

PACKAGING

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# **SUSTAINABILITY**

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UPDATE 2022



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This sustainability update contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements can generally be identified by words or phrases such as “will,” “expect,” “could,” “would,” “anticipate,” “believe,” “hope,” “plan,” “continue” or the negatives of these terms, variations on them and other similar expressions. The primary forward-looking statements in this update include goals, commitments and programs; our initiatives and objectives; the scope and impact of our corporate responsibility risks; and the standards and expectations of third parties. Forward-looking statements are based largely on the company’s current expectations and judgments and are subject to a number of risks and uncertainties, many of which are unforeseeable and beyond our control. These risk factors are identified in the company’s most recent Annual Report on Form 10-K, which may be amended or supplemented by subsequent Quarterly Reports on Form 10-Q or other reports, and should be read in conjunction with the forward-looking statements in this report. Forward-looking statements speak only as of the date they are made, and we do not undertake any obligation to update any forward-looking statement.












# GOALS AND COMMITMENTS

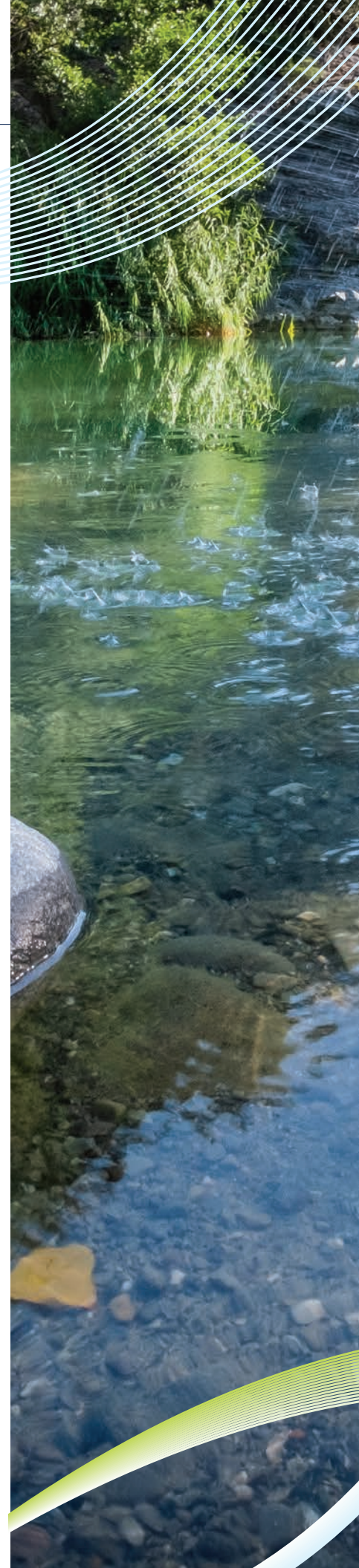
## Where We've Been and Where We're Going — Quad Packaging Sustainability

Sustainability has been a priority for Quad for decades, and Quad Packaging embraces that priority. As a Quad operating unit, Quad Packaging is responsible for pursuing environmental improvements relevant to our business and partnering with our clients on innovative solutions while also contributing to the advancement of company-wide Environmental, Social and Governance (ESG) objectives.

Sustainability is embedded in Quad's commitment to culture and social purpose. Quad shares its commitments — and progress on those commitments — in its annual ESG report.

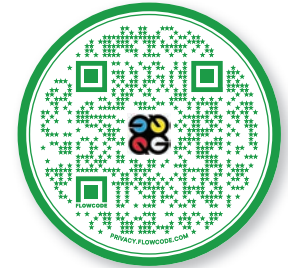
Consistent with Quad's ESG strategy, Quad Packaging has adopted six of the United Nations Sustainability Goals (SDGs) most relevant to our operations and material topics that reflect feedback from internal and external stakeholders, like our clients. This update reports on the progress we've made.

MATERIAL TOPIC	CORRESPONDING SDG
Impact with our local community	  
Energy, water, greenhouse gas and other resource management	 
Customer experience and education	 
Materials, recycling and waste management	  
Labor management	





Our 2022 Packaging Sustainability Update provides metrics for our total Packaging platform. This update, which consolidates data from our three packaging plants, builds on prior years' reports, which are accessible via these Flowcode® links:



**Scan the Flowcode®  
to read Quad Packaging's  
2021 Sustainability Update.**



**Scan the Flowcode®  
to read Quad Packaging's  
2020 Sustainability Report.**

As a Quad operating unit, we invite you to explore Quad's 2022 ESG Update, which is a summary of progress our company has made toward meeting Environmental, Social and Governance commitments set out in our 2021 Report.



