

PepsiCo, Inc. CDP Water Security Questionnaire 2022

W0. Introduction

W0.1

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

PepsiCo products are enjoyed by consumers more than one billion times a day in more than 200 countries and territories around the world. PepsiCo generated more than \$79 billion in net revenue in 2021, driven by a complementary beverage and convenient foods portfolio that includes Lays, Doritos, Cheetos, Gatorade, Pepsi-Cola, Mountain Dew, Quaker, and SodaStream. PepsiCo's product portfolio includes a wide range of enjoyable foods and beverages, including many iconic brands that generate more than \$1 billion each in estimated annual retail sales.

Guiding PepsiCo is our vision to Be the Global Leader in Beverages and Convenient Foods by Winning with PepsiCo Positive (pep+). pep+ is our strategic end-to-end transformation that puts sustainability and human capital at the center of how we will create value and growth by operating within planetary boundaries and inspiring positive change for planet and people.

This CDP Water Security Questionnaire contains statements reflecting our views about our future performance that constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 (Reform Act). Statements that constitute forward-looking statements within the meaning of the Reform Act are generally identified through the inclusion of words such as "aim," "anticipate," "believe," "drive," "estimate," "expect," "expressed confidence," "forecast," "future," "goal," "guidance," "intend," "may," "objective," "outlook," "plan," "position," "potential," "project," "seek," "should," "strategy," "target," "will" or similar statements or variations of such words and other similar expressions. All statements addressing our future operating performance, and statements addressing events and developments that we expect or anticipate will occur in the future, are forward-looking statements within the meaning of the Reform Act.

These forward-looking statements are based on currently available information, operating plans and projections about future events and trends. They inherently involve risks and uncertainties that could cause actual results to differ materially from those predicted in any such forward-looking statement. For information on certain factors that could cause actual events or results to differ materially from our expectations, please see PepsiCo's filings with the Securities and Exchange Commission, including its most recent annual report on Form 10-K and subsequent reports on Forms 10-Q and 8-K. Investors are cautioned not to place undue reliance on any such forward-looking statements, which speak only as of the date they are made. We undertake no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise.

W-FB0.1a

(W-FB0.1a) Which activities in the food, beverage, and tobacco sector does your organization engage in?

Agriculture
Processing/Manufacturing
Distribution

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, 2021	December 31, 2021

W0.3

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

Argentina
Australia
Belgium
Bosnia & Herzegovina
Brazil
Bulgaria
Canada
Chile
China
Colombia
Cyprus
Dominican Republic
Ecuador
Egypt
France
Georgia
Germany
Greece
Guatemala
India
Ireland
Israel
Italy
Kyrgyzstan
Mexico
Montenegro
Netherlands
New Zealand
Pakistan

Peru
Poland
Portugal
Romania
Russian Federation
Saudi Arabia
Serbia
Singapore
South Africa
Spain
Taiwan, China
Thailand
Turkey
Ukraine
United Kingdom of Great Britain and Northern Ireland
United States of America
Uruguay
Viet Nam

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 financial 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
Operational control farms and dairies	Company farms in China and Egypt do not have the capability to measure consumption at this time. Collectively, we estimate that exclusions represent less than 1% of total consumption and therefore do not represent a significant portion of the total water used (or consumed).

International offices/warehouse (partial)	Collectively, we estimate that exclusions represent less than 1% of total consumption and therefore do not represent a significant portion of the total water used (or consumed). These facilities do not report water consumption.
Agriculture	PepsiCo owns/manages some agricultural land within our direct operations. Lands are usually used to grow crops for our products. The amount of land this represents relative to our overall agricultural supply chain is less than 2% of total and therefore does not represent a significant portion of the total water used (or consumed). This is the reason for the exclusion of owned/managed agricultural land.
Venezuela	We determined that the inclusion of data for our Sustainability reporting should align with the reporting framework used as well as any exclusions in our financial reporting. Because Venezuela is excluded from our financial report and its water use represents approximately 0.1% of our water inventory, it is considered de minimis and we can meet the required alignment.

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, a Ticker symbol	Ticker: PEP

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
Sufficient amounts of good quality freshwater available for use	Vital	Vital	Direct: Good quality fresh water is considered vital because it is a key ingredient for our beverages. Additionally, it is vital for maintaining sanitary conditions throughout our food and beverage operations (direct) and those of our third-party manufacturers and franchise bottlers (indirect). Indirect: Good quality freshwater is also vital in our raw material supply chain and particularly within our agricultural supply chain where water is vital for growing crops. We expect that future water

			dependency in our direct and indirect operations will change because of improvements in both operational and agricultural water-use efficiency.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	Direct water: We selected the 'Important' rating for direct operations because we use internal recycled and reused water in utilities and within our snacks and food operations, where regulations and internal Food Safety standards allow. Our ingredient standards and specifications dictate how we can use brackish, recycled or any other water in our beverage manufacturing processes. As a beverages and convenient foods manufacturer, food safety and product integrity and consumer confidence is of critical importance. Indirect water: Our future dependency on brackish and recycled water for our own and related manufacturing processes could increase if there were specific and regulatory approved uses for it to offset freshwater withdrawals. As reuse and recycled water and its associated technology continues to grow across the Food and Beverage sector, PepsiCo is a strong proponent of this innovation to offset freshwater dependency, when both product integrity and quality are assured. In the future, we will still depend on sufficient amounts of reuse, recycled and other water for cooling in the power plants that provide energy to our operations; our future dependency on brackish or recycled water for cooling could increase based on increased stress on freshwater resources

W-FB1.1a

(W-FB1.1a) Which water-intensive agricultural commodities that your organization produces and/or sources are the most significant to your business by revenue?

Select up to five.

Agricultural commodities	% of revenue dependent on these agricultural commodities	Produced and/or sourced	Please explain

Maize	41-60	Sourced	Revenue dependent on this commodity is disclosed as an aggregate of all commodities listed here. We do not have sufficient data to determine revenue dependence of each commodity at this time.
Palm oil	41-60	Sourced	Revenue dependent on this commodity is disclosed as an aggregate of all commodities listed here. We do not have sufficient data to determine revenue dependence of each commodity at this time.
Sugar	41-60	Sourced	Revenue dependent on this commodity is disclosed as an aggregate of all commodities listed here. We do not have sufficient data to determine revenue dependence of each commodity at this time.
Other, please specify Potatoes	41-60	Sourced	Revenue dependent on this commodity is disclosed as an aggregate of all commodities listed here. We do not have sufficient data to determine revenue dependence of each commodity at this time.
Other, please specify Wheat	41-60	Sourced	Revenue dependent on this commodity is disclosed as an aggregate of all commodities listed here. We do not have sufficient data to determine revenue dependence of each commodity at this time.

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	100% of manufacturing water withdrawals are measured and monitored. All site water is metered by the water utility provider or by PepsiCo flow meters. Where PepsiCo owns flow meters, readings are manually / electronically captured monthly by site personnel. Utility providers provide sites with monthly reading by invoice. Since 2006, facilities track and manually input water withdrawals on a monthly basis, leveraging our enterprise-wide sustainability metrics platform. This auditable data allows PepsiCo to track and trend water usage on a

		continuous basis, assess impacts of portfolio shifts and production volumes. Data collection methods are set out in our Data Excellence Governance and Controls protocol. This protocol calls for our sector teams' process and control owners to assure accuracy as part of this process. The protocol also calls for us to track water withdrawal quarterly as part of our performance tracking and report against our sustainability goals
Water withdrawals – volumes by source	100%	100% of manufacturing water withdrawals by source are measured and monitored. All site water is metered by the water utility provider or by PepsiCo flow meters. Where PepsiCo owns flow meters, readings are manually / electronically captured monthly by site personnel. Utility providers provide sites with monthly reading by invoice. Since 2006, facilities track and manually input water withdrawals on a monthly basis, leveraging our enterprise-wide sustainability metrics platform. This auditable data allows PepsiCo to track and trend water usage on a continuous basis, assess impacts of portfolio shifts and production volumes. Data collection methods are set out in our Data Excellence Governance and Controls protocol. This protocol calls for our sector teams' process and control owners to assure accuracy as part of this process. The protocol also calls for us to track water withdrawal quarterly as part of our performance tracking and report against our sustainability goals
Water withdrawals quality	100%	The quality of incoming water is critical to our finished products. 100% of our beverage and foods operations track and monitor quality of raw water withdrawals on at least a quarterly basis, using the WHO Potable Water Standards coupled with specific corporate food safety water quality mandates, standards and quality audit protocols, both annual self-assessment audits and independent third party audits. In addition, many specialist contracted laboratories are retained by PepsiCo to conduct both water sampling and analytical services. Sites use our enterprise metrics platform, inputting quality analytical data, which allows us to measure and

		track performance in a standardized manner across our operations and it further supports our company strategy of digitalization and automation. PepsiCo also leverages existing quality audit protocols and Environmental, Health and Safety (EHS) audits to ensure we have a consistently safe and secure water supply.
Water discharges – total volumes	100%	We monitor 100% of the total volume of water discharged. All of our manufacturing operations track volume on at least a monthly basis by wastewater metering or mass balance calculations. We leverage our enterprise-wide sustainability metrics platform, which allows us to measure and track performance in a standardized manner across our operations. It further supports our company strategy of digitization and automation. Data collection methods are set out in our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams' process and control owners to assure accuracy. Data is also tracked & validated quarterly by regional compliance leaders and annually by global experts.
Water discharges – volumes by destination	100%	100% of our manufacturing operations track and monitor water discharges by destination on at least a monthly basis. Sites meter/calculate wastewater discharge flow, then enter the volumes into a cloud-based platform by discharge destination. Some facilities have multiple discharge points, each of which is individually monitored. Facility level EHS managers enter the type of destination (e.g., external wastewater treatment facility, surface water, etc.) by discharge point, which is typically reflected in permit conditions for the given facility. Data collection methods are set out in our Data Excellence Governance & Controls protocol, where detailed responsibilities for reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for

		our sector teams' process and control owners to assure accuracy. Data is also tracked & validated quarterly by regional compliance leaders and annually by global experts.
Water discharges – volumes by treatment method	100%	The types of treatment used by each PepsiCo facility are documented in a master list, and 100% of our manufacturing operations track and monitor wastewater discharges monthly. Facilities that have different treatment types on separate discharge lines monitor the effluent from each system separately, even if the ultimate discharge destinations are the same. Data collection methods are set out in our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams' process and control owners to assure accuracy. Data is also tracked and validated quarterly by regional compliance leaders and annually by global system experts.
Water discharge quality – by standard effluent parameters	100%	100% of our manufacturing operations water discharge quality is measured as required by PepsiCo or local regulatory agencies. The parameters measured depend on the type of business, wastewater permits, applicable regulatory requirements and internal PepsiCo standards. PepsiCo-collected samples may be analyzed onsite or at a contracted third-party laboratory. Where the local regulatory agency collects samples, they contract with their own laboratories. Typical parameters include pH, BOD, COD, TSS, FOG, N, P, metals and temperature. Data collection adheres to our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams' process and control owners to assure accuracy. Data is tracked and validated quarterly by regional compliance leaders and annually by global system experts.

Water discharge quality – temperature	26-50	37% percent of our manufacturing operations track and monitor wastewater discharge temperature. We track temperature where and when it is required by permit and regulatory requirements. Data collection adheres to our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams' process and control owners to assure accuracy. Data is also tracked and validated quarterly by regional compliance leaders and annually by global system experts.
Water consumption – total volume	100%	As a beverages and convenient foods manufacturer, water consumption is closely related to production volume and product mix across our portfolio. Production at our manufacturing locations is constantly measured and tracked automatically. Since 2006, monthly sustainability key performance indicators are reported for manufacturing sites. All sites input their water and energy usage from both site meters and utility invoices/bills, onto our enterprise-wide sustainability tracking system. Data from the production IT system is automatically downloaded onto our Sustainability platform allowing sustainability trends and water consumption impacts to be assessed at both site and corporate levels. Sustainability and production IT platforms integrate per our corporate value chain digitalization and automation strategy. Sustainability performance dashboarding is an important aspect of our water efficiency performance progress and allows us to prioritize investment and resourcing needs.
Water recycled/reused	100%	100% of manufacturing sites recycling or reusing water track this volume monthly using meter readings from their membrane bioreactors (MBRs) and reverse osmosis (RO) systems, leveraging our enterprise-wide sustainability metrics platform, which allows us to measure and track performance in a standardized manner across all our operations and further

		supports our company strategy of digitization and automation. Data collection methods are set out in our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities and accountabilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams' process and control owners to assure accuracy as part of this process.
The provision of fully-functioning, safely managed WASH services to all workers	100%	PepsiCo's internal self-assessment program to measure water, sanitation, and hygiene (WASH) compliance takes place annually and has been implemented at all company-owned plants. We use a WASH self-audit questionnaire that is sent out to all company-owned manufacturing facilities. However, if a facility is scheduled for an annual external audit, it would not complete a self-audit. Annual audits are conducted for compliance per our internal PepsiCo governance documents.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	85,942	About the same	Total withdrawals include all freshwater sources, harvested rainwater and other circular sources of water used during 2021 by PepsiCo company-owned manufacturing sites. In 2021, our total water withdrawals were nearly 4% higher than in 2020. This increase can be explained by both an uplift in beverage and foods volumes produced by 4% each vs. 2020 and the ongoing challenges that the pandemic has caused in relation to process interruptions, more startups/shutdowns with associated cleaning and sanitation requirements. Some capital-related sustainability projects were delayed due to supply chain interruptions and facilities' ability

			to secure contractors. Freshwater usage efficiency at high water risk locations, however, continued to improve during 2021, resulting in an 18% improvement over baseline year (2015) at our 99 company-owned high water risk locations. Our acquisition of the SodaStream business has been incorporated into our 2021 reported performance. In 2021, PepsiCo's R&D team has proven a groundbreaking method for condensing and treating the steam evaporated from its fryers to recover more than 50% of the water used in potato chip manufacturing lines. PepsiCo has implemented this technology at its Kolkata, India facility, where the proof-of-concept showed the approach will save ~60 million liters of water per year. Over the next seven years, the technology has the potential to be adopted at up to 30 potato chip manufacturing plants in high-water-risk areas. The first application of a circular water project at our Sabritas Vallejo plant in Mexico City has enabled the facility to reduce freshwater demand by almost 70% in 2021 vs. 2019. We are looking to identify opportunities to replicate this project at other high water risk locations. With the launch of pep+ (PepsiCo Positive) in September 2021, and our expanded goal to become Net Water Positive by 2030 across all company-owned operations locations, we anticipate driving down freshwater usage further.
Total discharges	56,830	About the same	We discharged approximately 4% more wastewater in 2021 than we did in 2020. There were also production increases as business recovered from 2020, primarily in the North American beverage and foods organizations. However, PepsiCo offsets production increases with investments in water reduction initiatives in water reuse technology, such as membrane bioreactors, which allow treatment back to potable water standards. In the future, we expect that our total discharges will decrease due to our ongoing investments in water efficiency and circular water initiatives within our manufacturing operations. In line with anticipated water withdrawals

