

CDP Water Security Questionnaire 2023



Graphic Packaging International LLC

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Welcome to your CDP Water Security Questionnaire 2023

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Graphic Packaging Holding Company (together with its subsidiaries, “Graphic Packaging” or the “Company” or “GPI”; NYSE: GPK,) is a global leader in sustainable consumer packaging made primarily from responsibly sourced tree fiber. The company packages life’s everyday moments, serving the world’s most recognized food, beverage, foodservice and consumer product brands, with innovative solutions that are designed for convenience, protection and recyclability. Headquartered in Atlanta, Georgia, Graphic Packaging operates in 27 countries with more than 24,000 employees and will have nearly \$10 billion in annual sales in 2023. Learn more at www.graphicpkg.com.

The Company is one of the largest producers of fiber-based consumer and foodservice packaging products in the United States (“U.S.”) and Europe and holds leading market positions in manufacturing coated unbleached kraft paperboard (“CUK”), coated-recycled paperboard (“CRB”) and solid bleached sulfate paperboard (“SBS”).

Our packaging solutions are made primarily from renewable wood fiber, and most of our paperboard packaging and food service products are designed to be recycled. We work to reduce our impact on the environment through our own operations and through innovative paperboard solutions. As part of our Vision 2025, we challenged our team to achieve significant improvements. In the next few years, we intend to reduce greenhouse gas emissions intensity, non-renewable energy usage intensity, and mill water effluents intensity by 15%, and reduce the use of low-density polyethylene (LDPE) by



40%. In addition, we have established a goal for 100% of Graphic Packaging revenues to come from products that are designed to be recyclable. Progress achieving our goals is reported in our annual ESG report available on our website: <https://www.graphicpkg.com/esg-disclosures/>

Certain statements regarding the expectations of Graphic Packaging, including, but not limited to, the Company’s plans or estimates with respect to energy use reductions, water usage and climate related events in this report constitute “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995. Such statements are based on currently available operating, financial and competitive information and are subject to various risks and uncertainties that could cause actual results to differ materially from the Company’s historical experience and its present expectations. These risks and uncertainties include, but are not limited to, the Company’s ability to obtain permits and other administrative approvals, changes in revenue due to climate related concerns, and supply chain disruptions. Undue reliance should not be placed on such forward-looking statements, as such statements speak only as of the date on which they are made, and the Company undertakes no obligation to update such statements, except as may be required by law. Additional information regarding these and other risks is contained in Part I, “Item 1A., Risk Factors” of the Company’s 2021 Annual Report on Form 10-K, and in other filings with the Securities and Exchange Commission.

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1, 2022	December 31, 2022

W0.3

(W0.3) Select the countries/areas in which you operate.

- Australia
- Austria
- Brazil
- Canada
- Croatia
- Estonia
- Finland

France
Germany
Indonesia
Ireland
Mexico
Netherlands
New Zealand
Nigeria
Poland
Russian Federation
Spain
Sweden
Switzerland
United Kingdom of Great Britain and Northern Ireland
United States of America

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?



Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Graphic Packaging is excluding its former facility in Norwalk from its disclosure.	Graphic Packaging is excluding its former facility in Norwalk from this disclosure because it was only recently acquired as of July 2021, then closed mid-2022, and represented an immaterial percentage of Graphic Packaging's water consumption in 2021. The Norwalk site represented less than 0.1% of Graphic Packaging's total water consumption.

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	US3886891015
Yes, a CUSIP number	388689101
Yes, a Ticker symbol	GPK

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain



<p>Sufficient amounts of good quality freshwater available for use</p>	<p>Vital</p>	<p>Important</p>	<p>Direct Use: Good quality freshwater is vital for our direct operations because high-quality water is a required component in the processing of fiber into paperboard to produce high quality paperboard. Water supply is vital because future paperboard production and the related profitability of the organization could be affected if the water supply was insufficient. Further, good quality water is essential for employee use.</p> <p>Indirect Use: Good quality freshwater is important for our supply chains, such as our wood baskets and other upstream paperboard raw materials. This is important because water is a key component of quality upstream materials; rainwater and groundwater are necessary inputs to tree growth which Graphic Packaging relies upon to produce fiber, a critical raw material for our production.</p> <p>Future water dependency is not expected to change (vitally important for direct and important for indirect use) given Graphic Packaging’s focus on paperboard production for the food, foodservice, and beverage industry and the pivotal role water plays in these production processes.</p>
<p>Sufficient amounts of recycled, brackish and/or produced water available for use</p>	<p>Important</p>	<p>Neutral</p>	<p>Direct Use: Recycled water is important for our direct operations because high-quality water is a required component in the processing of fiber and cooling to produce high-quality paperboard. Water supply is vital because future paperboard production and the related profitability of the organization could be affected if the water supply was insufficient and our future dependency on recycled, brackish or produced water for our manufacturing processes could increase if there isn’t enough freshwater supply or there are stricter regulations that would require the use of recycled water.</p> <p>Indirect Use: Produced water is of neutral importance for our supply chain. Produced water is used in our supply chain to manufacture paperboard; however, Graphic Packaging does not have direct control over the water our suppliers are using. We expect our suppliers to be in compliance our Supplier Code of Conduct, which states that all suppliers should demonstrate a commitment to preserving the environment and complying with all applicable</p>



			<p>environmental laws and regulations. Therefore, this is not of significant importance to us.</p> <p>Future water dependency is not expected to change (vitaly important for direct and neutral for indirect use) given Graphic Packaging’s focus on paperboard production for the food, foodservice, and beverage industry in which water plays a pivotal role as a coolant and agent for breaking down fiber.</p>
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W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	76-99	Monthly	Water meters and utility invoices	Graphic Packaging monitors our water withdrawals and discharges through the use of water meters and utility invoices. The paperboard mills represent the largest component of our water withdrawals. The quantitative analysis has been generated from our monitoring activities. Water withdrawal is monitored for virtually all facilities and is conducted on a monthly and annual basis.
Water withdrawals – volumes by source	76-99	Monthly	Water meters and utility invoices	Graphic Packaging monitors our water withdrawals and discharges through the use of water meters and utility invoices. The paperboard mills represent the largest component of our water discharges. The quantitative analysis has been generated from our monitoring activities. Water withdrawal is monitored for virtually all facilities and is conducted on a monthly and annual basis.



