Service 2020 RPA Assessment.

Certification

PCA maintains a fiber procurement program for all mills in compliance with the Sustainable Forestry Initiative® (SFI) 2015-2019 Standard Requirements, the Forest Stewardship Council® (FSC®)the Programme for the Endorsement of Forest Certification (PEFC) and recognizes the American Tree Farm System® (ATFS) individual and group certifications. Our program ensures compliance with the certification standards and follows all applicable laws and regulations.

History of Certification

2005
PCA white paper mills certified to SFI Fiber Sourcing standard.*

2007
PCA's entire containerboard mills and corrugated packaging operations certified to SFI's Fiber Sourcing standard, including Certified Sourcing.

PCA white paper mills certified to SFI, PEFC, and FSC Chain of Custody, and FSC Controlled Wood.*

2010
PCA's containerboard mills certified to SFI & PEFC Chain of Custody standards.

2011
PCA's entire system of corrugated packaging plants certified to SFI & PEFC Chain of Custody standards.

2018
PCA's containerboard mill system certified to FSC Chain of Custody and Controlled Wood standards.

PCA's entire system of full-line plants certified to FSC Chain of Custody standard.

2019
PCA containerboard mill system successfully audited to FSC US Controlled Wood National Risk Assessment.

2020**
PCA white paper mills successfully audited to FSC US and Canada Controlled Wood National Risk Assessments.

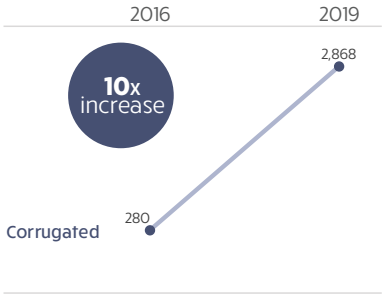
*Prior to PCA acquisition of Boise, Inc. in October 2013.
**Work began in 2019, and results achieved early 2020.

Certified Chain of Custody
(thousand square feet, "MSF")

PCA offers certified chain of custody corrugated products for customers who seek a higher level of assured sustainability.

As an integrated supplier, we are well prepared to meet our customers growing demand for certified product.

In 2019, we supplied ten times the certified corrugated product we did in 2016.



All of our mills are certified to SFI®, PEFC, and FSC chain of custody standards. All of our corrugated plants are certified to SFI and PEFC chain of custody standards, with the exception of several most-recently acquired.[32] Our full-line packaging plants are also certified to the FSC chain of custody standard. At minimum, all other PCA packaging plants are certified to SFI Certified Sourcing, including our Hexacomb® facilities.

Certified Product Sold

(thousand tons)

	2016	2017	2018	2019
Corrugated				
PEFC	17.1	61.8	167.3	174.9
White Paper				
FSC	61.4	95.2	126.6	116.5
PEFC	32.1	36.7	48.1	33.5
Total	**110.6**	**193.7**	**342.0**	**324.9**

Note: Corrugated output is measured in MSF and was converted to tons for reporting this metric in a common unit of measure for both segments.

[32] Sacramento Container (two plants acquired in 2017) and Englander (two plants acquired in 2018) plants do not hold any Chain of Custody certification as of December 31, 2019.

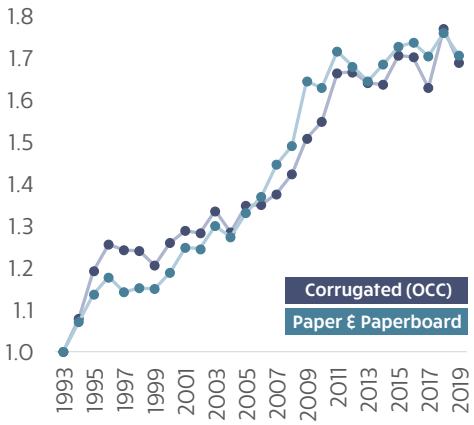
Recycling

Corrugated is the most widely recycled packaging material on the planet. To promote the recyclability of our products, PCA is a proud user of the Corrugated Recycles symbol, and encourages our customers to print it on qualified products. Since the program was introduced in 1993, the recycling rate of corrugated has increased from 54.5% to 92.0% in 2019 and achieved a record 96% in 2018.[33] Paper has a similar success story. Over the same time period the recycling rate of paper and paperboard rose from 38.7% in 1993 to 66.2% in 2019, and reached a record 68% in 2018.

Corrugated Recycles

Increases in U.S. Recycling Rates

Index, 1993=1



SOURCE: AF&PA, US Census Bureau

Recycling used paper, boxes, and scrap from the manufacturing process reduces the amount of timber required to be harvested and serves to prevent greenhouse gas emissions from decomposition in a landfill, however, there are limits to fiber recycling. Wood fibers can only be recycled five-to-seven times before they become too short and brittle to bond any longer. *The Fiber Cycle Technical Document* published by Metafore in 2006[34] was updated by NCASI in 2019 with current data. This document provides a model which takes into account the finite nature of fiber recycling and how long the cycle could operate without adding fresh fiber. Even when the recycled fiber utilization rate is maximized, the model shows without the introduction of first-use fiber, the North American containerboard supply would be exhausted in 13.5 months and printing and writing grades in 1.5 months.

[33] Recovery and Use of Old Corrugated Containers (OCC)
[34] Metafore. (2006). The Fiber Cycle Technical Document

A global system

Global containerboard capacity is approximately 24% virgin fiber as of 2019. Anticipated increases in recycled capacity indicate a decrease in first-use fiber to 21% by 2023.[35] First-use fiber we utilize in our products is a valuable commodity to improve the health of the recycling stream, not only domestically, but also globally. The US is one of the few significant contributors of long, softwood fiber to the global containerboard market. Beyond the 30+% of domestic recaptured Old Corrugated Containers (OCC) exported annually,[36] products are exported from the US in boxes which become part of the importing country's fiber stream upon recovery. This fiber plays an important role in protecting forests in countries with high levels of deforestation from pulp and paper production—alleviating stress on forests while nations develop sustainable forest management practices.

A sustainable fiber stream requires both first-use fiber and recycled content. PCA's role in maintaining this sustainable system is to support and supply first-use fiber necessary to make recovered fiber a viable raw material. It is also our role to provide end markets to growers of timber, so they are provided appropriate economic incentives to continue to grow trees which provide important ecosystem services during their lifetime.

Recycled Content of Finished Paper Product

The recycled content of our finished products is calculated based on the proportion of recovered fiber to overall production after taking into account production yield for each stream. The average recycled content of our containerboard was 21% in 2019, the substantial majority in our corrugating medium. Our white paper division sells products under two brand names which specify a minimum percentage of post-consumer recycled content: ASPEN® and FIREWORX®. This information is available through our Office Paper Product Finder on the Boise Paper website.[37]

Product Stewardship

PCA has a robust Product Stewardship Process to ensure all raw materials used in producing, manufacturing, packaging, and transporting paper and containerboard products comply with the applicable product regulations, including FDA, USDA, and with any certifications PCA has made regarding customer requirements. The Product Stewardship Process (for Product and Raw Materials Qualification) must be followed for all new chemicals/ingredients prior to use in PCA's processes. In addition, PCA utilizes third party testing facilities for its products to test for chemicals of concern on an annual basis.

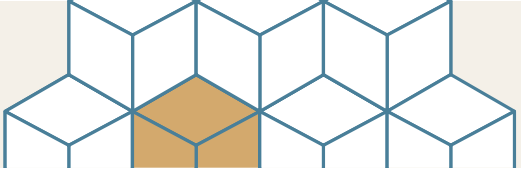
Elemental Chlorine Free (ECF)

Our white paper mills do not utilize elemental chlorine gas in our bleaching processes. In addition, we ensure all virgin pulp suppliers use ECF bleaching. PCA's self-produced containerboard product is unbleached.

Heavy Metals

The Coalition of Northeastern Governors (CONEG) created model Toxics in Packaging Legislation, which has been adopted by 19 US states.[38] To ensure conformance, we test our paper products on an annual basis to assure that the presence of incidentally introduced heavy metals, namely lead, mercury, cadmium, and hexavalent chromium—do not exceed 100 parts per million. None of these heavy metals are intentionally added to our products.

[35] Numera Analytics, 2019
[36] Net Exports: U.S. Census Bureau
[37] http://bph.boisepaper.com/product/
[38] https://toxicsinpackaging.org/the-clearinghouse/



Biodiversity

PCA has worked for decades with many types of landowners, especially family and small-scale landowners, providing them long-term sustainable forest management applications and education. Sustainably managed North American working-forests are essential to PCA's long-term success. Our responsibility and commitment is demonstrated by ensuring our fiber sourcing program and practices fully conform to rigorous forestry, fiber sourcing, and chain of custody standards including: Sustainable Forestry Initiative® (SFI), Programme for Endorsement of Forest Certification (PEFC), and Forest Stewardship Council® (FSC®), which are audited annually by respected, independent third-party auditors.

Potential Impacts to Biodiversity and Ecosystems in North America

Supporting research and partnering in conservation efforts is essential to the practice of responsible fiber procurement and mitigating the known risks on forest ecosystems. We partner with The Forest Resource Association, The Nature Conservancy, Forest Stewards Guild, Longleaf Alliance, Keeping Forests, American Forest Foundation, and National Council for Air and Stream Improvement (NCASI) to accomplish research and support conservation objectives. PCA conducts annual training with staff on the latest research, conservation priorities and company policies and procedures to broaden the practice of sustainable forest management, and reduce both direct and indirect negative impacts on biodiversity.

Mitigation, Control Measures, and Monitoring of High Conservation Values

In 2019, FSC released Controlled Wood National Risk Assessments for the US and Canada.[39] For specified risks of High Conservation Values (HCV), the table below shows the applicable specified risks, the mitigation option, and partners we've selected for mills with impacted supply areas. The success of the HCV mitigation options in areas of specified risk are evaluated by FSC. The outcome of investing in support of these specified risks is that instead of avoiding the sourcing areas altogether and allowing them to deteriorate, we can play an active role in improving their health to provide mutual benefits for many stakeholders. The table below shows the areas or species, mitigation options, and partners we selected for our control measures.