**Scan the Flowcode®  
to read Quad's 2022  
ESG Update**

# STEWARDSHIP AND EDUCATION

At Quad, environmental education has been core to our purpose of creating a better way for our employees, clients and communities.

Education is a reciprocal process at Quad. We all learn from each other, building the knowledge base that helps us meet our environmental goals, empowers us to make a difference together, and cultivates a new generation of environmentally conscious leaders and stewards.

From hosting sustainable packaging symposiums to participating in industry-leading events like SPC Impact to designing environmental learning modules for school-age children, Quad is building and sharing knowledge so that we all can work, act and live more sustainably.

## Helping Promote Environmental Literacy

The practical realities of the pandemic on education created challenges for working parents everywhere. Quad helped maintain environmental literacy during this unprecedented time through our partnership with Wisconsin-based Pine View Wildlife Rehabilitation and Education Center. During the height of the pandemic, the Pine View team adapted content from its popular in-classroom programming and curriculum for in-home use by parents, families and teachers of K-2 students. Quad designed, printed and assembled these take-home modules, which are focused on helping youngsters develop their powers of scientific proficiency through observation and investigation while learning about their local ecosystem. These modules also reflect focus on state academic standards. Quad and Pine View then collaborated with the Quad Working Parents Business Resource Group to “road test” the new modules. One hundred modules were distributed to members of the group, who provided positive feedback. Quad then designed, printed and assembled the final modules.



Our efforts in education support SDG 4: Quality Education; SDG 10: Reduced Inequalities; SDG 12: Responsible Consumption and Production; SDG 15: Life on Land; and SDG 16: Peace, Justice and Strong Institutions.

## Insights Bolster Case for Sustainability

We collaborate with clients across the consumer packaged goods industry to research packaging's impact on consumer attention and to support brands' sustainability initiatives.

### CVS Prescribes Sustainability Road Map

During the spring of 2022, Quad appeared on stage with our client CVS Health at SPC Impact 2022, the Sustainable Packaging Coalition's flagship event. The conversation centered on how companies can get started on their sustainability journey by "lifting" existing processes and then "shifting" them into sustainability efforts to accelerate progress and achieve results. Tips for success included keeping messaging accessible and relatable, building on existing organizational strengths, and connecting sustainability efforts with collaborative suppliers like Quad.

### Craft Beer Buyers Favor the Environment

Forging partnerships with different industries is essential to effecting positive, sustainable change around packaging issues. In 2022, we studied the growing craft beer industry at our Package InSight location where we have an on-site retail store lab. In the lab, we use quantitative eye-tracking technology and qualitative surveys to identify which packaging design elements in a specific category drive visual attention and which correlate with sales. For craft beer, we found that consumers had a definite preference for paperboard cartons vs. various types of plastic packaging for cans. When results like these are shared at conferences and with trade organizations, the findings promote the use of sustainable packaging.

## Tapping TV to Broaden Environmental Education

Quad and Pine View Rehabilitation and Education Center will be featured in the Emmy® Award-winning broadcast, public and streaming TV series "Into the Outdoors," which regularly airs on PBS. The producers of the program were attracted to our commitment to galvanize the next generation of environmental stewards. In this episode, a student is assigned homework to sit outside and observe their surroundings. They are inspired to investigate how animals interact with human environments and what role humans play in maintaining a healthy ecosystem. The audience learns along with the student as they talk with experts, community volunteers and corporate professionals about the importance of sustainability. The episode, some of which was filmed at Quad's Franklin, Wis., packaging plant, is expected to debut in fall 2022 and run for a minimum of two years on the Into the Outdoors channel, streaming service platforms and partner broadcast stations including ABC, NBC, CBS and Fox.

