

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 \$67 billion in net revenue in 2019, driven by a complementary food and beverage portfolio that includes 22 brands that generate more than \$1 billion each in estimated annual retail sales (e.g., Frito-Lay, Gatorade, Pepsi-Cola, Quaker and Tropicana). Our new vision is to be the global leader in convenient foods and beverages by Winning with Purpose. To advance this vision, we will focus on becoming Faster, Stronger and Better in everything we do. We will become better by continuing to integrate our purpose agenda into our business strategy and doing even more for the planet and our people. Winning with Purpose acknowledges PepsiCo’s leadership in integrating sustainability with strategy for more than a decade, and conveys our belief that sustainability can be an even greater contributor to our success in the marketplace. Winning with Purpose aims to build a more sustainable food system by intensifying our efforts on critical initiatives including water stewardship.

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. Forward-looking statements are generally identified through the inclusion of words such as “aim,” “anticipate,” “believe,” “drive,” “estimate,” “expect,” “goal,” “intend,” “may,” “plan,” “project,” “strategy,” “target” and “will” or similar statements or variations of such terms and other similar expressions. Forward-looking statements inherently involve risks and uncertainties. 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. PepsiCo undertakes no obligation to update any forward-looking statements, 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?

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 2019	December 31 2019

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

Argentina
Australia
Belgium
Bosnia & Herzegovina
Brazil
Canada
Chile
China
Colombia
Costa Rica
Cyprus
Czechia
Dominican Republic
Ecuador
Egypt
El Salvador
Estonia
France
Georgia
Germany
Greece
Guatemala
Honduras
Hungary
India
Ireland
Israel
Italy
Jordan
Kyrgyzstan
Mexico
Netherlands
New Zealand
Pakistan
Panama
Peru
Poland
Portugal
Romania
Russian Federation
Saudi Arabia
Serbia
Singapore
Slovakia
South Africa
Spain
Taiwan, Greater China
Thailand
United States of America

W0.4

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

USD

W0.5

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

Companies, entities or groups over which 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.
International offices/warehouse (partial)	These facilities do not report water consumption. Collectively, we estimate that exclusions represent less than 1% of total consumption.
Offices/warehouses associated with significant acquisitions in 2010 and 2011.	These facilities do not report water consumption. Collectively, we estimate that exclusions represent less than 1% of total 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 in our overall agricultural supply chain is judged to be small and therefore de minimis.

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	We selected the 'Important' rating for direct operations because while we use internal recycled and reused water in utilities and within our snacks and food operations, our ingredient standards limits how we can use brackish, recycled or produced water in our beverage manufacturing processes. Our future dependency on brackish, recycled or produced water for our manufacturing processes could increase if there were specific and suitable uses for it to offset freshwater withdrawals. We also selected 'Important' rating for indirect operations because the power plants that provide energy to our operations and our suppliers may rely on recycled, brackish and/or produced water for cooling. In the future, we will still depend on sufficient amounts of produced and other water for cooling in the power plants that provide energy to our operations; our future dependency on brackish, recycled or produced 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.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
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 3rd 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 EHS annual audits to ensure we have a consistently safe and secure water supply.
Water discharges – total volumes	76-99	Ninety five percent of our manufacturing operations track and monitor volume of water discharges on at least a quarterly basis, leveraging our enterprise-wide sustainability metrics platform, which allows us to measure and track performance in a standardized manner across our operations and 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 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.
Water discharges – volumes by destination	100%	100% percent of our manufacturing operations track and monitor water discharges by destination on at least a quarterly basis, leveraging our enterprise-wide sustainability metrics platform, which allows us to measure and track performance in a standardized manner across our operations and 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 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.
Water discharges – volumes by treatment method	100%	One hundred percent of our manufacturing operations track and monitor wastewater discharges on a monthly basis, leveraging our enterprise-wide sustainability metrics platform, which allows us to measure and track performance in a standardized manner across our operations and 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 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.
Water discharge quality – by standard effluent parameters	76-99	Ninety eight percent of our manufacturing operations track and monitor water discharges on a monthly basis, leveraging our enterprise-wide sustainability metrics platform, which allows us to measure and track performance in a standardized manner across our operations and it further supports our company strategy of digitization and automation. Data collection adheres to 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.
Water discharge quality – temperature	51-75	59% percent of our manufacturing operations track and monitor water discharge quality- temperature. We track water discharge quality - temperature where and when it is required by permit. Data collection adheres to 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.
Water consumption – total volume	100%	Water consumption is closely related to production volume and mix across our beverage and foods portfolio. Production at each of our manufacturing locations is constantly measured and tracked automatically. On a monthly/ period basis sustainability key performance indicators are tracked by sites manually inputting their water and energy usage from both site meters and utility invoices/bills, onto our enterprise wide sustainability tracking system. Data from the production measuring IT system automatically downloaded onto our Sustainability platform allowing sustainability trends and water consumption impacts be assessed at both the site and corporate levels. Sustainability IT platforms integrate with production platforms per our corporate value chain digitalization and automation strategy.
Water recycled/reused	100%	All 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 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 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 of our company-owned manufacturing facilities. However, if a facility is scheduled for an annual external audit it would not complete a self-audit. In line with our 2025 agenda, we have set a goal to provide appropriate access to WASH for all of our own manufacturing locations by 2025. 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	82596	Lower	2019 water withdrawals were approximately 3% lower than in 2018. The main driver for this is our multiyear water sustainability efforts across all our company owned operations. Our corporate environmental sustainability commitments to developing a more sustainable food system and enhancing water security inform our tactics, including a combination of no cost/low cost efficiency drives (e.g., PepsiCo's Resource Conservation program), innovation (Potato Chip slicer splash cone redesign – enabling 65% less water for slice washing per each slicer head), and capital investment (Membrane Bioreactor coupled with Reverse Osmosis enabling potable water production for reuse within our foods operations). A slight reduction in the volume of beverage products produced by company owned operations in 2019 over 2018, due to structural changes, is also a contributing factor. In the future it is possible that our total withdrawal volumes will continue to decrease in line with our focus on improving our water use efficiency. *Please note 2018 reported figures have been restated. As we strive to ensure we have the most updated accurate data, corrections may take place as a result of detecting errors such as metering / billing and audit outcomes. In addition, as the company divests, closes or acquires facilities, new data will roll up or out of PepsiCo reported totals depending on ownership status.
Total discharges	55197	Lower	We discharged 4% less water in 2019 than we did in 2018. This decrease is due in part as a result of our investments in water reduction initiatives. In the future, it is possible that our total discharges may continue to decrease due to our investments in water efficiency. Utilizing the formula C = W-D, please note that this figure does not match the sum of the water withdrawal by source figures reported in W1.2i as we do not currently track water discharges to all destination categories listed. *Please note 2018 reported figures have been restated. As we strive to ensure we have the most updated accurate data, corrections may take place as a result of detecting errors such as metering / billing and audit outcomes. In addition, as the company divests, closes or acquires facilities, new data will roll up or out of PepsiCo reported totals depending on ownership status.
Total consumption	27399	Lower	2019 water consumption was approximately 2% lower than in 2018. The main driver for this is our multiyear water sustainability efforts across all our company owned operations. Our corporate environmental sustainability commitments to developing a more sustainable food system and enhancing water security inform our tactics, including a combination of no cost/low cost efficiency drives (e.g., PepsiCo's Resource Conservation program), innovation (Potato Chip slicer splash cone redesign – enabling 65% less water for slice washing per each slicer head), and capital investment (Membrane Bioreactor coupled with Reverse Osmosis enabling potable water production for reuse within our foods operations). A slight reduction in the volume of beverage products produced by company owned operations in 2019 over 2018, due to structural changes, is also a contributing factor. We anticipate further reductions in consumption as the company progresses against its 2025 water use efficiency goals. *Please note 2018 reported figures have been restated. As we strive to ensure we have the most updated accurate data, corrections may take place as a result of detecting errors such as metering / billing and audit outcomes. In addition, as the company divests, closes or acquires facilities, new data will roll up or out of PepsiCo reported totals depending on ownership status.

