

## W0. Introduction

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### W0.1

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**(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 \$64 billion in net revenue in 2018, 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). At the heart of PepsiCo is our goal to deliver top-tier financial performance while creating sustainable growth and shareholder value. In practice, this means providing a wide range of foods and beverages from treats to nutritious eats; trying to find innovative ways to reduce our impact on the environment and lower our operating costs; working to provide a safe and inclusive workplace for our employees globally; and respecting, supporting and investing in the local communities where we operate.

This CDP Water Security Questionnaire contains statements reflecting our views about our future performance that constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 (Reform Act). Statements that constitute forward-looking statements within the meaning of the Reform Act are generally identified through the inclusion of words such as “aim,” “anticipate,” “believe,” “drive,” “estimate,” “expect,” “expressed confidence,” “forecast,” “future,” “goal,” “guidance,” “intend,” “may,” “objective,” “outlook,” “plan,” “position,” “potential,” “project,” “seek,” “should,” “strategy,” “target,” “will” or similar statements or variations of such words and other similar expressions. All statements addressing our future operating performance, and statements addressing events and developments that we expect or anticipate will occur in the future, are forward-looking statements within the meaning of the Reform Act. These forward-looking statements are based on currently available information, operating plans and projections about future events and trends. They inherently involve risks and uncertainties that could cause actual results to differ materially from those predicted in any such forward-looking statement. These risks and uncertainties include, but are not limited to, those described in “Item 1A. Risk Factors” and “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Our Business – Our Business Risks.” Investors are cautioned not to place undue reliance on any such forward-looking statements, which speak only as of the date they are made. We undertake no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise. The discussion of risks below and elsewhere in this report is by no means all-inclusive but is designed to highlight what we believe are important factors to consider when evaluating our future performance.

### W-FB0.1a

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

Processing/Manufacturing  
Distribution

### W0.2

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**(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 2018	December 31 2018

## W0.3

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

India  
South Africa  
United States of America

## W0.4

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

USD

## W0.5

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### (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

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

Yes

## W0.6a

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### (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.
Venezuela	We determined that the inclusion of data for our Sustainability reporting should align with the reporting framework used as well as any exclusions in our financial reporting. Because Venezuela is excluded from our financial report and its water use represents approximately 0.1% of our water inventory, it is considered de minimis and we can meet the required alignment.

## W1. Current state

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### W1.1

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**(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 our manufacturing sites are measured and monitored. We track all water withdrawals on a monthly basis and have done so since 2006, leveraging our enterprise-wide sustainability metrics platform, in which facilities are responsible for entering water withdrawal data every month and the volumes of purchased water are obtained from invoices or meter readings. Data collection methods are set out in our Data Excellence Governance and Controls protocol that documents detailed responsibilities and accountabilities for externally reported sustainability metrics. 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. In addition, the protocol also calls for us to track water withdrawal quarterly as part of our performance tracking and report against our sustainability goals; we measure progress against our operational water-use efficiency goal.

	% of sites/facilities/operations	Please explain
Water withdrawals – volumes from water stressed areas	100%	100% of our manufacturing sites are measured and monitored. We track all water withdrawals on a monthly basis across PepsiCo, leveraging our enterprise-wide sustainability metrics platform, in which facilities, including those located in high water stressed areas, are responsible for entering their water withdrawal data every month, tracking volumes of water purchased on invoices or meter readings. We also track our water withdrawal and usage efficiency performance quarterly as part of our sustainability goals, in which we measure progress against our operational water-use efficiency goal. 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 withdrawals – volumes by source	100%	One hundred percent of our manufacturing sites track water withdrawal by source on a monthly basis and capture it in our enterprise-wide sustainability metrics tracking platform, in which facilities are responsible for entering their water withdrawal data every month, including from the volumes of purchased water as recorded on invoices or from meter readings. Our enterprise-wide sustainability metrics platform 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.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sectors]	<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. One hundred percent of our beverage operations track and monitor quality of raw water withdrawals on at least a quarterly basis, using the WHO Potable Water Standard and 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 – total volumes	100%	One hundred 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	76-99	Seventy-seven percent of our manufacturing operations track and monitor 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 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	100%	One hundred 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.

	% of sites/facilities/operations	Please explain
Water discharge quality – temperature	51-75	Fifty-one 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%	One hundred percent of our manufacturing operations track and monitor water consumption at least quarterly, 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 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. By the end of 2018, our manufacturing facilities' WASH conformance was at 92 percent. 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	86702	Lower	Three percent less water volume was withdrawn compared with last year. This decrease was due to water reduction initiatives implemented towards our water-use efficiency sustainability goal. In the future, it is possible that the volume of water withdrawals could decrease due to our investments in water reduction initiatives. PepsiCo has a strong water sustainability innovation pipeline which is coupled with a centralized environmental sustainability capital investment fund. For example, some innovative projects currently being commercialized and deployed across our company include a successful 2018 R&D pilot in which we tested a mechanism to treat potato fryer steam back to potable water equivalent, offsetting the need for freshwater. Another project successfully redesigned a potato slicing and lubricating component which allows a 64% reduction in water used.
Total discharges	51168	Lower	We discharged less water in 2018 than we did in 2017. 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.
Total consumption	35534	Higher	We are reporting a higher total consumption in 2018 as compared to 2017. PepsiCo continues to drive water efficiency across our manufacturing locations, which has in turn lowered consumption. By driving technology innovation through our R+D and Food safety groups we are developing industry-leading water efficient technology. We continue to leverage our PepsiCo Resource Conservation program (ReCon) across all our company owned operations from front line to plant director. Continuous improvement is very much the ethos of PepsiCo. Future trends in our water consumption are expected to be driven by our water efficiency investments and global reapplication of best practices through our Resource Conservation (ReCon) program. In the future, it is possible that the volume of water consumption could decrease as a result of our water reduction initiatives. However, our consumption is also tied to our production volumes.