HCV	Critical Biodiversity Areas (CBA) or Species	Mitigation Options	Partners
Species Diversity	Central Appalachian, Southern Appalachian, Florida Panhandle, Central Florida, Klamath Siskiyou, Dusky Gopher Frog	Conservation Initiatives, Education/Outreach, Implementation of Management Activities	·American Forest Foundation ·Forest Stewards Guild ·The Longleaf Alliance ·The Nature Conservancy
Rare Ecosystems	Mesophytic Cove Sites, Native Longleaf Pine Systems, Late Successional Bottomland Hardwoods, Old Growth	Education/Outreach, Planning and Staff/ Forester Training	

[39] The US National Risk Assessment leveraged the IUCN Red List, NatureServe, USDA Forest Service and several state government resources, among others.

Environmental Impact Assessments

Utilizing NatureServe and state Natural Heritage websites, we check for threatened or endangered species and ecosystem conservation priorities in combination with on the ground inspections prior to harvest activity. This enables us to ensure biodiversity constraints are identified and have an effective plan of action in-place before, during and after forest management activity.

PCA fully complies with the US Lacey Act, Endangered Species Act and the Clean Water Act. We also fully comply with the Canadian Environmental Protection Act, Species at Risk Act, and provincial timber regulations. PCA is in full conformance with the European Union Timber Regulations (EUTR).

Best Management Practices (BMPs)

The forest certification programs we adhere to support the protection of biodiversity through voluntary and compulsory measures. For example, the SFI standard requires a trained Master Logger or Qualified Logging Professional (QLP) on-site during harvest activities and wood suppliers must remain up-to-date on continuing education requirements, including biodiversity protection. In 2019, 99.2% wood sourced directly from forestlands was delivered by QLPs.[40] PCA promotes and financially supports training programs for logging professionals as part of our commitment to sustainable forestry standards. We are dedicated to applying all mandatory and voluntary state Best Management Practices (BMPs)[41] during harvest activity to protect a site's biodiversity and preserve the quality of water and soil within the landscape.

[40] Although it is a requirement of voluntary standards, there are limited exceptions granted because we are not legally allowed to deter new loggers from gaining entry to markets. We require loggers to be enrolled in the next available QLP training course at a minimum.

[41] To view state BMPs, please see the interactive map at https://www.stateforesters.org/bmps/

Water and Effluent

Pulp and paper manufacturing is a water intensive process. We use either surface or ground water depending on the location of the mill. Water withdrawal is measured with in-line flowmeters. Our mills intentionally reuse/recycle each gallon of water within the pulping and papermaking processes. We quantify water recycling using the NCASI Water Recycle Tool.[42] We determined our average water recycle ratio to be 7.7 in 2019. States issue permits for groundwater and surface water based on extraction volumes. We typically report to each state where we operate mills at least once a year.

Water Risk Assessment and Due Diligence

We use the World Resources Institute (WRI) Aqueduct 3.0 Water Risk Atlas[43] to identify potential risks associated with our water supply. The assessment showed low-risk for seven of our mills. Our Tomahawk, Wisconsin corrugating medium mill assessment indicated high baseline water stress,[44] which we found surprising as it does not reflect our experience, therefore we investigated further: The Wisconsin River watershed is heavily regulated, has been managed for nearly 100 years, and is supported by 26 licensed dams and 16 natural and 5 man-made associated reservoirs. Moreover, the state of Wisconsin has ample annual rainfall with no level of drought reported by the U.S. Drought Monitor.[45] Given our century-long history of our Tomahawk mill operation, support of water conservation efforts and understanding of the watershed—we believe that the Aqueduct Water Risk output is suspect in this particular modeled-situation, suggesting a limitation of the model.[46] Additionally, our Tomahawk mill recycles more water than any of our mills—their water recycle ratio was 20.7 in 2019. Therefore, we find none of our mills to actually be in water stressed areas which would necessitate reporting their withdrawal as such.

Water Withdrawal

by source (billion liters)

	2016	2017	2018	2019
Total	**283.5**	**288.2**	**280.5**	**273.9**
Surface	68%	71%	70%	72%
Ground	31%	29%	28%	27%
Municipal	1%	<0.5%	1%	1%

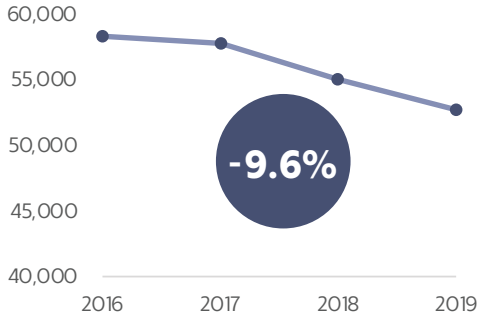
Note: Reporting of municipal water withdrawal at our packaging plants started in 2018.

Water Withdrawal Intensity

(Liters/Ton of Product), Mills

Since 2016 we have reduced our water withdrawal per ton of paper product by 9.6%.

This means we've become more efficient with the water we borrow to make our products.



42 NCASI Water Recycle Tool

43 Default parameters were used.

44 GRI recommends reporting a location's water withdrawal as stressed if the baseline water stress or baseline water depletion is rated "high."

45 United States Draught Monitor, Wisconsin

46 World Resources Institute. (2019). Aqueduct 3.0: Updated Decision-Relevant Global Water Risk Indicators (p. 11)

Valdosta Mill Water Conservation Plan

Our Valdosta, Georgia containerboard mill has had a water conservation plan in place since 2004, in accordance with the Georgia Environmental Protection Division's Water Conservation Rules. The mill strives for continued incremental reduction of water consumption to the extent practical through a broad water conservation strategy including recycle, reclaim, and reduction of use. The Key Performance Indicator used to determine this program's effectiveness is gallons per ton of product. The mill's average process water use is 6,135 gallons/ton, which is below the industry average.

Water Discharge

Mills essentially "borrow" water resources for manufacturing—subsequently returning virtually all water back to the environment.[47] Water is returned in two primary ways depending on its use at the mill.[48] Non-contact cooling water (NCCW), used to cool energy turbines and lubrication systems during warm months, is returned without treatment. Process wastewater is treated in an on-site wastewater treatment plant prior to being discharged to a river or lake. At all of our mills, treated wastewater is tested for Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) prior to discharge. In addition to BOD and TSS, other parameters are tested in accordance with state-specific requirements. Each month, results are reported to state governments to assure we operate within our permit limits.

Planned Water Discharges

(billion liters), Mills

	2016	2017	2018	2019
Total	**268.8**	**270.0**	**252.4**	**271.9**
Receiving	75%	73%	82%	77%
Cooling	25%	27%	18%	23%

Note: Evaporative water loss calculated for 2019 was 2.3%.

Water Discharge Quality

(lbs/ton of production), Mills

	2016	2017	2018	2019
Biological Oxygen Demand (BOD)	**1.65**	**1.69**	**1.88**	**1.38**
Containerboard Mills	0.97	1.23	1.71	1.17
White Paper Mills	3.54	3.01	2.64	2.31
Total Suspended Solids (TSS)	**2.59**	**2.81**	**3.24**	**2.42**
Containerboard Mills	1.57	1.93	3.09	2.19
White Paper Mills	5.41	5.36	3.87	3.49

Note: Data reported on an intensity basis, breakdowns by mill segment are not additive.

Stormwater Management Initiative

The majority of PCA packaging plants are subject to state stormwater permit programs. A stormwater permit requires a detailed stormwater pollution prevention plan (SWPPP), along with periodic inspections and stormwater sampling/monitoring, reports to state agencies, annual fees, and annual training. The PCA corporate environmental and EHS teams established a goal in 2016 for the packaging plants to pursue stormwater No Exposure Certifications (NEC) offered by various state programs. Over the past four years, PCA plants have built on the previously attained and audited good manufacturing practices achieved over the prior decade. Further improvements include storing all oil and chemicals indoors, and reducing pollutants in stormwater discharges. PCA has invested significant time and capital dollars where necessary to help plants attain the goal where feasible. Since 2016, the number of PCA facilities achieving NEC status has more than doubled, currently 46 box plants have achieved the rigorous management standards and achieved NEC coverage.

As a best management practice, NEC plants conduct thorough monthly inspections with a site-specific checklist and annual NEC training. The success of the program reflects dedication to environmental excellence by the PCA plant and corporate personnel as well as improved environmental performance, reduced compliance costs, and reduced risk of spills at PCA packaging plants.

[47] National Council for Air and Stream Improvement. (2018.) Water Profile of the U.S. Forest Products Industry.

[48] Due to geographic location, International Falls operates a fully enclosed, UNOX system, (an anaerobic re-activated sludge system) for wastewater treatment. WWTP residuals from this system are subsequently dried and combusted as a biofuel. A fraction of one percent of Valdosta's treated wastewater is land applied to manage wastewater treatment system hydraulic inventory during drought events. Valdosta and International Falls both draw municipal water (for sinks, bathrooms, etc.) which is segregated and treated by publicly owned treatment works (POTW).

Waste

PCA mills and converting operations avoid sending waste to landfills when possible. The majority of our mills own and operate private landfills (except Filer City, MI). These landfills are primarily used to dispose of two high volume waste byproducts: ash from burning woody biofuels (see energy) and residuals from our process wastewater treatment plants (WWTP). Portions of process residuals are beneficially reused rather than landfilled.