			reducing over time, we anticipate total discharges to also reduce as we focus on the recovery, treatment and reuse of water within our operations.
Total consumption	29,112	About the same	2021 water consumption was approximately 3.5% higher than in 2020. This can be explained by an increase in beverages produced in 2021 over 2020 of 3%. Also, two significant related points of note which continued into 2021 and impacted on total consumption include COVID-related production shifts, such as the significant reduction in the Foodservice product categories, and a shift to smaller serve pack types, which is more water intensive within the manufacturing plants. Our corporate environmental sustainability pep+ (PepsiCo Positive) ambition to develop a more sustainable food system and becoming Net Water Positive by 2030 informs our tactics: 1) a combination of no cost/low-cost efficiency drives (e.g., PepsiCo's Resource Conservation program), 2) innovation (fryer potato vapor recovery), 3) capital investment (Membrane Bioreactor coupled with Reverse Osmosis enabling potable water production for reuse within our foods operations and shift to water efficient adiabatic cooling in high water risk locations) and 4) continued advocacy across our industry for circular water reuse opportunities. Our biggest portion of consumed water is incorporated into our finished beverage products. Across the beverage industry, reuse water "as ingredient" equivalent is not unlocked as a viable tactic. Until such time as this can be achieved, PepsiCo's water consumed volume will closely match beverage production output.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from	% withdrawn from areas	Comparison with previous	Identification tool	Please explain
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	areas with water stress	with water stress	reporting year		
Row 1	Yes	11-25	About the same	WRI Aqueduct	Every three years PepsiCo conducts a holistic water risk assessment across all of our company owned operations, the most recent relevant to this reporting period was completed in 2019. In 2022, we are repeating this triennial water risk assessment. Any changes to the high water risk list of manufacturing operations coming out of this assessment will be included in next year's Questionnaire. Any new acquisitions or mergers during this three-year cycle will be assessed for water risk independently of the holistic water risk assessment process. For example, in 2020 we assessed the water risk of our new acquisition, Pioneer Foods in South Africa, across all of its manufacturing sites. Additionally, we assessed the water risk of our SodaStream acquisition in 2021. Pioneer Foods led to an additional 34 high water risk sites which were added to PepsiCo's total high water risk site list. In 2021, PepsiCo had 99 high water risk operations, accounting for 21% of our total company owned operations water withdrawals. SodaStream high water risk sites will be added to this total in 2022. The PepsiCo corporate risk assessment process leverages a number of filters, such as WRI Aqueduct, local detailed operating site assessment and third party experienced environmental consulting firm

					and networks. We chose to use a combination of all three tools in order to make our assessment comprehensive, blending both external data with local facility knowledge (historical and current). All facilities are geographically plotted using the WRI Aqueduct tool to determine the relative stress based on the Aqueduct data sets including overall water risk, baseline water stress and projected (2025) baseline water stress. These results are then combined with an independent score from our external consultancy's global network who draw from local knowledge and experience to determine a facilities relative risk exposure using proprietary insights. PepsiCo's internal assessment considers a range of indicators across physical water stress (including quality), regulatory risk, and social/reputational risk. Each facility responds to questions based on site experience both current and past as well as anticipated future scenarios. The external and internal assessments are scored separately and the combined rating of both is used to plot each facility on our water risk matrix. PepsiCo has determined a scoring range from 0 – 5 which then allocates facilities into different water risk categories. All sites receiving a score of 3.5 or higher are classified as high water risk. Ratings are calculated for current and future trend (3-5 years) conditions. As noted
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					earlier, we will undertake this global water risk assessment process again in 2022, reassessing all company-owned sites using the comprehensive approach used in 2019 to ensure we remain focused on executing site-level and watershed-level programs in critical water stressed locations. In 2021, PepsiCo launched a new, bold pep+ agenda that will guide our business — how we operate within planetary boundaries and inspire positive change for the planet and people. PepsiCo aims to become Net Water Positive by 2030, reducing absolute water use and replenishing back into the local watershed more than 100% of the water used at company-owned sites in high-water-risk areas. Further, we continue our focus on reduction in the amount of water used at these sites compared to a 2015 baseline. PepsiCo has set a "best-in-class" standard (1.2 liters of water per liter of beverage or 0.4 liters per kilogram of food) for all company-owned, bottler and franchisee sites in high-risk watersheds. Additionally, we are aiming for all company-owned manufacturing facilities located in high-risk watersheds to adopt the Alliance for Water Stewardship Standard by 2025. Finally, we aim to fully replenish the water used in third-party sites in high-water-risk areas by 2030. Although our withdrawals are about the same compared to prior year reporting, we have
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					made much progress. In 2021 PepsiCo spent over \$30 million via its centrally-funded Capital Investments Sustainability fund for water use efficiency and upgrade projects. This has directly resulted in reducing the water use at some of our high risk facilities where CAPEX projects have been implemented.
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W-FB1.2e

(W-FB1.2e) For each commodity reported in question W-FB1.1a, do you know the proportion that is produced/sourced from areas with water stress?

Agricultural commodities	The proportion of this commodity produced in areas with water stress is known	The proportion of this commodity sourced from areas with water stress is known	Please explain
Maize	Not applicable	Yes	In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress. With this information, we can engage with farmers in discussions about water challenges and opportunities.
Other commodities	Not applicable	Yes	In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI

from W-FB1.1a, please specify Potatoes			Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress. With this information, we can engage with farmers in discussions about water challenges and opportunities.
Palm oil	Not applicable	Yes	In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress.
Sugar	Not applicable	Yes	In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and

			Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress.
Other commodities from W-FB1.1a, please specify Wheat	Not applicable	Yes	In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress.

W-FB1.2g

(W-FB1.2g) What proportion of the sourced agricultural commodities reported in W-FB1.1a originate from areas with water stress?

Agricultural commodities	% of total agricultural commodity sourced from areas with water stress	Please explain
Maize	26-50	28% of our whole maize volume originates from water stressed areas and is in-scope of PepsiCo's agriculture water efficiency goal. This figure is unchanged from prior reporting years. This figure was calculated as part of our base-lining exercise for the agriculture water efficiency goal. The figure could either increase or decrease in future years depending on changes to our procurement of

		maize. The metric also provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.
Other sourced commodities from W-FB1.2e, please specify Potatoes	26-50	34% of our potato volume originates from water stressed areas and is in-scope of PepsiCo's agriculture water efficiency goal. This figure was calculated as part of our base-lining exercise for the agriculture water use efficiency goal. This figure is unchanged from prior reporting years. The figure could either increase or decrease in future years depending on changes to our procurement of potatoes. The metric also provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.
Palm oil	0%	In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Based on this assessment, 0% of our palm oil growers are in high water risk areas. The figure could either increase or decrease in future years depending on changes to our procurement of palm oil. The metric provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.
Sugar	26-50	In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Based on this assessment, 43% of our sugar beet and cane sugar growers are in high water risk areas. The figure could either increase or decrease in future years depending on changes to our procurement of sugar. The

		metric provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.
Other sourced commodities from W-FB1.2e, please specify Wheat	11-25	In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Based on this assessment, 16% of our wheat growers are in high water risk areas. The figure could either increase or decrease in future years depending on changes to our procurement of wheat. The metric provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	107	About the same	Fresh surface water is relevant because we are investing in rainwater harvesting, and recovery and reuse water technologies to reduce our reliance on potable fresh water, where product food safety and quality is assured. Using a 3% threshold, our fresh surface water withdrawals for 2021 are comparable to 2020, with a 3% reduction in 2021. We continue to drive water usage efficiency across company-owned

				operations. PepsiCo promotes the adoption of rainwater harvesting at our facilities and in 2021 our Research & Development teams have been investigating novel treatment for rainwater cleanup involving nano-filtration. We would like, where possible and feasible, to decouple fresh water increases with food business growth through efficiency and innovation. In 2021 our total water withdrawals were nearly 4% higher than in 2020. This increase can be explained by both an uplift in beverage and convenient foods volumes produced by 4% each vs. 2020 and the ongoing challenges of the pandemic.
Brackish surface water/Seawater	Not relevant			PepsiCo does not currently directly withdraw any brackish surface water or seawater for use in our company owned manufacturing plants. A very small proportion of the municipal water supplying our manufacturing plants in a couple of markets comes from desalinated sources. As water scarcity increases and the economics associated with operating desal systems becomes more accepted, it may grow in some parts of the world.
Groundwater – renewable	Relevant	23,508	Higher	Groundwater is relevant because approximately 27% of our water withdrawals is obtained from renewable ground water sources. In

				2021 we abstracted approximately 5% more groundwater than in 2020. In 2021 our total water withdrawals were nearly 4% higher than in 2020. This increase can be explained by both an uplift in beverage and foods volumes produced by 4% each vs. 2020 and the ongoing challenges of the pandemic Freshwater usage efficiency continued to improve during 2021, running 18% better than the 2015 baseline year at our 99 company-owned high water risk locations. Our acquisition of the SodaStream business has been incorporated into our 2021 reported performance. As part of our pep+ (PepsiCo Positive) Net Water Positive ambition, by 2030 efficiency improvement tactics include best practice development and deployment, research and development innovation in design of equipment, new ways of manufacturing "sustainable from the start" and capital investment in new technology
Groundwater – non-renewable	Not relevant			PepsiCo does not draw from non-renewable groundwater sources and does not plan to do so in the future.
Produced/Entrained water	Not relevant			PepsiCo does not rely on produced water at a water source at this point in time. However, we have spent the last couple of years innovating technology

				solutions that could allow us to recover water contained in agricultural raw materials for reuse, such as entrained water in potatoes and perhaps corn. We have had success at lab- and pilot-scale applications and have moved to a full-scale application at one food manufacturing location at the end of 2021. PepsiCo's first commercial application recovering water evaporated from potatoes in the crisp frying operation was commissioned at the end of 2021 in Kolkata, India. During 2022, we are assessing its performance and will have a full year of performance data to report and will look at optimizing design for replication at scale.
Third party sources	Relevant	62,328	About the same	Third party sources make up the majority of our sourced water for operations at nearly 73% in 2021. Using a 3% threshold, we obtained a comparable amount of water from third party sources vs. 2020, with a ~3% increase in 2021. The increase can be explained by both an uplift in beverage and convenient foods volumes produced by 4% each vs. 2020 and the ongoing challenges of the pandemic. Freshwater usage continued to improve during 2021, running 18% better than the 2015 baseline year at our 99 company-owned high water risk locations. Our acquisition of the

				SodaStream business has been incorporated into our 2021 reported performance. PepsiCo's first circular water innovation at Vallejo Mexico City enabled the facility to reduce freshwater demand by almost 70% in 2021 vs. 2019 (pre-project). Additionally, PepsiCo has proven a groundbreaking method for condensing and treating the steam evaporated from its fryers to recover more than 50% of the water used in potato chip manufacturing lines.
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W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	6,759	Higher	Fresh surface water is a relevant discharge destination. Where we discharge to surface water bodies, it is always within local quality and PepsiCo regulations. PepsiCo directly treated and discharged to fresh surface water from 23 global manufacturing locations in 2021. Most of these sites are located in the European sector, where product increases are attributed to the rise in volume discharged.
Brackish surface water/seawater	Relevant	121	Lower	Brackish surface water / seawater is a relevant discharge destination. In 2021 PepsiCo discharged treated wastewater into brackish surface water / seawater at one manufacturing location. While the 2020 volume reported in this survey last year was higher (299

				megaliters), we now know the actual volume was lower (69 megaliters) due to improvement in data quality. The volume from this plant increased in 2021 because of the installation of a new production line.
Groundwater	Relevant	8,282	Lower	Groundwater is a relevant discharge destination. Fourteen PepsiCo facilities discharge treated water to groundwater. While the 2020 volume reported in this survey last year was higher (10,004 megaliters), we now know the actual volume was lower (6,405 megaliters). Due to the acquisition of Pioneer Foods facilities in 2020, it was assumed for this survey that those locations discharged to groundwater until more information could be gathered. A full assessment of Pioneer Foods discharge destinations and treatment methods has now been completed. The actual increase in discharge volume to groundwater from 2020 to 2021 can be attributed to production increases at the Frito-Lay plant in Kern, CA. As per last year's reporting, data relating to treated wastewater that is used for land application is included here. This has been done to align with CDP's definition of groundwater discharge. No adjustments to account for evapotranspiration of cover crops rates have been made.
Third-party destinations	Relevant	41,668	About the same	Third-party destinations are a relevant discharge destination. The majority of PepsiCo manufacturing facilities discharge treated wastewater to third-party destinations. There were also production increases in both

				beverage and foods businesses in North America. We anticipate that as our water withdrawals decline in line with our sustainability agenda, as well as efforts around increased circular water, our wastewater discharges will also decrease even as production increases with business performance.
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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	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	18,557	This is our first year of measurement	31-40	About two thirds of locations with tertiary treatment discharge offsite to an external treatment facility (ETF). The other third discharges to the environment. When discharged to the environment, it meets local regulations and/or PepsiCo internal requirements, whichever is

					higher. Approximately 70% of sites discharging to the environment have primary, secondary and tertiary treatment. The most common treatment methods include clarifiers, dissolved air flotation, activated carbon and sludge presses. Tertiary treatment such as disinfection is employed at locations treating water for reuse on-site.
Secondary treatment	Relevant	1,740	This is our first year of measurement	1-10	Examples of on-site secondary and tertiary treatment in PepsiCo include systems such as biological activated sludge systems coupled with membrane

					bioreactors (MBRs) and reverse osmosis (RO) systems producing water for reuse as potable water equivalent within some of our food manufacturing sites. There are also tertiary treatment anaerobic digesters and biological treatment with full nitrate and phosphate removal systems. There are both chemical and biological nutrient removal (BNR) processes. These efforts are made because PepsiCo is focused on achieving our pep+ (PepsiCo Positive) agenda and is investing to meet these ambitious
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					goals. PepsiCo maintains compliance with all local regulatory standards as well as internal PepsiCo standards.
Primary treatment only	Relevant	36,534	This is our first year of measurement	61-70	Primary treatment on-site is common for the US and Canada beverage operations where only pH adjustment occurs before discharge to an external treatment facility (ETF). These ETFs have the capability to treat other effluent parameters, such as BOD and oil and grease. In addition, many snack plants remove some primary solids, such as potato peels, and then discharge to

					ETFs for further treatment. Lastly, risk evaluations are currently being completed for the Pioneer Foods operations for use in creating a plan for upgrades to wastewater treatment systems.
Discharge to the natural environment without treatment	Not relevant				Not relevant because all of PepsiCo's on-site operations include at least a primary wastewater treatment step for process wastewater.
Discharge to a third party without treatment	Not relevant				Not relevant because all of PepsiCo's on-site operations include at least a primary wastewater treatment step for process wastewater.