## W1.2d

**(W1.2d) Provide the proportion of your total withdrawals sourced from water stressed areas.**

	% withdrawn from stressed areas	Comparison with previous reporting year	Identification tool	Please explain
Row 1	26	Lower	WRI Aqueduct	In 2018, our operations withdrew 3% less water in water-stressed areas than in 2017 thanks to a combination of tactics under our operational water use efficiency strategy such as Resource Conservation Captain training, plants' efficiency improvements, including RO Bootcamp, strong operations leadership engagement, front-line engagement and behavior-based programs, technology investment, best practice redeployment, and R&D and QA innovations in process and technology innovation. PepsiCo conducts detailed manufacturing location water stress assessments every three years - leveraging WRI Aqueduct and a detailed site risk assessment, encompassing context, physical, regulatory, social, and reputational risks. PepsiCo used WRI Aqueduct as it is designed to help users understand where and how water risks are emerging worldwide. In order to get more granular and nuanced perspectives of on the ground risks, we also utilized local site surveys at all company-owned facilities. Collectively, we determined 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. All sites with a score in excess of 3.5 (out of 5) were designated as high water risk. Additional sites with a lower score were designated as high water risk based on local knowledge.

**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 water stressed areas?**

Agricultural commodities	The proportion of this commodity produced in water stressed basins is known	The proportion of this commodity sourced from water stressed basins 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 two years.
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 two years.
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 two years.

## W-FB1.2g

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

Agricultural commodities	% of total agricultural commodity sourced in water stressed areas	Please explain
<Not Applicable>	47	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 baselining 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.
<Not Applicable>	47	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 baselining 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.
<Not Applicable>		

## 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	112	Higher	Fresh surface water accounts for a very small percentage of PepsiCo's source water supply. Our goal is to increase this volume in the future through investment in rainwater harvesting, where appropriate to do so. As PepsiCo incentivizes rainwater harvesting within its operations, we can see the resulting benefits; rainwater volume used in plants has increased by 89% over prior year. However, given the small overall percentage that fresh surface water accounts for, the volume of water withdrawn was about the same as what we reported last year and fresh surface water, including rainwater, water from wetlands, rivers and lakes still represents a very small percentage of the total water withdrawals.
Brackish surface water/Seawater	Relevant	273	Lower	Our ingredient and food safety standards mean that we cannot use brackish water in our manufacturing processes. The power plants that provide energy to our operations and our suppliers may rely on recycled and/or brackish water for cooling. Some countries in which PepsiCo operates, such as Saudi Arabia, produce municipal fresh water through desalination systems. PepsiCo currently has no future plans to incorporate brackish surface water or seawater into our water sourcing, so we do not currently anticipate any changes to this in the future. However, 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. This volume is lower than what we reported last year due in part due to production changes in locations that utilize brackish or seawater.
Groundwater – renewable	Relevant	24995	About the same	Renewable groundwater is PepsiCo's second largest source of water withdrawals (after third-party or municipal sources). We withdrew approximately the same amount of groundwater in 2018 as we did in 2017, as our efficiencies this year were focused on the amount of water we sourced from third parties. In the future, as we continue to drive water-use efficiency across our business we could see less groundwater withdrawals.
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	Relevant	5	About the same	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	61317	Lower	Third party sources represent the largest source of PepsiCo's water withdrawals. We reduced this amount by nearly 4% between 2017 and 2018 through water efficiency efforts. This volume may decrease as we continue to drive water-use efficiency across our business but it will likely remain our largest withdrawal source.

## 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>	We are unable to answer this question this year but intend to next year.
Brackish surface water/seawater	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	We are unable to answer this question this year but intend to next year.
Groundwater	Relevant	1634	Lower	This is the first year we are reporting a volume of water by destination. Groundwater is relevant as it is the second-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.
Third-party destinations	Relevant	40437	Lower	This is the first year we are reporting a volume of water by destination. 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.

## W1.2j

### (W1.2j) What proportion of your total water use do you recycle or reuse?

	% recycled and reused	Comparison with previous reporting year	Please explain
Row 1	1-10	Higher	We have increased our volumes of water recycled/reused across our company by a further 0.4% in 2018. Our water efficiency strategy builds on the successes we have already achieved in water reuse technology, particularly in our foods business. We have been continuing our investment strategy in water reuse technology such as membrane bioreactor/reverse osmosis (MBR/RO) technology in Latin America, and India during 2018, and the savings off setting freshwater usage are being realised during the year. At the end of 2018 we had 18 active MBR Systems within our company owned operations, 9 of which are producing potable water offsetting freshwater usage within our process, the remaining 9 offset freshwater into our site utilities plants - non product contact. Our strategy is to continue to increase the percentage of recycled water across our foods business, particularly at hour high water risk locations, which will further reduce our dependence on freshwater at these priority locations. Our capital investment plan is supported by our Corporate Planet fund.

## 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 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)	Not applicable	Yes	We have a goal to improve the water-use efficiency of our direct agricultural supply chain by 15% by 2025 in high-water-risk sourcing areas against a 2015 baseline. Potatoes are in-scope for this goal. We are measuring theoretical water-use efficiency based on applied water, which will be validated and refined through in-field measurements. In collaboration with WRI, we undertook a study to evaluate our high water risk crops, and we utilized the UN Food and Agriculture Organization's (FAO) Cropwat 8 modelling tool to determine our baseline crop water footprint. We gathered the baseline data and progress through 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 (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the program is to ensure that our new products 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. SftS includes water impact factors for all of our agricultural ingredients, including palm oil.
Sugar	Not applicable	Yes	PepsiCo's Sustainable from the Start Program (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the program is to ensure that our new products 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. SftS 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 (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the program is to ensure that our new products 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. SftS 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**

<Not Applicable>

**Water intensity value (m3)**

513

**Numerator: Water aspect**

Total water withdrawals

**Denominator: Unit of production**

Other, please specify (Metric tons)

**Comparison with previous reporting year**

Lower

**Please explain**

We have a global goal to improve water-use efficiency in our high water risk direct agricultural supply chain by 15 percent by 2025. We undertook a study to evaluate our high water risk crops, and we utilized the UN FAO Cropwat 8 modelling tool to determine our

baseline crop water footprint. We gathered the 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. We calculated water intensity of corn as 513 m3 of water per metric ton of corn, which reflected 1 m3 of water per metric ton of corn improvement from 2015. Some of the ways we work with farmers include 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 like drip irrigation. We expect the water intensity to continue to decrease in the future.