At some of our mills, WWTP residuals and wood-fired boiler ash are beneficially used by local farmers as soil amendments or liming agents to achieve better overall moisture retention, to increase the organic matter content of topsoil, and to elevate soil pH, which improves plant nutrient uptake. Additionally, combustion residuals are used on-site at the mills for roads, building banks for wastewater treatment ponds and at the landfill as cover material. In some instances, where permitted, we dispose of mill construction waste in these landfills.

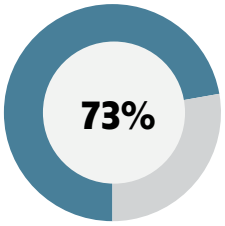
Our packaging plants recover the vast majority of their corrugated scrap and sell it back to mills as double-lined kraft (DLK), which is considered pre-consumer recycled material.

Waste

Process Waste Management (thousand metric tons)

	2016	2017	2018	2019
Total	**661.0**	**728.3**	**815.0**	**820.4**
Recycled or Beneficially Reused	74%	69%	65%	73%
Landfill	26%	28%	31%	24%
Hazardous (Disposed by 3rd Party)	-	3%	5%	3%

Solid Waste



Recycled or Beneficially Reused

Corrugated Recycling

In 2019, PCA recycled approximately

295,000 metric tons of corrugated scrap.

That's enough to FILL 40 miles of 50' boxcars.

Procurement Practices

PCA seeks mutually beneficial relationships with suppliers who share our commitment to continuous improvement. We evaluate both potential and current suppliers on dependability, performance level, and require all vendors to provide quality goods and services at a fair and competitive price. We track all cost savings and cost avoidances that impact our bottom-line for all commodities we purchase, and communicate our progress internally. Purchase volumes, new agreement potential, and markets vary, but we always strive to improve from the previous year.

PCA ensures all purchased goods and services meet our needs, and consequently, the needs of our customers. We expect our suppliers to behave ethically in all aspects of their business in compliance with all applicable laws and regulations.

Supplier relationships

Importantly, we purchase on value. A substantial proportion of that value stems from long-term business relationships, and the mutual trust we have established. Our average supplier relationship exceeds 10 years, but we've done business with many of our suppliers for more than 20 years.

Expectations of direct suppliers

All suppliers are required either by contract or via purchase order to follow the guidelines under "Doing Business with PCA"[49] on our external website. PCA typically uses internal customer surveys to assess and confirm the quality of goods and services provided to our operations.

Agreements with suppliers provide key commercial requirements and also incorporate our social responsibility and sustainability expectations.[50] For example, we include provisions on child labor, forced labor, discrimination, environment, and worker safety. We continue to work toward having these responsibility and sustainability expectations present in all agreements with suppliers and business partners.

We expect ethical treatment of all who work for PCA's direct suppliers—in alignment with our firm commitment to the fair and equitable treatment of all of our employees within a safe, healthy and harassment-free work environment.

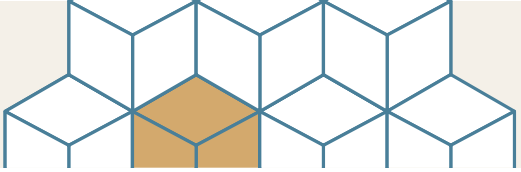
Supplier audits

By inclusion in our agreements, we may also conduct compliance audits. We apply a risk-based approach to determine which suppliers are subject to an audit by our internal procurement or other audit resources.

Regarding Supply Chain

Responsibility in our incoming material supply chain is typically part of our supplier agreements. Our purchasing department sets up agreements for the various plants to use and the daily supply chain monitoring is done locally based on local demand and delivery needs. If there are any abnormalities, purchasing intervenes to make sure goods are delivered on-time and set up alternative modes of transportation or sources if necessary.

[49] https://www.packagingcorp.com/doing-business-with-pca
[50] https://www.packagingcorp.com/supplier-expectations



Modern-Slavery and Human Trafficking

PCA recognizes and is subject to the California Transparency in Supply Chains Act of 2010[51] which requires manufacturers and certain others that do business in California to publicly disclose their efforts to eradicate slavery and human trafficking from their supply chains. Most of our raw materials are sourced in the United States of America and almost all of our manufacturing activities are conducted in the US as well.

As part of our due diligence we reviewed the Global Slavery Index 2018[52] which provides data related to modern slavery in over 160 countries. The US is classified as taking strong action, and is one of only seven G20 countries to take action on modern slavery. The report shows the US having among the lowest prevalence of forced labor, ranking 158/167. Given the substantial majority of our goods are purchased in the US, and the types of materials we procure, we have determined modern slavery to be low-risk. We continue to monitor our supply chains for potential risk.

Spending with Diverse suppliers

For a number of years, we have been tracking spend with diverse suppliers, such as minority-owned, women-owned, and small businesses. We encourage qualified and diverse suppliers to participate in the bidding process, and to make this easier we added a questionnaire to our website in June 2019.[53] We had ten submissions of the questionnaire in 2019. We verify that our suppliers have a valid certificate from a credible certification agency. PCA's spend with diverse suppliers was $13.3 million in 2018 and $15.6 million in 2019.

Spending with Local Suppliers

PCA provides containerboard and paper and packaging solutions throughout the country. We operate a vertically-integrated nationwide network of mills, converting facilities and related sales and support functions. PCA defines all mills and all domestic plants as *significant locations of operation.* Given the geographic range of PCA operations, we consider the contiguous 48 states to be *local.* PCA's proportion of spend with local suppliers was approximately 95% in 2019.

Expectations of Employees

In carrying out their duties and responsibilities, PCA employees are expected to promote fair dealing by PCA and its employees and agents with customers, suppliers, competitors and employees.[54] No employee is allowed to take unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts or any other unfair practice. All PCA employees involved in the purchasing decision must maintain professional integrity in their dealings with qualified PCA vendors.[55]

51 California Transparency in Supply Chains Act
52 The Minderoo Foundation Pty Ltd., Global Slavery Index 2018.
53 Supplier Diversity Statement
54 Statement of Business Principles, Page 10
55 Statement of Business Principles, Page 14

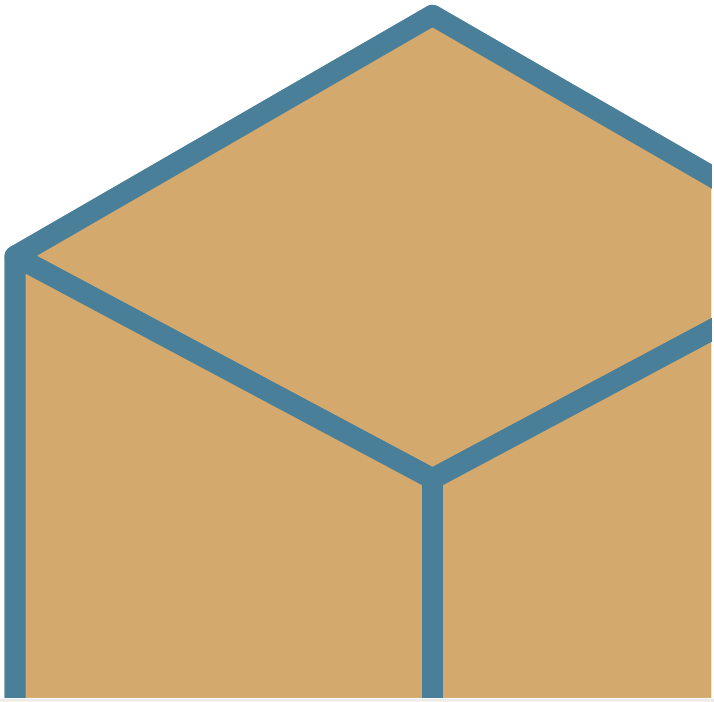
TRUST

Enviromental Excellence

Community Outreach

Economic Performance

Consumer Health and Safety



PCA is committed to building customer relationships based on performance, value and **trust.** **Trust** is a core value and key objective at PCA, and we believe collaborative relationships, bound by the **trust** we have earned, are the best way to deliver innovative packaging solutions and an outstanding service experience.

This section of our report covers material topics which are important to broader stakeholders, including communities, consumers of our customers' products, governments, our natural environment, and people who depend on our adherence to environmental regulations so they have clean water to drink, and clean air to breath. In all cases, it is incumbent on us to do what we say we're going to do in adherence to regulatory and voluntary frameworks which provide significant benefits to PCA stakeholders.

Environmental Excellence

PCA has a demonstrated track record of environmental compliance excellence and a strong commitment to environmental stewardship. The company has implemented a comprehensive environmental management system to ensure full compliance with all applicable laws and regulations at the federal, state, and local level. PCA's corporate environmental department works closely with regional EHS managers and facility environmental staff to implement the company's environmental management system and compliance programs. These commitments and investments in environmental excellence provide assurance of our responsible operation and compliance to investors, employees and the public.

Every PCA employee is responsible for environmental compliance, and every manufacturing facility, including paper mills and packaging plants, has personnel responsible to hold employees accountable for ensuring environmental compliance and conformance with PCA's environmental policy. PCA's corporate environmental department provides resources for facility environmental personnel including best management practice guidance documents, environmental compliance training modules, permitting assistance, compliance management, and audit services.

Environmental Management System

The scope of the company environmental management system includes programs supporting air, wastewater, storm water, spill response, hazardous waste, universal waste, oil management, and key dates management and tracking. Environmental communication and training methods take a number of different forms within PCA. In addition to the online environmental training modules offered to all of the facilities, frequent calls are held with all paper mill staff to communicate and discuss compliance, performance metrics, and emerging regulatory and technical developments within the company and industry. An annual corporate environmental meeting is held with the mills to provide additional educational opportunities.