Other	Not relevant				No "other" identified.
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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	79,474,000,000	85,942	924,739.940890368	With the launch of pep+ (PepsiCo Positive) in September 2021, and our expanded goal to become Net Water Positive by 2030 across all company owned operations, not just high water risk locations, we anticipate ongoing improvement to our water withdrawal efficiency. Additionally, this figure represents PepsiCo's owned operations only and we expect to report a more robust figure, including water withdrawal volume from third-party manufacturing, in the future.

W-FB1.3

(W-FB1.3) Do you collect/calculate water intensity for each commodity reported in question W-FB1.1a?

Agricultural commodities	Water intensity information for this produced commodity is collected/calculated	Water intensity information for this sourced commodity is collected/calculated	Please explain
Maize	Not applicable	Yes	We have a goal to improve the water-use efficiency of our direct agricultural supply chain by 15% by 2025 in high water risk sourcing areas against a 2015 baseline. Maize is in scope for this goal. We are measuring theoretical water-use efficiency based on applied water, which will be validated and refined through in-field measurements. In collaboration with WRI, we undertook a study

			to evaluate our high water risk crops, and we utilized the UN Food and Agriculture Organization's (FAO) Cropwat 8 modelling tool to determine our baseline crop water footprint. We gathered the baseline data and progress through at least the 2020 crop year. For each farmer group, we have calculated their baseline water opportunity and identified local goals and implementation plans.
Other commodities from W-FB1.1a, please specify Potatoes	Not applicable	Yes	We have a goal to improve the water-use efficiency of our direct agricultural supply chain by 15% by 2025 in high water risk sourcing areas against a 2015 baseline. Potatoes are in-scope for this goal. We are measuring theoretical water-use efficiency based on applied water, which will be validated and refined through in-field measurements. In collaboration with WRI, we undertook a study to evaluate our high water risk crops, and we utilized the UN Food and Agriculture Organization's (FAO) Cropwat 8 modelling tool to determine our baseline crop water footprint. We gathered the baseline data and progress through at least the 2020 crop year. For each farmer group, we have calculated their baseline water opportunity and identified local goals and implementation plans.
Palm oil	Not applicable	Yes	PepsiCo's Sustainable from the Start Program (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the

			program is to ensure that our new products and packaging are designed with environmental impacts in mind from the very start. We evaluate sustainability by looking at lifecycle carbon and water impacts of our products and recyclability of our packaging. Life cycle impacts include everything from growing the agricultural ingredients, manufacturing, packaging and moving the product, and disposing of the packaging. SftS includes water impact factors for all of our agricultural ingredients, including palm oil.
Sugar	Not applicable	Yes	PepsiCo's Sustainable from the Start Program (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the program is to ensure that our new products and packaging are designed with environmental impacts in mind from the very start. We evaluate sustainability by looking at lifecycle carbon and water impacts of our products and recyclability of our packaging. Life cycle impacts include everything from growing the agricultural ingredients, manufacturing, packaging and moving the product, and disposing of the packaging. SftS includes water impact factors for all of our agricultural ingredients, including sugar.
Other commodities from W-FB1.1a, please specify	Not applicable	Yes	PepsiCo's Sustainable from the Start Program (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the

Wheat			program is to ensure that our new products and packaging are designed with environmental impacts in mind from the very start. We evaluate sustainability by looking at lifecycle carbon and water impacts of our products and recyclability of our packaging. Life cycle impacts include everything from growing the agricultural ingredients, manufacturing, packaging and moving the product, and disposing of the packaging. SftS includes water impact factors for all of our agricultural ingredients, including wheat.
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W-FB1.3b

(W-FB1.3b) Provide water intensity information for each of the agricultural commodities identified in W-FB1.3 that you source.

Agricultural commodities

Maize

Water intensity value (m3)

357

Numerator: Water aspect

Total water withdrawals

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

This data is collected at least every three years; therefore, it remains unchanged from the prior year's reporting when it was updated with 2020 data. Our strategy to improve this metric: Our global goal is to improve water-use efficiency in high water risk direct agricultural supply chain by 15% by 2025 (against 2015 baseline). We undertook a study to evaluate our high water risk crops, utilizing UN FAO Cropwat 8 to determine our baseline crop water footprint. We calculated each farmer group's baseline water opportunity and identified local goals and implementation plans. Calculated water

intensity of corn was 357 m3 of water per metric ton (mt) of corn, which reflected an improvement of 156 m3 of water per mt of corn from 2017, when we last reported this data. This has been driven by a number of factors including introducing PepsiCo's "Irrigation Water Efficiency Toolkit," creating a global "irrigation water champions network," improvements to water scheduling practices and technology, optimizing planting windows and shifting to more efficient irrigation technology. Our strategy to improve performance against this metric is to work with farmers through various interventions including enabling the transition from flood irrigation to more efficient methods, such as drip irrigation. We expect the water intensity to continue to decrease in the future. This metric supports our decision making toolkit in terms of gauging where additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling, etc.

Agricultural commodities

Other sourced commodities from W-FB1.3, please specify
 Potatoes

Water intensity value (m3)

136

Numerator: Water aspect

Total water withdrawals

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

This data is collected at least every three years; therefore, it remains unchanged from the prior year's reporting when it was updated with 2020 data. Our strategy to improve this metric: Our global goal is to improve water-use efficiency in high water risk direct agricultural supply chain by 15% by 2025. We undertook a study to evaluate our high water risk crops, utilizing UN FAO Cropwat 8 to determine our baseline crop water footprint. We calculated water intensity of potatoes as 136 m3 of water per metric ton of potato, an improvement from 39 m3 of water per metric ton of potato since 2017, when we last reported this data. This has been driven by a number of factors including introducing PepsiCo's "Irrigation Water Efficiency Toolkit," creating a global "irrigation water champions network," improvements to water scheduling practices and technology, optimizing planting windows and shifting to more efficient irrigation technology. Our strategy to improve performance against this metric is to work with farmers through various interventions, including enabling the transition from flood irrigation to more efficient methods, such as drip irrigation. We expect the water intensity to continue to decrease in the future. This metric supports our decision making toolkit and strategies to improve water efficiency by helping us gauge where additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling etc.

Agricultural commodities

Palm oil

Water intensity value (m3)

5,099

Numerator: Water aspect

Total water consumption

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

Our strategy to improve this metric: Last year was the first year PepsiCo reported against this indicator. This data is collected every three years; therefore, we cannot measure progress against the previous year. The water intensity metric for palm oil comes from PepsiCo's internal Sustainable from the Start water footprint tool. We expect the water intensity to decrease in the future. This metric supports our decision-making toolkit and strategies to improve water efficiency by helping us gauge where additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling etc. PepsiCo's goal is to promote the transformation of the palm oil sector to support thriving communities, human rights and the health of vital ecosystems and source 100 percent sustainable palm oil, which includes 100 percent Roundtable on Sustainable Palm Oil (RSPO). Additionally, our Global Policy on Sustainable Palm Oil outlines our commitments to no deforestation, no development on peat, and no exploitation of the rights of indigenous peoples, workers and local communities.

Agricultural commodities

Sugar

Water intensity value (m3)

1,671

Numerator: Water aspect

Total water consumption

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

Our strategy to improve this metric: Last year was the first year PepsiCo reported against this indicator. This data is collected every three years; therefore, we cannot measure progress against the previous year. The water intensity metric for sugar comes from PepsiCo's internal Sustainable from the Start water footprint tool and reflects the water consumption for sugar beet. We expect the water intensity to decrease in the future. This metric supports our decision-making toolkit and strategies to improve water efficiency by helping us gauge where additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling etc. By 2030, we aim to sustainably source priority-supplier-sourced raw materials – those that we don't source directly from farmers – including sugar beet. For crops on a verified volumes pathway, we use an equivalency framework to recognize crop volumes that are verified to a sustainability standard benchmarked by a third party, as equivalent to our SFP.

Agricultural commodities

Other sourced commodities from W-FB1.3, please specify
 Wheat

Water intensity value (m3)

1,620

Numerator: Water aspect

Total water consumption

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

Our strategy to improve this metric: Last year was the first year PepsiCo reported against this indicator. This data is collected every three years; therefore, we cannot measure progress against the previous year. The water intensity metric for wheat comes from PepsiCo's internal Sustainable from the Start water footprint tool and reflects the water consumption for wheat grain. We expect the water intensity to decrease in the future. This metric supports our decision-making toolkit and strategies to improve water efficiency by helping us gauge where additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling etc. By 2030, we aim to sustainably source priority-supplier-sourced raw materials – those that we don't source directly from farmers – including wheat.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

51-75

% of total procurement spend

51-75

Rationale for this coverage

New in 2021, PepsiCo launched pep+ (PepsiCo Positive). Through pep+, we have established goals not only for PepsiCo-owned manufacturing operations, but also third-party manufacturers. Last year, we held global and sector-focused summits to launch pep+ and engage suppliers in these water-related targets, discussing how we would partner to achieve the pep+ water goals. In PepsiCo Foods North America, for example, this supplier convening specifically outlined the expectation for third-party manufacturers to report on water use and noted water goals for suppliers operating in both high water risk and non-high water risk locations. Similar supplier engagements were held with Latin America Sector and Africa, Middle East and South Asia Sector franchise owned bottling operations. Further, PepsiCo has an annual Sustainability Supplier of the Year award. Among other elements, water use reporting and progress made on water use efficiency are included in the criteria for this award. Looking ahead, in 2022 we plan to include a sustainability clause in contracts with PepsiCo Foods North America third-party manufacturers that states that they will report their sustainability data (including water use) to us annually.

Impact of the engagement and measures of success

Engaging with suppliers on water stewardship, aligning on goals and objectives is highly impactful. This past year was the first of many such engagements we expect to hold in the future. We will measure the success of pep+ engagements with third-party manufacturers by the resulting improvements in water use efficiency in support of our goal to achieve best-in-class and world-class water use efficiency in high water risk and non-high water risk locations respectively. Best-in-class is defined as 1.2 liters/liter of beverage production or 0.4 liters/kg of food production. World-class is defined as 1.4 liters/liter of beverage production and 4.4 liters/kg of food production. Additionally, we will measure the success of these engagements by the increase in water replenishment in support of our goal for our third-party manufacturing suppliers to replenish 100% of PepsiCo product-related water used by 2030. For PepsiCo Foods North America third-party manufacturers, we will specifically request information on water use and source, water use related to PepsiCo products, manufacturing facility water goals, external reporting commitments including the CDP Water Security Questionnaire, specific actions taken to reduce water use, whether they are located in a high water risk location and how they are pursuing the 100% Replenishment pep+ (PepsiCo Positive) goal.

Comment

The launch of pep+ (PepsiCo Positive) has increased the scope of supplier engagement in water-related activity, driving what we expect to be continued engagement across third-party manufacturing suppliers. This year, this response includes our PepsiCo Foods North America, Africa, Middle East and South Asia Sector, and Latin America third-party manufacturing suppliers.

W1.4b**(W1.4b) Provide details of any other water-related supplier engagement activity.****Type of engagement**

Incentivizing for improved water management and stewardship

Details of engagement

Offer financial incentives to suppliers reducing your operational water impacts through the products they supply to you

Offer financial incentives to suppliers improving water management and stewardship across their own operations and supply chain

Other, please specify

Share pep+ (PepsiCo Positive) commitments with global suppliers and explore how our suppliers can help us achieve these commitments.

% of suppliers by number

51-75

% of total procurement spend

51-75

Rationale for the coverage of your engagement

Our Sustainable Farming Program (SFP) (formerly our Sustainable Farming Initiative, or SFI), is a program we use to engage with growers on farms of all sizes and types around the world in order to encourage continual improvement in sustainable farming practices, expand respect for workers' human rights, enhance growers' capabilities, and address risks. We have initiated SFP with farmers from which we source directly, given our existing relationships with those farmers and the importance of directly sourced agricultural raw materials to the continuity of our business. We believe that incentivizing farmers for improved water management and stewardship practices is crucial for them to improve those practices.

New in 2021, PepsiCo launched pep+ (PepsiCo Positive). Through pep+, we have established goals not only for PepsiCo-owned manufacturing operations, but also third-party manufacturers. Last year, we held global and sector-focused summits to launch pep+ and engage suppliers in these water-related targets, discussing how we would partner to achieve the pep+ water goals.

Impact of the engagement and measures of success

We will measure the success of these SFP engagements by the resulting improvements in water-use efficiency in support of our goal to reach 15% improvement by 2025. One measure of success is improved water use intensity for the commodities supplied. In 2020, we improved our agricultural water-use efficiency by 14% in high water risk regions compared to a 2015 baseline. This number remains the same in 2021, as we measure agriculture water-use efficiency every three years. In addition, this engagement is also benefiting the farmers we supply from; we are helping them access more efficient irrigation equipment, supporting best practices for scheduling and maintenance, and enabling them to move from flood irrigation to more efficient methods. By the end of 2021, we also had 72 regenerative agriculture demonstration farms and over 600 farmers transitioned from demonstration into broader “landscape” impact programs to scale up proven innovation. We will measure the success of these engagements by the resulting improvements in water-use efficiency.

Similarly, we will measure the success of pep+ engagements with third-party manufacturers by the resulting improvements in water use efficiency in support of our goal to achieve best-in-class and world-class water use efficiency in high water risk and non-high water risk locations respectively. Additionally, we will measure the success of these engagements by the increase in water replenishment in support of our goal for our third-party manufacturing suppliers to replenish 100% of PepsiCo product-related water used by 2030.