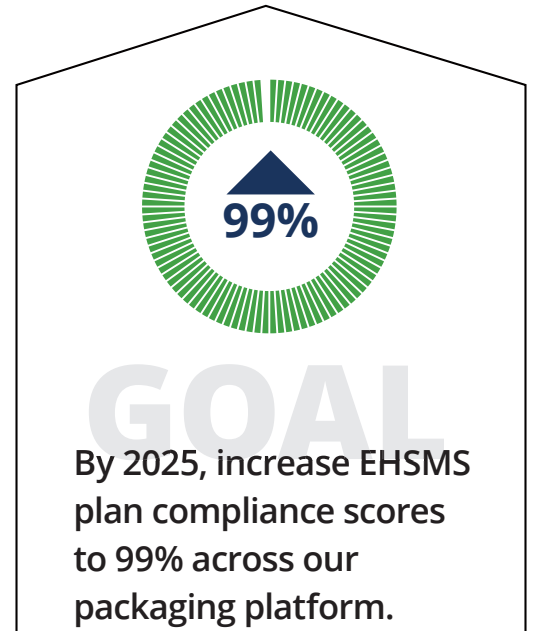
## Showcasing Paths to Sustainability

After a hiatus in 2021 due to the pandemic, the Symposium returns in fall 2022, in Greenville, S.C. Since 2016, Quad Packaging's annual Sustainability Symposium has brought together our diverse client base with sustainability experts and industry thought leaders to discuss environmental issues and share solutions to challenges.

# SAFETY MANAGEMENT

At Quad, everyone is accountable for safety. Creating a workplace where everyone feels safe and protected is the right thing to do, and serves as the foundation for increasing productivity while lowering business costs. We manage our safety performance through an Environmental Health and Safety Management System (EHSMS) plan, and invest in safety awareness and training.

For this year's update, our EHSMS plan compliance scores (shown below) indicate we are on track to meet our goal.



**GOAL**  
By 2025, increase EHSMS plan compliance scores to 99% across our packaging platform.

## Safety Compliance Scores

In 2021, our Quad Packaging platform achieved a 98.6% EHSMS plan compliance score, showing improvement over prior years.





Our efforts in safety directly support SDG 12: Responsible Consumption and Production.



# RESOURCE MANAGEMENT

We have always believed that what is good for the environment is good for business.

We know that for Quad to continue to thrive in the future, we must take responsibility for our actions, including the upstream and downstream impacts on stakeholders throughout our value chain. To this end, we challenge ourselves to create a better way by conserving raw materials, reducing waste and energy use, sharing knowledge, and leveraging regenerative solutions across our discipline-led integrated marketing platform.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



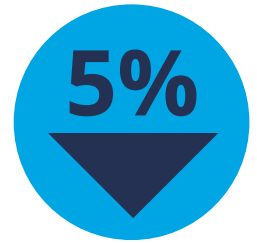
15 LIFE ON LAND



Our efforts in resource management support SDG 12: Responsible Consumption and Production; SDG 13: Climate Action; and SDG 15: Life on Land.

# GOAL

By 2025, reduce emissions by 5% across our packaging platform.



## ENERGY

We know that managing and reducing our greenhouse gas emissions is important in addressing climate change and reducing business risk.

Quad Packaging works with our company's Continuous Improvement group to set benchmarks and assess energy and emissions goals. We have defined energy metrics

to monitor our progress against these goals.

We converted our energy metrics to emission intensity numbers for our Quad Packaging platform. Our baseline is an

### Carbon Emissions Intensity

In 2021, our packaging platform created 18.56 metric tons of carbon dioxide equivalent (CO<sub>2</sub>e) emissions per 1 million pieces printed — a 15% improvement over our baseline, which is an average of the years 2018 through 2020.

**2021: 18.56 metric tons CO<sub>2</sub>e per million pieces**

Baseline: 21.71 metric tons CO<sub>2</sub>e per million pieces

average of consumption at the three Packaging plants between 2018 and 2020.

Our overall emissions from all three Packaging plants declined 15% in 2021 compared to our baseline. It's difficult to pinpoint the precise causes of this decline because many variables, including weather, production volume and product mix play a role in energy use. However, contributing to this decline is an increase in client volumes and improvement in our productivity, which have driven increased efficiency across our platform.

## Industrial Assessment Center Targets Energy Savings

A team from the University of Wisconsin — Milwaukee's Industrial Assessment Center (WM-IAC), which provides energy, productivity and waste assessments to industrial facilities free-of-charge, evaluated potential energy and cost-saving measures at our Franklin, Wis., packaging plant. The WM-IAC is funded by the U.S. Department of Energy. The assessment identified energy-saving opportunities, several of which we are currently implementing, such as lowering the set point on our high-pressure air system and adjusting the seasonal set point temperatures during peak heating and cooling seasons. By implementing these improvements, we expect to lower energy usage in our Franklin plant. We will apply these energy and cost-saving measures to our other packaging plants.