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#### **Agricultural commodities**

<Not Applicable>

#### **Water intensity value (m3)**

175

#### **Numerator: Water aspect**

Total water withdrawals

#### **Denominator: Unit of production**

Other, please specify (Metric tons)

#### **Comparison with previous reporting year**

Much lower

#### **Please explain**

We set a global goal to improve water-use efficiency in our high water risk direct agricultural supply chain by 15 percent by 2025. We undertook a study to evaluate our high water risk crops, and we utilized the UN FAO Cropwat 8 modelling tool to determine our baseline crop water footprint. We gathered the baseline data and progress through the 2017 crop year (which ended in 2018 calendar year). For each farmer group, we have calculated their baseline water opportunity and identified local goals and implementation plans. 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. We work with farmers by 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, such as drip irrigation. We expect the water intensity to continue to decrease in the future.

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#### **Agricultural commodities**

<Not Applicable>

#### **Water intensity value (m3)**

4692

#### **Numerator: Water aspect**

Other, please specify (Footprint indicator)

#### **Denominator: Unit of production**

Other, please specify (Metric tons)

#### **Comparison with previous reporting year**

This is our first year of measurement

#### **Please explain**

PepsiCo's Sustainable from the Start Program (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the program is to ensure that our new products 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 the water impact of growing agriculture ingredients, and the water intensity value for palm oil is included here. As this is our first year of measurement, we are not able to compare to previous reporting year and will wait to anticipate future trends until we evaluate the data.

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#### **Agricultural commodities**

<Not Applicable>

#### **Water intensity value (m3)**

1562

#### **Numerator: Water aspect**

Other, please specify (Footprint indicator)

#### **Denominator: Unit of production**

Other, please specify (Metric tons)

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### Comparison with previous reporting year

This is our first year of measurement

#### Please explain

PepsiCo's Sustainable from the Start Program (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the program is to ensure that our new products 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 the water impact of growing agriculture ingredients, and the water intensity value for sugarcane is included here. As this is our first year of measurement, we are not able to compare to previous reporting year and will wait to anticipate future trends until we evaluate the data.

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#### Agricultural commodities

<Not Applicable>

#### Water intensity value (m3)

1620

#### Numerator: Water aspect

Other, please specify (Footprint indicator)

#### Denominator: Unit of production

Other, please specify (Metric tons)

### Comparison with previous reporting year

This is our first year of measurement

#### Please explain

PepsiCo's Sustainable from the Start Program (SftS) aims to incorporate life cycle thinking into all aspects of new product development. The goal of the program is to ensure that our new products 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 the water impact of growing agriculture ingredients, and the water intensity value for wheat is included here. As this is our first year of measurement, we are not able to compare to previous reporting year and will wait to anticipate future trends until we evaluate the data.

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## W1.4

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### (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

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**(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**

Unknown

**% of total procurement spend**

26-50

**Rationale for this coverage**

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. 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.

**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%.

**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**

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

**Type of engagement**

Innovation & collaboration

**Details of engagement**

<Not Applicable>

**% of suppliers by number**

<Not Applicable>

**% of total procurement spend**

<Not Applicable>

**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**

<Not Applicable>

**Comment**

<Not Applicable>

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**Type of engagement**

Incentivizing for improved water management and stewardship

**Details of engagement**

<Not Applicable>

**% of suppliers by number**

<Not Applicable>

**% of total procurement spend**

<Not Applicable>

**Rationale for the coverage of your engagement**

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**

<Not Applicable>

**Comment**

<Not Applicable>

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**W1.4c**

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**(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 pre-competitive 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 measure of success is 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 Cool Farm Alliance and Field to Market Initiative.

**W2. Business impacts**

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**W2.1**

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

No

**W2.2**

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**(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**

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

**Row 1**

**Total number of fines**

7

**Total value of fines**

39804

**% of total facilities/operations associated**

0.02

**Number of fines compared to previous reporting year**

About the same

**Comment**

### W-FB3.1

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#### **(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 in India, the largest source of water pollution is untreated effluent and are more relevant concerns for all water stakeholders.

### W-FB3.1a

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#### **(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

*Response shortened due to character limits: "Other, properties of water that can negatively affect human and ecosystem use"*

##### **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 has set a goal 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.

## 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 aims to work 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.

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## Potential water pollutant

Pesticides and other agrochemical products

### Activity/value chain stage

Agriculture – direct operations  
Agriculture – supply chain

### Description of water pollutant and potential impacts

We recognize the potential impacts of pesticides and other agrochemical products as listed here and have therefore incorporated them into our Sustainable Farming Program and in our efforts in engaging with farmers. For both our direct agricultural operations as well as our agricultural supply chain operations, the scale and magnitude of the potential impacts of pesticides is dependent on local conditions, including the on-farm management practices, the crops being grown and pesticides 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.

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## 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.

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### W3.3

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

Yes, water-related risks are assessed

### W3.3a

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#### (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

Six-monthly or more frequently

### How far into the future are risks considered?

>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

Six-monthly or more frequently

### How far into the future are risks considered?

>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?**

>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 what crops are water-intensive in what 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.

	Relevance & inclusion	Please explain
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	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	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 stress 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 2016 and the next global operations assessment will be completed in 2019. 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. We chose to use a combination of all three tools in order to make our assessment comprehensive. Both current risk and anticipated future water risk were assessed and assigned a combined risk score using all three tools. All sites with a score in excess of 3.5 (out of 5) were designated as high water risk. Additional sites with a lower score were also 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 consumed 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 next assessment planned for 2019. All top tier risk locations list will be 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

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### W4.1

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**(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

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**(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 (+/- 5%) 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', in 2018 we saw examples of production disruptions at our facilities in Cape Town (due to the 2018 'Day Zero' emergency) 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

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**(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	75	26-50	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.

W4.1c

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

**Country/Region**

India

**River basin**

Cauvery River

*This also includes a facility outside of the Cauvery River basin.*

**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/Region**

United States of America

**River basin**

Colorado River (Pacific Ocean)

**Number of facilities exposed to water risk**

9

**% 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

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**W4.2**

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**(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/Region**

India

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## River basin

Cauvery River

## Type of risk

Physical

## Primary risk driver

Increased water stress

## Primary potential impact

Reduction or disruption in production capacity

## Company-specific description

Social and regulatory changes in several areas of India impact the ability of our facilities to maintain and/or increase production. In recent years, increased water stress in the Indian states of Tamil Nadu and Kerala has driven local opposition to multinational corporations, resulting in product boycotts. In 2018, PepsiCo had ten high water risk facilities across India, most of whom relied on single water sources that were dependent on annual rainfall volumes and became increasingly strained during drought conditions. Detailed Water Vulnerability Assessments were completed for each of these sites to better understand the company risks and opportunities.