Comment

In prior year reporting, this response focused on our agricultural supply chain. The launch of pep+ (PepsiCo Positive) has increased the scope of supplier engagement in water-related activity, which we expect will continue to increase.

W1.4c

(W1.4c) What is your organization’s rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

PepsiCo knows that we cannot achieve our pep+ (PepsiCo Positive) ambitions alone. We value our collaborations with other stakeholders and are actively involved in creating and fostering collaborations to improve water security. Stakeholders include peer companies, non-profit organizations and industry groups. One of our new 2030 ambitions is to improve the livelihoods of more than 250,000 people in our agricultural supply chain and communities, with focus on economically empowering women and making farming more diverse in the face of an aging global farming population. Partnerships with the U.S. Agency for International Development, Inter-American Development Bank and CARE’s She Feeds the World program are providing support for female farmers in Asia, Latin America and the Middle East. To support diversity in our North American supply chain, PepsiCo has joined the National Black Growers Council, serving on its Advisory Board and as a national Sustaining Member.

Partner and stakeholder engagements help us learn about emerging sustainability topics, better inform our efforts and help us work to create value for society. We solicit feedback from our stakeholders via bilateral meetings and participation in stakeholder networks, outreach programs, webinars and working together on a wide variety of topics. For example, along with

Walmart and others, PepsiCo is a founding member of the Midwest Row Crop Collaborative, a diverse coalition of industry and nonprofit groups working to expand agricultural solutions that protect air and water quality and enhance soil health. Additionally, another 2030 pep+ ambition is our aim to replenish 100% of the water used in third-party sites in high-water-risk areas. To support progress on this goal, we completed a water risk assessment of third-party manufacturers to identify those located in high water risk watersheds and then engaged these partners through sustainability summits and one-on-one workshops.

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?

Yes, fines, enforcement orders or other penalties but none that are considered as significant

W2.2a

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

Row 1

Total number of fines

7

Total value of fines

8,287

% of total facilities/operations associated

2

Number of fines compared to previous reporting year

Lower

Comment

The total number of fines decreased from 8 in 2020 to 7 in 2021. The financial value of water-related fines in the period under review increased from approximately \$6,000 to \$8,287. Please note that there was a value of \$5,000 that was not included in last year's reported total.

W3. Procedures

W-FB3.1

(W-FB3.1) How does your organization identify and classify potential water pollutants associated with its food, beverage, and tobacco sector activities that could have a detrimental impact on water ecosystems or human health?

PepsiCo has strict requirements for incoming and effluent water quality at our facilities, and we require adherence to the Company's standards, or local regulatory standards, whichever is more stringent. Methods used to identify potential pollutants, including standards, used: PepsiCo's Global Environment, Health and Safety Management System is a set of management and technical standards that provide guidance on acceptable and applicable operating parameters for our operations. Wastewater constituents that are considered pollutants and monitored vary depending on the type of facility, their discharge destinations, and local requirements, but PepsiCo standard parameters include biochemical oxygen demand (BOD), chemical oxygen demand (COD), total suspended solids (TSS), total Nitrogen, Phosphorous, Oil and grease, pH, Temperature, and Fecal coliform or E. coli. These are categorized by the type of facility discharging the wastewater and we monitor each separately. Our level of concern of and discharge standards for each of these parameters is dependent on local conditions such as the receiving body of water's quality and local ecosystems.

One technical standard that we use is the Discharge of Process Wastewater Standard, which is aligned with the World Bank's International Finance Council and Business for Social Responsibility's (BSR) Sustainable Water Group. Types of impacts on humans and ecosystems: We have identified the chemical, biological, and physical properties of water outlined in our standard as ones that could negatively affect human and ecosystem use. Examples of impacts include potential eutrophication and groundwater contamination. Value chain & variations across value chain: Within our value chain, agrochemicals are one of the nine pillars under our Sustainable Farming Program (formerly referred to as our Sustainable Farming Initiative), providing a platform through which PepsiCo gathers information on pesticide management and application, including measures to support safe, legal and responsible use while minimizing agrochemical application through practices such as Integrated Pest Management (IPM).

The agrochemical pillar includes four fundamental principles that are required and three progressive principles that are encouraged. Because we source from many countries, local watershed considerations may vary across our value chain. For example, in the United States, excess nutrients are the main driver of the growth of algae blooms and harmful conditions for aquatic life in the Chesapeake Bay and the Gulf of Mexico. And in India, the largest source of water pollution is untreated effluent and are more relevant concerns for all water stakeholders. PepsiCo also leads or participates in a variety of forums to address water pollution in supply chains and watersheds such as the Midwest Row Crop Collaborative.

W-FB3.1a

(W-FB3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your food, beverage, and tobacco sector activities.

Potential water pollutant

Fertilizers

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

We recognize the potential impacts of fertilizers (such as phosphorous loading which can speed up eutrophication in aquatic environments) and have therefore incorporated best management practices for fertilizers into our Sustainable Agriculture Policy. For example, our Sustainable Farming Program trains farmers on optimal fertilizer management. For both our direct agricultural operations as well as our agricultural supply chain operations, the scale and magnitude of the potential impacts of fertilizers is dependent on local conditions, including the on-farm management practices, the crops being grown and fertilizers used, and the proximity to water sources.

Management procedures

- Soil conservation practices
- Crop management practices
- Sustainable irrigation and drainage management
- Fertilizer management
- Calculation of fertilizer intensity data
- Waste water management
- Follow regulation standards

Please explain

How the procedures selected manage the risks of potential impacts: PepsiCo aims to optimize the applied water footprint to crop and livestock systems, as well as responsibly manage runoff risks of pollution or contamination of ground or surface water with fertilizers, nutrients or soil. PepsiCo works with farmers to develop effective water management plans for addressing water risk.

How success is measured and evaluated: We evaluate success by routinely evaluating farmer compliance with our Sustainable Farming Program, including the implementation of fertilizer management through our farmer engagement. To achieve compliance with our Sustainable Farming Program, farmers must demonstrate adoption of best management practices.

Potential water pollutant

Pesticides and other agrochemical products

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

We recognize the potential impacts of pesticides (such as phosphorous loading which can speed up eutrophication in aquatic environments) and have therefore incorporated best management practices for pesticides into our Sustainable Agriculture Policy. For example, our Sustainable Farming Program trains farmers on optimal fertilizer management. For both our direct agricultural operations as well as our agricultural supply chain operations, the scale and magnitude of the potential impacts of fertilizers is dependent on local conditions, including the on-farm management practices, the crops being grown and fertilizers used, and the proximity to water sources.

Management procedures

Soil conservation practices
Crop management practices
Sustainable irrigation and drainage management
Pesticide management
Substitution of pesticides for less toxic or environmentally hazardous alternatives
Waste water management
Follow regulation standards

Please explain

How the procedures selected manage the risks of potential impacts: We track the progress of our growers who have integrated pest management (IPM) that meets our minimum expectations. PepsiCo is in the process of engaging with our agriculture teams and growers to support the growers and implementing IPM improvement programs, including training on what constitutes an acceptable IPM that is appropriate for the size/capability of the grower and also to build the business case to adopt IPM.

How success is measured and evaluated: Our goal is 100% compliance with our Sustainable Farming Program, and we are leveraging third-party verification to ensure that growers are using the right practices, including IPM. The impact of IPM on pesticide application will vary according to a complex set of factors, including crop type, region and climate but, in principle IPM supports the reduction in the amount of pesticides used.

Potential water pollutant

Manure and slurries

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

For our agricultural supply chain operations, the scale and magnitude of the potential impacts of manure and slurries, such as oxygen depletion, are dependent on local conditions, including the on-farm management practices, the waste management procedures, and the proximity to water sources.

Management procedures

Animal waste management
Livestock management
Waste water management

Please explain

How the procedures selected manage the risks of potential impacts: PepsiCo aims to optimize the applied water footprint to crop and livestock systems, as well as responsibly manage runoff risks of pollution or contamination of ground or surface water with manure or slurries. PepsiCo aims to work with farmers to develop effective water management plans for addressing water risk.

How success is measured and evaluated: We routinely evaluate farmer compliance with our Sustainable Farming Program, including the implementation of manure and slurries management, where applicable. To achieve compliance with our Sustainable Farming Program, farmers must demonstrate adoption of best management practice. This is of particular relevance to our dairy operations and suppliers in Russia and Eastern Europe.

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 an established enterprise risk management framework

Frequency of assessment

More than once a year

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
International methodologies and standards

Tools and methods used

WRI Aqueduct
Alliance for Water Stewardship Standard
Other, please specify
Internal company methods, External consultants

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
Access to fully-functioning, safely managed WASH services for all employees
Other, please specify
River basin management authorities, Alliance for Water Stewardship

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

In addition to the global operations water risk assessments described in this report, we identify and assess water-related risks through an Enterprise Risk Management process on a 6-month time frame. For our global operations assessment, we use the WRI Aqueduct tool, combined with local site surveys, to determine the level of water risk in three categories: physical, regulatory and reputational/social. Both current risk and anticipated future water risk were assessed and assigned a risk score. Using the WRI 2040 future scenario planning tool, we can understand risk changes over this time period. We conduct this full operations water risk assessment every three years, but we review and assess our water risk every year based on changes to the business and our facilities. In addition, we joined the Alliance for Water Stewardship in 2018 and have been adopting the Standard at high water risk facilities. In 2021, three sites had completed adoption and another 31 sites were in the process of implementing the Standard.

Water-related regulatory frameworks will likely increase as more regions continue to face increased water stress. Our license to operate in communities is dependent on these frameworks. We engaged with external consultants to develop and utilize a water stress assessment survey for our sites that provides a more detailed insight into current and emerging local regulatory conditions affecting both water supply (i.e., allocation restrictions) and water costs (i.e., tariffs).

We believe that sustainable agriculture should optimize the use of resources to improve farm productivity and preserve soil fertility, water and air quality and biodiversity in agricultural operations. Further, PepsiCo is aiming to achieve more than 100% replenishment of water used in all company owned manufacturing operations in high water risk locations by 2030, replenishing 34 percent of the water we consumed in our company-owned manufacturing facilities in high-risk watersheds last year. We are increasingly looking to capture the impacts beyond volumetric of these replenishment programs. For example, in partnership with The Nature Conservancy in South Africa, the removal of invasive plant species not only results in increased water security, but also contributes to the conservation and restoration of ecosystem functioning and diversity of native plant life and the habitat of native fauna.

Value chain stage

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as part of an established enterprise risk management framework

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
 Databases
 Other

Tools and methods used

WRI Aqueduct
 FAO/AQUASTAT
 Internal company methods
 External consultants

Contextual issues considered

Water availability at a basin/catchment level

Water quality at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats

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

Water is key to our ability to source ingredients for our products; droughts and other water-related events can disrupt our commodity supply chains and impact the availability and cost of our raw materials. We conducted a global water risk assessment on our major agricultural sourcing regions using WRI Aqueduct, FAO/AQUASTAT and external consultants. This assessment identified areas of high water risk and enables us to target investment in water efficiency improvements with our farmer communities as well as plan for future supply disruptions. We include this information in our water risk assessments as it is vital to our business. We assess the issue and identify risks in partnership with external consultants and non-governmental organization partners to best identify current issues with emerging urgency as well as emerging issues that may arise based on trends and changes such as climate change. We believe that sustainable agriculture should optimize the use of resources to improve farm productivity and preserve soil fertility, water and air quality and biodiversity in agricultural operations.

With the launch of pep+ (PepsiCo Positive) in 2021, PepsiCo aims to replenish more than 100% of the PepsiCo product-related water used in company-owned and third-party manufacturing sites in high-water-risk areas by 2030. To support progress on this goal, in 2021 we undertook a water risk assessment of all PepsiCo's third party manufacturers covering over 700 facilities globally. Third-party facilities were geographically plotted using the WRI Aqueduct tool to determine the relative stress based on the Aqueduct data sets including overall water risk, baseline water stress and projected (2025) baseline water stress. These results were then combined with an independent score from our external consultancy's global network, drawing from local knowledge and experience to determine a facilities' relative risk exposure using proprietary insights. PepsiCo has determined a scoring range from 0 – 5, and sites receiving a score of 3.5 or higher are classified as high water risk. Not only will these future replenish efforts impact water availability, but we are increasingly looking to capture the impacts beyond volumetric.

Water-related regulatory frameworks will likely increase in many of the areas where our suppliers operate as more regions continue to face increased water stress. The license to operate in communities is dependent on these frameworks.

Value chain stage

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

International methodologies and standards

Databases

Other

Tools and methods used

Life Cycle Assessment

Internal company methods

Other, please specify

Ecoinvent, World Food Lifecycle Database, and an in-house customized LCA tool for PepsiCo

Contextual issues considered

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

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

We identify and assess water-related risks for our products and their value chain using ISO standard life cycle assessment methodologies. Our Packaging Research & Development team created a Life Cycle Analysis tool utilizing ISO 14040/14044 and PAS 2050 standards. PepsiCo uses the findings and tool capabilities to incorporate life cycle thinking in our day-to-day R&D data-based decision making. For ingredients, we use the impacts of the World Food Lifecycle Database to understand which crops are water-intensive in which regions.

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.**

Through our Enterprise Risk Management process, we identify and assess water-related risks within our direct operations and other stages of our value chain twice a year. Supplementing that process, we conduct a global water risk assessment of all company-owned operations every three years. This was last completed in 2019 and will be completed again in 2022. As part of our 'Other, internal company methods' and 'Other, external consultants' tools, we engaged with external consultants to develop and utilize a water stress assessment survey for our sites to provide detailed insight into local water conditions as well as current and emerging trends that may impact our business including local regulatory conditions and stakeholder concerns. We used the WRI Aqueduct tool, combined with these surveys and engagement of an external consultant to determine the level of water risk across physical (both quality and quantity), regulatory and reputational/social categories. The comprehensive combination of these three methods is used to assess 100% of companies, entities or groups over which financial control is exercised. Using these tools, both current risk and anticipated future water risk are assessed and assigned a combined risk score. Sites with a score in excess of 3.5 (out of 5) are designated as high water risk and are subject to mitigation requirements, including targets on water efficiency improvements and watershed replenishment. Additional sites with a lower score may also be (and have been) designated as high water risk based on local knowledge.