W1.2d

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

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	11-25	Lower	WRI Aqueduct	Every 3 years PepsiCo conducts a holistic water risk assessment across all of our company owned operations, the most recent been conducted in 2019. The 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 network. 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 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. PepsiCo currently has 60 global high water risk operations, accounting for 19% of our total company owned operations water footprint. In 2019 we withdrew 3% less water at these facilities despite growing production by 2%, meaning our water use efficiency in high water risk facilities offset growth. In 2019, PepsiCo's corporate water sustainability goals leaned into where we experience the highest degrees of water risk to our operations and local communities and where we can focus effort at scale to improving water security. The efforts we are taking through our e water efficiency programs, behavioral changes, innovation in manufacturing and capital technology investment from a dedicated centrally held sustainability fund are delivering annual performance in line with operational targets. *Please note 2018 reported figures have been restated. As we strive to ensure we have the most updated accurate data, corrections may take place as a result of detecting errors such as metering / billing and audit outcomes. In addition, as the company divests, closes or acquires facilities, new data will roll up or out of PepsiCo reported totals depending on ownership status.

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	This information is based on our agricultural water risk assessment, completed as part of our agricultural water efficiency goal. We utilized the WRI Aqueduct tool to identify our water stressed growing areas.
Other commodities from W-FB1.1a, please specify (Potatoes)	Not applicable	Yes	This information is based on our agricultural water risk assessment, completed as part of our agricultural water efficiency goal. We utilized the WRI Aqueduct tool to identify our water stressed growing areas.
Palm oil	Not applicable	No, not currently but we intend to collect this data within the next two years	Palm oil was not in scope for our agricultural water efficiency goal, so this information is not available as part of our agricultural water risk assessment. In 2018 we enlisted Verisk Maplecroft, a global research firm and risk consultancy, to conduct a comprehensive risk assessment of 25 of our top agricultural raw materials and sourcing origins to better understand the supply chains and geographic regions where we should prioritize our efforts. The assessment includes an evaluation of several dimensions of environmental risks, including water. The results of this assessment will help inform sustainable agriculture strategy and we intend to collect this data within the next year.
Sugar	Not applicable	No, not currently but we intend to collect this data within the next two years	Sugar was not in scope for our agricultural water efficiency goal, so this information is not available as part of our agricultural water risk assessment. In 2018 we enlisted Verisk Maplecroft, a global research firm and risk consultancy, to conduct a comprehensive risk assessment of 25 of our top agricultural raw materials and sourcing origins to better understand the supply chains and geographic regions where we should prioritize our efforts. The assessment includes an evaluation of several dimensions of environmental risks, including water. The results of this assessment will help inform sustainable agriculture strategy and we intend to collect this data within the next year.
Other commodities from W-FB1.1a, please specify (Wheat)	Not applicable	No, not currently but we intend to collect this data within the next two years	Wheat was not in scope for our agricultural water efficiency goal, so this information is not available as part of our agricultural water risk assessment. In 2018 we enlisted Verisk Maplecroft, a global research firm and risk consultancy, to conduct a comprehensive risk assessment of 25 of our top agricultural raw materials and sourcing origins to better understand the supply chains and geographic regions where we should prioritize our efforts. The assessment includes an evaluation of several dimensions of environmental risks, including water. The results of this assessment will help inform sustainable agriculture strategy and we intend to collect this data within the next year.

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	47% 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 (see w8.1)
Other sourced commodities from W-FB1.2e, please specify (Potatoes)	26-50	47% 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 (see w8.1)

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	104	Lower	Fresh surface water is relevant because we are investing in rainwater harvesting to reduce our reliance on potable water. Almost 100% of our fresh surface water derives from rainwater harvesting at a number of company owned operations. In 2019 rain water harvesting at our company owned was approximately 8ML lower than prior year (7%), due to lower rainfall at these locations in 2019.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	PepsiCo's ingredient and food safety standards mean that we cannot use brackish surface or sea water in our manufacturing processes.
Groundwater – renewable	Relevant	23684	Lower	Groundwater is relevant because approximately 29% of our water consumption is obtained from renewable ground water sources. In 2019 we abstracted 3% less groundwater than prior year. This lines up with our overall reduction in total water withdrawals by the company in 2019 over prior year. This is driven by PepsiCo's water efficiency efforts under its water sustainability strategy. Direct operations efficiency improvement tactics include best practice development and deployment, research and development innovation in design of equipment, and capital investment in new technology.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	PepsiCo does not draw from non-renewable groundwater sources and does not plan to do so in the future.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	PepsiCo does not rely on or draw produced or process water, and does not plan to do so in the future.
Third party sources	Relevant	58844	Lower	Third party water sources are relevant because they make up the majority – by volume -of our sourced water for our operations. In 2019 we abstracted 3% less water from third party sources over prior year. This aligns up with our overall reduction in total water withdrawals by the company in 2019 over prior year. This is driven by PepsiCo's water efficiency efforts under its water security strategy. Direct operations efficiency improvement tactics include best Practice deployment (PepsiCo ReCon Program), R+D innovation in design of equipment (Splash Cone redesign), Capital investment in new technology, CCRO and MBR /RO technology.

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 but volume unknown	<Not Applicable>	<Not Applicable>	Freshwater discharges are relevant as some PepsiCo facilities discharge treated wastewater to this destination. However, Wwe are unable to answer this question this year but intend to do so as wastewater reporting continues to improve.
Brackish surface water/seawater	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	Brackish surface water / seawater discharges are relevant as some PepsiCo facilities discharge treated wastewater to this destination. However, we are unable to answer this question this year but intend to do so as wastewater reporting continues to improve.
Groundwater	Relevant	9395	Higher	Groundwater discharges are relevant because as some PepsiCo facilities discharge treated water to this end point. Discharge volumes to groundwater have increased as we improve reporting on discharges. The increase, as compared to last year, is due to PepsiCo now reporting on data relating to treated wastewater that is used for land application in 2020 – accounting for approximately 75% of the volume reported. This has been done to align with CDPs definition of groundwater discharge.
Third-party destinations	Relevant	37171	Lower	Third-party destinations are important as a number of PepsiCo facilities discharge to this destination. 2019 discharge volumes to third parties were 8% lower as compared to 2018. Third party destinations are relevant as they represent the largest destination for our wastewater. As our water withdrawals have decreased, our wastewater discharges have also decreased. We anticipate the same trend 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 2017 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)	No, not currently and we have no plans to collect/calculate this data within the next two years	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 2017 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 (SfS) 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 are more sustainable right out of the gate. 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. SfS includes water impact factors for all of our agricultural ingredients, including palm oil.
Sugar	Not applicable	Yes	PepsiCo's Sustainable from the Start Program (SfS) 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 are more sustainable right out of the gate. 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. SfS includes water impact factors for all of our agricultural ingredients, including sugar.
Other commodities from W-FB1.1a, please specify (Wheat)	Not applicable	Yes	PepsiCo's Sustainable from the Start Program (SfS) 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 are more sustainable right out of the gate. 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. SfS includes water impact factors for all of our agricultural ingredients, including wheat.