To ensure all operations adhere to applicable law and regulations, as well as ensuring all permitting, testing, reporting and recordkeeping is completed on schedule, corporate environmental personnel regularly interact with our facilities and lead a robust internal audit program. All facilities are audited on a continuous cycle, once every 3-5 years based on the complexity and needs of the operation. PCA uses EHS software for all facilities to manage and track environmental compliance, permits, key dates and performance. Internal environmental audit findings are tracked and non-conformances identified during the audits are corrected in a timely manner. Environmental incidents, including any regulatory citations, are promptly addressed and corrected. All incidents are communicated to senior management and tracked in the company's incident reporting system. PCA's board of directors annually reviews the company's environmental performance.

Beyond Compliance

Consistent with its goal to pursue environmental excellence beyond compliance, PCA provides significant funding and support of environmental research through the National Council for Air and Stream Improvement (NCASI) and the NCASI Foundation. These contributions are used to improve the accuracy of emissions estimates and environmental data quality in the forest products, paper and packaging industry sector.

Environmental Performance Metrics

Mills

	2016	2017	2018	2019
Notice of Violation (NOV)	0	0	0	3
Permit Exceedance	2	2	0	0
Reportable Releases	3	2	2	1

Community Outreach

We seek to be a good neighbor in the more than 100 communities that we operate in, as well as the larger, global community. We see this objective as the right-thing-to-do and it fits with our business philosophy of fostering a "golden-rule work environment" within all PCA operations. Working collaboratively and driving shared value benefits all. We regularly promote our community outreach activities through our social media accounts on LinkedIn and Twitter.

We are currently reporting cash donations, and are working to report volunteer hours and in-kind donations in the future.

Charitable Giving

Cash donations (dollars)

	2017	2018	2019
Total	**1,319,000**	**2,764,000**	**3,726,000**
Education (Schools and Scholarships)	36%	78%	80%
Charitable Organizations	64%	22%	20%

PROJECT UP™ by Boise Paper

Funded through sales of select office papers and in partnership with Arbor Day Foundation, Project UP works to transform distressed urban spaces into vibrant community spaces. Since 2011, Boise Paper has held planting events across the country, including neighborhoods in Indianapolis, Baltimore, Miami, Toronto, Atlanta, Los Angeles, Chicago, Phoenix and most recently in Jacksonville. To date, Project UP has sponsored 14 planting projects, which have resulted in hundreds of trees, other woody plants, and perennial flowers being planted by over 1,150 volunteers, in cooperation with 60 partners.

Economic Performance

PCA has a history of strong financial performance and encourages all stakeholders to read our annual reports.[56] PCA strives to generate industry-leading returns and maintain a balanced and disciplined capital allocation strategy for the benefit of its shareholders. We believe that strong financial controls policy and execution are essential and include the following key policies:

Financial Controls and Records Policy

PCA's principal executive officer and principal financial officer must certify quarterly in PCA's periodic financial reports as to PCA's financial statements, internal controls and disclosure controls and procedures, including as to the fair presentation of the financial information included in those reports. PCA maintains a system of internal controls over financial reporting that includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of its assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures are being made only with proper authorizations; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements. PCA's internal policies are also designed to ensure the timely reporting of material information.

Executive officers of PCA and the primary individuals at PCA directly responsible for financial reporting, must comply with the Code of Ethics for Executive Officers and Principal Accounting Personnel, and annually certify compliance.[57]

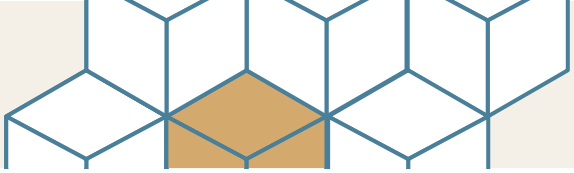
Defined Benefit Plan obligations and other retirement plans

PCA operates several retirement plans for the benefit of its salaried and hourly employees. They include defined benefit plans and defined contribution plans. PCA has defined pension benefit plans for both salaried and hourly employees. The plans covering salaried employees are closed to new entrants with only certain current active grandfathered participants still accruing benefits. The plans covering certain hourly employees are closed to new participants.

Obligations and Funded Status of Defined Benefit Pension and Other Postretirement Benefits Plans

The funded status of PCA's plans changes from year to year based on the plan asset investment return, contributions, benefit payments, the discount rate used to measure the liability and expected participant longevity. For additional information regarding the obligations and funded status of our plans, please see the Employee Benefit Plans and Other Postretirement Benefits footnote included in our annual reports.[58]

56 PCA Annual Reports.
57 Our Code of Ethics can be accessed at Executive Ethics.
58 Benefit Plans and Postretirement Benefits



Defined Contribution Plans

Some of our employees participate in defined contribution savings plans; available to most of our salaried and hourly employees. The defined contribution plans permit participants to make contributions by salary reduction pursuant to Section 401(k) of the Code. PCA makes employer matching contributions and additional contributions to the plans of employees who are not eligible to participate in the defined benefit plans. PCA made contributions of $76.7 million, $70.1 million, and $65.2 million in 2019, 2018, and 2017, respectively. For additional information regarding our defined contribution plans, please see the Employee Benefit Plans and Other Postretirement Benefits footnote included in our annual reports, and our SEC Form 11-Ks.[59]

Economic Value

(dollars in millions)

	2017	2018	2019
Direct Economic Value Generate			
Net Sales	6,444.9	7,014.6	6,964.3
Economic Value Distributed			
Cost of Sales, including Wages[1]	(4,974.1)	(5,369.3)	(5,320.3)
Selling, Administrative and Other Expenses	(538.3)	(577.6)	(590.3)
Payments to Providers of Capital – Interest	(103.9)	(97.2)	(136.7)
Payments to Providers of Capital – Dividends[2]	(237.6)	(268.1)	(298.7)
Payments to Government – Income Taxes[3]			
Federal (US)	(262.5)	(100.6)	(134.5)
State (US)	(36.1)	(40.0)	(38.1)
Foreign (Canada)[4]	-	(0.1)	(0.1)
Foreign (Hong Kong)[4]	(0.1)	(0.1)	-
Economic Value Retained	**292.3**	**561.6**	**445.6**

[1] Prior period amounts were adjusted due to the adoption of a new accounting standard in 2018 related to the treatment of pension expense.
[2] Reflects actual dividends paid during the year
[3] Reported on a cash basis to exclude the effect of deferred taxes.
[4] Substantially all of PCA's operations and employees are located in the United States of America. PCA does have financially immaterial operations in Canada and Hong Kong with employees of less than 0.3% of our total employees located in these two countries. The 2017 Tax Cuts and Jobs Act included base erosion prevention measures on U.S. earnings with the enactment of the Base-erosion and anti-abuse tax (BEAT) in IRC Section 59A effective for tax years beginning after December 31, 2017. The BEAT eliminates the deduction of certain base-erosion payments made to related foreign corporations and imposes a minimum tax if greater than regular tax. A de minimis exception is provided for companies whose foreign related party payments are very low, relative to overall deductions and PCA meets this exception and did not owe BEAT in 2019 nor 2018.

59 Retirement Savings Plan for Salaried Employees; Thrift Plan for Hourly Employees;

Consumer Health and Safety

PCA believes serving our customers, and the consumers who purchase from them comes with significant responsibility. We do everything we reasonably can to support the health and safety of the ultimate consumer of food, beverage, pharmaceutical, and personal care products carried in PCA packaging.

For more than a decade PCA has been a leader in working to ensure the safety of corrugated packaging food applications. In 2010 we undertook an initiative to universally implement Good Manufacturing Practices (GMP's). Concurrently, we chose to inspect our manufacturing locations and audit our food safety management systems to the appropriate AIB standards. By December 2011, all PCA full-line plants had fully implemented GMP's and successfully audited to AIB standards. Also, in 2011 we began exploring the Global Food Safety Initiative (GFSI) and undertook preparations to pilot emerging GFSI-benchmarked standards for practices for implementation across our system of manufacturing plants. In 2013 we launched an initiative to fulfil our commitment to certify all full-line packaging plants by the end of 2016.

Global Food Safety Initiative

GFSI provides the platform to build food safety management systems that will not only be effective, but also be externally assured, credible, and universally accepted. PCA has developed, implemented, and audited our food safety management systems to the FSSC 22000 standard. FSSC 22000 combines a rigorous and comprehensive set of Good Manufacturing Practices with the internationally accepted ISO 22000 Food Safety Management Standard.

To this day PCA remains the only large North American, vertically-integrated provider to accomplish GFSI conformance across all full-line corrugating operations. As the PCA system continues to grow organically and by acquisition, all full-line plants accomplish GFSI conformance, as well as sheet plants whose customer base benefits from certification.

History of Commitment, Leadership and Results

2011	2012	2016
PCA led the corrugated industry in committing to GFSI accomplishment, well prior to standards being finalized for packaging.	Our Colby, Wisconsin Plant became the first North American corrugating operation to attain GFSI certification.[60]	PCA became the first large North American corrugated provider to achieve GFSI conformance nationwide, across our entire system of full-line packaging operations.

Assessment of the Health and Safety Impacts of Product and Service Categories

We view our role in supporting the health and safety of the consumer purchasing the products we package to be of the upmost importance. This begins with assuring that the containerboard we produce and incorporate into our packaging is compliant with statutory and regulatory law and is fit for intended use. PCA invests in a robust product stewardship function to accomplish these objectives. This ensures the cleanliness and safety of the materials we combine and convert into packaging.

[60] Our Colby, WI plant moved to Marshfield, WI in 2019.

Food Safety Management Systems

A crucial component of our strategy is our food safety management systems, which are established and maintained at each certified operation. The foundation of these systems is based on GMP's and hazard analysis critical control points (HACCP). This foundation drives us to accomplish an in-depth review of every process we employ that may influence the safety of our products. End-to-end, all-encompassing, and exhaustive efforts go into identifying any potential hazards and subsequently into quantifying any risks present in our processes. The ultimate objective is to prevent potential illness by effectively mitigating risk to consumer health and wellbeing. The end result is assurance that we have built health and safety expectations into our products. By doing so, both our customers and the consumer know that every effort has been made to support food safety. Our food safety management systems are audited annually by NSF for external assurance.