## Timeframe

Current up to 1 year

## Magnitude of potential impact

Medium

## Likelihood

Virtually certain

## Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

## Potential financial impact figure (currency)

20000000

## 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

Water management incentives

## 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 India. For example, we are actively replenishing high water risk watersheds where we operate. In 2018, we replenished over 2.7 billion liters of water in India through community programs such as rainwater harvesting, storage pond rehabilitation and check dam installations. These efforts support both water risk mitigation and enhance PepsiCo's reputation.

## Cost of response

10000000

## 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 India community water programs 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.

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## Country/Region

United States of America

## River basin

Colorado River (Pacific Ocean)

## Type of risk

Physical

## Primary risk driver

Drought

## Primary potential impact

Reduction or disruption in production capacity

## Company-specific description

Current and future water stress around the Colorado water basin in the U.S. could impact the ability of our current facilities to continue production without disruption in the future. In 2018, PepsiCo had 13 high water risk food and beverage manufacturing facilities located within the Colorado River Basin, in California, Arizona, Nevada, and Colorado. Drought conditions in the Colorado River basin affect water availability for all water stakeholders, including our facilities.

## Timeframe

1 - 3 years

## Magnitude of potential impact

Medium-low

## Likelihood

Likely

## 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

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

Water management incentives

## 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 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 2018 we replenished over 500 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

600000

## Explanation of cost of response

We estimate response costs to be 'low', specifically we estimate them to be less than 1% of PepsiCo's global revenue. We utilized current costs of response through our 'Recycle for Nature' collaboration to estimate an approximate total cost of response. We expect these costs to continue into the future at approximately the same level.

**(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/Region**

South Africa

**River basin**

Berg-Olifants

**Stage of value chain**

Supply chain

**Type of risk**

Physical

**Primary risk driver**

Increased water scarcity

**Primary potential impact**

Supply chain disruption

**Company-specific description**

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

**Timeframe**

>6 years

**Magnitude of potential financial impact**

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 potential financial impact South Africa-wide, not just specific to the Berg River basin. Changes in average precipitation can disrupt crop yields and locations. Such an event could significantly impact PepsiCo's revenues with increased commodity prices and transportation costs. Using a hypothetical example, financial implications could include an increase of 15% premium, which would equate to approximately \$6 million cost increase for the market.

**Primary response to risk**

Promote the adoption of sustainable irrigation practices among suppliers

**Description of response**

PepsiCo's goal is to operate in a sustainable manner and we have undertaken several initiatives to manage the risk of consumer buying habits while simultaneously lessening our dependence upon climate-sensitive commodities. For example, to adapt to and mitigate the temperature and precipitation impact, PepsiCo has implemented our Sustainable Farming Program (SFP) (formerly our Sustainable Farming Initiative, or SFI) which enables our company-owned and contract growers, including those in South Africa, to compete in a resource constrained future. In 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.

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W4.3

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**(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

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**(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)**

30000000

**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 \$30M, 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.

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**Type of opportunity**

Markets

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### 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)

65000000

#### Potential financial impact figure – minimum (currency)

<Not Applicable>

#### Potential financial impact figure – maximum (currency)

<Not Applicable>

#### Explanation of financial impact

This is an estimate based on costs incurred to date and expected costs in the future. 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.

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### 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. We are targeting to increase water-use efficiency by a further 25% by 2025. This water efficiency will also deliver cost savings to our operations in relation to water abstraction costs, utilities costs as well as waste water discharge compliance costs and chemical consumables. We set annual efficiency targets. In 2018, aiming to reduce the amount of water used for potato slicing and lubricating, our R&D and manufacturing teams designed, prototyped, tested and successfully validated 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)

18100000

#### Potential financial impact figure – minimum (currency)

<Not Applicable>

#### Potential financial impact figure – maximum (currency)

<Not Applicable>

#### Explanation of financial impact

In 2018 PepsiCo spent \$18.1 million via its centrally-funded Capital Investments Sustainability fund for water use efficiency and upgrade projects.

---

#### 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)**

2000000

**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.

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**W5. Facility-level water accounting**

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**W5.1**

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

**Facility reference number**

Facility 1

**Facility name (optional)**

Palakkad

**Country/Region**

India

**River basin**

Other, please specify (Bharathappuzha)

**Latitude**

10.79

**Longitude**

76.78

**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)**

152

**Comparison of withdrawals with previous reporting year**

Higher

**Total water discharges at this facility (megaliters/year)**

43.3

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

85

**Comparison of consumption with previous reporting year**

---

Higher

**Please explain**

Production output at this plant almost doubled over prior year which has been the main cause of the increase in withdrawal and consumed water volumes in the same period. However the water usage efficiency rate improved by 9% as PepsiCo continues driving its water efficiency strategy across all operations.

---

**Facility reference number**

Facility 2

**Facility name (optional)**

Nelamangala

**Country/Region**

India

**River basin**

Cauvery River

**Latitude**

13.14

**Longitude**

77.34

**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)**

210

**Comparison of withdrawals with previous reporting year**

Lower

**Total water discharges at this facility (megaliters/year)**

100.03

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

107

**Comparison of consumption with previous reporting year**

Lower

**Please explain**

We withdrew 19% less water in 2018 compared to 2017 by a combination of a reduction in production output and running a water recovery process allowing us to reuse water in the site's utilities. While production volumes will always fluctuate year to year the water usage efficiency metric has improve by 6% Year on year.

---

**Facility reference number**

Facility 3

**Facility name (optional)**

Riverside, CA

**Country/Region**

United States of America

**River basin**

Colorado River (Pacific Ocean)

**Latitude**

33.93

**Longitude**



-117.3

**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)**

373

**Comparison of withdrawals with previous reporting year**

About the same

**Total water discharges at this facility (megaliters/year)**

137.05

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

224

**Comparison of consumption with previous reporting year**

About the same

**Please explain**

A production reduction together with an increased water efficiency focus allowed the site to reduce water withdrawal - water usage efficiency improve by 2% in 2018.