Water withdrawals quality	76-99	Monthly	Onsite Water quality testing (Mills); municipal water supply quality reports (Converting Plants)	Graphic Packaging monitors water quality at our paperboard mills. As an example, the Macon mill tests the pH conductivity and temperature from 1 of the 2 active wells. This groundwater source is monitored on a monthly and annual basis to comply with permit requirements. In addition, there is daily monitoring of the intake flow and turbidity, which is monitored for the boiler feed. Water quality at our converting plants is monitored via municipal water supply water quality reports.
Water discharges – total volumes	76-99	Monthly	Water meters and utility invoices	Graphic Packaging monitors our water discharges at our paperboard mill operations and converting plants using water meters and utility invoices. The paperboard mills represent the largest component of our water discharges. The quantitative analysis has been generated from our monitoring activities. Graphic Packaging has established KPIs and monitors our water discharge at all paperboard mills on a monthly basis. Key measures include discharge per saleable ton of paperboard YTD, against the plan and against the prior year. Monitoring discharge is a key metric to inform on our water performance.
Water discharges – volumes by destination	76-99	Monthly	Water meters and utility invoices	Graphic Packaging monitors our water discharges at our paperboard mill operations and converting plants using water meters and utility invoices. The paperboard mills represent the largest component of our water discharges. The quantitative analysis has been generated from our monitoring activities. Graphic Packaging has established KPIs and monitors our



				water discharge at all paperboard mills on a monthly basis. Key measures include discharge per saleable ton of paperboard YTD, against the plan and against the prior year. Monitoring discharge is a key metric to inform on our water performance.
Water discharges – volumes by treatment method	76-99	Monthly	Water meters and utility invoices,	Graphic Packaging monitors our water discharge at our paperboard mill and converting plant operations. Volumes of water discharge by treatment method is monitored and measured in accordance with permit requirements (typically at the mills); Graphic Packaging reports the results as part of our permit reports. Graphic Packaging has established KPIs and monitors our water discharge at all paperboard mills on a monthly basis. The paperboard mills represent the largest component of our water discharges. The quantitative analysis has been generated from our monitoring activities. Graphic Packaging treats water before discharge to the local water treatment facility and/or directly to the river.
Water discharge quality – by standard effluent parameters	76-99	Monthly	Onsite Water quality testing	Graphic Packaging monitors our water discharge at our paperboard mill and converting plant operations. Water discharge quality by standard effluent parameters is monitored and measured in accordance with permit requirements; Graphic Packaging reports the results as part of our permit reports. Graphic Packaging has established KPIs and monitors our water discharge at all paperboard mills on a monthly basis. The paperboard mills represent the largest component of our water discharges. The quantitative analysis has



				been generated from our monitoring activities. Graphic Packaging treats water before discharge to the local water treatment facility and/or directly to the river.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	Not monitored			
Water discharge quality – temperature	1-25	Other, please specify Weekly	Onsite Water quality testing	Graphic Packaging monitors discharge quality at our paperboard mills. For example, at our Kalamazoo mill, we also monitor the temperature of the non-contact cooling water on a weekly basis. Water discharge temperature is monitored and measured in accordance with permit requirements; Graphic Packaging reports the results as part of our permit reports. Temperature monitoring is not typically required at our converting plant operations as most of this water is discharged back to third-party sources.
Water consumption – total volume	76-99	Yearly	Water meters and utility invoices	Graphic Packaging monitors our water withdrawals and discharge at our paperboard mill and converting plant operations. For the purposes of CDP reporting, we measure net consumption volume by subtracting water discharges from water withdrawals on an annual basis. The paperboard mills represent the largest component of our water discharges (>99%). The quantitative analysis has been generated from our monitoring activities.



Water recycled/reused	Not monitored			Graphic Packaging recycles a significant portion of mill process water through recirculation in short loops. Graphic Packaging is working to calculate its recycled water metrics but significant obstacles remain; namely, we have several different types of facilities, in some cases water is recycled multiple times, and many of our facilities are not equipped to adequately measure these inputs. Graphic Packaging has identified this as a key improvement area and is endeavouring to enhance tracking of recycled water in the future.
The provision of fully-functioning, safely managed WASH services to all workers	76-99	Other, please specify Every 3 Years or Less	SMETA Audits	WASH services are provided in compliance with all local laws and regulations. Furthermore, all Graphic Packaging-owned converting facilities undergo SMETA audits every three years. Recently acquired sites and our mills will be incorporated into this audit cadence in the near future.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals	180,900	Much higher	Change in accounting methodology	Lower	Increase/decrease in efficiency	The 30,114 ML increase or 19.9% is due to several factors. The largest reason, which represents 14% of that increase, is due to the 2022 inclusion of



						<p>storm water runoff volumes captured at those facilities where storm water is treated on site and discharged with treated mill process water. While not used in the paperboard manufacturing process, this water becomes part of discharged water measurements and should be included to better understand the site water balance and for estimating site water losses and consumption. The remaining increase can be attributed to reversing a 2021 change in the river water intake system at one virgin mill, increased surface water usage at two virgin mills, and increased potable water use at the Kalamazoo mill with the opening of our new K2 paper machine. We are working to understand the underlying causes for these increases and will adjust our stewardship approach as needed to ensure we get back on track to achieve our water intensity reduction goal. Of the sites within Graphic Packaging's portfolio, the 8 mills represent the highest water flow. We anticipate total water withdrawal to decrease over the next 5, as we optimize our CRB manufacturing portfolio and implement process improvements Much lower / much higher is defined as a % change of 10% or more.</p>
Total discharges	155,400	Much higher	Change in accounting methodology	Lower	Increase/decrease in efficiency	The increase of 19,400 ML year over year or 14% is largely due to accounting for stormwater flows, which was not accounted for in the past, reversing a 2021 change in the river water intake system at



						one virgin mill, and increases in surface water discharges, aligned with the increased surface water withdrawals at our two virgin mills and increased potable water withdrawal at our Kalamazoo mill. Due to alignment with water withdrawals, we anticipate total water discharge to decrease over the next 5, as we optimize our CRB manufacturing portfolio and implement process improvements. Much lower / much higher is defined as a % change of 10% or more.
Total consumption	25,400	About the same	Change in accounting methodology	About the same		For the purposes of CDP reporting, we measure net consumption volume by subtracting water discharges from water withdrawals on an annual basis. Overall consumption decreased year over year by approximately 1,000 ML. We anticipate total water discharge to remain relatively the same in the future. Much lower / much higher is defined as a % change of 10% or more.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress, provide the proportion, how it compares with the previous reporting year, and how it is forecasted to change.

Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Identification tool	Please explain



Row	Yes	Less than 1%	About the same	Other, please specify	About the same	Other, please specify	WRI Aqueduct	
1				Changes in converting plant operations have a minimal impact on withdrawals from stressed areas. No mills in stressed areas.		No plans to open mills in areas of baseline or future high water stress		The WRI Aqueduct tool was used to assess the proportion of withdrawal associated with all sites, and particularly our mills, that are located in river basins that are considered as having high or extremely high baseline water stress. Currently 18 sites (0.22% of GPI's water withdrawals) are in basins with modeled high or extremely high baseline water stress. Only 2 sites (0.02% of GPI's water withdrawals), are in basins with high or extremely high baseline water depletion. This aligns with expectations, as water stress examines the ratio of withdrawals to availability, while water depletion examines the ratio of consumption to availability. In the 2030 and 2040 BAU forward-looking scenarios, the number of sites in basins of high or extremely high water stress increases to 35 and 34 (representing 2.92% of GPI's water withdrawals). 99% of our water withdrawal comes from our mills, and 0 mills are in basins with high or extremely high water stress. Therefore, since the number of mills



								that are characterized as being in locations with high baseline water stress remains 0, the % of withdrawal that represents these sites is the same compared to 2022.
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W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	151,600	Much higher	Change in accounting methodology	The 26.49% increase is due to several factors. The largest reason, which represents 17% of the increase, is due to the 2022 inclusion of storm water runoff volumes at facilities where storm water is treated on site and discharged with treated mill process water. While not used in the manufacturing process, this water should be included to better understand site water balance, losses and consumption. The remaining increase can be attributed to reversing a 2021 change in the river water intake system at one virgin mill, and increased surface water usage at two virgin mills. Overall there is little to no expected change in withdrawal within the next year, however Graphic Packaging is assessing projects that could reduce intake of water for non-contact cooling water by reusing more non-contact cooling water and maintaining the water at a higher temperature. GPI



					defines "Much higher/much lower" as a change in excess of +/- 10%.
Brackish surface water/Seawater	Not relevant				Brackish surface water/seawater is not used as a water source for GPI.
Groundwater – renewable	Relevant	0	Much lower	Change in accounting methodology	Graphis Packaging has reclassified all groundwater withdrawals as nonrenewable at this time as the extracted groundwater is not returned to the source aquifer.
Groundwater – non-renewable	Relevant	14,900	Lower		Groundwater – non-renewable is withdrawn at 12 sites. It is used as both process and non-contact cooling water in our operations at our largest mill. The year over year stayed relatively the same, with a slight decrease of approximately 160 ML or 1.1%. GPI defines "Much higher/much lower" as a change in excess of +/- 10%.
Produced/Entrained water	Relevant	4,500	Lower		Graphic Packaging estimates produced water through a calculation of estimated moisture content of wood chips as a percentage of estimated wood chips brought into the virgin mills. The year over year produced water usage decreased by approximately 112 ML or 2.4%. Graphic Packaging defines "Much higher/much lower" as a change in excess of +/- 10%.
Third party sources	Relevant	10,900	Higher	Facility expansion	Graphic Packaging withdraws and directly measures the volume of municipal grey water and municipal potable water used for operational processes in our mills to process fiber from wood chips to create paperboard. An increase of approximately 1,000 ML or 10% year over year was observed, primarily due to increased potable water use at the Kalamazoo mill with the opening of our



					new K2 paper machine. GPI defines "Much higher/much lower" as a change in excess of +/- 10%.
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W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Relevant	153,300	Much higher	Change in accounting methodology	Fresh surface water discharge represents all non-contact river water used for cooling that is returned to rivers. As part of our 2022 refinements, we improved our tracking of water discharges. This resulted in a shift where the majority of our discharge destinations are surface water, not third party destinations as described on previous years. In 2022, 100% of mill water discharges was ultimately discharged to fresh, surface water systems either directly at our mills or by third-party treatment facilities. This attributed to an increase of approximately 151,000 ML , and third party destination discharges saw a similar decrease. The remaining increase is largely due to accounting for stormwater flows, reversing a 2021 change in the river water intake system at one virgin mill, and increases in surface water discharges at two virgin mills. GPI defines "Much higher/much lower" as a change in excess of +/- 10%.
Brackish surface water/seawater	Not relevant				



Groundwater	Not relevant				
Third-party destinations	Relevant	2,100	Much lower	Change in accounting methodology	All remaining process water is discharged through third parties, which are primarily municipal facilities. In 2022, 100% of mill water discharge was ultimately allocated to fresh, surface water systems either directly at our mills or by third-party treatment facilities. However, this year we also began tracking third party supplied potable water and sold non-potable water at two of our mills. The Texarkana mill has an onsite water treatment plant that discharges treated potable water to the local community, accounting for approximately 63% of all third-party water discharges. Additionally, the Augusta mill sells unused non-potable water to a third party. This represented 4% of total third-party discharges in 2022. Overall, this discharge volume decreased by approximately 120,700 ML due to improvements in water discharge tracking. GPI defines "Much higher/much lower" as a change in excess of +/- 10%.

W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Please explain
Tertiary treatment		
Secondary treatment		
Primary treatment only		
Discharge to the natural environment without treatment		
Discharge to a third party without treatment		



Other		
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W1.3

(W1.3) Provide a figure for your organization’s total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	9,440,000,000	161,500	58,452.0123839009	As part of its Vision 2025 Goals, Graphic Packaging has set a goal to reduce mill water effluent intensity by 15% (1,000 gal/saleable ton) from a 2016 base year. Given Graphic Packaging’s focus on reducing water discharges from our mills, and the fact that most of our water footprint is within our mills, we anticipate that our water withdrawals will decrease, thereby improving our water efficiency. Please note that we do not include influent stormwater in total withdrawal for this calculation.

W1.4

(W1.4) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances
Row 1	Yes

W1.4a

(W1.4a) What percentage of your company’s revenue is associated with products containing substances classified as hazardous by a regulatory authority?