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)

513

Numerator: Water aspect

Total water withdrawals

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

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. Baseline data and progress through the 2017 crop year (which ended in 2018 calendar year). We calculated each farmer group's baseline water opportunity and identified local goals and implementation plans. Calculated water intensity of corn was 513 m3 of water per metric ton (mt) of corn, which reflected an improvement of 1 m3 of water per mt of corn from 2015. Our strategy to improve performance against this metric is to work with farmers through various interventions. 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)

175

Numerator: Water aspect

Total water withdrawals

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

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. Baseline data and progress through the 2017 crop year (which ended in 2018 calendar year). We calculated water intensity of potatoes as 175 m3 of water per metric ton of potato, an improvement from 182 m3 of water per metric ton of potato since 2015. Our strategy to improve performance against this metric is to work with farmers through various interventions. 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.

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

26-50

Rationale for this coverage

Our Sustainable Farming Program (SFP), 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. This coverage is part of our ongoing efforts related to our agricultural water efficiency goal. We select suppliers for reporting based on their business activity (farming), relationship to PepsiCo (direct suppliers) and location (water-stressed regions). Incentives - It is expected that by participating in this engagement, they will benefit from SFPs tools, learnings, and best practices. Suppliers report this metric in line with their contractual conditions.

Impact of the engagement and measures of success

Within PepsiCo, this information is used to create a strategy for water-use efficiency improvements. The information requested from suppliers includes on-farm water management practices and the methods and timing for how they plan on improving water use efficiency in their operations. For us, success here would be an improvement in water-use efficiency. The percentage of Farm Management Groups (FMGs) engaged is one metric by which we are measuring progress. The second metric - representing our ultimate objective - is the percentage of directly sourced agricultural raw materials that we have verified as sustainably sourced. In 2018, this number was 51% and in 2019 increased to nearly 80%.

Comment

This response is in regards to our agricultural supply chain. At this time, we are not able to report the percent of suppliers by number that report on their water use, risks and/or management information. Our water stewardship program is based on addressing key areas of risk across the PepsiCo value chain.

W1.4b

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

Type of engagement

Innovation & collaboration

Details of engagement

Encourage/incentivize innovation to reduce water impacts in products and services
Encourage/incentivize suppliers to work collaboratively with other users in their river basins
Provide training and support on sustainable agriculture practices to improve water stewardship
Educate suppliers about water stewardship and collaboration

% of suppliers by number

51-75

% of total procurement spend

26-50

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 both incentivizing innovation and providing training and support on sustainable agriculture practices are crucial for farmers to improve those practices.

Impact of the engagement and measures of success

We will measure the success of these 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 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. We have also created more than 200 demonstration farms around the world, many of which feature water use efficiency best practices.

Comment

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

% of suppliers by number

26-50

% of total procurement spend

26-50

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.

Impact of the engagement and measures of success

We will measure the success of these 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 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. We have also created more than 200 demonstration farms around the world, many of which feature water use efficiency best practices. We will measure the success of these engagements by the resulting improvements in water-use efficiency.

Comment

W1.4c

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

We value our collaborations with other stakeholders and are actively involved in creating and fostering collaborations to improve water security. Stakeholders include peer companies, as well as non-profit organizations and industry groups. These engagements help us learn about emerging sustainability topics, better inform our efforts, and help us work to create value for society. We use a variety of mechanisms to solicit feedback from our stakeholders, including bilateral meetings and participation in stakeholder networks, outreach programs, webinars and working together on a wide variety of topics, including water. Some examples of our water-related value chain engagements are provided here. We work with value chain partners and certification schemes. As an example, along with Walmart and others, PepsiCo is a founding member of the Midwest Row Crop Collaborative (MRCC). MRCC is a diverse coalition of industry and nonprofit groups working to expand agricultural solutions that protect air and water quality and enhance soil health. In another example, in 2018 PepsiCo provided full access to our Sustainable Farming Program (SFP) Toolkit with the SAI Platform. The SFP Toolkit is an elaborate set of training materials, workshop activities, guides and exercises to support farmers in adopting more sustainable agriculture practices. Sharing this Toolkit will help the SAI Platform strengthen the reach and adoption of its Farm Sustainability Assessment program. One method of measuring the success of our engagement is to monitor the increased adoption of sustainable agriculture practices at a large scale. We are strong believers that collaboration can be a powerful driver of change. That is why we actively work with several organizations that foster insights and best practice sharing on agricultural practices within the global food and beverage and related industries. In addition to the SAI Platform, these also include the Cool Farm Alliance and Field to Market Initiative.

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

4

Total value of fines

18167

% of total facilities/operations associated

1

Number of fines compared to previous reporting year

Much lower

Comment

The financial value of the fines and/or other penalties in the period under review decreased by 54%

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

Other, please specify (Organic matter)

Activity/value chain stage

Manufacturing – direct operations

Description of water pollutant and potential impacts

Biological oxygen demand (BOD) refers to the amount of dissolved oxygen needed by aerobic biological organisms to break down organic material in water. Untreated wastewater from beverage operations that includes organic materials has the potential to reduce dissolved oxygen. BOD can therefore pose a risk to aquatic ecosystems of receiving water bodies.

Management procedures

Waste water management
Follow regulation standards

Please explain

PepsiCo strives to have 100 percent of wastewater from our operations meet PepsiCo's high standards for protection of the environment. Success is measured according to this goal and against our wastewater standard. As part of this wastewater standard, we have set a limit of 50 mg BOD/L of wastewater discharged from our manufacturing facilities. Each of our facilities have written wastewater management plans that define the specific policies and procedures in place to manage wastewater associated environmental aspects and impacts. These management procedures, as well as our effluent treatment infrastructure, help us ensure that we meet our target of 50mg/L to avoid the associated risk of disrupting any aquatic ecosystems with reducing dissolved oxygen. Refer to water quality goal in section W8.1

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

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 pesticides, nutrients, or soil. PepsiCo works with farmers to develop effective water management plans for addressing water risk. 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 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
Pesticide management
Substitution of pesticides for less toxic or environmentally hazardous alternatives
Waste water management
Follow regulation standards

Please explain

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. Our goal is 100% compliance with our SFP, and we plan to leverage 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 – direct operations
Agriculture – supply chain

Description of water pollutant and potential impacts

For both our direct agricultural operations as well as our agricultural supply chain operations, the scale and magnitude of the potential impacts of manure and slurries 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

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 pesticides, nutrients or soil. PepsiCo aims to work with farmers to develop effective water management plans for addressing water risk. 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.