---

**Facility reference number**

Facility 4

**Facility name (optional)**

City Of Industry, CA

**Country/Region**

United States of America

**River basin**

Colorado River (Pacific Ocean)

**Latitude**

34.04

**Longitude**

-117.98

**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)**

357

**Comparison of withdrawals with previous reporting year**

About the same

**Total water discharges at this facility (megaliters/year)**

177

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

94

**Comparison of consumption with previous reporting year**

About the same

---

**Please explain**

This site continues to invest in efficiency innovation and achieved a 3.2% water usage efficiency rate in 2018. Optimizing ingredient water production at our utilities was conducted across our California beverage operations in 2018.

---

**Facility reference number**

Facility 5

**Facility name (optional)**

Buena Park, CA

**Country/Region**

United States of America

**River basin**

Colorado River (Pacific Ocean)

**Latitude**

33.87

**Longitude**

-118.02

**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)**

171

**Comparison of withdrawals with previous reporting year**

About the same

**Total water discharges at this facility (megaliters/year)**

78.73

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

179

**Comparison of consumption with previous reporting year**

Much higher

**Please explain**

This site continued to be our most water efficient beverage operations. It achieved better than world class water usage efficiency rates for the portfolio mix and improved its efficiency by a further 0.6% in 2018.

---

**Facility reference number**

Facility 6

**Facility name (optional)**

Fresno, CA

**Country/Region**

United States of America

**River basin**

Sacramento River - San Joaquin River

**Latitude**

36.39

**Longitude**

-119.77

**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)**

327

**Comparison of withdrawals with previous reporting year**

About the same

**Total water discharges at this facility (megaliters/year)**

137.38

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

217

**Comparison of consumption with previous reporting year**

About the same

**Please explain**

This is a beverage site that continues to drive water efficiency opportunities delivering a 4.2% efficiency improvement in 2018.

---

**Facility reference number**

Facility 7

**Facility name (optional)**

Sacramento, CA

**Country/Region**

United States of America

**River basin**

Sacramento River - San Joaquin River

**Latitude**

38.48

**Longitude**

-121.4

**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)**

378

**Comparison of withdrawals with previous reporting year**

About the same

**Total water discharges at this facility (megaliters/year)**

172.17

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

223

**Comparison of consumption with previous reporting year**

About the same

**Please explain**

This site is undergoing a water-use efficiency drive. It continues to develop and execute its efficiency strategy while the portfolio mix continues to move toward more micro sensitive products with a higher water footprint.

---

**Facility reference number**

Facility 8

**Facility name (optional)**

Hayward, CA

**Country/Region**

United States of America

**River basin**

Other, please specify (California)

**Latitude**

37.61

**Longitude**

-122.09

**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)**

273

**Comparison of withdrawals with previous reporting year**

About the same

**Total water discharges at this facility (megaliters/year)**

90.9

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

154

**Comparison of consumption with previous reporting year**

About the same

**Please explain**

This site is maintaining its performance in spite of business challenges. We expect changes in portfolio shift and smaller batch manufacturing will impact our beverages operations into the future.

---

**Facility reference number**

Facility 9

**Facility name (optional)**

Oakland, CA

**Country/Region**

United States of America

**River basin**

Other, please specify (California)

**Latitude**

37.77

**Longitude**

-122.2

**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)**

---

212

**Comparison of withdrawals with previous reporting year**

Lower

**Total water discharges at this facility (megaliters/year)**

143.16

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

119

**Comparison of consumption with previous reporting year**

Lower

**Please explain**

This facility withdrew lower amounts of water in 2018 compared to 2017. The site's product portfolio mix changes and efficiency improvements can impact water withdrawals.

---

**Facility reference number**

Facility 10

**Facility name (optional)**

Rancho Cucamonga

**Country/Region**

United States of America

**River basin**

Colorado River (Pacific Ocean)

**Latitude**

34.08

**Longitude**

-117.59

**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)**

368

**Comparison of withdrawals with previous reporting year**

About the same

**Total water discharges at this facility (megaliters/year)**

328.86

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

37

**Comparison of consumption with previous reporting year**

About the same

**Please explain**

Our overall water withdrawal at this location remained about the same in 2018 as compared to 2017. However, the site achieved a 5.9% efficiency improvement.

---

**Facility reference number**

Facility 11

---

**Facility name (optional)**

Kern, CA

**Country/Region**

United States of America

**River basin**

Colorado River (Pacific Ocean)

**Latitude**

35.4

**Longitude**

-119.32

**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)**

1554

**Comparison of withdrawals with previous reporting year**

About the same

**Total water discharges at this facility (megaliters/year)**

51.26

**Comparison of discharges with previous reporting year**

Lower

**Total water consumption at this facility (megaliters/year)**

155

**Comparison of consumption with previous reporting year**

About the same

**Please explain**

This snacks operation is a relatively high water consumer among PepsiCo sites due to the nature of its land application wastewater treatment system. In 2018, we achieved a 3.4% efficiency improvement, which is significant for a plant this size. We have water efficient technology investment plans to invest in this location further in the coming years, to further increase our water use efficiency at this site.