In an effort to bolster the risk assessment's consideration of biodiversity and ecosystem health, we will launch a Watershed Health project in 2022. This project will include a basin assessment of several high water risk sourcing regions and set the stage for setting Science Based Targets and subsequent selection and implementation of projects focused on improving watershed health holistically, pursuing achievement of multiple positive impacts from nature-based solutions.

Additionally, in 2018 PepsiCo joined the Alliance for Water Stewardship, through which we will strive for sustainable water management at both a manufacturing-site and at a catchment-level. Through AWS Standard adoption, information across all contextual issues identified is captured and many of the stakeholders considered are engaged including employees, local communities, NGOs, regulators, suppliers, local water utilities and other water users at the catchment level.

Committed to ensuring safe conditions for our employees in our manufacturing sites, including the provision of safe water, sanitation and hygiene (WASH), in 2014 we developed a global standard for Potable Water Management, which includes WASH. We are also a signatory of the WASH in the Workplace pledge and have a goal of appropriate access to WASH for 100% of our manufacturing employees by 2025.

PepsiCo launched pep+ (PepsiCo Positive) in 2021, establishing a new set of 2030 goals and including the aim to become Net Water Positive by 2030. One important way in which we use the outcomes of the water risk assessment is that company-owned and third-party manufacturing facilities designated as high water risk are subject to several 2025 and 2030 goals. By 2025 we are aiming for company-owned facilities in high water risk locations to achieve 25% operational water use efficiency (versus a 2015 baseline) and adopt the Alliance for Water Stewardship standard as a vehicle for water advocacy. Taking it one step further, by 2030, we are aiming for company-owned and third-party manufacturing facilities designated as high water risk to replenish more than 100% of the water used and achieve a “best-in-class” water efficiency standard (using 1.2 liters of water per liter of beverage or 0.4 liters of water per kilogram of food). PepsiCo partnered with Arizona State University to create a Water Stewardship Academy: a series of self-paced and classroom trainings designed to support employees engaged in water stewardship activities, bolstering skills and knowledge to support achievement of pep+. For replenishment, we are increasingly looking to capture the impacts beyond volumetric. For example, in partnership with The Nature Conservancy in South Africa, the removal of invasive plant species not only results in increased water security, but also contributes to the conservation and restoration of ecosystem functioning and diversity of native plant life and the habitat of native fauna. Also, high risk direct potato and corn sourcing regions will be required to improve water-use efficiency by 15% by 2025 (versus a 2015 baseline). This set of goals is increasingly of interest to both investors and customers alike.

Lastly, any new PepsiCo facility construction now requires a PepsiCo Sustainability Capital Expenditure Filter to be completed as part of the business case justification, of which water sustainability is a significant element.

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?

Yes, both in direct operations and the rest of our value chain

W4.1a

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

As global freshwater continues to come under increasing stress due to a number of drivers, including exponential demand of a growing population, and compounding effects of climate change, we may be exposed to increasing costs and capacity constraints. In relation to this

deteriorating state of water resources, we define substantive financial or strategic impact as change driven by water related events or trends that have the potential to cause significant impact on business, reputation, operations, assets, revenue or expenditures where we are not able to manage the probable likelihood of that impact occurring locally, regionally or globally.

PepsiCo incorporates the following factors when defining substantive financial or strategic impact in PepsiCo's direct operations, revenue or expenditure from water risk: 1) magnitude of potential impact on operating costs and/or current and future revenue; and 2) potential impact on stakeholder expectations or perceptions.

Financially this would equate to approximately >3% of the annual Net Operating Profit Before Tax (NOPBT) impact at given facility. In the majority of cases, material risk will be mitigated through PepsiCo's respective water programs with appropriate Capital Expenditure (CapEx) and Operational Expenditure (OpEx) investments.

One example of a potential substantive financial or strategic impact would be the prolonged closure of a manufacturing facility due to water-related issues. While neither were characterized as 'substantive', we have seen examples of production disruptions at our facilities in Cape Town and in southern India due to flooding. Should such change occur, the impact (and any potential need to review the definition) would be reviewed and re-assessed by our senior executive team. This definition of substantive change applies to both direct operations and to elements of our supply and value chains (for example, changes to how we source agricultural raw materials due to water-related risks).

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	11	1-25	PepsiCo conducts water risk assessments for all of its company-owned manufacturing operations using the data collected from the following three input methods: 1) WRI Aqueduct tool; 2) internal company knowledge at site level; and 3) expertise of external independent hydrologists with local knowledge and expertise. Additionally, PepsiCo conducts water risk assessments for all of its third-party manufacturing operations using data collected from the following two input methods: 1) WRI Aqueduct tool; 2) expertise of external independent hydrologists with local knowledge and expertise. Information from these sources is compiled to develop a comprehensive view of water-related risk facing each site within their specific local context, both

			now and out to 2040, and to categorize risks as physical, both quality and quantity, as well as regulatory or social/reputational. All sites receiving a score of 3.5 or higher (from within a range of 0 to 5) are classified as high water risk and are subject to mitigation requirements, including targets on water efficiency improvements, adoption of the Alliance for Water Stewardship Standard (for company-owned manufacturing operations only) and watershed replenishment. Additional sites with a lower score that are designated as high water risk based on local knowledge are subject to mitigation requirements as well. We utilize the expertise of independent hydrologists to validate the results of both the tools and the site surveys in an effort to ensure the results are consistent and credible. In line with the 2021 submission, PepsiCo has disclosed high risk facilities in line with the CDP definition of facilities with "Substantive Risk".
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W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

United States of America
Sacramento River - San Joaquin River

Number of facilities exposed to water risk

4

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

Less than 1%

Comment

Estimate based on net book value of reported facilities.

Country/Area & River basin

United States of America

Other, please specify
San Francisco / Greater California

Number of facilities exposed to water risk

2

% company-wide facilities this represents

Less than 1%

% company's total global revenue that could be affected

Less than 1%

Comment

Estimate based on net book value of reported facilities.

Country/Area & River basin

United States of America
Other, please specify
San Gabriel / Greater California

Number of facilities exposed to water risk

3

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

Less than 1%

Comment

Estimate based on net book value of reported facilities.

Country/Area & River basin

United States of America
Other, please specify
Oxnard / Greater California

Number of facilities exposed to water risk

2

% company-wide facilities this represents

Less than 1%

% company's total global revenue that could be affected

Less than 1%

Comment

Estimate based on net book value of reported facilities.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

United States of America

Other, please specify

Greater California

Type of risk & Primary risk driver

Acute physical

Drought

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Current and future water stress around the Greater California watershed in the U.S. could impact the ability of our current facilities to continue production without disruption in the future. In 2021, PepsiCo had several high water risk beverages and convenient foods manufacturing facilities located within the California watershed. Prolonged drought conditions in the basin in 2020 and 2021 are expected to continue for a third year in a row. This will affect water availability for all water stakeholders, including our facilities. Further, there is the potential for significant regulatory changes in the coming years as regulators work to balance water supply conservation with water deliveries to all stakeholders, including industrial water users and the general population.

Timeframe

1-3 years

Magnitude of potential impact

High

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

312,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

The potential financial impact estimate is based on a scenario whereby PepsiCo's highest water risk facility in the region could be forced to close due to lack of water, leaving a stranded asset. This figure is based on the value of property, plant, and equipment for each facility in the greater California area.

Primary response to risk

Implement nature-based solutions

Description of response

PepsiCo's response in these watersheds is to implement our global water strategy where we strive for Net Water Positive impact in our manufacturing facilities and the communities near where we work - meaning our efforts and collaborations will be designed to enable long-term, sustainable water security for our business and others who depend on water availability. PepsiCo launched pep+ (PepsiCo Positive) in 2021. This established a new set of 2030 goals, building on our already ambitious 2025 goals, and including the aim to become Net Water Positive by 2030. By 2025, we are aiming for company-owned facilities in high water risk locations to achieve 25% operational water use efficiency (versus a 2015 baseline) and adopt the Alliance for Water Stewardship standard as a vehicle for water advocacy. By 2030, we are aiming for these same sites to replenish more than 100% of the water used and achieve a "best-in-class" water efficiency standard, meaning these sites will use 1.2 liters of water per liter of beverage, or 0.4 liters of water per kilogram of food. Third-party manufacturing sites are newly included in PepsiCo's 2030 goals and those in high water risk locations will replenish 100% of water used at the site back into the watershed and achieve the same "best-in-class" water efficiency standard. This addition through pep+ triples the number of manufacturing facilities in scope for PepsiCo's water stewardship efforts. We have been implementing this strategy already in the Colorado River basin, which supplies Southern California cities where we have facilities located, through our collaboration with The Nature Conservancy (TNC). In this program, we collaborate with TNC on conservation activities within the Colorado River basin as well as support irrigation efficiency improvements to reduce demand for water in this area. In 2020 and 2021, through these efforts we replenished over 500 million liters of water back to the Colorado River basin. Further, through partnership with the Arbor Day Foundation, Ducks Unlimited, and the Water Replenishment District over 2.6 billion liters of water was replenished in California watersheds through activities including reforestation, wetland restoration, and inland injection well construction. These efforts support both water risk mitigation and enhance PepsiCo's reputation.

Cost of response

4,398,000

Explanation of cost of response

We estimate response costs to be 'low', specifically we estimate them to be <1% of PepsiCo's global revenue. We utilized current costs of responses through our investment in currently active replenishment collaborations to estimate an approximate

total annual cost of responses to these risks. We expect these costs to continue into the future. The 2021 investment in these programs was \$2,125,000.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

South Africa
Berg-Olifants

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Chronic physical
Water scarcity

Primary potential impact

Supply chain disruption

Company-specific description

Mean precipitation increases or decreases could lead to change in supply patterns for key crops such as potatoes, oranges and oats, potentially higher transportation costs, potentially higher commodity costs and uncertainty of crop availability. We continuously monitor our operations and sourcing from high water risk areas using the Aqueduct tool from the World Resources Institute (WRI), as well as internal assessments. For example, in South Africa, 100% of our potatoes used in Simba Foods are sourced domestically, and 30% of those come from Western Cape, a region which is highly water stressed and is facing increased water risk due to climate change. Our Sustainable Agriculture team is working with our growers in South Africa and other high water risk areas to improve agricultural water use efficiency as part of our sustainability objectives in the supply chain.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-high

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

6,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

This estimate is not limited to South Africa. PepsiCo investments in improving crop yields are proprietary. PepsiCo has a corporate Sustainable Agriculture team in place which is supported by agriculture experts in our business divisions in implementing sustainable agriculture practices at our key crop suppliers. Potential financial impact figure is based on the value of the included crops.

Primary response to risk

Supplier engagement

Promote the adoption of sustainable irrigation practices among suppliers

Description of response

PepsiCo's goal is to operate in a sustainable manner, and we have undertaken several initiatives to manage the risk of consumer buying habits while simultaneously lessening our dependence upon climate-sensitive commodities. For example, to adapt to and mitigate the temperature and precipitation impact, PepsiCo has implemented our Sustainable Farming Program (SFP) (formerly our Sustainable Farming Initiative, or SFI) which enables our company-owned and contract growers, including those in South Africa, to compete in a resource constrained future. In South Africa, local PepsiCo teams have been driving farmer engagement across the grower base, using extensions services to drive adoption of SFP practices and build grower capabilities to address risks. This includes water risk where the implementation of pivot irrigation best practices across the grower base is in progress to support our water use reduction goal of 15 percent by 2025. While still in implementation phase we have already seen reductions in water consumption of 2m³/mt of crop.

Cost of response

8,000,000

Explanation of cost of response

This estimate is not limited to South Africa. PepsiCo investments in improving crop yields are proprietary. PepsiCo has a corporate Sustainable Agriculture team in place which is supported by agriculture experts in our business divisions in implementing sustainable agriculture practices at our key crop suppliers.

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

Other

Primary water-related opportunity

Other, please specify

Securing supply chain

Company-specific description & strategy to realize opportunity

Strategic relevance: The aspirational aim of our water stewardship program is to improve water security for our supply chain and the communities in which we operate. This is a strategic opportunity for PepsiCo because mitigating local water insecurity will lead to increased business resilience to water stress. Action taken: As one example, part of our 2030 pep+ (PepsiCo Positive) strategy is to replenish more than 100% of the water we use in company-owned manufacturing operations located in high-water-risk areas, ensuring that such replenishment takes place in the same watershed where the extraction has occurred. Additionally, this strategy includes replenishing 100% of the water used in third party manufacturing operations located in high water risk areas back into upstream watershed where the extraction occurred. Example: In Monterrey, Mexico, we have invested in the TNC Water Fund which uses market financial mechanisms to drive improved protection of source watersheds. In 2021, we invested initiatives across 14 countries, replenishing over 6.1B liters across company-owned manufacturing high water risk locations.

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

7,700,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

This financial impact is based on the investments we made in replenishment projects in 2021, which has more than double the 2020 investment of \$3,400,000.

Type of opportunity

Markets

Primary water-related opportunity

Improved community relations

Company-specific description & strategy to realize opportunity

Strategic relevance: Working collaboratively with the PepsiCo Foundation and other partners, our strategy is to provide access to safe water to a total of 100 million people (from 2006) in the worlds' most at-water-risk areas, with a focus on communities near our operations. This is a strategic opportunity for PepsiCo because many of the geographies that PepsiCo operates in have populations without basic access to safe water; as these geographies are important to PepsiCo's business, we also have a desire to act as a responsible corporate citizen in the communities where we operate.

Action Taken: The initiatives, in which we have engaged with our portfolio of NGO collaborators, provide a transformative opportunity. Our collaboration is expected to result in greater water availability where it did not previously exist, thereby providing more sustainable access to water for those communities, more sustainable solutions to the global water crisis, and more sustainable access to water for our manufacturing operations.

Example: Since 2006, PepsiCo and the PepsiCo Foundation have partnered with several organizations to help over 68 million people gain access to safe water through distribution, purification, and conservation programs in some of the planet's most water-stressed regions such as India, Latin America and China. This has been supported by \$54M in investments since 2016.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

54,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Since 2016, PepsiCo and the PepsiCo Foundation have invested over \$54 million in safe water access solutions with strategic collaborators as part of its goal to support a total of 100 million people with safe water access by 2030. Since 2006, over 68 million people have been reached.

Type of opportunity

Resilience

Primary water-related opportunity

Increased supply chain resilience

Company-specific description & strategy to realize opportunity

Strategic relevance: Our strategy is to improve the water-use efficiency of our direct agricultural supply chain by 15% in high-water-risk sourcing areas by 2025. PepsiCo has an opportunity to improve the resiliency of our agricultural supply chain through better water management.