PCA Supports the Global Food Safety Initiative

GFSI Vision

Safe food for consumers–everywhere.

GFSI Mission

Provide continuous improvement in food safety management systems to ensure confidence in the delivery of safe food to consumers worldwide.

GFSI Objectives

-Reduce food safety risks by delivering equivalence and convergence between effective food safety management systems.

-Manage cost in the global food system by eliminating redundancy and improving operational efficiency.

-Develop competencies and capacity building in food safety to create consistent and effective global food systems. Provide a unique international stakeholder platform for collaboration, knowledge exchange and networking.

APPENDIX

GRI index

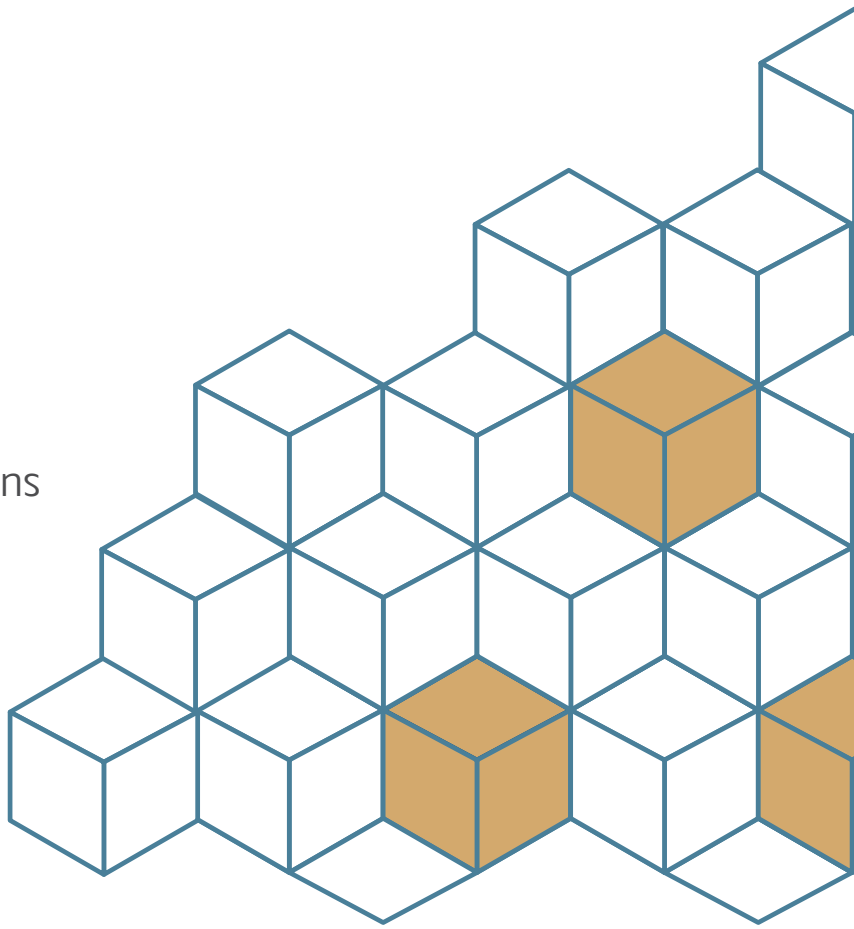
Membership of Associations

Emission Factors

Master Data Table

Glossary

Citations



GRI Index

Organizational Profile		
102-1	Name of the Organization	Packaging Corporation of America
102-2	Activities, Brands, Products, and Services	2019 Annual Report, pages 2-4
102-3	Location of Headquarters	Lake Forest, IL, USA
102-4	Location of Operations	2019 Annual Report, page 2
102-5	Ownership and Legal Form	Packaging Corporation of America is publicly held, incorporated in Delaware, USA. Our common stock is listed on the New York Stock Exchange under the symbol "PKG."
102-6	Markets Served	2019 Annual Report, pages 4,6
102-7	Scale	2019 Annual Report, pages 1-6
102-8	Employees and Other Workers	19
102-9	Supply Chain	2019 Annual Report
102-10	Significant Changes	No significant changes to the organization during 2019.
102-11	Precautionary Approach or Principle	PCA follows a "precautionary approach" when developing, and prior to offering, new products. We seek to identify potential hazards and risk early in development, such that they can either be eliminated or assuredly managed to a level where they are acceptably mitigated for purposes of our customers, employees, communities and other stakeholders. Sensitivity to the impact that our products, their sourcing/production/provision may have on health, safety and the environment is a key underpinning of our sustainability strategy and objectives.
102-12	External Initiatives	CDP EcoVadis Global Food Safety Initiative (GFSI) Paper & Packaging: How Life Unfolds Project UP! In partnership with Arbor Day Sedex
102-13	Membership of Associations	50
Strategy		
102-14	Statement from Senior Decision-maker	4
102-15	Description of Key Impacts, Risks and Opportunities	10, 24-25
Ethics and Integrity		
102-16	Values, Principles, Standards, and Norms of Behavior	Corporate Governance; Statement of Business Principles; Code of Ethics for Directors; Code of Ethics for Executive Officers and Principal Accounting Personnel
102-17	Mechanisms for Advice and Concerns About Ethics	PCA has established a toll-free help line: (877) 643-8722. Concerns may also be written and mailed to: Compliance Officer Packaging Corporation of America c/o Corporate Counsel 1 North Field Court Lake Forest, Illinois 60045 Statement of Business Principles pages 2-3
Governance		
102-18	Governance Structure and Committees Responsible	Corporate Governance Guidelines; Audit Committee Charter; Compensation Committee Charter; Section 162(m) Subcommittee Charter; Nominating and Governance Committee Charter; Board of Directors; Senior Management Team
Stakeholder Engagement		
102-40	List of Stakeholder Groups	Employees, customers, shareholders and other capital providers, governments, neighbors (community members), landowners and fiber suppliers, suppliers of other goods and services.
102-41	Collective Bargaining Agreements	2019 Annual Report, pages 6-7
102-42	Identifying and Selecting Stakeholders	7
102-43	Approach to Stakeholder Engagement	7
102-44	Key Topics and Concerns Raised	7
Reporting Practice		
102-45	Entities Included in the Consolidated Financial Statements	2019 Annual Report, page 43
102-46	Defining Report Content and Topic Boundaries	Boundaries for topic disclosures are determined based on data relevance, data availability, and materiality. Significance of topics was determined based on surveys and research of stakeholder groups.

102-47	List of Material Topics	43
102-48	Restatements of Information	Any restatements of information are noted with an adjacent footnote. Restatements in this report are for comparability purposes as our reporting practices have become more robust over time.
102-49	Changes in Reporting	No changes in reporting period, material topics, or topic boundaries.
102-50	Reporting Period	PCA's Fiscal (Calendar) Year 2019.
102-51	Date of Most Recent Report	June 28, 2019.
102-52	Reporting Cycle	Annual
102-53	Contact Point for Questions Regarding the Report	responsibility@packagingcorp.com
102-54	Claims of Reporting in Accordance with GRI Standards	This report has been prepared in accordance with the GRI Standards: Core Option.
102-55	GRI Content Index	51
102-56	External Assurance	No external assurance for PCA's 2019 Responsibility Report. All data and information has undergone thorough internal review.
Economic Disclosures		
201	Economic Performance Management Approach	45
201-1	Direct Economic Value Generated and Distributed	46
201-2	Financial Implications Due to Climate Change	2019 Annual Report, page 28
201-3	Benefits	45-46
201-4	Financial Assistance	The Company did not receive financial assistance from government in 2019, 2018, or 2017.
204	Procurement Practices Management Approach	40
204-1	Proportion of Spending on Local Suppliers	41
Environmental Disclosures		
301	Materials Management Approach	30
301-1	Materials Used by Weight or Volume	30
301-2	Recycled Input Materials Used	30
301-3	Reclaimed products	33
302	Energy Management Approach	26
302-1	Energy Consumption within the Organization	27
302-2	Energy Consumption Outside of the Organization	27
302-3	Energy Intensity	11
303-1	Interactions with water as a shared resource	37
303-2	Management of water discharge-related impacts	38
303-3	Water Withdrawal	37
303-4	Water discharge	38
304	Biodiversity Management Approach	35
304-1	Operational Sites	35
304-2	Significant impacts on biodiversity	35
304-3	Habitats Protected or Restored	35
304-4	IUCN Red List Species	35
305	Emissions Management Approach	28
305-1	Direct (Scope 1) GHG Emissions	28
305-2	Energy Indirect (Scope 2) GHG Emissions	28
305-3	Other indirect (Scope 3) GHG Emissions	28
305-4	GHG Emissions Intensity	29
305-5	Reduction of GHG Emissions	11
305-6	Emission of ozone-depleting substances (ODS)	All emissions from unrecovered refrigerant are HFCs reported on page 28. PCA does not use or make CFCs.
305-7	Nitrogen Oxides (NO_x), Sulfur Oxides (SO_x), and Other Significant Air Emissions	29
306	Waste Management Approach	39
306-2	Waste by Type and Disposal Method	39
306-4	Transport of hazardous waste	39
307	Environmental Compliance Management Approach	43
307-1	Non-Compliance with Environmental Laws and Regulations	PCA did not have any material violation of environmental laws in 2019, 2018, or 2017.