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an 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
International methodologies
Other

Tools and methods used

WRI Aqueduct
Alliance for Water Stewardship Standard
Internal company methods
External consultants

Comment

In addition to the global operations water risk assessments described below, 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. 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 are beginning to adopt the standard at high water risk facilities.

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as part of an 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

Comment

We identify and assess water-related risks through an Enterprise Risk Management process on a 6-month time frame. We also evaluate our water risk specific to our direct agricultural supply chain as part of our agricultural water-use efficiency goal described above.

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

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)

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 14040/44 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) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Relevance: Water availability is highly relevant to our business because water is a key ingredient in our beverages and is critical for growing ingredients for our food products. Assessment: We conduct source vulnerability assessments at priority high-risk facilities to ensure that we have a comprehensive picture of local water availability within the context of the local watershed. Through these assessments along with our water risk assessment process, we gain knowledge of both current stressors on water availability as well as projected future stressors. PepsiCo's water risk assessments for all of its company-owned manufacturing operations use a method in which data are collected from 4 inputs: 1) WRI Aqueduct tool; 2) WBCSD Global Water Tool; 3) internal company knowledge at site level, and; 4) 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 2025, and to categorize risks as physical, 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 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 that the results are consistent and credible. Water risk assessments are done for our direct operations as well as our direct agricultural sourcing of key ingredients. Based on the tools we utilize, we consider both current and emerging issues regarding water availability.
Water quality at a basin/catchment level	Relevant, always included	Water quality is highly relevant to our business because high quality freshwater is a key ingredient in our products. We conduct source vulnerability assessments at priority high-risk facilities to ensure that we have a comprehensive picture of local water availability, including quality, within the context of the local watershed. Through these assessments along with our water risk assessment process utilizing WRI Aqueduct, internal company methods, and external consultants, we gain knowledge of both current stressors on water quality as well as projected future stressors.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Local stakeholder conflicts concerning water resources at a basin or catchment level are of high relevance to our business because our manufacturing facilities are often co-located with communities and other industries; all stakeholders are relying on a shared resource. As part of our 'Other, internal company methods' tool, we utilized a water stress assessment survey for our sites that provides more detailed insight into local water conditions by addressing water quantity, water quality and external factors such as competition, economics and community concerns. This tool factors in both current and emerging stakeholder concerns or potential conflicts that our business may be impacted by.
Implications of water on your key commodities/raw materials	Relevant, always included	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 water risk assessment on our major agricultural sourcing regions around the globe 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; water is key for agriculture. We assess the issue and identify risks in partnership with external consultants and non-governmental organization (NGO) 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.
Water-related regulatory frameworks	Relevant, always included	Water-related regulatory frameworks, or governance and regulations, will likely increase in many of the areas we operate in as more regions continue to face increased water stress. Our license to operate in communities is dependent on these frameworks. 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 that provides a more detailed insight into local regulatory conditions affecting both water supply (i.e., allocation restrictions) and water costs (i.e., tariffs). This includes both current and emerging regulatory frameworks that our facilities may be impacted by.
Status of ecosystems and habitats	Relevant, always included	Sustainable water management requires us to consider the status of ecosystems and habitats where we operate and that we might impact. In 2018 we joined the Alliance for Water Stewardship, through which we will strive for sustainable water management in a catchment context, and whose Standard includes ecosystems as an important 'water stakeholder'. 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 a more detailed insight into local conditions. This can include situations where there are water quality concerns that could impact the status of ecosystems and habitats. We regularly review the need, opportunity and our ability to increase the number of factors that we consider in assessing risks related to water and may more explicitly incorporate this in our future assessments. In addition, 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. Working with external consultants and NGOs, we aim to keep an eye on emerging issues as well as current issues with emerging importance.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Our business depends on the thousands of dedicated employees in our manufacturing sites who ensure the safety and quality of our products, and we in turn, are committed to ensuring safe conditions for them. Critical to this is the provision of employees' access to safe water, sanitation and hygiene (WASH) for our employees. In 2014, we developed a global PepsiCo standard for Potable Water Management, which includes water, sanitation and hygiene (WASH), which applies to all company-owned facilities, all company-managed and leased facilities, as well as majority-owned joint ventures. This standard was developed in part due to our 'Other, external consultants' tools as we consulted with others to develop these requirements. As part of this, PepsiCo has an internal self-assessment program to measure WASH compliance. The assessment takes place annually and has been implemented at all company-owned plants. We use a WASH self-assessment questionnaire that is sent out to all of our company-owned manufacturing facilities. However, if a facility is scheduled for an annual external audit it would not complete a self-assessment. 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 own manufacturing employees by 2025.
Other contextual issues, please specify	Relevant, always included	Other relevant issues which are considered as part of the water risk assessment process includes grey infrastructure. To this extent we assess the risk our facilities are exposed to in terms of grey infrastructure failure such as the ability to receive a predictable and reliable supply of fresh water from source (e.g. third party water supplier); and the ability to receive a predictable and reliable quality level of fresh water from third party sources. In addition we assess the continuing reliability of third part wastewater treatment facilities – where applicable – to ensure our wastewater discharges are being treated to the required quality standards. PepsiCo collects data from 4 inputs in its assessment process: 1) WRI Aqueduct tool; 2) WBCSD Global Water Tool; 3) internal company knowledge at site level, and; 4) 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 the site within their specific local context, both now and out to 2025, and to categorize risks as physical, regulatory or social/reputational. 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 and watershed replenishment. 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.