Action taken: PepsiCo is engaged in a dialogue partnership with industry peers as part of the Midwest Row Crop Collaborative (MRCC), which also includes leading NGOs. MRCC focuses on U.S. states that PepsiCo relies on heavily for corn.

Example: Relevant to both our supply chain and the agriculture industry and region at large is that necessary improvements in Midwest farming practices are necessary to ensure supply resiliency and reduce pollution (one of MRCC's goals is to reduce nutrient loading from target states in support of the Gulf of Mexico Hypoxia Task Force goal); this includes PepsiCo's individual supply chain but extends beyond our individual influence.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

540,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

PepsiCo has invested \$45,000 in MRCC in 2021, on top of past investments of US\$495,000 - but the total partner investment is ~\$9MM. This is a good example of a collective action effort to improve supply chain resilience in an important agriculture region for PepsiCo as well as our industry peers.

Type of opportunity

Other

Primary water-related opportunity

Other, please specify

Collective Action

Company-specific description & strategy to realize opportunity

Strategic relevance: our strategy is to advocate for strong water governance in communities and watersheds where we operate, promoting water solutions that meet local water needs, and to initiate and support collaborative efforts with other stakeholders to address water risk and mitigate water insecurity.

Action taken: Our ability to achieve our goals is possible in part by collaborating with businesses, academic experts and NGOs.

For example, we are actively involved in the UN Global Compact's CEO Water Mandate, the WBCSD's Water Leadership Group, the International Finance Corporation's 2030 Water Resources Group and the Beverage Industry Environmental Roundtable. These forums allow us to learn from other companies and share our own experiences across a spectrum of industries, including food and beverage manufacturing, power generation and construction. This also enables us to discuss water-related issues and advance solutions.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,500,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

This is an estimate; our collective action efforts will, in most cases, align with our water stewardship efforts, whose costs have been estimated separately. One specific example here is our support of the 2030 Water Resources Group, where PepsiCo has made total contributions to an amount of \$1.5 million in support of the organization's activities around water stewardship

Type of opportunity

Efficiency

Primary water-related opportunity

Cost savings

Company-specific description & strategy to realize opportunity

Strategic relevance: Beginning with our Performance with Purpose target of 25% improvement in water-use efficiency achieved, PepsiCo set a goal to achieve an additional 25% improvement by 2025, with a focus on manufacturing operations in high-water-risk areas. With the launch of pep+ (PepsiCo Positive), we set a Net Water Positive goal to achieve net zero water, defined as: 1) achieving best-in-class water use efficiency in high-water-risk manufacturing sites and 2) world-class in all other manufacturing sites. Best-in-class is defined as 1.2 liters/liter of beverage production or 0.4 liters/kg of food production. World-class is defined as 1.4 liters/liter of beverage production and 4.4 liters/kg of food production.

Conserving water is good for our business and the environment wherever we operate. This water efficiency will also deliver cost savings to our operations through reductions in water abstraction costs, utilities costs as well as wastewater discharge compliance costs and chemical consumables.

Action taken: We continue to innovate and invest in technology that minimizes our freshwater water footprint in our manufacturing plants and increase circular water reuse opportunities. An example of this commissioned during 2021 is a new technology that recovers more than 50% of water used in potato chip manufacturing. PepsiCo's Research & Development team has successfully proven a groundbreaking method for condensing and treating the steam evaporated from its fryers to recover more than 50% of the water used in potato chip manufacturing lines. The energy recovered from the condensation can also be used for other manufacturing purposes, such as cooling part of the plant or converting it to electricity, reducing the plant's energy needs. PepsiCo has fully implemented this technology at its facility in Kolkata, India, where the proof-of-concept showed the approach will save ~60 million liters of water per year. Over the next seven years, the technology has the potential to be adopted at up to 30 potato chip manufacturing plants in high-water-risk areas.

The first application of a circular water project at our Sabritas Vallejo plant in Mexico City has successfully completed one full year of operation in 2021. The project enabled the Sabritas Vallejo facility to reduce freshwater demand by almost 70% in 2021 vs.

2019. We are looking to identify opportunities to replicate this project at other high water risk locations.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

30,100,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

In 2021 PepsiCo spent over \$30 million via its centrally-funded Capital Investments Sustainability fund for water use efficiency and upgrade projects. This has directly resulted in reducing the water use at some of our high risk facilities where CAPEX projects have been implemented.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Country/Area & River basin

United States of America

Other, please specify

Oxnard / Greater CA

Latitude

35.383414

Longitude

-119.238414

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

47

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

47

Total water discharges at this facility (megaliters/year)

26

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

26

Total water consumption at this facility (megaliters/year)

21

Comparison of total consumption with previous reporting year

About the same

Please explain

This site is quite a small operation relative to more traditional PepsiCo bottling operations, it maintains performance at a similar level to prior year. This site has been divested during 2022.

Facility reference number

Facility 2

Facility name (optional)

Country/Area & River basin

United States of America

Sacramento River - San Joaquin River

Latitude

38.483212

Longitude

-121.398597

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

393

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

393

Total water discharges at this facility (megaliters/year)

106

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

106

Total water consumption at this facility (megaliters/year)

287

Comparison of total consumption with previous reporting year

Higher

Please explain

Net consumption at this facility was higher than 2020 due to shifts in production relating to the pandemic and an increase in produced volume of 17% versus prior year. However, sustainability efforts and projects relating to on site efficiency projects continued and strong performance was recorded with a 3% annual efficiency improvement.

Facility reference number

Facility 3

Facility name (optional)

Country/Area & River basin

United States of America

Sacramento River - San Joaquin River

Latitude

36.692868

Longitude

-119.769691

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

392

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

392

Total water discharges at this facility (megaliters/year)

156

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

156

Total water consumption at this facility (megaliters/year)

236

Comparison of total consumption with previous reporting year

About the same

Please explain

Net consumption at this facility was approximately 2% lower relative to 2020 due to a slight reduction in production output at the site.

Facility reference number

Facility 4

Facility name (optional)

Country/Area & River basin

United States of America

Other, please specify

San Fran Bay / Greater CA

Latitude

37.612216

Longitude

-122.082406

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

267

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

267

Total water discharges at this facility (megaliters/year)

92

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

92

Total water consumption at this facility (megaliters/year)

175

Comparison of total consumption with previous reporting year

Higher

Please explain

While this site increased in production output by 12% over 2020 its water use efficiency rate improved by 6%. Various efficiency projects and focus on water sustainability on site have helped the site with this strong performance. The site will continue efforts to deliver the PepsiCo Positive best-in-class ambition for water use efficiency.

Facility reference number

Facility 5

Facility name (optional)

Country/Area & River basin

United States of America

Other, please specify

San Fran Bay / Greater CA

Latitude

37.766187

Longitude

-122.202848

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

239

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

239

Total water discharges at this facility (megaliters/year)

99

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

99

Total water consumption at this facility (megaliters/year)

140

Comparison of total consumption with previous reporting year

About the same

Please explain

The site continued to deliver on its ops water efficiency strategy and delivered strong performance in the year. The site will continue efforts to deliver the PepsiCo Positive best-in-class ambition for water use efficiency.

Facility reference number

Facility 6

Facility name (optional)

Country/Area & River basin

United States of America

Other, please specify

San Gabriel / Greater CA

Latitude

33.929963

Longitude

-117.297394

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

434

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

434

Total water discharges at this facility (megaliters/year)

129

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

129

Total water consumption at this facility (megaliters/year)

305

Comparison of total consumption with previous reporting year

About the same

Please explain

This site continues to be one of PepsiCo's most efficient beverage operations, recording a 6% annual efficiency improvement in 2021. The site is very proactive at identifying opportunities and sustaining progress.

Facility reference number

Facility 7

Facility name (optional)

Country/Area & River basin

United States of America

Other, please specify

San Gabriel / Greater CA

Latitude

34.039631

Longitude

-117.977316

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

436

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

436

Total water discharges at this facility (megaliters/year)

336

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

336

Total water consumption at this facility (megaliters/year)

100

Comparison of total consumption with previous reporting year

Higher

Please explain

This site recorded an 11% water usage efficiency improvement over 2020 while also growing in production volume by 11% in the same timeframe. A cross-functional global and sector effort has been focused on driving efficiency across our US high water risk locations for the last several years though optimizing ingredient water production, cleaning processes and flavor changeovers and the results are paying off.

Facility reference number

Facility 8

Facility name (optional)

Country/Area & River basin

United States of America
Sacramento River - San Joaquin River

Latitude

35.383414

Longitude

-119.238414

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

1,393

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

1,393

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

1,253

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

1,253

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

139

Comparison of total consumption with previous reporting year

About the same

Please explain

This is a large water consumer site for PepsiCo and is also one of our most complex foods sites due to its geographic location, the age of the plant and the portfolio mix. Water use efficiency opportunities and investment plans have been identified since 2020 and have been piloted. During 2021, several water efficient technology pilots were running on site with very promising water efficiency performance expected. The learning will be leveraged across our US convenient foods business.

Facility reference number

Facility 9

Facility name (optional)

Country/Area & River basin

United States of America
Sacramento River - San Joaquin River

Latitude

37.6308

Longitude

-120.919063

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

815

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

11

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

804

Total water discharges at this facility (megaliters/year)

734

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

734

Total water consumption at this facility (megaliters/year)

81

Comparison of total consumption with previous reporting year

About the same

Please explain

This is another important foods site for PepsiCo. Water withdrawals increased by 7% over the prior year, facilitating an ~5% increase in production output. Water use efficiency opportunities and improvements continue to be identified at this site and built into annual operating plans. Some pandemic related delays to project plans happened during 2021 but have been rescheduled for 2022. This is a priority high water risk site for our US convenient foods operations.

Facility reference number

Facility 10

Facility name (optional)

Country/Area & River basin

United States of America

Other, please specify

San Gabriel / Santa Ana

Latitude

34.079394

Longitude

-117.591129

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

278

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

278

Total water discharges at this facility (megaliters/year)

251

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

251

Total water consumption at this facility (megaliters/year)

27

Comparison of total consumption with previous reporting year

Lower

Please explain

This site recorded an ~8% reduction in production output in 2021 compared to 2020 which accounts for the lower water withdrawals for the year. A multimillion-dollar capital investment in wastewater reuse is being installed at this site during 2022 and expects to be operating during 2023. This project will be incorporating membrane bioreactor design and Reverse Osmosis membranes to produce potable grade water for reuse within the potato and corn processing site. This project is expected to significantly reduce the site's freshwater footprint during 2023.

Facility reference number

Facility 11

Facility name (optional)

Country/Area & River basin

United States of America

Other, please specify

Oxnard / Greater CA

Latitude

34.20283

Longitude

-119.147359

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

14

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

14

Total water discharges at this facility (megaliters/year)

7

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

7

Total water consumption at this facility (megaliters/year)

7

Comparison of total consumption with previous reporting year

Lower

Please explain

Production output at this site reduced during 2021 versus 2020 and, while this is a small water user relative to other PepsiCo manufacturing sites, it did record higher than usual water withdrawals. This site has been divested during 2022.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

% verified

76-100

Verification standard used

International Standard on Assurance Engagements 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information

Water withdrawals – volume by source

% verified

76-100

Verification standard used

PepsiCo's Global Environmental Health & Safety Mngt System (GEHSMS) Standard

Water withdrawals – quality by standard water quality parameters

% verified

76-100

Verification standard used

PepsiCo's Global Environmental Health & Safety Mngt System (GEHSMS) Standard

Water discharges – total volumes

% verified

76-100

Verification standard used

PepsiCo's Global Environmental Health & Safety Mngt System (GEHSMS) Standard

Water discharges – volume by destination

% verified

76-100

Verification standard used

Based on local regulatory authority standards

Water discharges – volume by final treatment level

% verified

76-100

Verification standard used

Based on local regulatory authority standards

Water discharges – quality by standard water quality parameters**% verified**

76-100

Verification standard used

International Standard on Assurance Engagements 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information

Water consumption – total volume**% verified**

Not verified

Please explain

This water aspect has not been verified by a third-party.

W6. Governance

W6.1

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

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives	PepsiCo's Water Management policies applies to our entire company, including all companies, entities or groups over which financial control is exercised. PepsiCo is reliant on water in our products, our supply chain and in the communities of which we are a part. The challenge of global water insecurity and the closely interlinked challenges of food, and climate insecurity have been increasing in awareness by diverse stakeholders, including influencers, investors, customers, academics, employees and consumers. With awareness of these global realities comes increased visibility

	Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change Other, please specify Commitment to collaboration/partnership	of corporate practices and heightened expectations of performance. PepsiCo continues to activate a robust, comprehensive water stewardship strategy, underpinned by our public commitment to respect water as a human right, based on five key imperatives: Improving water efficiency in our direct operations; Extending conservation to our supply chain, particularly agriculture; Pursuing integrated watershed management; Partnering to help provide community access to safe water; and Stewarding public water advocacy and engagement. In addition, we continue to partner externally to seek innovative solutions to the challenges we face, and also explore competitive opportunities through our products and business models to use and transport less water.
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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	Please explain
Board-level committee	Under PepsiCo's By-Laws and Corporate Governance Guidelines, the Board has the responsibility to manage the business of the Company. Sustainability matters, including water management, are integrated into our business. Therefore, the Board considers them an integral part of its business oversight. In addition, our Sustainability, Diversity and Public Policy Committee (SDPPC), which was

	established in 2017 and is comprised entirely of independent directors, assists the Board in providing more focused oversight of the Company's policies, programs and related risks that concern key sustainability and public policy matters. The SDPPC typically meets four times per year. An example of a Board Committee Decision in 2020 was to advocate for increased budget allocation in addressing water risk due to the potential impact the issue may have on the company. This commitment can be exemplified by water-related CapEx increase of ~32% in 2021 compared to 2020. Additionally, we have forecasted a 51% increase in CAPEX spend in 2022 compared to 2021.
Chief Executive Officer (CEO)	The PepsiCo Risk Committee (PRC), including PepsiCo's Chairman and CEO, assists to identify, assess, prioritize, and address our top strategic, operating, and business risks. The PRC is also responsible for reporting progress on our risk mitigation efforts to the Board, including with respect to water-related risks. The PepsiCo Executive Committee (PEC) has direct oversight of the sustainability and water agenda, including strategic decisions and performance management. The PEC is made up of the Chairman & CEO, the CFO, sector CEOs and functional heads, ensuring that sustainability is a key accountability for every member of our senior leadership team. The PEC also signed off on our new PepsiCo Positive (pep+) 2030 water strategy which was publicly released in September 2021.