Regulatory classification of hazardous substances	% of revenue associated with products containing substances in this list	Please explain
Federal Water Pollution Control Act / Clean Water Act (United States Regulation)	Less than 10%	Our products may contain some substances listed by these regulatory authorities; however, we make an effort to reduce or eliminate their use when possible and the levels present are below any applicable regulatory requirements.

W1.5

(W1.5) Do you engage with your value chain on water-related issues?

	Engagement	Primary reason for no engagement	Please explain
Suppliers	No	Important but not an immediate business priority	Water is essential for tree growth, and at this time our woodbaskets have adequate water resources to support a sustainable wood supply.
Other value chain partners (e.g., customers)	Yes		

W1.5e

(W1.5e) Provide details of any water-related engagement activity with customers or other value chain partners.

Type of stakeholder

Customers

Type of engagement

Education / information sharing

Details of engagement



Other, please specify

We provide our customers information on our water stewardship activities

Rationale for your engagement

Address customer requests for supplier sustainability information

Impact of the engagement and measures of success

Maintain positive business relationships with our customers

Type of stakeholder

Other, please specify

Local Communities

Type of engagement

Innovation & collaboration

Details of engagement

Collaborate with stakeholders on innovations to reduce water impacts in products and services

Rationale for your engagement

Its critical for Graphic Packaging to engage and collaborate with the local communities surrounding our mills to ensure that all parties maintain access to fresh water, and that we address any concerns the local community has regarding our water usage. For example, the community of the West Monroe mill raised a concern to Graphic Packaging regarding withdrawal of 10M gallons daily from the local aquifer. They proposed that we replace water withdrawn from the aquifer with treated water from the water treatment facility, ensuring that the water met FDA drinking water quality standards.

Impact of the engagement and measures of success

In making this change, Graphic Packaging was able to successfully manage customer expectations and local stakeholder concerns, and reduce its withdrawal from the aquifer. Water withdrawn from the aquifer was successfully reduced by 50%. Graphic Packaging continues to explore strategies to reduce our draw on the local aquifer.



W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

	Water-related regulatory violations	Fines, enforcement orders, and/or other penalties	Comment
Row 1	Yes	Fines Enforcement orders or other penalties	There were three incidents of noncompliance from 2019 operations that resulted in a formal enforcement action during 2022. One of those incidents resulted in a significant environmental regulatory fine or settlement.

W2.2a

(W2.2a) Provide the total number and financial value of all water-related fines.

Row 1

Total number of fines

Total value of fines



% of total facilities/operations associated

Number of fines compared to previous reporting year

Comment

W2.2b

(W2.2b) Provide details for all significant fines, enforcement orders and/or other penalties for water-related regulatory violations in the reporting year, and your plans for resolving them.

W3. Procedures

W3.1

(W3.1) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified
Row 1	Yes, we identify and classify our potential water pollutants	US and Canada regulations and local discharge permits strictly govern discharged effluent water quality at our mills and set discharge parameters through the permitting process. The controls imposed by these government-issued permits contain monitored parameters and limits that are specific to each mill location, based on the profile of the receiving water body.

W3.1a

(W3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Value chain stage

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
Enterprise risk management

Tools and methods used

WRI Aqueduct

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers
Water utilities at a local level
Other water users at the basin/catchment level

Comment

Value chain stage

Supply chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Other

Tools and methods used

Internal company methods

Contextual issues considered

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Stakeholders considered

Investors

Local communities



Regulators
Suppliers

Comment

Supply Chain: Water-related supply chain risks are included in Graphic Packaging’s climate change risk assessment. Supply chain risks have not yet presented a risk. Graphic Packaging undertook a materiality assessment in 2021 that identified the environmental impact of our supply chain as a material item. We will periodically refresh the materiality assessment.

W3.3b

(W3.3b) Describe your organization’s process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	Graphic Packaging uses a comprehensive, integrated Enterprise Risk Management (ERM) system with a formal governance process that defines and communicates our policy and expectations regarding risk management and oversight. It assures effective, systematic identification, analysis, prioritization, and management of risks that have the potential to affect our company on a short-, medium-, and long-term basis. Graphic Packaging defines major risks and opportunities (R/Os) as those that could have a	Annually, the Company uses the WRI Aqueduct Water Risk Atlas to assess water-related risks such as water quality, quantity, and regulation, etc. in its direct operations. Facility locations are input into the tool, which then models current water stress and depletion, and future water stress into 2030 and 2040. These resulting risks are assessed and prioritized, and the outcomes are reported to the VP, Chief Sustainability Officer (CSO). These tools are also useful when	Graphic Packaging considers many contextual issues and stakeholders when assessing water risk., including customers, local communities, local water utilities, and other local water users – all stakeholders are relevant to water issues and we have engaged all of these groups in the past. We also consider regulators and NGOs as key stakeholders related to water risk management. Supply chains have not yet presented a risk. If they did, Graphic Packaging would engage suppliers as appropriate.	The Board is responsible for overseeing the overall ERM process, and its leadership structure supports its effective oversight. In fulfilling its oversight responsibility, the Board receives various management and board committee reports and engages in periodic discussions with the company’s officers, as it may deem appropriate. Specifically, the Board Audit Committee oversees the policies and practices that govern the processes by which major risk exposures are identified, assessed, managed and controlled on an



<p>substantive financial or reputational impact on the company. The corporate risk management team conducts an annual risk analysis process to validate existing, known risks and identify new and emerging R/Os facing the Company. Each risk is reviewed, evaluated, and prioritized using a scaled, weighted approach that considers the potential likelihood the risk will occur, speed of risk impact, and the degree of impact a given risk could have on the Company. Potential impacts evaluated include those related to our direct operations (e.g., financial impacts, threats to our right to operate, environment or community impact, etc.) as well as possible impacts to our supply chain continuity, ability to meet customer commitments, or impacts to our customers' operations. Any significant new or emerging risks that arise throughout the year are analyzed, prioritized, and added to the risk management process.</p>	<p>screening locations for new facility investments to ensure adequate water supply will be available during the operating life of the facility. Water-related supply chain risks are included in Graphic Packaging's annual climate change risk assessment. The outcome of this assessment informs Graphic Packaging if supply chain risks exist. Water availability and water quality at the basin level, and by extension the implications of water on our key raw materials, are considered because GPI relies on tree growth to produce fiber, which is a critical component of our production. Access to WASH services is critical to the health and safety of our employees, and GPI ensures that this is maintained through annual audits and adherence to regulation.</p>		<p>enterprise-wide basis. Responsibility for managing risk rests with the president/CEO and the ELT. The appropriate Company function or business leaders are appointed as risk owners and sponsors for each major risk. Risk mitigation plans are developed and implemented by the risk owner with support from their respective team and risk sponsor. The risk owner develops and monitors key risk indicators to track progress managing the risk and determine if intervention or corrective action is needed. Future water stress scenario results are shared with operations leadership to evaluate water stewardship strategies, engagement plans with local water stakeholders and water management needs. If we cannot produce as expected, this would impact profits and in turn our investors.</p>
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W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