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	We consider customers in our water related risk assessments because some of our key customers have expectations for performance on water by their suppliers, including Walmart and Sam's Club. We engage these stakeholders through dialogue and the expectations of these customers are included in risk assessments related to PepsiCo's water stewardship strategy and program implementation. We also respond to Walmart's request for our participation in their CDP Supply Chain program.
Employees	Relevant, always included	We consider employees in our water-related assessments because they have the potential to significantly impact PepsiCo water stewardship programs and water goal achievement. As such, risks associated with employee behavior with regard to water may be included in local risk assessments, particularly where water-related risks have occurred. In such cases, the potential for employees to reduce risk and improve site performance on water is assessed and actions are taken accordingly. We engage senior managers at the facility level through dialogue during our water risk assessment process in order to obtain information regarding water risks that are specific to each site.
Investors	Relevant, always included	A key element of our overall water stewardship strategy and risk management approach is to achieve and maintain a reputation for transparency and leadership in this area, including among our investors. Investor inquiries regarding PepsiCo's water-related performance is taken into account in our water risk assessments. The primary means that we employ to address and manage risk with investors is through participation in the CDP Water public reporting platform.
Local communities	Relevant, always included	Local communities are key to our continued licenses to operate, and their interests in water and PepsiCo's performance on water are foundations of our water strategy. As such, risks to PepsiCo's reputation as a water steward within the local community are assessed as part of our internal company method, the site survey element of our risk assessment process. We also keep an eye on external media information regarding water in the areas where we operate, as they are often linked to local communities' concerns or impacts.
NGOs	Relevant, always included	NGOs are relevant to our water-related risk assessments because they often have deep local knowledge and experience with local water-related areas. For example, we partner with The Nature Conservancy (TNC) at the watershed level in Latin America, the United States, and in South Africa, in watersheds where TNC is considered an expert on watershed protection. We also consult with NGOs for their technical knowledge; on example is how we utilize WRI's Aqueduct tool.
Other water users at a basin/catchment level	Relevant, always included	At some sites with high water risk, the other water users at the local level may be important for scaled-up risk mitigation efforts that goes beyond our operations. For example, our facility teams at several sites in India have coordinated with community groups and water users on the water stewardship projects that PepsiCo has supported. In these cases, we include them in risk assessment and mitigation planning.
Regulators	Relevant, always included	PepsiCo complies with all laws and regulations globally and, in addition, further seeks to collaborate with regulators on water related risks. At some sites with high water risk, local regulators and government administrators responsible for water governance can be important to efforts for scaled-up risk mitigation efforts because they have the ability to impact change beyond what we can do in our own operations and practices. In these cases, we include them in risk assessment and mitigation planning by taking into consideration their current and upcoming regulations regarding water and wastewater. For example, we look at regulatory impacts and a horizon scan for future changes in the 3-5-year timeframe through our internal company method of site surveys.
River basin management authorities	Relevant, sometimes included	At some sites with high water insecurity, river basin management authorities responsible for regional water planning can be important to efforts for scaled-up risk mitigation efforts because they have the ability to impact change beyond what we can do in our own operations and practices. In these cases, we include them in risk assessment and mitigation planning by considering their river basin management plans and assessments.
Statutory special interest groups at a local level	Not relevant, explanation provided	For PepsiCo, special interest groups tend to be focused primarily on nutrition and plastics/packaging and for this reason they do not play a significant role in our water risk assessments. Based on these current trends, we don't anticipate those groups to increase in relevance in the future; however, they are included in broader business risk assessment procedures.
Suppliers	Relevant, always included	Water risk in our supply chain is centered on our franchise bottler operations, co-manufacturing/co-packing partners, and farmer-sourced agriculture suppliers because many of them are located in water stressed locations. We work directly with such business partners to mitigate water risk. Part of our Sustainable Sourcing Program provides us with the opportunity to engage our suppliers with the Sedex/SMETA 4-Pillar Audit, which includes meeting environmental regulations and laws and environmental management systems, policies, and procedures under its Environment pillar.
Water utilities at a local level	Relevant, always included	At some locations, the root cause of water scarcity is the inability of local water utility infrastructure to deliver water in an efficient and effective way. Thus, the local water utility and its plans to improve infrastructure would be an important consideration in local water risk assessments at these sites. Engagement with the local water utility could come in the form of evaluating existing water and wastewater services as well as plans for system maintenance, monitoring, and upgrades.
Other stakeholder, please specify	Please select	

W3.3d

(W3.3d) 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 also conduct a global water risk assessment of all our company-owned operations every three years. This was last completed in 2019 and the next global operations assessment will be completed in 2022. We used the WRI Aqueduct tool, combined with local site surveys and engagement of an external consultant to determine the level of water risk in three categories: physical, regulatory and reputational/social. The combination of these three tools is used to assess 100% of companies, entities or groups over which financial control is exercised. 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). Both current risk and anticipated future water risk are assessed and assigned a combined risk score using all three tools. All sites with a score in excess of 3.5 (out of 5) are designated as high water risk. Additional sites with a lower score may also be (and have been) designated as high water risk based on local knowledge.

One important way in which we use the outcomes of the water risk assessment is that sites designated as high risk are subject to three 2025 goals: they will need to replenish 100% of water used at the site, they are in-scope for our 25% operational water use efficiency goal, and they will need to adopt the Alliance for Water Stewardship standard as a vehicle for water advocacy by 2025. We completed a similar water risk assessment process for our major farmer-sourced agricultural sourcing regions. We anticipate repeating this global agriculture risk assessment on a three-year cycle with annual reviews, with our most recent assessment having taken place in 2019. All top tier risk locations list were reviewed based on the results of the global exercise. On a country by country basis, risk assessment may be carried out more frequently as per local demands. Any new construction of PepsiCo facilities 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?

PepsiCo incorporates the following factors when defining substantive change 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. Substantive change would generally be considered any material change to a site’s operating environment/costs and/or to PepsiCo’s reputation locally, regionally or globally. One example of a potential substantive 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 material 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	10	1-25	PepsiCo conducts water risk assessments for all of its company-owned manufacturing operations using the data collected from the following four 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. 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 2025, and to categorize risks as physical, 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 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 previous submissions, PepsiCo has disclosed its full number of high risk facilities irrespective of magnitude. For the 2019 submission we have revised this in line with the CDP definition of facilities with “Substantive Risk”.

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

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company’s annual electricity generation that could be affected by these facilities

<Not Applicable>

% company’s global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% 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%

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% 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

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% 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

1

% company-wide facilities this represents

Less than 1%

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% 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)
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Type of risk & Primary risk driver

Physical	Drought
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Primary potential impact

Please select

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 2019, PepsiCo had several high water risk food and beverage manufacturing facilities located within the California. Drought conditions in the basin affect water availability for all water stakeholders, including our facilities.

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)

250000000

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

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.

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 Positive Water Impact in and near the communities 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. This global strategy is implemented through focusing on watershed management, conserving water within our operations, reducing water use in our agricultural supply chain, promoting access to water and advocating for strong water governance within communities. We are implementing this strategy now 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 2019 we replenished over 370 million liters of water back to the Colorado River basin. These efforts support both water risk mitigation and enhance PepsiCo's reputation.

Cost of response

1020000

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 response through our 'Recycle for Nature' collaboration to estimate an approximate total annual cost of response to these risks. We expect these costs to continue into the future at approximately the same level. PepsiCo contributed 37% of project costs while the remaining funding came through other partners in the program.

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
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Stage of value chain

Supply chain

Type of risk & Primary risk driver

Please select

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)

6000000

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

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 comprised of a Vice President, Director and Manager. The team is supported by agriculture experts in our business divisions in implementing sustainable agriculture practices at our key crop suppliers.

Primary response to risk

Supplier engagement	Promote the adoption of sustainable irrigation practices among suppliers
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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 2018, we have invested in programs to improve water efficiency in water stressed regions, enhance soil health and improve farm yields and resiliency at the same time. PepsiCo investments in improving crop yields are proprietary. PepsiCo has a corporate Sustainable Agriculture team in place comprising a Vice President, Director and Manager. The team is supported by agriculture experts in our business divisions in implementing sustainable agriculture practices at our key crop suppliers.

Cost of response

8000000

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 comprised of a Vice President, Director and Manager. The team 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

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. As one example, part of our strategy is to replenish 100% of the water we consume in manufacturing operations located in high-water-risk areas, ensuring that such replenishment takes place in the same watershed where the extraction has occurred. For example, in Monterrey, Mexico, we have invested in the TNC Water Fund which uses market financial mechanisms to drive improved protection of source watersheds. We have invested over \$3 million in Water Funds in Latin America as well as watershed conservation projects in North America.

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)

3000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

This estimate is based on the financial impact of ongoing watershed initiatives, of about \$3 MM, that PepsiCo is supporting in working with The Nature Conservancy (TNC) in the United States and in Latin America, in addition to community water protection work that PepsiCo is supporting in India.