---

**W5.1a**

---

**(W5.1a) For each facility referenced in W5.1, provide withdrawal data by water source.**

**Facility reference number**

Facility 1

**Facility name**

Palakkad

**Fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Brackish surface water/seawater**

0

**Groundwater - renewable**

152

**Groundwater - non-renewable**

0

**Produced/Entrained water**

0

**Third party sources**

0

**Comment**

On-site well supply, single

---

**Facility reference number**

Facility 2

**Facility name**

Nelamangala

**Fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Brackish surface water/seawater**

0

**Groundwater - renewable**

210

**Groundwater - non-renewable**

0

**Produced/Entrained water**

0

**Third party sources**

0

**Comment**

On-site well supply, single

---

**Facility reference number**

Facility 3

**Facility name**

Riverside, CA

**Fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Brackish surface water/seawater**

0

**Groundwater - renewable**

0

**Groundwater - non-renewable**

0

**Produced/Entrained water**

0

**Third party sources**

373

**Comment**

Municipal supply

---

**Facility reference number**

Facility 4

**Facility name**

City Of Industry, CA

---

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

357

**Comment**

Municipal supply

---

**Facility reference number**

Facility 5

**Facility name**

Buena Park, CA

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

171

**Comment**

Municipal supply

---

**Facility reference number**

Facility 6

**Facility name**

Fresno, CA

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

---



**Comment**Municipal supply

---

**Facility reference number**

Facility 7

**Facility name**

Sacramento, CA

**Fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Brackish surface water/seawater**

0

**Groundwater - renewable**

0

**Groundwater - non-renewable**

0

**Produced/Entrained water**

0

**Third party sources**

378

**Comment**Municipal supply

---

**Facility reference number**

Facility 8

**Facility name**

Hayward, CA

**Fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Brackish surface water/seawater**

0

**Groundwater - renewable**

0

**Groundwater - non-renewable**

0

**Produced/Entrained water**

0

**Third party sources**

273

**Comment**Municipal supply

---

**Facility reference number**

Facility 9

**Facility name**

Oakland, CA

**Fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Brackish surface water/seawater**

---

0

**Groundwater - renewable**

0

**Groundwater - non-renewable**

0

**Produced/Entrained water**

0

**Third party sources**

212

**Comment**

Municipal supply

---

**Facility reference number**

Facility 10

**Facility name**

Rancho Cucamonga

**Fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Brackish surface water/seawater**

0

**Groundwater - renewable**

0

**Groundwater - non-renewable**

0

**Produced/Entrained water**

0

**Third party sources**

368

**Comment**

Municipal supply

---

**Facility reference number**

Facility 11

**Facility name**

Kern, CA

**Fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Brackish surface water/seawater**

0

**Groundwater - renewable**

1554

**Groundwater - non-renewable**

0

**Produced/Entrained water**

0

**Third party sources**

0

**Comment**

On-site well supply, single

---

---

W5.1b

---

(W5.1b) For each facility referenced in W5.1, provide discharge data by destination.

**Facility reference number**

Facility 1

**Facility name**

Palakkad

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

43.3

**Comment**

---

**Facility reference number**

Facility 2

**Facility name**

Nelamangala

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

100.03

**Comment**

---

**Facility reference number**

Facility 3

**Facility name**

Riverside, CA

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

137.05

**Comment**

---

**Facility reference number**

Facility 4

---

**Facility name**

City of Industry, CA

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

177

**Comment**

---

**Facility reference number**

Facility 5

**Facility name**

Buena Park, CA

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

78.73

**Comment**

---

**Facility reference number**

Facility 6

**Facility name**

Fresno, CA

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

137.38

**Comment**

---

**Facility reference number**

Facility 7

**Facility name**

Sacramento, CA

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

---

0

**Third party destinations**

172.17

**Comment**

---

**Facility reference number**

Facility 8

**Facility name**

Hayward, CA

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

90.9

**Comment**

---

**Facility reference number**

Facility 9

**Facility name**

Oakland, CA

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

143.16

**Comment**

---

**Facility reference number**

Facility 10

**Facility name**

Rancho Cucamonga

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

328.86

**Comment**

---

**Facility reference number**

Facility 11

---

**Facility name**

Kern, CA

**Fresh surface water**

0

**Brackish surface water/Seawater**

0

**Groundwater**

0

**Third party destinations**

51.26

**Comment**

---

**W5.1c**

---

**(W5.1c) For each facility referenced in W5.1, provide the proportion of your total water use that is recycled or reused, and give the comparison with the previous reporting year.**

**Facility reference number**

Facility 1

**Facility name**

Palakkad

**% recycled or reused**

None

**Comparison with previous reporting year**

&lt;Not Applicable&gt;

**Please explain**

We define "water recovered/recycled" in our processes as wastewater recovery to process water via MBR/RO recovery technology (centralized recovery). We meter this volume and record on our enterprise-wide sustainability data metrics system. Within our processes, our focus is on driving water efficiency at source, efficiency by design and recovering water, where food safety permits, for reuse within the process (decentralized recovery). We do not centrally track these individual volumes but we do manage by benchmarking across product category for water efficiency per L or Kg of production. We do not have a wastewater MBR/RO recovery process at this location.

---

**Facility reference number**

Facility 2

**Facility name**

Nelamangala

**% recycled or reused**

11-25%

**Comparison with previous reporting year**

&lt;Not Applicable&gt;

**Please explain**

An MBR/and 2 stage RO water recovery process was installed at this site and started running in 2017. it is offsetting freshwater usage in utilities by 11% in 2018 (Calculated).

---

**Facility reference number**

Facility 3

**Facility name**

Riverside, CA

**% recycled or reused**

---

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**Facility reference number**

Facility 4

**Facility name**

City Of Industry, CA

**% recycled or reused**

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**Facility reference number**

Facility 5

**Facility name**

Buena Park, CA

**% recycled or reused**

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**Facility reference number**

Facility 6

**Facility name**

Fresno, CA

**% recycled or reused**

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**Facility reference number**

Facility 7

**Facility name**

Sacramento, CA

**% recycled or reused**

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**Facility reference number**

Facility 8

**Facility name**

Hayward, CA

**% recycled or reused**

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**Facility reference number**

Facility 9

**Facility name**

Oakland, CA

**% recycled or reused**

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**Facility reference number**

Facility 10

**Facility name**

Rancho Cucamonga

**% recycled or reused**

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**Facility reference number**

Facility 11

**Facility name**

Kern, CA

**% recycled or reused**

None

**Comparison with previous reporting year**

<Not Applicable>

**Please explain**

We do not have a wastewater MBR/RO recovery process at this beverage location.

---

**W5.1d**

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**(W5.1d) 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

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### W6.1

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

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

### W6.1a

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

Row	Scope	Content	Please explain
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 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 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	<p>Under PepsiCo's By-Laws and Corporate Governance Guidelines, the Board has the responsibility to manage the business of the Company. Because sustainability matters are integrated into our business, the Board considers them an integral part of its business oversight. To clarify its role, the Board amended PepsiCo's Corporate Governance Guidelines in 2015 to add "sustainability" to the key aspects of PepsiCo's businesses over which the Board has oversight responsibilities. In 2016, PepsiCo reviewed our sustainability governance structure to strengthen the integration of Performance with Purpose (PwP) into our business agenda. The PepsiCo Executive Committee (PEC) then assumed direct oversight of the sustainability agenda, including strategic decisions and performance management. The PEC is made up of the Chairman &amp; CEO, the President, the CFO, Sector CEOs and functional heads, ensuring that sustainability is a key accountability for every member of our senior leadership team. Our Board of Directors has oversight responsibility for PepsiCo's integrated risk management framework, including risk assessment and risk mitigation of the Company's top risks. The Board receives regular updates on key risks throughout the year and has tasked designated Committees of the Board with oversight of certain categories of risk management. The Public Policy and Sustainability Committee of PepsiCo's Board of Directors is responsible for annually reviewing the Company's key public policy and sustainability issues, such as water scarcity, including sustainability initiatives, and its engagement in the public policy process. PepsiCo's Risk Committee (PRC), including PepsiCo's Chairman of the Board and Chief Executive Officer, meets regularly 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 scarcity.</p>