No

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

Substantive financial or strategic impacts are events that could impact our business or operations and require management attention to either mitigate risk or capitalize on new opportunities. To identify and rank substantive financial and strategic impacts we consider both qualitative and quantitative measures. The quantitative measures evaluated include potential impacts to revenue, earnings and assets. Qualitative measures include but are not limited to consideration of impacts to employee/community safety, regulatory requirements, our reputation, business continuity, trends in the underlying business, suppliers and customers. Substantive impacts would include those that would have a high likelihood to result in a loss of key suppliers or customers, sustained serious loss in market share or Company value, death, serious breaches of legal and regulatory compliance, customer market disintegration, significant impact on shareholders, catastrophic business continuity exposure and financial losses/opportunities. The impacts considered include those related to our direct operations as well as possible impacts to the continuity of our supply chain and our ability to meet customer commitments. These factors are weighed against: (a) The proportion of business units affected; (b) The size of the impact on those business units, and (c) The potential for shareholder or customer concern. A potential substantive financial impact could occur because of a large change in one of these aspects, or small changes in multiple aspects combining to create a larger impact. A specific climate or water-related risk or opportunity may be considered as having a potential substantive financial impact if it would reasonably be expected to affect the company's expected revenues, earnings or assets positively or negatively by a certain quantitative amount that varies as the company grows. However, magnitude of the issue, by itself, without regard to the nature of the specific risk or opportunity and the circumstances in which the judgment has to be made, will not generally be a sufficient basis for the judgment. Graphic Packaging considers both qualitative and quantitative factors together when evaluating whether a specific climate or water-related risk or opportunity would have a substantive financial or strategic impact on the Company.



Through our risk management process, Graphic Packaging assigns a quantitative score to define a potential substantive financial or strategic impact for each risk/opportunity as follows: a risk magnitude impact factor of 1-5, (with the number corresponding to a range of financial impacts with 1 being low impact and 5 being high impact) and a risk probability impact factor of 1-5 (with risk level 1 corresponding to a risk that rarely occurs within a two-year time period and risk level 5 corresponding to a risk that is almost certain to occur within a two-year time period). When risk magnitude (financial impact) is multiplied by risk probability (likelihood of the event) and this results in a figure equal to or higher than 10, a risk/opportunity is considered to have a substantive financial or strategic impact. For example, a risk with a potential high financial impact score of 5 but a relatively low probability impact score of 2 would receive a rating of 10 indicating a potential substantive impact and would be further evaluated to assess potential risk mitigation actions.

W4.2b

(W4.2b) Why does your organization not consider itself exposed to water risks in its direct operations with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Through our risk management process, Graphic Packaging assigns a quantitative score to define a potential substantive financial or strategic impact for each risk/opportunity as follows: a risk magnitude impact factor of 1-5 (with the number corresponding to a range of financial impacts with 1 being low impact and 5 being high impact), and a risk probability impact factor of 1-5 (with risk level 1 corresponding to a risk that rarely occurs within a two-year time period and level 5 corresponding to a risk that is almost certain to occur within a two-year time period). When risk magnitude (financial impact) is multiplied by risk probability (likelihood of the event) and this results in a figure equal to or higher than 10, a risk/opportunity is considered to have a substantive financial or strategic impact. Based on Graphic Packaging's methodology for assessing substantive financial or strategic impact, the individual sites identified by the WRI Aqueduct tool as located in basins with high/extremely high risk do not currently meet the Company's threshold for substantive impact. >99.5% of the water we rely upon is sourced from water rich watersheds. For those facilities located in stressed watersheds, we have confirmed we have access to the water we need to maintain normal business operations.



W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	At this time potential risks have been assessed and the company anticipates that there are no material financial impacts. Regarding our upstream value chain, the Company relies on private landowners and the open market for all of its pine and hardwood pulp and recycled fiber requirements, supplemented by clippings that are obtained from its converting operations. The Company believes that adequate supplies from both private landowners and open market fiber sellers currently are available in close proximity to meet its fiber needs at these mills. Regarding our downstream value chain, water is not an input into the downstream production process of our products; therefore, we do not anticipate any substantive water-related impacts.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

The Graphic Packaging mill system represents >99% of our water withdrawals. Paperboard mills are energy and water-intensive, and we continually assess our mill footprint to test cost and environmental impacts. Through this assessment process, we concluded that a rebalancing of our recycled paperboard mill manufacturing was appropriate. In 2019, we began our investment in a transformational \$600+ million CRB platform optimization project which has included the construction of a new recycled paperboard machine (K2) in Kalamazoo, Michigan. In 2022, the Company's focus was commissioning the new K2 paper machine and achieving design production capacity during the second half of the year. The new added capacity enabled the shutdown of our older more water intensive Battle Creek CRB mill. The CRB mill circuit should see an approximate 10% decrease in water intensity relative to 2021 once the circuit optimization work is completed.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

50,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The Company expects the investment will enable it to eliminate higher cost production at other facilities and will deliver an incremental increase in annualized EBITDA over an anticipated three-year period following commercialization in 2022. The increase in EBITDA will be driven by cost

savings from significantly increased scale of production, reduced raw material consumption, and lower fixed costs. In 2022, the company realized \$50 million I EBDITA growth due to K2. \$50 million * 1 year (annual) = \$50 million annual impact.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

In 2023, Graphic Packaging announced its intent to build a new \$1 billion CRB mill in Waco, Texas. This new facility will continue the trend toward commissioning new, more water efficient CRB mills, while enabling the retiring of less efficient assets. Current capital projects in planning to be completed by the end of 2024 are projected to reduce water use by approximately 3.6 billion gallons per year.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)