Social Disclosures		
401	Employment Management Approach	19
401-1	Employee Hires and Turnover	19
401-2	Benefits Provided	19
401-3	Parental Leave	19
402	Labor and Management Relations Management Approach	21
402-1	Minimum Notice Regarding Operational Changes	21
403-1	Occupational Health and Safety Management System	13
403-2	Hazard identification risk assessment, and incident investigation	14
403-3	Occupational health services	14
403-4	Worker participation, consultation, and communication on occupational health and safety	15
403-5	Worker training on occupational health and safety	13
403-6	Promotion of worker health	15
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	14, 36, 47
403-8	Workers covered by an occupational health and safety management system	13
403-9	Work-related injuries	14
404	Training and Education Management Approach	16
404-1	Average Hours of Training Per Year Per Employee	16
404-2	Programs for Upgrading Employee Skills & Transition Assistance Programs	16-18
404-3	Percentage of Employees Receiving Regular Performance Reviews	PCA utilizes various formal and informal performance management processes, trainings and development programs to build competence among employees. Employees are evaluated on job performance, including performance against the expected standards of conduct.
405	Diversity and Equal Opportunity Management Approach	22
405-1	Diversity of Governance Bodies and Employees	22
413	Local Communities Management Approach	44
413-1	Operations with Local Community Engagement	44
413-2	Operations with Significant Actual and Potential Negative Impacts on Local Communities	PCA is not aware of any current operations that pose actual or potential, material negative impacts on the communities where we operate.
416	Consumer Health and Safety Management Approach	47-48
416-1	Assessment of the Health and Safety Impacts	47-48
416-2	Incidence of Non-Compliance Concerning Health and Safety	PCA did not have any incidents of non-compliance with product safety regulations or material instances non-compliant with voluntary product safety codes in 2019.

Membership of Associations

American Forest and Paper Association (AF&PA)	National Fire Prevention Association
American Forest Resource Council	National Paper Trade Association (NPTA)
American Society for Quality (ASQ)	National Society for Human Resources Management
ASTM International	North American Forest Partnership
Corrugated Packaging Alliance (CPA)	Programme for the Endorsement of Forest Certification (PEFC)
Envelope Manufacturers Association (EMA)	Pulp and Paper Safety Association (PPSA)
Federal Water Quality Coalition	Recycled Paperboard Technical Association
Fibre Box Association (FBA)	Supplier Ethical Data Exchange (SEDEX)
Forest Stewardship Council® (FSC®)	Society of American Foresters
Institute of Packaging Professionals (IoPP)	Sustainable Forestry Initiative® (SFI)
International Corrugated Case Association (ICCA)	Sustainable Packaging Coalition (SPC)
International Corrugated Packaging Foundation (ICPF)	Technical Association of Pulp & Paper Industry (TAPPI)
International Safe Transit Association (ISTA)	The Nature Conservancy
International Standards Organization (ISO)	Two-Sides, North America
National Council for Air & Stream Improvement (NCASI)	

Emission Factors and Global Warming Potential (GWP)

Scopes 1 & 2	
Scope 1	US EPA MRR: Final Rule (40 CFR 98) - Industrial Sector 2013
Scope 2 (2016-17)	US EPA eGRID: eGRID 2017 v2 (w/2014 Data)
Scope 2 (2018)	US EPA eGRID: eGRID 2018 (w/2016 Data)
Scope 2 (2019)	US EPA eGRID: eGRID 2020 (w/2018 Data)
Scope 3	
Category 1 - Purchased Goods & Services	Carnegie Mellon University Green Design Institute. (2020) Economic Input-Output Life Cycle Assessment (EIO-LCA) US 2002 (428 sectors) Purchaser model Economic Input-Output Life Cycle Assessment (EIO-LCA) US 2007 (388 sectors) Producer model -Life Cycle Assessment study of starch products for the European starch industry association (AAF): sector study, Figure 3 -Life-cycle assessment of forest harvesting and transportation operations in Tennessee -Environmental impacts of roundwood supply chain options in Michigan: life-cycle assessment of harvest and transport stages
Category 2 - Capital Goods	-Carnegie Mellon University Green Design Institute. (2020) Economic Input-Output Life Cycle Assessment (EIO-LCA) US 2002 (428 sectors) Purchaser model
Category 3 - Fuel and energy related activities	US EPA eGRID: Grid Gross Loss (GGL) 2018
Category 4 - Upstream transporation and distribution	-Life-cycle assessment of forest harvesting and transportation operations in Tennessee -Environmental impacts of roundwood supply chain options in Michigan: life-cycle assessment of harvest and transport stages
Category 5 - Waste generated in operations	US EPA Solid Waste Management and Greenhouse Gases. A Life-Cycle Assessment of Emissions and Sinks, 3rd edition.
Category 6 - Business Travel	-USEPA MRR - Final Rule (40 CFR 98) - Industrial Sector 2013; EPA (2014) Inventory of U.S. Greenhouse Gas Emissions and Sinks Air Travel factors from 2017 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting. Version 1.0 August 2017.
Category 7 - Employee Commuting	-EPA Hub (Mar 2018), CO2, CH4, N2O emissions data for highway vehicles are from Table 2-13 of the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015. Vehicle-miles and passenger-miles data for highway vehicles are from Table VM-1 of the Federal Highway Administration Highway Statistics 2015.
Category 9 - Downstream transportation and distribution	-EDF Green Freight handbook, Rail, Distance -USEPA MRR - Final Rule (40 CFR 98) - Industrial Sector 2013; EPA (2014) Inventory of U.S. Greenhouse Gas Emissions and Sinks
Global Warming Potential	
CH_4	25
N_2O	298

MASTER DATA TABLE

	UOM	2019	2018	2017	2016
PRODUCTION AND SHIPMENTS					
Containerboard Production	thousand tons	**4,249**	4,081	3,881	3,736
Corrugated Shipments	billion square feet (BSF)	**59.4**	58.9	55.7	51.3
White Paper (UFS) Production	thousand tons	**947**	1,017	1,118	1,127
Market Pulp Production	thousand tons	**0**	0	0	45
OCCUPATIONAL HEALTH AND SAFETY					
Employee days away, restricted or transferred (DART)	Cases x 200,000/Total Hours Worked	**1.04**	0.92	0.94	0.73
Employee lost time case rate (LTCR)	Cases x 200,000/Total Hours Worked	**0.48**	0.37	0.39	0.36
Employee total case rate (TCR)	Cases x 200,000/Total Hours Worked	**1.8**	1.7	1.6	1.4
Employee fatalities		**0**	0	0	0
Temp. Worker days away, restricted or transferred (DART)	Cases x 200,000/Total Hours Worked	**0.53**	0.43	0.57	0.49
Temp. Worker lost time case rate (LTCR)	Cases x 200,000/Total Hours Worked	**0.36**	0.26	0.28	0.49
Temp. Worker total case rate (TCR)	Cases x 200,000/Total Hours Worked	**1.1**	1.1	1.1	1.3
Temp. Worker fatalities		**0**	0	0	0
TRAINING AND EDUCATION					
Average Training Hours per Employee	hours/employee	**10.5**	-	-	-
Female Employee Participation in Degree Pursuit Program		**38**	45	41	-
Male Employee Participation in Degree Pursuit Program		**38**	37	35	-
Female Co-op Participation in Degree Pursuit Program		**3**	-	-	
Male Co-op Participation in Degree Pursuit Program		**6**	-	-	
Total Participation in Degree Pursuit Program		**85**	82	76	-
Total Contribution for Degree Pursuit Program	US dollars	**$468,200**	$396,500	$374,400	
EMPLOYMENT					
Grand Total New Hires		**3,010**	2,427	1,560	-
Total New Hires of Female Employees		**519**	449	409	-
Total New Hires of Male Employees		**2,419**	1,978	1,151	-
New Hires of Female Employees 18-24 years old		**131**	117	118	-
New Hires of Male Employees 18-24 years old		**639**	460	307	-
New Hires of Female Employees 25-34 years old		**176**	136	104	-
New Hires of Male Employees 25-34 years old		**848**	704	369	-
New Hires of Female Employees 35-44 years old		**100**	77	83	-
New Hires of Male Employees 35-44 years old		**496**	357	213	-
New Hires of Female Employees 45-54 years old		**77**	87	84	-
New Hires of Male Employees 45-54 years old		**341**	307	177	-
New Hires of Female Employees 55-64 years old		**32**	32	19	-
New Hires of Male Employees 55-64 years old		**159**	143	80	-
New Hires of Female Employees 65+years old		**3**	0	1	
New Hires of Male Employees 65+years old		**8**	7	5	-

Grand Total of Employee Turnover	**2,611**	2,277	2,108	-
Total Turnover of Female Employees	**461**	397	371	-
Total Turnover of Male Employees	**2,150**	1,880	1,737	-
Turnover of Female Employees 18-24 years old	**118**	92	67	-
Turnover of Male Employees 18-24 years old	**386**	273	282	-
Turnover of Female Employees 25-34 years old	**112**	74	80	-
Turnover of Male Employees 25-34 years old	**589**	517	409	-
Turnover of Female Employees 35-44 years old	**67**	65	68	-
Turnover of Male Employees 35-44 years old	**388**	319	328	-
Turnover of Female Employees 45-54 years old	**73**	71	69	-
Turnover of Male Employees 45-54 years old	**316**	298	294	-
Turnover of Female Employees 55-64 years old	**60**	57	56	-
Turnover of Male Employees 55-64 years old	**328**	327	29	-
Turnover of Female Employees 65+years old	**31**	38	31	-
Turnover of Male Employees 65+years old	**143**	146	134	-
EMPLOYEES				
Total Employees	**15,521**	14,991	14,593	-
Total Salaried Employees	**4,609**	4,516	4,750	-
Total Hourly Employees	**10,912**	10,475	9,843	-
Employees Covered by Collective Bargaining Agreements (CBA)	**6,868**	6,691	6,652	-
Hourly Employees in CBA as % of Total Hourly Employees	**63%**	64%	68%	-
Employees in CBA as % of All Employees	**44%**	45%	46%	-
Percentage of Female Employees	**17%**	17%	16%	-
Percentage of Male Employees	**83%**	83%	84%	-
Percentage of Full Time Employees	**99.88%**	99.94%	99.85%	-
Percentage of Part Time Employees	**0.12%**	0.06%	0.15%	-
Percentage of Employees in USA	**99.74%**	99.73%	99.74%	-
Percentage of Employees in Canada	**0.17%**	0.16%	0.13%	-
Percentage of Employees in Hong Kong	**0.09%**	0.11%	0.13%	-
DIVERSITY AND EQUAL OPPORTUNITY				
Number of Female Directors	**2**	1	1	-
Number of Male Directors	**10**	10	10	-
Number of Directors 30-50 Years Old	**0**	1	1	-
Number of Directors Over 50 Years Old	**12**	10	10	-
Number of Male Directors 30-50 Years Old	**0**	1	1	-
Number of Male Directors Over 50 Years Old	**10**	9	9	-
Number of Female Directors Over 50 Years Old	**2**	1	1	-
Total Number of Directors	**12**	11	11	-
Number of Female Executive Officers	**1**	0	0	-