**W6.2b**

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**(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 Board oversees PepsiCo’s integrated risk management framework designed to identify, assess, prioritize, address, manage, monitor and communicate our top strategic, financial, operating, business, compliance, safety, reputational and other risks, including water-related risks across the organization. The PepsiCo Risk Committee (PRC) is a cross-functional diverse group that meets regularly and is responsible for reporting progress on risk mitigation efforts to the Board. Agendas for these meetings include various governance mechanisms including reviewing PepsiCo’s progress on water-related targets, budgets for major capital expenditure investments, and updates to the Company’s water risk mitigation strategy. The Risk Committee also reviews the potential impacts in agricultural commodity supplies, production disruptions due to water-related weather events, and regulatory changes that may impact PepsiCo’s business. The Board receives regular updates on key risks throughout the year. Key risks related to climate change and water scarcity identified by the Company are included in our 2018 Annual Report on Form 10-K. The Public Policy and Sustainability Committee of PepsiCo’s Board of Directors oversees governance mechanisms including annual reviews of the Company’s key water-related public policy and sustainability issues and its engagement in the public policy process.

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 2018, PepsiCo's Chief Scientific Officer and Vice Chairman reported directly to our Chairman & CEO and oversaw the company's PwP program. He brought deep science-based knowledge and insights to guide the Company's product portfolio transformation efforts, as well as an intimate understanding of the challenges and opportunities that lie at the intersection of food, the environment, and people. He was involved in the day-to-day management of our strategy toward delivery of our sustainability agenda and his responsibilities included providing strategic direction, guidance and leadership on critical water-related issues facing the Company and actions the Company must take. He sat on the PRC, which meets regularly to identify, assess, prioritize, address, manage, monitor and communicate our top enterprise risks. The PRC is also responsible for reporting progress on our risk mitigation efforts to the Board on an annual basis, including with respect to water scarcity.

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W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4

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**(W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?**

Yes

W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a

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**(W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a) 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)?**

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
Monetary reward	Corporate executive team Chief Executive Officer (CEO) Chief Sustainability Officer (CSO) Other C-suite Officer (President)	<Not Applicable>	Our corporate executive officers, including our CEO, our President and our Chief Scientific Officer (who also serves as the head of our Sustainability agenda), have strategic objectives based on an individual executive's role and accountabilities that are aligned with our operational-water-efficiency goal. Performance against this goal 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.
Recognition (non-monetary)	Other, please specify (Business Unit Managers and Country Sustainability Teams)	<Not Applicable>	Standout environmental performance towards PepsiCo's 2025 water targets (including improvements in operational water use efficiency by 25%, replenishing the water consumed by our high water risk manufacturing facilities, and providing safe water access to 25 million people) were recognized at an annual, company wide award Performance With Purpose Award celebration recognizing outstanding achievements that position our company for sustainable financial performance and growth while leaving a positive imprint on society and the environment. In 2018, PepsiCo's El Obour Plant in Egypt won the "Planet" award for their water consumption optimization performance and projects. Beyond the PwP Awards, environmental good practice is recognized by senior leaders with appropriate awards, incentive and recognition.
Other non-monetary reward	No one is entitled to these incentives	<Not Applicable>	

**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)**

0

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

0

**Water-related OPEX (+/- % change)**

0

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

0

**Please explain**

Our spending on water-related CAPEX and OPEX was essentially unchanged in 2018. The CAPEX and OPEX spend on water is prioritized to the most acutely water stressed locations and approval is conditional on meeting specific ROI and other criteria. Over the next two years PepsiCo is planning on additional water recovery, reuse and water efficiency improvement projects involving CAPEX in support of our 2025 water goals.

**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	No, but we anticipate doing so within the next two years	Climate-related scenario analysis is not currently used as we are making efforts towards understanding this new concept, engaging with various stakeholders and gathering guidance and advice from our strategic partners. It is a fairly new concept within our sector and we are making every effort to position ourselves for success in the coming years. During 2019, we are initiating a preliminary effort on conducting climate-related scenario analysis to further inform our business strategy and goal. We will evaluate available transition and physical risk scenarios like IEA WEO, IEA ETP, DDPP, IRENA Remap, Greenpeace, and IPCC RDCs and evaluate relevance to our business. For the most material risks we will evaluate business impact and adaptation strategies. We will complete this analysis effort by the end of 2019. Scenario analysis could not only help us determine possible futures but also help us identify additional pathways and technologies for emissions reduction.

**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

**% achieved**

22

**Please explain**

In 2018, 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 2015. This improvement builds on the work that we have been focused on for the last decade, in which we improved water-use efficiency per unit of production by 25.8% against a baseline of 2006 in our legacy operations.

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**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 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.

**Quantitative metric**

Other, please specify (Percent replenished)

**Baseline year**

2015

**Start year**

2016

**Target year**

2025

**% achieved**

13

**Please explain**

In 2018, we replenished nearly 1.2 billion liters of water in projects in Brazil, Guatemala, India, Mexico, and the US. In India, 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 13% of our 2025 target. While this is strong progress, it reflects activity in a limited number of watersheds, thus our focus this year is more on expanding replenishment activity to high water-risk watersheds across multiple countries. We added projects in the Dominican Republic and South Africa in 2018, and our goal is to expand the reach of countries in 2019.

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**Target reference number**

Target 3

**Category of target**

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

**Level**

Other, please specify (communities near where PepsiCo works)

**Primary motivation**

Shared value

**Description of target**

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Goal: With the PepsiCo Foundation and its partners, work to provide access to safe water to a total of 25 million people since 2006 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 safe water)

**Baseline year**

2005

**Start year**

2006

**Target year**

2025

**% achieved**

88

**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 22 million people by the end of 2018.

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**Target reference number**

Target 4

**Category of target**

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

**Level**

Company-wide

**Primary motivation**

Recommended sector best practice

**Description of target**

Goal: Ensure appropriate access to WASH for 100% of our own manufacturing employees.