Explanation of financial impact

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

No, but we plan to develop one within the next 2 years

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual or committee	Responsibilities for water-related issues
Board-level committee	Our Board of Directors, which includes our President and CEO, guides our purpose, values, and sustainability strategy, including climate-change matters. In recognition of the importance of sustainability to the Company, we believe that a two-tiered level of oversight provides the best structure to integrate consideration of ESG and climate risks/opportunities into our overall business strategy and help us meet the changing demands of our stakeholders. As set forth in our Corporate Governance Guidelines, our Board is responsible for reviewing, approving, and monitoring business strategies and financial performance and ensuring appropriate



oversight is in place. The Board fulfills these responsibilities through a number of practices, including: approval of the annual operating and strategic long-range plans, review of results against such plans and review and approval of significant corporate actions. In addition, the Board is responsible for the oversight of our sustainability and climate strategy and has assigned principal oversight of our sustainability policy and practices to the Nominating and Corporate Governance Committee. The Committee considers current and emerging social and environmental trends, as well as major legislative and regulatory developments and other public policy issues that may impact our business operations or stakeholders. The Committee also reviews the Company’s policies and practices for consistency with its ESG and climate commitments, and makes recommendations to the Board and management. Oversight of enterprise risk management, including climate risk, is assigned to the Audit Committee. An example of a climate-related decision made by the Committee: In 2022, the Board endorsed the Company’s plans to invest in a new CRB mill in Waco, TX and potential closure of older CRB mill assets as part of its longer term strategy to improve energy and water efficiency and reduce total GHG emissions.

W6.2b

(W6.2b) Provide further details on the board’s oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	Monitoring implementation and performance Monitoring progress towards corporate targets Overseeing acquisitions, mergers, and divestitures Overseeing major capital expenditures Overseeing the setting of corporate targets	Our Board of Directors, which includes our President and CEO, guides our purpose, values, and sustainability strategy, including water-related matters. In recognition of the importance of sustainability matters to the Company, we believe that a two-tiered level of oversight provides the best structure to integrate consideration of ESG and water risks/opportunities into our overall business strategy and help us meet the changing demands of all our stakeholders. As set forth in our Corporate Governance Guidelines, our Board is responsible for reviewing, approving, and monitoring business strategies and financial performance and ensuring appropriate oversight is in place. The Board fulfills these responsibilities through a number of practices, including: approval of the annual operating and strategic long-range plans, review of results against such plans and review and approval of significant corporate actions. In addition, the Board is responsible for the oversight of our sustainability and water strategy,



		<p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p>	<p>governance standards, goals and performance and has assigned principal oversight of our sustainability policy and practices to the Nominating and Corporate Governance Committee.</p> <p>The Nominating and Corporate Governance Committee (NCGC) of the Board considers current and emerging social and environmental trends, as well as major legislative and regulatory developments and other public policy issues that may impact our business operations or stakeholders. The Committee also reviews the Company’s policy and practices for consistency with its ESG and water commitments, including goals, performance metrics, mitigation plans, and public reporting and makes recommendations to the Board and management. The Audit Committee of the Company’s Board of Directors oversees our integrated risk management framework that is designed to identify, prioritize, address, manage, monitor and communicate our top strategic, financial, operating, business, compliance, safety, reputational and other risks, including water-related risks across the organization.</p> <p>The NCGC makes recommendations to the Board and management as it deems advisable and has sustainability and ESG as standard agenda items at certain of its meetings. In 2022, Management updated the Board and the NCGC as part of routine sustainability updates and reviewed and approved the Company’s sustainability report in September 2022. The Board also oversees major capital expenditures, like the installation of a new coated recycled board (CRB) machine at our Kalamazoo, Michigan site and the planned build of a \$1 billion CRB mill in Waco, Texas as part of our efforts to commission new, more water efficient CRB mills, while enabling the retiring of less efficient assets. The Board reviews the company-wide long-range plan and budget each September.</p>
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W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?



	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	<p>The Nominating and Corporate Governance Committee is responsible for identifying and recommending to the Board individuals for nomination as members of the Board and its committees and, in this regard, reviewing with the Board on an annual basis the current skills, background and expertise of the members of the Board, as well as the Company’s future and ongoing needs. This assessment is used to establish criteria for identifying and evaluating potential candidates for the Board. However, as a general matter, the Nominating and Corporate Governance Committee seeks individuals with significant and relevant business experience who demonstrate:</p> <ul style="list-style-type: none"> • The highest personal and professional integrity; • Commitment to driving the Company’s success; • An ability to provide informed and thoughtful counsel on a range of issues; and • Exceptional ability and judgment. <p>The Nominating and Corporate Governance Committee regularly assesses the skills, background and expertise of the members of the Board and identifies the Company’s needs, including skills and experience related to environmental matters important to the company like climate and water-related matters. As part of this process, the Nominating and Corporate Governance Committee strives to select nominees with relevant business experience, the personal characteristics described above, and a wide variety of skills and viewpoints, informed by diversity of race, ethnicity and gender.</p>

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Sustainability Officer (CSO)



Water-related responsibilities of this position

- Assessing future trends in water demand
- Assessing water-related risks and opportunities
- Managing water-related risks and opportunities
- Setting water-related corporate targets
- Monitoring progress against water-related corporate targets
- Managing value chain engagement on water-related issues

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Responsibilities: The CSO is responsible for managing Graphic Packaging’s progress towards its water-related goals, as well as overseeing water risk. The CSO works with the mills and operations teams to track, report, develop and implement strategies to achieve the company’s water goals. The CSO also evaluates current and future water-related risks at different sites.

Topics reported to the Board: The Board receives updates on the company’s progress towards achieving its Vision 2025 goals, which include reducing mill water effluent intensity by 15% by 2025. The Board also receives updates on sites that are water stressed, and reports on general water usage metrics.

Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

Water-related responsibilities of this position

- Assessing future trends in water demand
- Assessing water-related risks and opportunities
- Managing water-related risks and opportunities
- Setting water-related corporate targets
- Monitoring progress against water-related corporate targets
- Integrating water-related issues into business strategy



Managing annual budgets relating to water security

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The President and CEO has ultimate responsibility for the implementation of sustainability practices across the Company. Together with members of the Executive Team, the CEO is responsible for embedding consideration of ESG risks and opportunities, including water-related issues, into our business strategy, plans and budgets; merger, acquisition, and divestiture decisions; and achieving our Vision 2025 goals. The CEO and Executive Team meet at least quarterly to monitor progress towards the Vision 2025 goals and regularly report to the board on topics that directly or indirectly involve water-related issues (such as the Company’s water-related initiatives, progress against water-related goals and targets; and capital expenditures). Placing responsibility for ESG issues, including water-related issues, with the Executive Leadership Team enhances the visibility and importance of these issues and effectively integrates them into our business practices to drive progress.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Contribution of incentives to the achievement of your organization’s water commitments	Please explain

<p>Monetary reward</p>	<p>Corporate executive team</p>	<p>Reduction of water withdrawals – direct operations Improvements in water efficiency – direct operations</p>		<p>Targets are established for key environmental metrics. These environmental metrics are monitored and support financial and productivity metrics, which have individual performance goals for the senior leadership team and others associated with them. The assessment of these individual performance goals is factored into determining merit increases annually. The environmental metrics are monitored monthly in our Mill division as that business unit represents a significant percentage of the Graphic Packaging environmental profile.</p> <p>Environmental metrics include advancing progress towards achieving our Vision 2025 water effluent intensity (reduction goal). This metric was established due to the water intensive nature of our paper mill operations to incent developing new opportunities to recycle water within our operations.</p>
<p>Non-monetary reward</p>	<p>No one is entitled to these incentives</p>			

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, direct engagement with policy makers

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?



Along with communicating our sustainability and responsibility programs, we share the impacts of legislation and regulation on operations and our ability to execute these programs. Engagements with these groups include one-on-one meetings, facility tours, and town hall meetings. When there is legislation that Graphic Packaging considers significant to our operations or community, we meet with legislators and review concerns surrounding the bill or proposed regulation and highlight alternatives. Additionally, we participate in public comment periods representing Graphic Packaging or as a member of an industry association in order to provide relevant feedback.

Graphic Packaging's VP of Government Affairs with the Chief Sustainability Officer provide strategic direction and ensure that the direct and indirect activities regarding water related policies are consistent with the strategy. The strategy is reviewed formally each year on an ad-hoc basis. Graphic Packaging's President and CEO and other members of the Executive Team participate in policy discussions at the Federal and State levels.

If inconsistency is discovered, for example in the case of an emerging regulation that will impact our strategy, the company business team along with the VP of Government affairs reviews the impact, identifies adequate measures to address it, assesses investment required, and proposes measures accordingly.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

No, and we have no plans to do so

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain



<p>Long-term business objectives</p>	<p>Yes, water-related issues are integrated</p>	<p>5-10</p>	<p>The stewardship of our water resources along with our operational water efficiency are integrated into our long-term business objectives. Customers of food and beverage products have expressed concerns with plastic packaging due to pollution concerns and, as such, are expressing a greater interest in paperboard packaging. We communicate to our customers and communities how our operational processes are making a positive impact on the environment. Graphic Packaging is continually monitoring technologies associated with reducing water use and will implement those that have relevance to mills and are economically justifiable in the context of meeting our water use and monitoring commitments that make up our Sustainability Vision 2025 goals. The time horizon is targeted for 2025 and targets are reviewed against a 2016 baseline. For example, as part of our business objectives, we engage with regulators. In 2015 the EPA initiated risk policies to be imposed in the calculation of certain water quality standards which were, in many cases, unattainable. The impacts of the risk policies if put into law were assessed by Graphic Packaging and used to determine priorities for our Governmental Affairs advocacy and in our long-range planning. In 2019, the EPA began reconsidering those policies and Graphic Packaging advocated to the agency to expeditiously complete that reconsideration. We continue to advocate and continue our dialogue with EPA around future drinking water standards.</p>
<p>Strategy for achieving long-term objectives</p>	<p>Yes, water-related issues are integrated</p>	<p>5-10</p>	<p>Water use practices are embedded into Graphic Packaging’s strategy for achieving long-term objectives, both in terms of the water-specific effluent and monitoring goals set as well as energy and GHG reduction targets. By incorporating improved water reuse, recovery and recycling efforts into our operations, our water withdrawals, discharges, energy use, emissions and energy costs all decline as we are able to maintain water at a higher temperature for optimal fiber processing. Over the course of the next few years, we plan to implement various CAPEX investments to keep working on reduction of water consumption and increase water recycling to align with our 2025 target. Doing so is key to Graphic Packaging’s strategy to maintain a low-cost operating structure. The time horizon selected aligns with the period for which each goal noted above is targeted for 2025 and are reviewed against a 2016 baseline. As an example, in 2022, we began production on our new CRB machine in our Kalamazoo, MI site, and in 2023 we announced our intent to build a new \$1billion CRB mill in Waco, Texas. Both the new machine in Kalamazoo and this new facility in TX will</p>



			continue the trend toward commissioning new, more water efficient CRB mills, while enabling the retiring of less efficient assets.
Financial planning	Yes, water-related issues are integrated	5-10	Water related concerns are indirectly integrated into Graphic Packaging’s financial planning process in which Graphic Packaging anticipates positive revenue growth associated with a shift in customer preferences for paperboard-based packaging made with recycled fiber content. This is tied to the shift observed in customer concerns attributed to plastic packaging and packaging waste and industry trends switching to paperboard alternatives. This market shift, along with Graphic Packaging’s low cost structure that is supported by water and energy efficient practices, will have direct financial impacts on both revenue and expenses. The operational efficiency goals are tied to a 5-10 year horizon and it is expected that financial effects will positively impact revenue and expenses. Therefore, in 2022 we began production on our new CRB machine in our Kalamazoo, MI site, and in 2023 we announced our intent to build a new \$1billion CRB mill in Waco, Texas. Both the new machine in Kalamazoo and this new TX facility will continue the trend toward commissioning new, more water efficient CRB mills, while enabling the retiring of less efficient assets. The Company expects the investment in Kalamazoo will enable it to eliminate higher cost production at other facilities and will deliver an incremental increase in annualized EBITDA over an anticipated three-year period following the commercialization in 2022.

W7.2

(W7.2) What is the trend in your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

0

Anticipated forward trend for CAPEX (+/- % change)

0



Water-related OPEX (+/- % change)

0

Anticipated forward trend for OPEX (+/- % change)

0

Please explain

Graphic Packaging’s CAPEX were slightly lower in the reporting year (2022) compared to the previous reporting year (2021). This is because major water-related investments in the previous year were due to the Kalamazoo paperboard machine construction costs, versus start-up costs in 2022. It is anticipated that annual capital spend will remain relatively flat or increase slightly due to the construction of the new Waco CRB mill.