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 - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans	The Sustainability, Diversity and Public Policy Committee assists the Board in providing more focused oversight of the Company's policies, programs and related risks that concern key sustainability matters. The Committee, which typically meets four times per year, is comprised entirely of independent directors. One of the key agenda items for these meetings is a review of PepsiCo's company-wide progress on our pep+ (PepsiCo Positive) goals, launched in 2021, including progress against our respective water goals. The PepsiCo Risk Committee (PRC) is a cross-functional diverse group that meets regularly and is responsible for reporting progress on risk mitigation efforts to the Board. Agendas for these meetings include various governance mechanisms including reviewing PepsiCo's progress on water-related risks and risk mitigation strategy. The Risk

		Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives Other, please specify Operations and supply chain priorities	Committee also reviews the potential impacts to agricultural commodity supplies and production disruptions due to water-related risks that may impact PepsiCo's business. The Board receives regular updates on key risks throughout the year. Key risks related to water scarcity identified by the Company are included in our 2021 Annual Report on Form 10-K. At one level below the Board, the PepsiCo Executive Committee (PEC - made up of the Chairman & CEO, the CFO, sector CEOs and functional heads), meets quarterly to review progress against goals; progress against broader environmental risk mitigation (such as our efforts to mitigate the impacts of water stress/risk); and to ensure that we are adapting our sustainability strategy to changes in science, stakeholder expectations and marketplace conditions. In addition, the PepsiCo Sustainability Sub-Committee of the PEC comprised of the CEO, the CFO and functional heads takes further responsibility for sustainability matters and meets every month to discuss strategy and progress.
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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	Our Board has a comprehensive, ongoing director succession planning process designed to provide for a highly independent, well-qualified Board, with the diversity, experience and background to be effective and to provide strong oversight. Our Board regularly evaluates the needs of the Company and adds new attributes, viewpoints and experiences to the Board as necessary to best position the Company to navigate through a constantly changing global landscape. The Board established a Public Policy and Sustainability Committee in 2017. In 2020, the Board amended the Committee's charter and changed its name to Sustainability, Diversity and Public Policy Committee to reflect the Committee's ongoing oversight over diversity and inclusion matters. The Committee assists the Board in providing more focused oversight over PepsiCo's policies and programs and related risks that concern key sustainability, diversity and inclusion and public policy matters. Members of this Committee provide the Board with unique perspectives

		on human capital management, talent development and diversity and inclusion and insights on public policy and sustainability-related matters that are particularly valuable as PepsiCo continues to focus on its sustainability goals and pursue strategies to drive long-term growth.
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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 Executive Officer (CEO)

Responsibility

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

In 2019, our CEO convened an Executive Committee Sustainability Subcommittee, which he chairs and comprises Executives including our Chief Sustainability Officer, who reports to the CEO. This continued through 2021. The Subcommittee meets at least quarterly and water security topics addressed include reviewing progress against and assessing / approving improvements to PepsiCo's water strategy. An example includes launch of our pep+ (PepsiCo Positive) agenda in September 2021 announcing our aim to become Net Water Positive by 2030, reduce absolute water use and replenish back into the local watershed more than 100% of the water used at company-owned and third-party sites in high-water-risk areas. Our CEO also sits on the PepsiCo Risk Committee, meeting regularly to identify, assess, prioritize, address, manage, monitor and communicate our top risks. The PRC is responsible for annual reporting of our risk assessment, mitigation plans and strategies and other efforts to the Board.

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	Our executive officers have certain annual strategic objectives that are aligned with the achievement of our long-term sustainability agenda (including water goals), generally tailored to each executive's role and scope of responsibilities. Performance against these objectives is

		evaluated for each executive officer, in conjunction with individual contributions to broader strategic business imperatives, impacting the payout of the annual incentive award.
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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	Please explain
Monetary reward	Chief Executive Officer (CEO) Chief Sustainability Officer (CSO) Other C-suite Officer Business Unit CEOs	Reduction in consumption volumes Improvements in efficiency - direct operations Other, please specify Replenishment	Our executive officers, including our Chairman and CEO, our Chief Sustainability Officer and our Business Unit CEOs have certain annual strategic objectives that are aligned with the achievement of our pep+ (PepsiCo Positive) sustainability agenda, generally tailored to each executive's role and scope of responsibilities. Performance against these objectives is evaluated for each executive, in conjunction with individual contributions to broader strategic business imperatives, impacting the payout of the annual incentive award. Some of our business unit managers, water managers, and facility managers also have annual water efficiency performance targets that line up with our 25% water use efficiency 2025 goal. PepsiCo has a pay-for-performance philosophy, and the annual performance rating may impact annual merit increases, including bonus payouts. In addition, a wide range of complementary awards recognizes teams and associates for exceptional performance in sustainability, including projects that reduce product water efficiency.
Non-monetary reward			

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
- Yes, trade associations
- Yes, funding research organizations

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?

PepsiCo's Public Policy and Government Affairs teams develop advocacy guidance, manage relationships with government actors, and coordinate activities that may influence regulatory policy globally. These teams work closely with the Office of Sustainability and other functions and businesses to ensure that our external engagements are aligned with our overall water strategy. This team ensures communications with regulators is consistent with pep+ (PepsiCo Positive) water commitments. We have identified priority markets for action based on local circumstances and business volumes with a view to promoting medium-term improvements to water policy. Additionally, all external communications are reviewed by Corporate Control to ensure that publicly disclosed information is accurate and not misleading in fact or in nature. Further, PepsiCo's Global Code of Conduct defines how we do business. It is anchored by our strong ethical culture, which we call The PepsiCo Way, and calls on PepsiCo employees to Act with Integrity in everything we do and Voice Opinions Fearlessly when compliance issues arise. Employees are expected to speak up and report any potential violations of our Code, our policies or the law through internal channels or by contacting PepsiCo's ethics hotline. This hotline is available to all PepsiCo employees, consumers, suppliers and other third parties to report suspected violations of our Code.

W6.6

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

Yes (you may attach the report - this is optional)

 2021-pepsico-annual-report.pdf

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
Long-term business objectives	Yes, water-related issues are integrated	> 30	Improved water use efficiency is a water issue included in our long-term business objectives. This is integrated into the plan through investments made in support of delivering the target - the capital expenditures made are for long-term technology and infrastructure. We also

			report on our progress to both PepsiCo's Risk Committee and the Board of Directors. PepsiCo's Positive Water Impact Strategy is directly aligned with our business strategy to be a good global citizen and to reduce our environmental footprint. This was formalized with the 2016 launch of our Performance with Purpose strategy. In support of this strategy and long-term business objectives, PepsiCo aims to do the following in high water risk areas by 2025: improve our operations water use efficiency by 25%, adopt the Alliance for Water Stewardship standard as a vehicle for advocacy and improve water-use efficiency by 15% in our agricultural supply chain, focused on corn and potatoes. Launched in 2021, our pep+ (PepsiCo Positive) agenda expands previous commitments by establishing a Net Water Positive goal, defined as: 1) achieving best-in-class water use efficiency in high-water-risk manufacturing sites 2) world-class in all other manufacturing sites. Best-in-class is defined as 1.2 L/L of beverage production or 0.4 L/kg of food production. World-class is defined as 1.4 L/L of beverage production and 4.4 L/kg of food production. These manufacturing facilities will replenish more than 100% of water consumed.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	> 30	Water issues considered in our strategy for achieving long term objectives include our water risk assessments of both our manufacturing operations and our agricultural supply chain. In 2016 we launched our Performance with Purpose strategy, which included our positive water impact strategy, with most goals having target end dates of 2025. Then, in 2021 we launched pep+ (PepsiCo Positive) which increased the ambition of many existing targets, added additional goals and sets a 2030 date for goal achievement. However, our strategy for achieving our long-term business objectives extends well beyond the 2025 and 2030 goals. As one example of how we integrate this into our plan, our strategy for mergers and acquisitions (M&A) includes a requirement for water risk assessment of any M&A activity. In the event that an acquisition is projected to experience water stress now or in the future, we build into our long-term strategy for that acquisition plans to maximize water-use efficiency in plant locations. Since those locations are long-term (over 30 years) assets to PepsiCo, our strategy is intended to help protect those assets from water-related risks for that time period.

Financial planning	Yes, water-related issues are integrated	> 30	Our sectors and business units incorporate water-related issues, including necessary investments in our operational water use efficiency, replenishment and Alliance for Water Stewardship adoption goals, into annual budgets. Our financial planning includes consideration of business growth and new water-related issues that might impact the business. Our Performance with Purpose strategy, launched in 2016, includes our positive water impact strategy and several 2025 goals. Our pep+ (PepsiCo Positive) agenda, launched in 2021, established a Net Water Positive goal which includes water use efficiency and water replenishment 2030 goals. Our financial planning to achieve our long-term business objectives extends well beyond 2025 and 2030. One example of this is our requirement for a water risk assessment of any merger and acquisition activity. If an acquisition is projected to experience water stress, we build plans to maximize water-use efficiency in plant locations into our long-term strategy. Since those locations are long-term (30+ years) assets to PepsiCo, our strategy is intended to help protect those assets from water-related risks for that time period. Further, PepsiCo issued its first Green Bond in October 2019, a 30-year, \$1 billion senior notes offering, the net proceeds of which are being used to support our efforts in driving progress in sustainable plastics and packaging, decarbonization of our operations and supply chain and water sustainability initiatives.
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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)

32

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

51

Water-related OPEX (+/- % change)

32

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

51

Please explain

Water-related CAPEX and OPEX was 32% higher in 2021 vs 2020. Additionally, we have forecasted a 51% increase in CAPEX and OPEX spend in 2022 compared to 2021. As our strategy of achieving world class water efficiency at our high water risk operations continues, we are most often seeing annual year on year investment capital increases. We are investing in, for example, submetering automation for real time information of individual lines, ingredient water room upgrades e.g., installing high efficiency recovery reverse osmosis systems. The CAPEX and OPEX spend on water is prioritized to the most water stressed locations and approval is conditional on technical feasibility, material freshwater savings and replicability across our manufacturing network and other criteria. PepsiCo aims to deliver on its 2025 and 2030 water goals by continuing to invest in technology and R&D in both process efficiency and water recovery and reuse opportunities.

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

	Use of scenario analysis	Comment
Row 1	Yes	Description of scope and method: PepsiCo completed its first climate-related scenario analysis in 2020. Our assessment covered our manufacturing footprint including all company owned plants, warehouses and distribution centers, offices and R&D sites, key franchise and JV locations, as well as our entire agricultural supply chain. The assessment allows us to evaluate impacts to our business from physical and transition risks based on varying temperature scenarios (RCP 8.5 and RCP 4.5) and different time frames (by decadal period up to 2100). This helps us identify high risk areas to focus on and build resiliency plans. We selected the two scenarios of RCP 8.5 and RCP 4.5 as the two relevant and probable future climate scenarios relevant for informing our business strategies. The first scenario gives us a view of business as usual and very little limitation on emissions while the second one gives us a view of how regulations on emissions may play out in the future.

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	Other, please specify RCP 8.5 and RCP 4.5	We analyzed two scenarios in our scenario analysis: RCP 8.5 and RCP 4.5. RCP 8.5 assumes that no major global effort to limit greenhouse gas emissions will go into effect. RCP 8.5 is characterized by increasing greenhouse gas emissions over time representative for scenarios in the literature leading to high greenhouse gas concentration levels. RCP 8.5 implies warming of 4.2-5.4 °C, and consequentially high physical-related climate risks, including water risks. RCP 4.5 assumes coordinated action to limit greenhouse gas emissions to achieve a global temperature warming limit of approximately 2 degrees Celsius. It is a stabilization scenario where total radiative forcing is stabilized before 2100 by employment of a range of technologies and strategies for reducing greenhouse gas emissions. If the pledges and voluntary agreements of the Paris agreement were implemented in full, the implied warming is approximately 3.0 degrees Celsius. RCP 4.5 therefore implies warming of 1.7-3.2°C.	Drought risk and water stress are the main water-related outcome in our analysis in addition to other extreme weather patterns like convective storms, tropical cyclones, etc. and coastal flooding. For example, several of our Tropicana facilities located in Florida are at risk of coastal flooding which is an exponential risk over time while our facilities located in Latin America are at risk from of extreme temperatures. Drought risk is measured as the annual probability of severe drought conditions (above the historical 90th percentile), as compared to the baseline period (1980-2000) at the particular location. Our analysis then calculates a widely-used drought index driven by the localized climate model data. Water stress is modeled using location-specific data from WRI Aqueduct's 3.0. Baseline water stress indicator and the projected changes in water stress level are used in the modeling.	The results of the analysis help us understand the overall financial impact to our business by scenario and time period. The results provide directional focus by identifying the top 50 high climate risk locations to focus on in the coming years through deeper and more refined understanding of action needed to protect these locations. For water risks, where facilities have been designated as high risk, action is both internal and external. Internally, our Resource Conservation (ReCon) program is aimed at improving water use efficiencies in our manufacturing locations by deploying new technologies and practices as well as best practice sharing globally. Our goal is to improve operational water use efficiency in high water risk areas by 25% by 2025 over a 2015 baseline. As for action, in the broader watersheds where these high-risk facilities are located, all our high-risk facilities are required to put programs in place to replenish more than 100% of the water we use by 2030. We also aim to adopt the Alliance for Water Stewardship (AWS) Standard at our high-
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		We also considered risks over time. The analysis we conducted allows us to view risks and opportunities in financial terms by decade starting with the current decade we're in going all the way to 2100. It was important for our business to understand short-term risks while taking a pulse of long-term risks. Short-term or current decadal period risks are important for planning purposes and for internal stakeholders to act upon.		water risk facilities and will utilize the Standard as a vehicle for advocacy to help ensure that freshwater resources in high water risk locations are available for all water stakeholders. Within our supply chain, we are working to improve agricultural water use efficiency in high water risk areas with a target of improving water use efficiency by 15% (focused on corn and potatoes) by 2025 over a 2015 baseline
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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?

Yes

Please explain

PepsiCo recognizes and takes into account the social and environmental costs and benefits of water through our pep+ (PepsiCo Positive) water goals. Currently, PepsiCo manufacturing operations can use a Water Cost Model which includes the water-related costs that are usually 'hidden' such as energy, maintenance or chemical costs. This is a tool that can be utilized by any type of facility and includes incoming water costs, incoming water treatment costs, chemical costs, non-returned condensate costs, water transportation costs, wastewater discharge costs and water related maintenance costs. Use of this Model results in a total 'actual' cost summary of water. Additionally, in late-2021 we commissioned an external consultant to support the development of a model for a shadow price of water. We anticipate this to be completed in 2022, the results of which will inform an internal price on water at that time.

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	Definition used to classify low water impact	Please explain
Row 1	Yes	To be considered a low water impact product, it must meet at least one of the following criteria: 1. Products produced in a water efficient manufacturing facility as defined by best-in-class efficiency (in a high water risk locations) or world-class efficiency (in a non-high water risk locations) 2. Products that reduce or eliminate exporting virtual water 3. Reduce or eliminate water use by the end consumer	PepsiCo's pep+ (PepsiCo Positive) aim to become Net Water Positive by 2030 means we must not only focus on operational water use efficiency, but also on product innovation. Achieving this goal will mean that the majority of our products will qualify as low water impact in the next eight years. SodaStream technology enables the avoidance of the export of virtual water that is often transported as water embedded in the product. Further, PepsiCo's Research & Development team designed a method to recover more than 50% of the water used during potato chip cooking that captures steam, condenses it and cleans it to safe drinking standards. That water can then be reused to wash new potatoes as they arrive from the farm and power other processes at the plant. The technology has been implemented in PepsiCo's Kolkata, India facility, and may be adopted in up to 30 others in high-water-risk areas by 2030. Early results show the process can save ~60 million liters of water per year per facility.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals	Targets are monitored at	From the very beginning of Performance with Purpose (PwP) in 2006, water stewardship has been one of our top priorities. We have learned from our efforts in the last

Business level specific targets and/or goals Activity level specific targets and/or goals Site/facility specific targets and/or goals Country level targets and/or goals Basin specific targets and/or goals	the corporate level Goals are monitored at the corporate level	decade and consulted with partners and independent experts to inform the water stewardship goals that went into our 2025 agenda as well as our pep+ (PepsiCo Positive) agenda established in 2021. As a result, we have significantly raised the bar from our first set of Performance with Purpose goals. Our 2025 goals are more comprehensive in their scope and focused on a holistic view of our value chain and the watersheds where we operate. Our 2030 goals set the bar higher than our 2025 goals, including the aim to become Net Water Positive. As an example, we have set a company-wide replenishment goal that focuses on high water risk areas where we operate. By 2025, we aim to achieve 100% replenishment across all company-owned high water risk manufacturing operations. With pep+ (PepsiCo Positive), we then set a goal that by 2030 we will do the same across third party manufacturing operations in high water risk areas and achieve more than 100% replenishment in our company-owned manufacturing operations. Targets are set through a combination of reviewing external best practices, consultation with subject matter experts across the PepsiCo business and taking a view of the future risk profile to the business. Draft targets are developed, and a series of consultation process are held with the respective PepsiCo Sectors leads. Targets are ultimately approved by the PepsiCo Executive Committee (PEC). At the activity- and site-levels, this goal applies to our manufacturing operations in high water-risk areas and they have replenishment targets that roll up at the facility, country, and business sector levels. Key to our goal is the local context and our aim to replenish water in the same watershed where it was extracted. We monitor progress on replenishment and all other water goals and targets at the corporate level.
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W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Water use efficiency

Level

Company-wide

Primary motivation

Water stewardship

Description of target

Our goal is to build on the 25% improvement in water-use efficiency achieved in our first-generation Performance with Purpose (PwP) goals, which ended in 2015, with an additional 25% improvement by 2025, with a focus on manufacturing operations in high water-risk areas.

Quantitative metric

Other, please specify
water use efficiency per unit of production

Baseline year

2015

Start year

2016

Target year

2025

% of target achieved

72

Please explain

In 2021, we improved operational water use efficiency by 18% in high water-risk areas, measured versus a 2015 baseline, which represents 72% of our goal of a 25% improvement by 2025. This represents a 3% improvement over 2020, when we achieved a 15% efficiency improvement over the same 2015 baseline.

Target reference number

Target 2

Category of target

Watershed remediation and habitat restoration, ecosystem preservation

Level

Company-wide

Primary motivation

Shared value

Description of target

Replenish more than 100% of the water we use in manufacturing operations in high water-risk areas by 2030, ensuring that such replenishment takes place in the same local watershed where the extraction has occurred.

Quantitative metric

Other, please specify
Percent replenished

Baseline year

2015

Start year

2016

Target year

2030

% of target achieved

34

Please explain

In 2021, we replenished over 6.1 billion liters of water across 14 countries in projects in places including South Africa, Dominican Republic, Guatemala, India, Pakistan, Peru, Belgium, Mexico, and the US. In India, South Africa and the US, completed projects have over-delivered on our replenishment targets, reflecting strong local programs to reduce community water insecurity that have been in place for several years and which predate the launch of our global replenishment goal. Staying true to our goal of replenishing back to each of the high water-risk watersheds we are withdrawing from, we have capped at 100% the reporting of benefits from projects that achieved more than 100% of their watershed targets. Globally, we have met 34% of our 2030 target, nearly doubling the progress made in 2020 of 18% towards that same target.

Target reference number

Target 3

Category of target

Water, Sanitation and Hygiene (WASH) services in the community

Level

Other, please specify
Communities where PepsiCo operates

Primary motivation

Commitment to the UN Sustainable Development Goals

Description of target

With the PepsiCo Foundation and its partners, work to provide access to safe water to a total of 100 million people by 2030 in the world's most at-water-risk areas, with a focus on communities near where PepsiCo works.

Quantitative metric

Other, please specify
people provided access to improved, safe, water sources

Baseline year

2006

Start year

2006

Target year

2030

% of target achieved

68

Please explain

Increasing access to safe water for vulnerable individuals is one of the most urgent challenges the world faces. Addressing this challenge has been a priority for PepsiCo. Since 2006, through partnerships funded by the PepsiCo Foundation, we have provided access to safe water to over 68 million people by the end of 2021. After reaching our original 2025 safe water access goal early and almost doubling our target of reaching 25 million people by 2025, PepsiCo set an ambitious new target: helping to expand safe water access to 100 million people by 2030.

Target reference number

Target 4

Category of target

Other, please specify
Agricultural water use efficiency

Level

Company-wide

Primary motivation

Risk mitigation

Description of target

Improve the water-use efficiency of our direct agricultural supply chain by 15% in high-water-risk sourcing areas, a volume approximately equivalent to the entire water use of all PepsiCo direct operations.

Quantitative metric

Other, please specify
Percent water use efficiency improvement

Baseline year

2015

Start year

2016

Target year

2025

% of target achieved

93

Please explain

We are supplying farmers with more efficient irrigation equipment, enabling them to move from flood to drip irrigation. This conversion, in turn, changes the way farmers apply nutrients, improving soil health, yields and crop quality. We are also increasingly promoting the use of cover crops, which improves soil moisture. We have gathered baseline data from countries where we have direct crops in water-stressed regions and are focusing on establishing required processes and developing tailored roadmaps. For each farmer group, we have calculated their baseline water opportunity and are identifying local goals and implementation plans. In 2020, we improved agriculture water-use efficiency by 14% across our agricultural supply chain (focused on corn and potatoes) in high water-risk areas, making progress that represents achieving 93% of our goal of a 15% reduction by 2025. This is measured every three years, so this number has not changed for 2021.

Target reference number

Target 5

Category of target

Water pollution reduction

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

Ensure that 100% of wastewater from our operations meets PepsiCo's high standards for protection of the environment

Quantitative metric

Other, please specify

% wastewater that meets PepsiCo's wastewater standard

Baseline year

2015

Start year

2016

Target year

2025

% of target achieved

98

Please explain

We measure the proportion of wastewater that is treated based on the percent of wastewater that meets PepsiCo's wastewater standard. PepsiCo's Global Environment, Health and Safety Management System is a set of management and technical standards that provide guidance on acceptable operating parameters for our operations. One such technical standard is the Discharge of Process Wastewater Standard, which is aligned with the World Bank's International Finance Council and Business for Social Responsibility's Sustainable Water Group. PepsiCo maintains the standard that while compliance with local standards is necessary, it is sometimes not enough. In some parts of the world, local wastewater direct discharge limits may not be sufficient to protect local water resources. In such cases, we require our operations to meet PepsiCo's more stringent discharge limits. In 2021, over 98 percent of wastewater from our operations met PepsiCo's high standards for protection of the environment.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Engagement with public policy makers to advance sustainable water management and policies

Level

Company-wide

Motivation

Recommended sector best practice

Description of goal

While we know we can make a significant impact in water stewardship through the actions we take across our value chain, we also have opportunities to help mitigate water insecurity on a broader level, through advocacy. At PepsiCo, we aim to advocate for strong water governance in communities and watersheds where we operate, promoting water solutions that meet local needs. We also aim to initiate and support collaborative efforts with other stakeholders to address water risk and mitigate water insecurity. These goals, which we collectively refer to as 'advocacy' go hand in hand with our goal of adopting the Alliance for Water Stewardship Standard at our high water risk facilities by 2025 and are important to PepsiCo because we recognize that we cannot mitigate water insecurity on our own. This is a company-wide goal under our 2025 agenda because sustainable water management and policies are important across the globe and across all sectors, and we are prioritizing our actions in the space based on where water insecurity is a challenge, where there is an advocacy need and where we have been able to enter into collaborations with other water stakeholders. Success

will be achieved once all high water risk facilities have fully adopted the Alliance for Water Stewardship Standard.

Baseline year

2015

Start year

2016

End year

2025

Progress

Our indicator of success is to have all high water risk facilities globally adopt the Alliance for Water Stewardship (AWS) Standard. At the end of 2021, we had 31 facilities in process and three facilities that have completed adoption of the AWS Standard across 11 countries. As a beverages and convenient foods company, PepsiCo is acutely aware of the critical role water plays in the food system, therefore, we work to understand the local water challenges and support collaborative solutions that address the specific needs of the watershed. This has laid the foundation for pep+ (PepsiCo Positive) and our 2025 and 2030 targets designed to achieve 'positive water impact'. We joined the Alliance for Water Stewardship (AWS) in 2018 and aim to adopt the AWS Standard at all our high water risk facilities by 2025, using it as a vehicle for advocacy and to help ensure that freshwater resources in these locations are available for all water stakeholders. Through AWS Standard adoption, manufacturing sites have actively engaged with a range of stakeholders including public policy makers on water-related issues. For example, a manufacturing facility in Pakistan engaged 11 stakeholder groups in external water stewardship activities and partnerships to address shared water challenges between the plant and relevant local stakeholders including suppliers, community groups, local business, government agencies, non-profit organizations and others.

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
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W1 Current state	Water withdrawals (volume and quality)	ISAE 3000	An external process led by auditors, Apex (formerly Bureau Veritas) on data verification/assurance has been established and has been running in PepsiCo for many years. This is part of our Sustainability Data Governance methodology and is documented. Assurance followed guidelines for external Assurance of Sustainability Reports and International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after Dec. 15, 2015), issued by the International Auditing and Assurance Standards Board. A materiality threshold of ± 5 -percent was set for the assurance process.
W2 Business impacts	Water withdrawals (volume and quality)	ISAE 3000	An external process led by auditors, Apex (formerly Bureau Veritas) on data verification/assurance has been established and has been running in PepsiCo for many years. This is part of our Sustainability Data Governance methodology and is documented. Assurance followed guidelines for external Assurance of Sustainability Reports and International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after Dec. 15, 2015), issued by the International Auditing and Assurance Standards Board. A materiality threshold of ± 5 -percent was set for the assurance process.
W4 Risks and opportunities	Water withdrawals (volume and quality)	ISAE 3000	An external process led by auditors, Apex (formerly Bureau Veritas) on data verification/assurance has been established and has been running in PepsiCo for many years. This is part of our Sustainability Data Governance methodology and is documented. Assurance followed guidelines for external Assurance of Sustainability Reports and International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after Dec. 15, 2015), issued by the International Auditing and Assurance Standards Board. A materiality threshold of ± 5 -percent was set for the assurance process.

W10. 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.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

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

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

SW. Supply chain module

SW0.1

(SW0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	79,474,000,000

SW1.1

(SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

We do not have this data and have no intentions to collect it

SW1.2

(SW1.2) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	Yes, for some facilities	

SW1.2a

(SW1.2a) Please provide all available geolocation data for your facilities.

Identifier	Latitude	Longitude	Comment
1	35.383414	-119.238414	As reported in W5.1
2	38.483212	-121.398597	As reported in W5.1
3	36.692868	-119.769691	As reported in W5.1
4	37.612216	-122.082406	As reported in W5.1
5	37.766187	-122.202848	As reported in W5.1
6	33.929963	-117.297394	As reported in W5.1
7	34.039631	-117.977316	As reported in W5.1
8	35.383414	-119.238414	As reported in W5.1
9	37.6308	-120.919063	As reported in W5.1
10	34.079394	-117.591129	As reported in W5.1
11	34.20283	-119.147359	As reported in W5.1

SW2.1

(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

Requesting member

Wal Mart de Mexico

Category of project

Promote river basin collective action

Type of project

Invite customer to collaborate with other users in their river basins to reduce impact

Motivation

Supporting watershed conservation initiatives with large-scale results in five countries (six watersheds) in Latin America, PepsiCo's aim is to have a positive impact on water and people that is amplified and long-lasting.

Estimated timeframe for achieving project

2 to 3 years

Details of project

In 2016, PepsiCo and The Nature Conservancy announced a new collaboration for water replenishment in Latin America with a commitment to invest \$3 million in the next seven years and impact five watersheds in Mexico, Brazil, Guatemala and Colombia. Since then, the partnership has expanded to Argentina, the Dominican Republic and

Peru. PepsiCo is supporting Water Funds in these geographies, collaborative efforts that bring together a wide range of stakeholders and partners.

Projected outcome

Based on PepsiCo's operational footprint in these geographies, we have set Water Fund-specific targets on outcomes such as replenishment and hectares of land restored.

PepsiCo's support rolls up into the broader Water Funds' collective action efforts to improve water security within the watersheds.

SW2.2

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

No

SW3.1

(SW3.1) Provide any available water intensity values for your organization's products or services.

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

Please confirm below

I have read and accept the applicable Terms