Number of Male Executive Officers		**9**	6	6	-
Number of Executive Officers 30-50 Years Old		**2**	1	1	-
Number of Executive Officers Over 50 Years Old		**8**	5	5	-
Number of Male Executive Officers 30-50 Years Old		**2**	1	1	-
Number of Male Executive Officers Over 50 Years Old		**7**	5	5	-
Number of Female Executive Officers Over 50 Years Old		**1**	0	0	-
Total Number of Executive Officers		**10**	6	6	-
Number of Female Officers		**3**	4	4	-
Number of Male Officers		**21**	19	16	-
Total Number of Officers		**24**	23	20	-
Number of Female Employees 18-24 years old		**134**	131	121	-
Number of Male Employees 18-24 years old		**822**	790	782	-
Number of Female Employees 25-34 years old		**466**	455	422	-
Number of Male Employees 25-34 years old		**2,755**	2,648	2,621	-
Number of Female Employees 35-44 years old		**540**	526	488	-
Number of Male Employees 35-44 years old		**2,712**	2,605	2,579	-
Number of Female Employees 45-54 years old		**735**	716	665	-
Number of Male Employees 45-54 years old		**3,165**	3,309	2,858	-
Number of Female Employees 55-64 years old		**639**	623	578	-
Number of Male Employees 55-64 years old		**3,010**	2,889	2,858	-
Number of Female Employees 65+years old		**68**	67	62	
Number of Male Employees 65+years old		**475**	456	451	-
ENERGY					
Energy Consumption from Non-renewable Fuel	million GJ	**32.6**	30.6	27.8	30.4
Percentage of Non-renewable Fuel from Natural Gas		**97.1%**	96.4%	95.3%	95.4%
Percentage of Non-renewable Fuel from other fossil fuels		**2.9%**	3.6%	4.7%	4.6%
Energy Consumption from Renewable Fuel	million GJ	**70.3**	73.3	72.9	73.1
Percentage of Renewable Fuel from Black Liquor Solids		**73.0%**	67.7%	67.5%	68.0%
Percentage of Renewable Fuel from Bark		**24.0%**	29.0%	30.2%	29.8%
Percentage of Renewable Fuel from other biogenic fuels		**3.0%**	3.3%	2.3%	2.2%
Energy Consumed from Purchased Electricity and Steam	million GJ	**9.8**	9.7	9.0	9.4
Energy Consumed from Self-generated Hydroelectricity	million GJ	**0.3**	0.3	0.4	0.3
Total Energy Consumed	million GJ	**113.0**	113.9	110.1	113.2
Percentage of Total Energy Consumed by Containerboard Mills		**72%**	72%	63%	62%
Percentage of Total Energy Consumed by White Paper Mills		**24%**	24%	33%	34%
Percentage of Total Energy Consumed by Packaging Plants and Other		**4%**	4%	4%	4%
EMISSIONS					
Scope 1 GHG Emissions	million metric tons CO_2-e	**2.03**	1.94	1.84	1.94
Percentage of Scope 1 emissions from Packaging Plants and Other		**8.8%**	10.5%	10.8%	10.0%

Percentage of Scope 1 emissions from Containerboard Mills		**66.3%**	61.4%	53.9%	52.7%
Percentage of Scope 1 emissions from White Paper Mills		**24.9%**	27.9%	35.6%	38.6%
Scope 2 GHG Emissions	million metric tons CO_2-e	**1.22**	1.28	1.34	1.38
Percentage of Scope 2 emissions from Packaging Plants and Other		**14.4%**	13.4%	12.8%	12.1%
Percentage of Scope 2 emissions from Containerboard Mills		**64.8%**	66.2%	59.1%	56.0%
Percentage of Scope 2 emissions from White Paper Mills		**20.8%**	20.1%	28.0%	31.9%
Scope 3 GHG Emissions	million metric tons CO_2-e	**1.01**	1.00	-	-
Percentage of Scope 3 emissions from Upstream		**86.0%**	59.2%	-	-
Percentage of Scope 3 emissions from Downstream		**14.0%**	37.9%	-	-
Total GHG Emissions		**4.26**	4.22	3.18	3.32
Biogenic CO_2 Emissions	million metric tons CO_2	**6.29**	6.55	6.52	6.54
Nitrogen Oxides (NO_x) Air Emissions	thousand metric tons	**6.6**	6.4	6.4	6.7
Percentage of NO_x emitted from Containerboard Mills		**80.3%**	79.7%	70.3%	71.2%
Percentage of NO_x emitted from White Paper Mills		**19.7%**	20.3%	29.7%	28.8%
Sulfur Dioxide (SO_2) Air Emissions	thousand metric tons	**1.5**	1.4	2.0	1.9
Percentage of SO_2 emitted from Containerboard Mills		**87.2%**	89.7%	52.0%	57.6%
Percentage of SO_2 emitted from White Paper Mills		**12.8%**	10.3%	48.1%	42.4%
Particulate Matter 10 (PM_{10}) Air Emissions	thousand metric tons	**1.6**	-	-	-
Percentage of PM_{10} emitted from Containerboard Mills		**85.8%**	-	-	-
Percentage of PM_{10} emitted from White Paper Mills		**14.2%**	-	-	-
MATERIALS - WOOD FIBER SOURCING					
First-use (virgin) fiber Sourced	thousand green tons	**15,021**	14,668	14,439	14,234
Percent by Weight of First-use Fiber Certified Sourced		**30%**	30%	32%	29%
Percent by Weight of First-use Fiber PEFC Certified Sourced		**26%**	26%	27%	26%
Percent by Weight of First-use Fiber FSC Certified Sourced		**4%**	4%	5%	3%
Recovered Fiber Sourced	thousand tons	**1,053**	1,083	1,013	967
Market Pulp Sourced	thousand tons	**7**	4	5	4
PEFC Certified Product Sold, Corrugated	thousand tons	**174.9**	167.3	61.8	17.1
PEFC Certified Product Sold, White Paper	thousand tons	**33.5**	48.1	36.7	32.1
FSC Certified Product Sold, White Paper	thousand tons	**116.5**	126.6	95.2	61.4
Total Certified Product Sold	thousand tons	**324.9**	342.0	193.7	110.6
WATER AND EFFLUENT					
Total Water Withdrawn	billion liters	**273.9**	280.3	288.2	283.5
Surface Water Withdrawn	billion liters	**197.0**	197.7	203.9	193.9
Percentage of Surface Water for Process		**59.4%**	60.9%	59.8%	59.0%
Percentage of Surface Water for Cooling		**40.4%**	38.9%	40.0%	40.8%
Percentage of Surface Water for Potable		**0.2%**	0.2%	0.2%	0.2%

Ground Water Withdrawn	billion liters	**74.3**	79.3	83.8	87.9
Percentage of Ground Water for Process		**83.8%**	85.5%	82.8%	84.7%
Percentage of Ground Water for Cooling		**15.9%**	14.3%	16.9%	15.1%
Percentage of Ground Water for Potable		**0.3%**	0.2%	0.3%	0.3%
Municipal Water Withdrawn	billion liters	**2.6**	2.8	0.5	1.7
Water Withdrawal Intensity	liters/ton of product	**52,710**	55,017	57,652	58,292
Total Planned Water Discharges at Mills	billion liters	**271.9**	252.4	270.0	268.8
Percent of Planned Water Discharges at Mills from Cooling		**23%**	17.8%	27.4%	24.9%
Percent of Planned Water Discharges at Mills from Receiving		**77%**	82.2%	72.6%	75.1%
Biological Oxygen Demand (BOD)	lbs/ton of production	**1.38**	1.88	1.69	1.65
Containerboard Mills BOD	lbs/ton of production	**1.17**	1.71	1.23	0.97
White Paper Mills BOD	lbs/ton of production	**2.31**	2.64	3.01	3.54
Total Suspended Solids (TSS)	lbs/ton of production	**2.42**	3.24	2.81	2.59
Containerboard Mills TSS	lbs/ton of production	**2.19**	3.09	1.93	1.57
White Paper Mills TSS	lbs/ton of production	**3.49**	3.87	5.36	5.41
WASTE					
Process Waste Recycled or Beneficially Reused	thousand metric tons	**600.4**	525.7	505.1	488.7
Process Waste to Landfill	thousand metric tons	**198.1**	237.4	201.5	172.3
Hazardous Waste (Disposed by 3rd Party)	thousand metric tons	**21.9**	37.3	21.7	-
Total Process Waste	thousand metric tons	**820.4**	815.0	728.3	661.0
COMMUNITIES					
Cash Donations	dollars, in thousands	**$3,726**	$2,764	$1,319	-
ECONOMIC PERFORMANCE					
Direct Economic Value Generated - Net Sales	millions of dollars	**$6,964.3**	$7,014.6	$6,444.90	$5,779
Costs of Sales, including Wages	millions of dollars	**$(5,320.3)**	$(5,369.3)	$(4,974.10)	$(4,502.9)
Selling and Administrative Expenses	millions of dollars	**$(590.3)**	$(577.6)	$(538.30)	$(492.8)
Payments to Providers of Capital - Interest	millions of dollars	**$(136.7)**	$(97.2)	$(103.90)	$(94.8)
Payments to Providers of Capital - Dividends	millions of dollars	**$(298.7)**	$(268.1)	$(237.60)	$(216.1)
Payments to Government - Income Taxes	millions of dollars	**$(172.7)**	$(140.8)	$(298.70)	$(222.1)
Total Economic Value Retained	millions of dollars	**$445.6**	$561.6	$292.30	$250.3

GLOSSARY

ADS Tons – Air Dried Short Tons. Pulp is generally reported as an air-dried product that is assumed to be 10% water and 90% dry pulp.