W7.3

(W7.3) Does your organization use scenario analysis to inform its business strategy?

	Use of scenario analysis	Comment
Row 1	Yes	

W7.3a

(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related	Graphic Packaging uses the WRI Aqueduct Water Risk Atlas 3.0 for modeling water	Water is vital for our operations because high-quality water is a required component	This analysis identifies regions where water stress may impact current and/or future site



	<p>availability scenarios for all our operating sites. The model evaluates potential water risk in 2030 and 2040 under different climate and development scenarios – optimistic, business as usual (BAU), and pessimistic. We evaluate future water risk using the water stress indicator, and current water risk using baseline water stress and baseline water depletion indicators.</p> <p>Parameters: WRI uses the general circulation models from the CMIP Phase 5 project and socioeconomic variables based on the SSP database from the International Institute for Applied Systems Analysis. SSPs consider population, GDP, and urbanization. The models also consider changing climate phenomena, economic development, and policy.</p> <p>Assumptions: The optimistic scenario uses SSP2 and RCP4.5 to model future water stress. RCP4.5 assumes emissions will stabilize at ~650 ppm CO2 and temperatures to will rise to 1.1–2.6°C by 2100. SS2 assumes higher GDP growth, lower population growth, and a higher rate of urbanization than the SS3 scenario. The BAU scenario uses SSP2 and RCP8.5 to model</p>	<p>in the processing of fiber into paperboard and cooling to produce high quality paperboard. Future paperboard production and the related profitability of the organization could be affected if the water supply is insufficient. Stress on water resources could limit or disrupt operational and production capacity especially at the mills, decreasing potential profitability of our papermaking processes.</p>	<p>operations and provides input for developing site specific water management strategies to protect future site operations. 2030 and 2040 analysis time periods are consistent with expected operating timelines for our facilities and long-term capital planning for future investments. Currently 18 sites (0.22% of GPI’s water withdrawals) are in basins with modeled high or extremely high baseline water stress. Only 2 sites (0.02% of GPI’s water withdrawals), are in basins with high or extremely high baseline water depletion. This aligns with expectations, as water stress examines the ratio of withdrawals to availability, while water depletion examines the ratio of consumption to availability. In the 2030 and 2040 BAU forward-looking scenarios, the number of sites in basins of high or extremely high water stress increases to 35 and 34, respectively. Scenario results are shared with leadership to inform water management strategies.</p> <p>Water stress is local. Models predicting stress does not mean there is actual risk for a facility. Currently there is no significant water risk to GPI operations. Though Graphic Packaging does not currently</p>
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		<p>future water risk. RCP8.5 assumes emissions will reach ~1370 ppm by 2100 and global mean temperatures will increase 2.6–4.8°C relative to 1986–2005. The pessimistic scenario uses SSP3 and RCP8.5 to model future water risk. SS3 assumes lower GDP growth, higher population growth, and a lower rate of urbanization than SS2.</p> <p>Analytical Choices: All scenarios are applied at the company level and do not account for Graphic Packaging's value chain. The time horizons covered include 2030 and 2040.</p>		<p>consider itself to be exposed to water risk, the company would take steps if it was exposed to risk and has taken steps in the past to address water risk. These steps include minimizing the company's water withdrawals.</p>
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W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, and we do not anticipate doing so within the next two years

Please explain

Graphic Packaging does not anticipate integrating water valuation practices into our operations within the next two years. New water brought in and energy costs are part of the calculations for water efficiency and re-use projects; therefore, we have heat exchangers and water circulation systems in place to reduce energy costs. Mill managers take into account water re-use as an important factor to reduce costs.



W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	No, and we do not plan to address this within the next two years	Other, please specify Lack of standardization and rigor in defining "low water impact"	Graphic Packaging believes that there currently exists a lack of standardization and rigor in defining products and services that are "low water impact." Therefore, we do not currently plan to address this issue.

W8. Targets

W8.1

(W8.1) Do you have any water-related targets?

Yes

W8.1a

(W8.1a) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category	Please explain
Water pollution	No, and we do not plan to within the next two years	
Water withdrawals	No, but we plan to within the next two years	
Water, Sanitation, and Hygiene (WASH) services	No, and we do not plan to within the next two years	
Other	Yes	

W8.1b

(W8.1b) Provide details of your water-related targets and the progress made.

Target reference number

Target 1

Category of target

Other, please specify

Water Discharge Intensity

Target coverage

Company-wide (direct operations only)

Quantitative metric

Other, please specify

% discharge reduction per unit of production

Year target was set

2016

Base year

2016

Base year figure

41

Target year

2025

Target year figure



35

Reporting year figure

42

% of target achieved relative to base year

-16.6666666667

Target status in reporting year

Underway

Please explain

Graphic Packaging has a target to reduce company-wide water discharge intensity by 15% by 2025 (1,000 gal/saleable ton of paperboard), from a base year of 2016 for its mills, which represent 99% of the company's water discharges. Therefore, we consider this to be a company-wide goal in this context. Rationale: This target was determined by evaluating historical trends of water usage and targets and assessing what the company had been able to achieve in the past, evaluating how the capital investment program could impact water usage, and then setting a stretch target based on this data. This process was managed by the sustainability team and the EVP of the Mills Division, and presented to the CEO for approval.

In 2022, mill water effluent intensity on a per unit production basis increased relative to 2021 and represents a 2% increase relative to the 2016 baseline value. The increase in intensity is largely due to reversing a 2021 change in the river water intake system at one virgin mill, increased surface water usage at two virgin mills, and increased potable water use at the Kalamazoo mill. We are working to understand the underlying causes for these increases and will adjust our stewardship approach as needed to ensure we get back on track to achieve our water goal. Current capital projects in planning to be completed by the end of 2024 are projected to reduce water use by approximately 3.6 billion gallons per year.



W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

Yes

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	2022 Water Inventory Data	ISAE 3000	Graphic Packaging did contract with a third-party to provide a limited level of assurance for our 2022 energy data, Scope 1, 2, and 3 GHG inventory data and 2022 water inventory data based on current best practices and in accordance with the International Standard for Assurance Engagements (ISAE 3000 and ISAE 3410).

W11. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.



	Job title	Corresponding job category
Row 1	President and CEO	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public