**Quantitative metric**

Other, please specify (conformance to PEP WASH standard)

**Baseline year**

2015

**Start year**

2016

**Target year**

2025

**% achieved**

92

**Please explain**

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 providing safe conditions for them. Critical to this is the provision of access to WASH. In 2018, PepsiCo achieved 92 percent against the World Business Council for Sustainable Development (WBCSD) WASH pledge. We grouped these criteria into two categories: critical and programmatic, establishing these designations to prioritize capital investment.

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**Target reference number**

Target 5

**Category of target**

Other, please specify (Agricultural water use efficiency )

**Level**

Company-wide

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**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

**% 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. The 3% agriculture water use efficiency here is from 2017, measured against the 2015 baseline. These results were only finalized in 2018 given the overlaps between crop year and calendar year.

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**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

**% achieved**

98

**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 2018, nearly 98 percent of wastewater from our operations met PepsiCo's high standards for protection of the environment.

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## W8.1b

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**(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 have two goals to address this: First, we aim to advocate for strong water governance in communities and watersheds where we operate, promoting water solutions that meet local needs. Second, we 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' 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 PwP 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

This is a qualitative goal without a numeric target. Indicators of success include initiatives that we have engaged in and assessed as having a 'positive water impact' in the local water landscapes. Within the threshold of success, we had several examples of progress in the area of advocacy during 2018, including joining the Alliance for Water Stewardship and initiating plans to adopt the AWS standard as a vehicle for advocacy at our high water risk facilities. 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. PepsiCo representatives are actively involved with the World Bank's WRG teams in India and Brazil, where activities align with our Positive Water Impact strategy.

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## W9. Linkages and trade-offs

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### W9.1

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**(W9.1) Has your organization identified any linkages or tradeoffs between water and other environmental issues in its direct operations and/or other parts of its value chain?**

Yes

## W9.1a

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### (W9.1a) Describe the linkages or tradeoffs and the related management policy or action.

#### Linkage or tradeoff

Linkage

#### Type of linkage/tradeoff

Decreased GHG emissions

#### Description of linkage/tradeoff

By 2030, it is expected that the world will need to meet rising demand for the amount of food consumed, either by increasing production by 50% or substantially reducing the 35-50% of food that is currently wasted or lost through the value chain. At the same time, a 40% gap in supply and demand for water and a 54% increase in energy needs are projected to develop based on current trends. If we follow business as usual, water use is expected to increase as we increase food production, which in turn should increase GHG emissions, as more energy will typically be required to treat and pump water supplies. Our agricultural and operations water-use efficiency goals could result in a decreased amount of energy use as well.

#### Policy or action

Our agriculture and operations water-use efficiency goals in turn were expected to positively impact our energy efficiency in treating, pumping, and distributing water to our facilities and our direct suppliers' fields. In addition, in our agricultural supply chain, we are pursuing adaptation strategies, such as developing drought-resistant potato varieties and transforming our product portfolio to less water intensive materials. This was directly linked to our sustainability strategy, with implications for our water, agriculture, and climate goals, and as a result we strategically consider these linkages. Instances in which we could reduce irrigation needs should also improve energy efficiency and positively affect GHG emissions. In 2018, we reduced Scope 3 GHG emissions by approximately 2.1 million metric tonnes versus our 2015 baseline, which represents approximately 7% of our 2030 target reduction amount.

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#### Linkage or tradeoff

Linkage

#### Type of linkage/tradeoff

Other, please specify (Health and Wellness)

#### Description of linkage/tradeoff

According to the United Nations, every day nearly 800 million people lack access to safe water and more than two billion people live without basic sanitation. Our Safe Water Access goal seeks to help address this gap and provide access to safe water to 25 million people by 2025. Since 2006, through partnerships funded by the PepsiCo Foundation, we have provided access to safe water to over 22 million people as of the end of 2018.

#### Policy or action

In 2016, as part of our water-related business strategy under Performance with Purpose, PepsiCo announced an increase in its public goal of providing access to safe water to 25 million people by 2025 (from a 2006 baseline). We are increasing the positive impact of the health and wellness/water linkage by increasing access to safe water: In addition to providing safe water access, our investments also result in a significant improvement in the health, wealth and well-being of our beneficiaries. For example, our projects reduce the time spent by beneficiaries, often women and girls, in obtaining safe water for daily uses. Since 2006, through partnerships funded by the PepsiCo Foundation, we had provided access to safe water to over 22 million people by the end of 2018, an increase from nearly 16 million people reported in 2017.

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## W10. Verification

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### W10.1

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#### (W10.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1d)?

Yes

## W10.1a

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**(W10.1a) Which data points within your CDP disclosure have been verified, and which standards were used?**

Disclosure module	Data verified	Verification standard	Please explain
W2. Business impacts	Water withdrawals (volume and quality)	ISAE3000	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)	ISAE3000	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.
W1. Current state	Water withdrawals (volume and quality)	ISAE3000	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.

## W11. Sign off

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### W-FI

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

### W11.1

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

	Job title	Corresponding job category
Row 1	Chief Science Officer	Chief Sustainability Officer (CSO)

### W11.2

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**(W11.2) 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

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### SW0.1

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

	Annual revenue
Row 1	6466100000

**SW0.2**

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

No

**SW1.1**

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**(SW1.1) Have you identified if any of your facilities reported in W5.1 could 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**

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

Yes, for some facilities

**SW1.2a**

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

Identifier	Latitude	Longitude	Comment
1	10.79	76.78	Palakkad facility as reported in W5.1
2	13.14	77.34	Nelamangala facility as reported in W5.1
3	33.93	-117.3	Riverside facility as reported in W5.1
4	34.04	-117.98	City of Industry facility as reported in W5.1
5	33.87	-118.02	Buena Park facility as reported in W5.1
6	36.69	-119.77	Fresno facility as reported in W5.1
7	38.48	-121.4	Sacramento facility as reported in W5.1
8	37.61	-122.09	Hayward facility as reported in W5.1
9	37.77	-122.2	Oakland facility as reported in W5.1
10	34.08	-117.59	Rancho Cucamonga facility as reported in W5.1
11	35.4	-119.32	Kern facility as reported in W5.1

**SW2.1**

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**(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.

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**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.

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**SW2.2**

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

No

**SW3.1**

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

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## Submit your response

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### In which language are you submitting your response?

English

### Please confirm how your response should be handled by CDP

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

### Please confirm below

I have read and accept the applicable Terms