American Tree Farm System (**ATFS**) – A group that works with private land owners to help them be effective stewards of forests.

Biogenic Carbon: CO2 emissions related to the natural carbon cycle, as well as those resulting from the combustion, harvest, digestion, fermentation, decomposition or processing of biologically based material

Biogenic Fuel: Fuel generated through the consumption of biomass. Generates biogenic carbon as opposed to the use of fossil fuels which generates carbon that has long been removed from the natural carbon cycle (thus introducing additional carbon to the present day).

Biological Oxygen Demand (**BOD**) – The amount of dissolved oxygen needed by aerobic biological organisms to break down organic material. Used to measure water quality.

Biomass Energy – Energy derived by combusting fuel that is developed from organic material, in PCA's case pulping by-products like black liquor solids and wood waste (bark, knots, etc.). Renewable source of energy.

Black Liquor – The remaining water, after chemical reclamation processes, from Kraft process pulping operations. Contains significant lignin and hemicelluloses. Typically processed to drive off water, and to combust the biogenic material remaining to provide heat, steam and electricity to power mill processes.

California Transparency in Supply Chains Act of 2010 – Requires larger manufacturers and certain others that do business in California to publicly disclose their efforts to eradicate slavery and human trafficking from their supply chains.

Carbon Dioxide Equivalent (**CO_2-e**) – Measure used to compare emissions when fossil fuels such as coal, oil, and gas are burned – in equivalence to the global warming potential of Carbon Dioxide.

Caustic Soda – **Sodium Hydroxide.** NaOH, a strong base used in pulping processes.

Chain of Custody – A certification that connects materials or products back to their original source. In the case of forest products, like PCA's, it requires connecting and documenting sequential steps through the supply chain, from the original procurement of fiber, whether from recycled or certified forests, through each subsequent stage of processing and distribution.

Containerboard – Paperboard specifically made for the construction of corrugated packaging (linerboard and corrugating medium). It is also used, to a lesser degree, in the manufacture of several other types of packaging.

Days Away Restricted or Transferred (**DART**) – Refers to the number of recordable (human health and safety) incidents per 200,000 hours worked that resulted in work days where the employee was assigned to a different task, restricted in their duties or transferred due to work related injuries or illness.

Direct Emissions (**Scope 1**) – Greenhouse gas emissions directly controlled by PCA.

Double-lined Kraft (**DLK**) – Corrugated scrap from box making. Considered pre-consumer recycled material.

"Dual-Chain" (**Dual Chain-of-Custody**) – PCA's Sheet Plants are certified to SFI® and PEFC™ and are thus described as dual chain of custody.

ECF (**Elemental Chlorine Free**) – A method of bleaching wood fiber from its natural color to white in various brightness levels.

First-Use (**Fiber**) – Fiber that has been produced (pulped) directly from wood and is being used in its first "cycle" – prior to typically being recaptured and recycled back into fiber-based products like paper, containerboard, tissue and similar.

Family and Medical Leave Act (**FMLA**) – US law that permits employees to take unpaid time away from work to address health and family matters.

Forest Stewardship Council (**FSC**) – An international sustainable forestry Non-Governmental Organization. Known for their voluntary standards on the topic. PCA has earned chain of custody and controlled wood certifications from FSC.

Fossil Fuel – Fuels such as gas, oil, coal, petroleum, kerosene, propane etc. Naturally found, finite resources, used for energy production.

FSSC22000 – Food Safety System Certification 22000. Non-Governmental Organization that produces food safety standards, which are benchmarked and accepted by the Global Food Safety Initiative. Fastest growing standards in terms of adoption in USA and Europe. PCA's Full-Line Packaging operations are predominantly certified to FSSC22000.

Global Food Safety Initiative (**GFSI**) – Initiative created by food industry and retail leaders to collaboratively drive continuous improvement in food safety management systems around the world.

Green Ton – Weight of trees as they are harvested with full moisture content, about 50% water weight.

Greenhouse Gas (**GHG**) – Gases like carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons (CFCs) that absorb and emit radiant energy like.

Indirect Emissions (**Scope 2**) – Emissions from the consumption of purchased electricity, steam, energy, etc. generated upstream of, but purchased by, PCA.

International Union for Conservation of Nature (**IUCN**) – Considers itself the global authority on the status of the natural world and measures to safeguard it.

Kraft – A paper and paperboard making process that utilizes cooking (rather than mechanical processes) to produce wood pulp from solid wood. Frequently used to produce high-strength paper and paperboard from softwood (coniferous) timber. Frequently employed to produce linerboard (the outer facings of corrugated fiberboard).

Linerboard – Containerboard specifically produced to be utilized as an outer-facing in corrugated fiberboard and packaging.

Lost Time Case Rate (**LTCR**) – A mathematical calculation that describes the number of lost time cases per 100 full-time employees in any given timeframe.

Materiality – Determination of that which is relevant or significant.

Metric Ton (**Tonne**) – Also called a long ton. A unit of weight equal to 2,240 pounds or 1,000 kilograms. Differentiated from a short ton, which is equal to 2,000 pounds

MRR – Mandatory Reporting Regulation. EPA issued regulations regarding mandatory reporting on GHG, defining what must be reported and by whom.

NatureServe – A network of scientists who collect decision-quality data about species and ecosystems. Used by PCA to protect biodiversity rich areas.

NO_x – Term used to refer to nitric oxide (NO) and nitrogen dioxide (NO_x) that are produced when fuel is burned. It can contribute to smog and have health implications.

"Old Corrugated Containers" (**OCC**) – Used corrugated packaging that has been recaptured for purposes of recycling. OCC has a recapture rate of between 85 and 95% in the USA.

Occupational Safety and Health Administration (**OSHA**) – United States Department of Labor group charged with assuring safe and healthy working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.

Other Indirect Emissions (**Scope 3**) – Greenhouse gas emissions occurring in the value chain, which PCA may have some influence, but limited control.

Particulate Matter (**PM**) – Microscopic solid particles or liquid droplets found in the air. Can impact respiratory health and air quality.

Programme for the Endorsement of Forest Certification (**PEFC**) – PEFC is an international sustainable forestry standard/endorsement group and Non-Governmental Organization. PEFC writes standards on the topic and recognizes other National or Regional Standards after benchmarking to their requirements. PCA has earned a chain of custody certificate from PEFC. PEFC recognizes and endorses SFI certification of fiber sourcing.

Renewable Resources – Resources that can replenish themselves naturally over time, i.e. wood products.

Sustainability Accounting Standards Board (**SASB**) – Provides sustainability accounting standards. Controlled by a foundation, founded by Michael Bloomberg.

Semi-Chemical (**Corrugating Medium**) – Containerboard specifically produced to serve as corrugating medium (to be fluted and bonded into the center of a corrugated sheet). Produced with a combination of mechanical and chemical-cooking processes.

Short Ton (**net ton**) – A unit of weight equal to 2,000 pounds. Differentiated from the long (gross) ton which is equal to 1,000 kilograms, or 2,240 pounds.

SO_2 – Sulfur dioxide is formed when fuels like oil and coal are burned. In sufficient concentrations, can lead to the acidification of water and soil.

SQF – "Safe-Quality-Food" Initiative/Program. Non-Governmental Organization that produces food safety standards, several of which are benchmarked/accepted by the Global Food Safety Initiative. PCA Marshfield is certified to SQF-Level 2.

Stakeholder – An individual or entity that has a concern or interest in a business.

"Standards Act" (**FLSA**) **US Federal Labor Standards Act** – US federal law declaring the federal minimum wage and hour requirements for employees along with overtime eligibility. It also divides employees into exempt and non-exempt (regarding eligibility for overtime pay).

Sustainable Forestry Initiative (**SFI**) – SFI is a North American Non-Governmental Organization that supports sustainable forestry standard and writes standards on the subject. PCA has the chain of custody and several sourcing certifications.

Terminations – Employees who have voluntarily or involuntarily left employment in the reporting year.

Title VII of the Civil Rights Act of 1964 – Federal Law that prohibits employers from discriminating against employees on the basis of sex, race, color, national origin, and religion.

Total Case Rate (**TCR**), **officially Total Incidence Rate** (**TIR**) – A mathematical calculation that describes the number of employees per 100 full-time employees that have been involved in an injury or illness requiring medical treatment.

Total Suspended Solids (**TSS**) – The dry weight of suspended particles that do not dissolve in water. These can be separated using a filter. Used to measure water quality.

"Triple-Chain" (**Triple Chain-of-Custody**) – PCA's Mills and Plants that are certified to all three sustainable forestry standards (SFI, PEFC, and FSC) and are thus commonly referred to as triple chain of custody.

Turnover – Percentage of employees who have voluntarily or involuntarily left employment in the reporting year.

Vertically Integrated – A strategy and corporate architecture where a company owns and operates several operations or entities in order to manufacture in several steps from raw-materials to finished/offered products. PCA is a vertically integrated packaging and paper company.

WARN Act – Worker Adjustment and Retraining Notification Act of 1988, a US labor law which protects employees by requiring employers to provide advance notice of closings and mass layoffs.

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