# RESOURCE MANAGEMENT

## WATER

Quad Packaging set a goal to reduce water use in our facilities by 5% by 2025. Our baseline is an average of consumption at the three Packaging plants between 2018 and 2020. We have shifted to a three-year average baseline. We believe an average of three years shows a more consistent “business as usual” metric and eliminates anything unique that affected our water use during any particular year.

We saw a decrease in our water use in 2021 compared to 2020, after our water use had increased from 2019.

Our 2021 water use was also lower compared to our average baseline, as the steps we have taken have begun to help mitigate our water use.

### Water Consumption

In 2021, our Quad Packaging platform used 4,720,144 gallons of water — an improvement over our baseline, which is an average of the years 2018 through 2020.

**2021: 4,720,144 gallons**  
Baseline: 5,323,482 gallons

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



Our efforts in resource management support SDG 12: Responsible Consumption and Production; SDG 13: Climate Action; and SDG 15: Life on Land.

# GOAL

By 2025, reduce water use by 5% across our packaging platform.

5%



## University Partnership Continue to Help Us Manage Water Resources

To further help us with our water use we partnered with the University of Wisconsin-Milwaukee College of Engineering and Applied Science.



COLLEGE OF

Engineering & Applied Science

Focusing on our Franklin, Wis., plant as a pilot, a group of four students worked during their fall 2021 semester to assess and measure water use at the plant. The effort identified a leak in our reverse osmosis (RO) system — the system used to supply water to the plants' humidification system and printing presses.

Additionally, the team recommended four ideas that are now being implemented in our Franklin plant. They are:

- Ensure the plant's reverse osmosis (RO) system is performing at peak levels by scheduling regular reverse osmosis RO technician visits.
- Perform a trade-off analysis to maximize the amount of RO water being created without incurring significant cost.
- Improve water monitoring through tracking system performance indicators.
- Reduce the relative humidity setpoint to the minimum required for efficient production.

Overall, these ideas have helped Franklin mitigate water use by nearly 157,000 gallons.

Packaging management is evaluating which recommendations should be implemented at our other plants to achieve the rest of our goal.

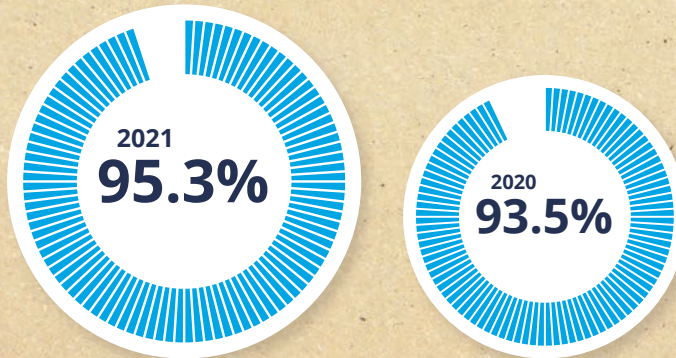
# RESOURCE MANAGEMENT

## MATERIALS AND RECYCLING

Since our founding, Quad has embraced the circular economy, finding ways to eliminate waste, reuse materials, and reduce our consumption of energy and other resources. We know that responsible choices benefit both our environment and our bottom line.

### Recycling Rate

In 2021, our Quad Packaging platform recycled 95.3% of industrial wastepaper and other general waste, showing an improvement over the prior year.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



Our efforts in resource management support SDG 12: Responsible Consumption and Production; SDG 13: Climate Action; and SDG 15: Life on Land.

## Waste Audits Target Opportunity

To help us reach our recycling goal, we committed to conducting internal recycling audits at all three plants and reporting the findings.

We completed the audit of our Leominster plant in early 2022 and confirmed employees there were following our standard recycling procedures. We also discovered an opportunity to streamline waste disposal pick-up from once a week, when the dumpster was only partially full, to once every other week when the dumpster was completely full. This change not only saves us money, but helps us better track our total waste output because it's easier for our waste disposal company to track tonnage for full dumpsters.

We look forward to completing internal recycling audits at our other plants.

**GOAL**  
By 2025, increase the recycling rate of industrial wastepaper and other general waste to 99.5% across our packaging platform.



**We take pride in the fact that Quad Packaging proactively sources raw manufacturing materials from responsibly managed forests. You can learn more about Quad's internationally recognized chain-of-custody standards by scanning the Flowcode® above.**