Type of opportunity

Markets

Primary water-related opportunity

Improved community relations

Company-specific description & strategy to realize opportunity

Working collaboratively with the PepsiCo Foundation and other partners, our strategy is to provide access to safe water to a total of 25 million people (from 2006) in the world's 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 water; as these geographies are important to PepsiCo's business, we also have a responsibility to act as a responsible corporate citizen in the communities where we operate. 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. For example, the PepsiCo Foundation has partnered with several organizations to invest millions of dollars in providing access to safe water to over 22 million people in some of the planet's most water-stressed regions such as India, Latin America, and China.

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)

40000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

PepsiCo has invested over \$40 million in safe water access solutions with strategic collaborators as part of its goal to support a total of 25 million people with safe water access by 2025, and has reached over 22 million people so far.

Type of opportunity

Resilience

Primary water-related opportunity

Increased supply chain resilience

Company-specific description & strategy to realize opportunity

Our strategy is to 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. PepsiCo has an opportunity to improve the resiliency of our agricultural supply chain through better water management. 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. 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)

450000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

PepsiCo has invested \$450,000 in MRCC, but the total partner investment is \$8MM. 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

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. 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 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 on a pre-competitive basis.

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)

1500000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

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 \$1.5 million commitment to the 2030 Water Resources Group over three years.

Type of opportunity

Efficiency

Primary water-related opportunity

Cost savings

Company-specific description & strategy to realize opportunity

Our strategy is to build on the 25% improvement in water-use efficiency achieved from our original Performance with Purpose target with an additional 25% improvement by 2025, with a focus on manufacturing operations in high-water-risk areas. 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 waste water discharge compliance costs and chemical consumables. We set annual efficiency targets. In 2019, aiming to reduce the amount of water used for potato slicing and lubricating, our R&D function rolled out a new patented component-one that's just as effective as the standard equipment while using 64% less water. We're deploying this innovation globally, and it has the potential to save 640 million liters of water per year.

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)

21800000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

In 2019 PepsiCo spent over \$21 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 California)
--------------------------	---

Latitude

35.383414

Longitude

-119.238414

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

46

Comparison of total withdrawals with previous reporting year

Much lower

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

46

Total water discharges at this facility (megaliters/year)

25

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

25

Total water consumption at this facility (megaliters/year)

20

Comparison of total consumption with previous reporting year

Much lower

Please explain

Water efficiency initiatives at this facility have resulted in it being able to reduce its total water footprint as compared to 2018

Facility reference number

Facility 2

Facility name (optional)

Country/Area & River basin

Latitude

38.483212

Longitude

-121.398597

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

436

Comparison of total withdrawals with previous reporting year

Higher

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

436

Total water discharges at this facility (megaliters/year)

164

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

164

Total water consumption at this facility (megaliters/year)

272

Comparison of total consumption with previous reporting year

Higher

Please explain

Net consumption at this facility was higher relative to 2018 due too an increase in production volumes, improvements were however made in water use efficiency.

Facility reference number

Facility 3

Facility name (optional)

Country/Area & River basin

Latitude

36.692868

Longitude

-119.769691

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

354

Comparison of total withdrawals with previous reporting year

Higher

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

354

Total water discharges at this facility (megaliters/year)

119

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

119

Total water consumption at this facility (megaliters/year)

235

Comparison of total consumption with previous reporting year

Higher

Please explain

Net consumption at this facility was higher relative to 2018 due too an increase in production volumes, improvements were however made in water use efficiency.

Facility reference number

Facility 4

Facility name (optional)

Country/Area & River basin

United States of America	Other, please specify (San Francisco Bay / Greater California)
--------------------------	--

Latitude

37.612216

Longitude

-122.082406

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

250

Comparison of total withdrawals with previous reporting year

Lower

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

250

Total water discharges at this facility (megaliters/year)

103

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

103

Total water consumption at this facility (megaliters/year)

147

Comparison of total consumption with previous reporting year

About the same

Please explain

Improvements in facility water use efficiency.

Facility reference number

Facility 5

Facility name (optional)

Country/Area & River basin

United States of America	Other, please specify (San Francisco Bay / Greater California)
--------------------------	--

Latitude

37.766187

Longitude

-122.202848

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

195

Comparison of total withdrawals with previous reporting year

Lower

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

195

Total water discharges at this facility (megaliters/year)

91

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

91

Total water consumption at this facility (megaliters/year)

103

Comparison of total consumption with previous reporting year

Lower

Please explain

Improvements in facility water use efficiency.

Facility reference number

Facility 6

Facility name (optional)

Country/Area & River basin

United States of America	Other, please specify (San Gabriel / Great California)
--------------------------	--

Latitude

33.929963

Longitude

-117.297394

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

396

Comparison of total withdrawals with previous reporting year

Higher

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

396

Total water discharges at this facility (megaliters/year)

126

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

126

Total water consumption at this facility (megaliters/year)

270

Comparison of total consumption with previous reporting year

Higher

Please explain

Net consumption at this facility was higher relative to 2018 due too an increase in production volumes, improvements were however made in water use efficiency.

Facility reference number

Facility 7

Facility name (optional)

Country/Area & River basin

United States of America	Other, please specify (San Gabriel / Great California)
--------------------------	--

Latitude

34.039631

Longitude

-117.977316

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

363

Comparison of total withdrawals with previous reporting year

About the same

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

363

Total water discharges at this facility (megaliters/year)

277

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

277

Total water consumption at this facility (megaliters/year)

86

Comparison of total consumption with previous reporting year

Lower

Please explain

Net withdrawals remained more or less constant as compared to 2018 however consumption and effluent discharges were impacted by production volume changes.

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

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

1427

Comparison of total withdrawals with previous reporting year

Lower

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

1427

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

Total water discharges at this facility (megaliters/year)

1284

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

1284

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year

Lower

Please explain

Water use efficiency improvements have resulted in an overall lower water footprint for this facility.

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

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

757

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**Withdrawals from brackish surface water/seawater****Withdrawals from groundwater - renewable**

748

Withdrawals from groundwater - non-renewable**Withdrawals from produced/entrained water****Withdrawals from third party sources**

9

Total water discharges at this facility (megaliters/year)

682

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water**Discharges to brackish surface water/seawater****Discharges to groundwater****Discharges to third party destinations**

682

Total water consumption at this facility (megaliters/year)

76

Comparison of total consumption with previous reporting year

Lower

Please explain

Water use efficiency improvements have resulted in an overall lower water footprint for this facility.

Facility reference number

Facility 10

Facility name (optional)**Country/Area & River basin**

United States of America	Other, please specify (San Gabriel / Santa Ana)
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Latitude

34.079394

Longitude

-117.591129

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

311

Comparison of total withdrawals with previous reporting year

Lower

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

311

Total water discharges at this facility (megaliters/year)

280

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

280

Total water consumption at this facility (megaliters/year)

31

Comparison of total consumption with previous reporting year

Lower

Please explain

Water use efficiency improvements have resulted in an overall lower water footprint for this facility.

W5.1a

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

Water withdrawals – total volumes

% verified

76-100

What standard and methodology was used?

An external process led by auditors, Bureau Veritas, on data verification/assurance has been established and running in PepsiCo for many years. Bureau Veritas performed its assessment in accordance with International Standard on Assurance Engagements 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, effective for assurance reports dated on or after December 15, 2015, issued by the International Auditing and Assurance Standards Board (ISAE 3000 Revised). This is part of our Sustainability Data Governance methodology and is documented.

Water withdrawals – volume by source

% verified

76-100

What standard and methodology was used?

An external audit process on data verification/assurance has been established and running in PepsiCo for many years. ERM performed its assessment in accordance with PepsiCo's GEHSMS standard 36 on Resource Conservation.

Water withdrawals – quality

% verified

76-100

What standard and methodology was used?

Beverage plants' treated water must conform to WHO potable water standards at a minimum and is regularly tested by both in-house and external approved water labs. Snacks plant must comply with PepsiCo GEHSMS 40 Potable Water Standard.

Water discharges – total volumes

% verified
76-100

What standard and methodology was used?

An external audit process on data verification/assurance has been established and running in PepsiCo for many years. ERM performed its assessment in accordance with PepsiCo's GEHSMS standard 30 on Wastewater Discharge.

Water discharges – volume by destination

% verified
76-100

What standard and methodology was used?

An external audit process on data verification/assurance has been established and running in PepsiCo for many years. ERM performed its assessment in accordance with PepsiCo's GEHSMS standard 30 on Wastewater Discharge.

Water discharges – volume by treatment method

% verified
76-100

What standard and methodology was used?

An external audit process on data verification/assurance has been established and running in PepsiCo for many years. ERM performed its assessment in accordance with PepsiCo's GEHSMS standard 30 on Wastewater Discharge.

Water discharge quality – quality by standard effluent parameters

% verified
76-100

What standard and methodology was used?

An external audit process on data verification/assurance has been established and running in PepsiCo for many years. ERM performed its assessment in accordance with PepsiCo's GEHSMS standard 30 on Wastewater Discharge.

Water discharge quality – temperature

% verified
76-100

What standard and methodology was used?

An external audit process on data verification/assurance has been established and running in PepsiCo for many years. ERM performed its assessment in accordance with PepsiCo's GEHSMS standard 30 on Wastewater Discharge.

Water consumption – total volume

% verified
76-100

What standard and methodology was used?

An external process lead by auditors, Bureau Veritas, on data verification/assurance has been established and running in PepsiCo for many years. Bureau Veritas performed its assessment in accordance with ISAE 3000 Revised. This is part of our Sustainability Data Governance methodology and is documented. performed its assessment in accordance with ISAE 3000 Revised.

Water recycled/reused

% verified
76-100

What standard and methodology was used?

Subject to the same data assurance program outlined above led by our external auditors, Bureau Veritas. Bureau Veritas performed its assessment in accordance with ISAE 3000 Revised.

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 Reference to international standards and widely-recognized water initiatives 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/partnerships)	PepsiCo's Water Management policy 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 sustained crisis of global water insecurity and the closely interlinked crises of food, climate and health 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 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.

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 Public Policy and Sustainability Committee, 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 PPSC meets every quarter during regular Board meetings. An example of a Board Committee Decision was to advocate for increased budget allocation in addressing water risk due to the potential impact the issue may have on the company. 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. In 2019, the PEC took the decision to create the Sustainability Sub-Committee was also created comprising the CEO, the CFO and functional heads for additional direct oversight of sustainability and water matters.

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 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)	The Public Policy and Sustainability 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 meets four times per year is comprised entirely of independent directors. The primary agenda item for these meetings is a review of PepsiCo’s company-wide progress on our goals, including progress against our respective water goals as outlined in question W8. 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 climate-related risks and risk mitigation strategy. The Risk 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 2019 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.

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)

Other C-Suite Officer, please specify (Chief Vice Chairman and Chief Scientific Officer)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Annually

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. The Subcommittee meets at least quarterly and water security topics addressed include reviewing progress against strategy and assessing / approving improvements to our strategy. An example of this was an update of our water replenishment goal scope. 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 also responsible for reporting progress on our risk mitigation efforts to the Board on an annual basis, including water scarcity. PRC meetings are scheduled 1 month before the quarterly Board of Directors meetings so that the Board’s Risk sub-committee can review the same material. For example, Water risk will be reviewed by the PRC in July, followed by review by the Board in September.

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 corporate executive team has strategic objectives based on an individual executive's role and accountabilities that are aligned with our sustainability agenda including our water goals. Performance against these objectives impacts a portion of both annual and long-term incentives.

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	Improvements in efficiency - direct operations Other, please specify (Replenishment)	Our corporate executive officers, including our CEO, our Chief Sustainability Officer and our Sector CEOs have strategic objectives based on an individual executive's role and accountabilities that are aligned with our public water goals, including improving efficiency in direct operations and water replenishment . Performance impacts a portion of both annual and long-term incentives . 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 goal. PepsiCo has a pay-for-performance philosophy and the annual performance rating impacts annual merit increases, including bonuses. 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	Please select	Please select	

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 has specific teams and individuals that are assigned responsibilities for developing corporate policy and regulatory positions as well as engaging on regulatory policy with external stakeholders, including public policymakers, trade associations and non-government actors. The Public Policy and Government Affairs (PPGA) teams manage relationships with government actors and coordinates activities that may influence regulatory policy globally. Internally the PPGA team also works closely with the Office of Sustainability to ensure that our external engagements are aligned with our overall water strategy. PPGA teams embedded within our business divisions and markets also work with their counterpart sustainability teams within those divisions as well as the Office of Sustainability to align on activities. If inconsistencies between corporate policies and business strategies occur, the PPGA and Office of Sustainability teams work together to resolve those inconsistencies, bringing in senior executives' input, as needed.

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)

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	Water issues included in our long-term business objectives include improving our operational water use efficiency. One of the ways that this is integrated into the plan includes the investments that we make in support of delivering the target - the capital expenditures we make are for long-term technology and infrastructure. In addition, we also integrate this and other goals into our plan by reporting up 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. Specifically, in support of this strategy and our 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%, replenish the amount of water consumed by our manufacturing facilities, and adopt the Alliance for Water Stewardship standard as a vehicle for advocacy.
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. However, our strategy for achieving our long-term business objectives extends well beyond 2025. 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 for our water goals including operational water use efficiency and replenishment projects, into annual budgets. In addition, our financial planning also includes consideration of our business growth and new water-related issues that might impact the business. Our Performance with Purpose strategy, which included our positive water impact strategy, was launched in 2016, with most goals having target end dates of 2025. However, our financial planning to implement our strategy to achieve our long-term business objectives extends well beyond 2025. 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.

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)

23

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

40

Water-related OPEX (+/- % change)

23

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

40

Please explain

Water-related CAPEX and OPEX was approximately 23% higher in 2019 vs 2018 – an approximate \$4 Million increase. As our strategy of delivering world class water efficiency at our high water risk operations continues and incorporating enabling technology into the investment strategy of our sectors we are 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 acutely water stressed locations and approval is conditional on technical feasibility, material freshwater savings and replicability across our manufacturing network and other criteria. PepsiCo is committed to delivering on its 2025 water goal 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 climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row 1	Yes	PepsiCo completed its first phase of climate-related scenario analysis in April. This phase covered our manufacturing footprint including all company owned plants, many warehouses and distribution centers, all offices and R&D sites as well as key franchise and JV locations. For the second phase (2020) we are assessing in addition, 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.

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?

Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1 Other, please specify (RCP 8.5 and RCP 4.5)	Results and how the scenario analysis is informing our objectives & strategy: The results of the analysis helps us understand the overall financial impact to our business by scenario and time period. The results provide directional focus in terms of top 10-20 locations to focus on in the coming years for conducting deeper dives and refining the understanding of what needs to be done to protect these locations. Drought risk is 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 Saudi Arabia are at risk from of extreme temperatures. In the near future this analysis will be supplemented with water stress data from the WRI Aqeduct tool. 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.	PepsiCo undertakes rigorous water risk assessments for its own facilities using both internal and external tools. Where facilities have been designated as being high risk, the company acts both internally and externally. In terms of our internal focus, in our manufacturing operations our resource conservation (RECON) program is aimed at improving water use efficiencies by deploying new technologies and practices as well as best practice sharing across the globe. Our goal is to Improve operational water use efficiency in high water risk areas by 25% by 2025. In terms of taking 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 100% of the water consumed by 2025. In addition, we aim to adopt the AWS standard at our high-water risk facilities and will utilize the standard as a vehicle for advocacy helping 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 specific target of improving water use efficiency by 15% (focused on corn & potatoes).

W7.4

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

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

PepsiCo does not currently use an internal price on water, but we do recognize and take into account the social and environmental costs and benefits of water through our PwP water goals and Positive Water Impact strategy. There are several existing water valuation techniques, including some highlighted in the World Business Council for Sustainable Development's "Business Guide to Water Valuation" that could apply to different parts of PepsiCo's business.

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 Business level Goals are monitored at the corporate level 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	Targets are monitored at the corporate level Goals are monitored at the corporate level	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 decade and consulted with partners and independent experts to inform the water stewardship goals that went into our 2025 agenda. 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. As an example, we have set a company-wide replenishment goal that focuses on high water-risk areas where we operate. This is one of seven water goals under our 2025 agenda. 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.

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 (% reduction per unit of production)

Baseline year

2015

Start year

2016

Target year

2025

% of target achieved

36

Please explain

In 2019, we achieved an improvement of approximately 5 percentage points in our water-use efficiency rate per unit of production across all of our company-owned manufacturing locations compared to our 2018 achievement of 4%.

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 100% of the water we use in manufacturing operations in high water-risk areas by 2025, ensuring that such replenishment takes place in the same watershed where the extraction has occurred.

Quantitative metric

Other, please specify (Percent replenished)

Baseline year

2015

Start year

2016

Target year

2025

% of target achieved

10

Please explain

In 2019, PepsiCo expanded the scope of the goal to cover the volume used – previously this goal only covered volume consumed – increasing the scope of the goal substantially. In 2019, we replenished nearly 1.7 billion liters of water in projects in South Africa, Dominican Republic, Guatemala, India, Mexico, and the US. In India and South Africa, 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 pre-date 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 10% of our 2025 target .

Target reference number

Target 4

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

Goal: With the PepsiCo Foundation and its partners, work to provide access to safe water to a total of 25 million people by 2025 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

2005

Start year

2006

Target year

2025

% of target achieved

100

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 44 million people by the end of 2019. This has meant we have achieved our goal 6 years early and almost doubling our target of reaching 25 million people by 2025. As a result of this success, PepsiCo has set an ambitious new target: helping to expand safe water access to 100 million people by 2030

Target reference number

Target 5

Category of target

Other, please specify (Agricultural water use efficiency)

Level

Company-wide

Primary motivation

Risk mitigation

Description of target

Goal: 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

20

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 focused our efforts on establishing the required processes and protocols and developing individual road maps in specific locations. We have gathered the baseline data from countries where we have direct crops in water-stressed regions. For each farmer group, we have calculated their baseline water opportunity and are identifying local goals and implementation plans. 3% achievement relates to 2018 performance. To focus efforts on implementing sustainable practices, we currently intend to collect and publish agricultural water-use efficiency data every three years.

Target reference number

Target 6

Category of target

Water pollution reduction

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

Goal: 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

99

Please explain

PepsiCo's Global Environment, Health and Safety Management System is a robust set of management and technical standards that provide guidance on acceptable and applicable 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 (BSR) Sustainable Water Group. PepsiCo maintains the high standard that although 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 against degradation of the water quality of the local environment. In such cases, we require our manufacturing operations to meet PepsiCo's more stringent discharge limits. In 2019, 99 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.

Baseline year

2015

Start year

2016

End year

2025

Progress

Indicators of success include initiatives that we have engaged in and assessed as having a 'positive water impact' in the local water landscapes. We launched three pilot programs of AWS Standard adoption in 2019 in South Africa, Pakistan and Mexico. In addition, we are participating in a collaborative effort taking place across 12 countries in Latin America, through a partnership between PepsiCo, the PepsiCo Foundation and the Inter- American Development Bank. Enabled by a \$5 million grant from the PepsiCo Foundation, we are working together to launch a regional center for applied water resources management through the Hydro-BID program, an innovative data management and modeling tool that estimates the availability of freshwater in water-scarce regions. Programs like these work because they are rooted in deep understanding of the needs of local communities and are executed in partnership with local partners. In addition, PepsiCo is represented on the Governing Council of the 2030 Water Resources Group (WRG).

W9. Verification

W9.1

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

Yes

W9.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water withdrawals (volume and quality)	ISAE 3000	An external process led by auditors, 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.
W2 Business impacts	Water withdrawals (volume and quality)	ISAE 3000	An external process led by auditors, 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.
W4 Risks and opportunities	Water withdrawals (volume and quality)	ISAE 3000	An external process led by auditors, 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.

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 Sustainability Officer	Chief Sustainability Officer (CSO)

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	67161000000

SW0.2

(SW0.2) Do you have an ISIN for your organization that you are willing to share with CDP?

No

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	Palakkad facility as reported in W5.1
2	38.483212	-121.398597	As reported in 5.1
3	36.692868	-119.769691	As reported in 5.1
4	37.612216	-122.082406	As reported in 5.1
5	37.766187	-122.202848	As reported in 5.1
6	33.929963	-117.297394	As reported in 5.1
7	34.039631	-117.977316	As reported in 5.1
8	35.383414	-119.238414	As reported in 5.1
9	37.6308	-120.919063	As reported in 5.1
10	34.079394	-117.591129	As reported in 5.1

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

4 to 5 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 the Dominican Republic. 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.

Requesting member

Metro AG

Category of project

Communications

Type of project

Joint case studies or marketing campaign

Motivation

Raise awareness about water issues for METRO's customers and employees.

Estimated timeframe for achieving project

Other, please specify (Annual Campaign)

Details of project

PepsiCo has participated in METRO Cash & Carry's World Water Day-related activities, along with other global suppliers, drawing attention to the issue of global water scarcity.

Projected outcome

One outcome of this partnership has been an increased awareness among employees and customers about water scarcity and resource challenges. The campaign has also led to support of water sustainability campaigns that customers have supported through the purchase of specific products.

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 am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms