W0. Introduction

W0.1

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

PepsiCo products are enjoyed by consumers more than one billion times a day in more than 200 countries and territories around the world. PepsiCo generated more than $86 billion in net revenue in 2022, driven by a complementary beverage and convenient foods portfolio that includes Lays, Doritos, Cheetos, Gatorade, Pepsi-Cola, Mountain Dew, Quaker, and SodaStream. PepsiCo’s product portfolio includes a wide range of enjoyable foods and beverages, including many iconic brands that generate more than $1 billion each in estimated annual retail sales.

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

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

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

W-FB0.1a/W-AC0.1a

(W-FB0.1a/W-AC0.1a) Which activities in the food, beverage, and tobacco and/or agricultural commodities sectors does your organization engage in?
W0.2

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

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Start date</th>
<th>End date</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1, 2022</td>
<td>December 31, 2022</td>
<td></td>
</tr>
</tbody>
</table>

W0.3

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

- Argentina
- Australia
- Belgium
- Bosnia & Herzegovina
- Brazil
- Bulgaria
- Canada
- Chile
- China
- Colombia
- Cyprus
- Dominican Republic
- Ecuador
- Egypt
- France
- Georgia
- Germany
- Greece
- Guatemala
- India
- Ireland
- Israel
- Italy
- Kyrgyzstan
- Mexico
- Montenegro
- Netherlands
- New Zealand
- Pakistan
- Peru
- Poland
- Portugal
- Romania
W0.4

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

USD

W0.5

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

Companies, entities or groups over which financial control is exercised

W0.6

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

<table>
<thead>
<tr>
<th>Exclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational control farms and dairies</td>
<td>Company farms in China do not have the capability to measure consumption at this time. Collectively, we estimate that exclusions represent less than 1% of total PepsiCo water consumption and therefore do not represent a significant portion of the total water used (or consumed).</td>
</tr>
<tr>
<td>International offices/warehouse (partial)</td>
<td>Collectively, we estimate that exclusions represent less than 1% of total consumption and therefore do not represent a significant portion of the total water used (or consumed). These facilities do not report water consumption.</td>
</tr>
</tbody>
</table>

W0.7

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

<table>
<thead>
<tr>
<th>Indicate whether you are able to provide a unique identifier for your organization.</th>
<th>Provide your unique identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, a Ticker symbol</td>
<td>Ticker: PEP</td>
</tr>
</tbody>
</table>
# W1. Current state

## W1.1

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

<table>
<thead>
<tr>
<th>Sufficient amounts of good quality freshwater available for use</th>
<th>Direct use importance rating</th>
<th>Indirect use importance rating</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vital</td>
<td>Vital</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Important</td>
<td>Important</td>
<td>Direct water: We selected the ‘Important’ rating for direct operations because we use internal recycled and reused water in utilities and within our snacks and food operations, where regulations and internal Food Safety standards allow. The use of treated, recycled water is important to achieving PepsiCo's water use efficiency goals by 2030. Our ingredient standards and specifications dictate how we can use brackish, recycled or any other water in our beverage manufacturing processes. As a beverages and convenient foods manufacturer, food safety and product integrity and consumer confidence is of critical importance. Indirect water: Our future dependency on brackish and recycled water for our own and related manufacturing processes could increase if there were specific and regulatory approved uses for it to offset freshwater withdrawals. As reuse and recycled water and its associated technology continues to grow across the Food and Beverage sector, PepsiCo is a strong proponent of this</td>
</tr>
</tbody>
</table>
innovation to offset freshwater dependency, when both product integrity and quality are assured. In the future, we will still depend on sufficient amounts of reuse, recycled and other water for cooling in the power plants that provide energy to our operations; our future dependency on brackish or recycled water for cooling could increase based on increased stress on freshwater resources.

W-FB1.1a/W-AC1.1a

(W-FB1.1a/W-AC1.1a) 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.

<table>
<thead>
<tr>
<th>Agricultural commodities</th>
<th>% of revenue dependent on these agricultural commodities</th>
<th>Produced and/or sourced</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize/corn</td>
<td>41-60</td>
<td>Sourced</td>
<td>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.</td>
</tr>
<tr>
<td>Palm oil</td>
<td>41-60</td>
<td>Sourced</td>
<td>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.</td>
</tr>
<tr>
<td>Sugar</td>
<td>41-60</td>
<td>Sourced</td>
<td>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.</td>
</tr>
<tr>
<td>Other crop commodity, please specifyPotatoes</td>
<td>41-60</td>
<td>Sourced</td>
<td>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.</td>
</tr>
</tbody>
</table>
Other crop commodity, 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?

<table>
<thead>
<tr>
<th>% of sites/facilities/operations</th>
<th>Frequency of measurement</th>
<th>Method of measurement</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water withdrawals – total volumes 100%</td>
<td>Monthly</td>
<td>metered</td>
<td>100% of manufacturing water withdrawals are measured and monitored. All site water is metered by the water utility provider or by PepsiCo flow meters. Where PepsiCo owns flow meters, readings are manually / electronically captured monthly by site personnel. Utility providers provide sites with monthly reading by invoice. Since 2006, facilities track and manually input water withdrawals on a monthly basis, leveraging our enterprise-wide sustainability metrics platform.</td>
</tr>
</tbody>
</table>
This auditable data allows PepsiCo to track and trend water usage on a continuous basis, assess impacts of portfolio shifts and production volumes. Data collection methods are set out in our Data Excellence Governance and Controls protocol. This protocol calls for our sector teams’ process and control owners to assure accuracy as part of this process. The protocol also calls for us to track water withdrawal quarterly as part of our performance tracking and report against our sustainability goals.

<table>
<thead>
<tr>
<th>Water withdrawals – volumes by source</th>
<th>100%</th>
<th>Monthly</th>
<th>metered</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% of manufacturing water withdrawals by source are measured and monitored. All site water is metered by the water utility provider or by</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PepsiCo flow meters. Where PepsiCo owns flow meters, readings are manually / electronically captured monthly by site personnel. Utility providers provide sites with monthly reading by invoice. Since 2006, facilities track and manually input water withdrawals on a monthly basis, leveraging our enterprise-wide sustainability metrics platform. This auditable data allows PepsiCo to track and trend water usage on a continuous basis, assess impacts of portfolio shifts and production volumes. Data collection methods are set out in our Data Excellence Governance and Controls protocol. This protocol calls for our sector teams’ process and control owners to assure accuracy as part of this
| Water withdrawals quality | 100% | Quarterly | Analytical chemical and microbiological testing. | The quality of incoming water is critical to our finished products. 100% of our beverage and foods operations track and monitor quality of raw water withdrawals on at least a quarterly basis, using the WHO Potable Water Standards coupled with specific corporate food safety water quality mandates, standards and quality audit protocols, both annual self-assessment audits and independent third party audits. In addition, many specialist contracted laboratories are retained by PepsiCo to conduct both |
PepsiCo, Inc. leverages its internal customer service to improve water safety. Sites use our enterprise quality assurance and Food safety platform, inputting quality analytical data, which allows us to measure performance in a standardized manner across our operations and it further supports our company strategy of digitalization and automation. PepsiCo also leverages existing quality audit protocols and Environmental, Health and Safety (EHS) audits to ensure we have a consistently safe and secure water supply.

| Water discharges – total volumes | 100% | Monthly | All of our manufacturing operations track volume on at least a monthly basis by wastewater metering or mass balance calculations. We leverage our | We monitor 100% of the total volume of water discharged. It further supports our company strategy of digitalization and automation. Data collection methods are set |
enterprise wide sustainability metrics platform, which allows us to measure and track performance in a standardized manner across our operations. Out in our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams’ process and control owners to assure accuracy. Data is also tracked & validated quarterly by regional compliance leaders and annually by global experts.

| Water discharges – volumes by destination | 100% | Monthly | Sites meter/calculate wastewater discharge flow, then enter the volumes into a cloud-based platform by discharge destination. 100% of our manufacturing operations track and monitor water discharges by destination on at least a monthly basis. Some facilities have multiple discharge points, each of which is individually monitored. Facility level EHS |
Managers enter the type of destination (e.g., external wastewater treatment facility, surface water, etc.) by discharge point, which is typically reflected in permit conditions for the given facility. Data collection methods are set out in our Data Excellence Governance & Controls protocol, where detailed responsibilities for reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams’ process and control owners to assure accuracy. Data is also tracked & validated quarterly by regional compliance leaders and annually by global experts.

| Water discharges –  | 100%  | Monthly | Sites meter/calculate | The types of treatment used |
| volumes by treatment method | wastewater discharge flow, then enter the volumes into a cloud-based platform by discharge destination. | by each PepsiCo facility are documented in a master list, and 100% of our manufacturing operations track and monitor wastewater discharges monthly. Facilities that have different treatment types on separate discharge lines monitor the effluent from each system separately, even if the ultimate discharge destinations are the same. Data collection methods are set out in our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams’ process and |
Data is also tracked and validated quarterly by regional compliance leaders and annually by global system experts.

| Water discharge quality – by standard effluent parameters | 100% | Yearly | Measured- 100% of our manufacturing operations water discharge quality is measured as required by PepsiCo or local regulatory agencies. The parameters measured depend on the type of business, wastewater permits, applicable regulatory requirements and internal PepsiCo standards. PepsiCo-collected samples may be analyzed onsite or at a contracted third party laboratory. |

100% of our manufacturing operations water discharge quality is measured as required by PepsiCo or local regulatory agencies. The parameters measured depend on the type of business, wastewater permits, applicable regulatory requirements and internal PepsiCo standards. PepsiCo-collected samples may be analyzed onsite or at a contracted third party laboratory. Where the local regulatory agency collects samples, they contract with their own laboratories. Typical
Parameters include pH, BOD, COD, TSS, FOG, N, P, metals and temperature. Data collection adheres to our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams’ process and control owners to assure accuracy. Data is tracked and validated quarterly by regional compliance leaders and annually by global system experts.

| Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances) | 1-25 | Other, please specify As required by regulatory requirements, permits, or internal PepsiCo standards. | Measured 4% of our manufacturing operations monitor wastewater discharges for nitrates, phosphates, and/or EU Priority |
substances (Nickel or Lead). Monitoring is conducted as required by regulatory requirements, including wastewater permits. Data collection adheres to our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams’ process and control owners to assure accuracy. Data is also tracked and validated quarterly by regional compliance leaders and annually by global system experts.

<p>| Water discharge quality – temperature | 26-50 | Other, please specify | Data collection adheres to our PepsiCo Data | 36% percent of our manufacturing |
| As required by regulatory requirements, permits, or internal PepsiCo standards. | Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams’ process and control owners to assure accuracy. | operations track and monitor wastewater discharge temperature. We track temperature where and when it is required by permit and regulatory requirements. Data collection adheres to our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams’ process and control owners to assure accuracy. Data is also tracked and validated quarterly by regional compliance leaders and annually by global system experts. |</p>
<table>
<thead>
<tr>
<th>Water consumption – total volume</th>
<th>100%</th>
<th>Yearly</th>
<th>Calculated</th>
</tr>
</thead>
</table>

Production at our manufacturing locations is constantly measured and tracked automatically. Monthly sustainability key performance indicators have been reported for manufacturing sites since 2006. Sites input their water and energy usage from site meters and utility invoices/bills, into our enterprise-wide sustainability tracking system. Data from the production IT system is automatically downloaded onto our Sustainability platform, allowing sustainability trends and water consumption impacts to be assessed at both site and corporate levels. Sustainability and production IT platforms integrate per our corporate value chain digitalization and automation strategy.
Sustainability performance dashboarding is an important aspect of our water efficiency performance progress and allows us to prioritize investment and resources. Our total full year annual water consumption is calculated on an annual basis after year end. Water withdrawals and production output are measured on a monthly basis.

| Water recycled/reused | 100% | Monthly | metered and recorded monthly on the enterprise-wide sustainability data tracking system on a monthly basis. | 100% of manufacturing sites recycling or reusing water track this volume monthly using meter readings from their membrane bioreactors (MBRs) and reverse osmosis (RO) systems, leveraging our enterprise-wide sustainability metrics platform, which allows us to measure and track performance in a standardized manner across all our operations |
and further supports our company strategy of digitization and automation. Data collection methods are set out in our PepsiCo Data Excellence Governance and Controls protocol, where detailed responsibilities and accountabilities for externally reported sustainability metrics are documented. From source data in the field to data input to the data management system, this protocol calls for our sector teams' process and control owners to assure accuracy as part of this process.

| The provision of fully-functioning, safely managed WASH services to all workers | 100% | Yearly | Self audit questionnaire - PepsiCo’s internal self-assessment program to measure water, sanitation, and hygiene (WASH) compliance takes place annually and has been implemented at all company-owned plants. |
We use a WASH self-audit questionnaire that is sent out to all company-owned manufacturing facilities. However, if a facility is scheduled for an annual external audit, it would not complete a self-audit. Annual audits are conducted for compliance per our internal PepsiCo governance documents.

**W1.2b**

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

<table>
<thead>
<tr>
<th></th>
<th>Volume (megaliters/year)</th>
<th>Comparison with previous reporting year</th>
<th>Primary reason for comparison with previous reporting year</th>
<th>Five-year forecast</th>
<th>Primary reason for forecast</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total withdrawals</td>
<td>78,444</td>
<td>Lower</td>
<td>Divestment from water intensive technology/process</td>
<td>Lower</td>
<td>Increase/decrease in efficiency</td>
<td>Total withdrawals include all freshwater sources, harvested rainwater and other sources of water used during 2022 by PepsiCo company-</td>
</tr>
</tbody>
</table>
owned manufacturing sites. In 2022, our total water withdrawals were 8% lower than in 2021. This change can be explained by both a reduction in production output over 2021 and ongoing investment in water efficient practices and technology in line with our PepsiCo Positive 2030 ambition to be net water positive. Freshwater usage efficiency at high water risk locations, however, continued to improve during 2022, resulting in a 22% improvement over baseline.
year (2015) at our company-owned high water risk locations in the 2025 goal scope. We continue to innovate new methods and technology to make our product with less water such as with a recently proven new innovation called Slice wash support module which dramatically reduced the amount of water needed in our potato chip slicing process. We are also very focused on optimizing our process; for example, we have just received approval to scale a practice called duty
cycle optimization within our Tortilla Chip Corn washing hopper unit operation to just use as much water as is required to serve the purpose and no more. As detailed last year, the first application of a circular water project at our Sabritas Vallejo plant in Mexico City has enabled the facility to reduce freshwater demand by almost 70% in 2021 vs. 2019. During 2022, we have replicated this application at another location in Brazil and other scaling across the
LATAM sector. We now have sites in Colombia running at almost no freshwater as they maximize the amount of reuse water circulating in their manufacturing sites. With the launch of pep+ (PepsiCo Positive) in September 2021, and our expanded goal to become Net Water Positive by 2030 across all company-owned operations locations, we anticipate driving down freshwater usage further in the coming 6 years.

<table>
<thead>
<tr>
<th>Total discharges</th>
<th>Lower</th>
<th>Divestment from water intensive</th>
<th>Lower</th>
<th>Increase/decrease in efficiency</th>
<th>We discharged</th>
</tr>
</thead>
<tbody>
<tr>
<td>51,695</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
approximately 9% less wastewater in 2022 than we did in 2021. This is due in part to the divestiture of the Tropicana business and facility closures. The remainder is due to investments in water reduction and reuse initiatives. In the future, we expect that our total discharges will decrease due to our ongoing investments in water efficiency and circular water initiatives within our manufacturing operations. Calculated; withdrawals - consumed = total discharged.
<table>
<thead>
<tr>
<th>Total consumption</th>
<th>Much lower</th>
<th>Divestment from water intensive technology/process</th>
<th>Lower</th>
<th>Increase/decrease in efficiency</th>
</tr>
</thead>
</table>
| 26,749            |            |                                                   |       | 2022 water consumption was approximately 8% lower than prior year. This can be explained by both a reduction in production output in 2022 over 2021 of ~7% and performance on our pep+ operations efficiency goals. Our corporate environmental sustainability pep+ (PepsiCo Positive) ambition to develop a more sustainable food system and becoming Net Water Positive by 2030 informs our tactics: 1) a combination of no cost/low-cost efficiency drives (e.g., |}

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PepsiCo, Inc. CDP Water Security Questionnaire 2023 Wednesday, July 26, 2023

CDP Disclosure Insight Action
PepsiCo’s Resource Conservation program), 2) innovation (fryer potato vapor recovery), 3) capital investment (Membrane Bioreactor coupled with Reverse Osmosis enabling potable water production for reuse within our foods operations and shift to water efficient adiabatic cooling in high water risk locations) and 4) continued advocacy across our industry for circular water reuse opportunities. Our biggest portion of consumed water is incorporated
into our finished beverage products. Across the beverage industry, reuse water “as ingredient” equivalent is not unlocked as a viable tactic. Until such time as this can be achieved, PepsiCo’s water consumed volume will closely match beverage production output.

**W1.2d**

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

<table>
<thead>
<tr>
<th>Withdrawals are from areas with water stress</th>
<th>% withdrawn from areas with water stress</th>
<th>Comparison with previous reporting year</th>
<th>Primary reason for comparison with previous reporting year</th>
<th>Five-year forecast</th>
<th>Primary reason for forecast</th>
<th>Identification tool</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Row 1</strong></td>
<td>Yes</td>
<td>11-25</td>
<td>About the same</td>
<td>Lower</td>
<td>Change in accounting methodology</td>
<td>WRI Aqueduct</td>
<td>Every three years PepsiCo conducts a holistic water risk</td>
</tr>
</tbody>
</table>
assessment across all of our company owned operations, the most recent and relevant to this reporting period was completed in 2022. There was a net increase of 8 new sites designated as High water Risk over the prior risk assessment exercise 3 years earlier and prior year reporting.

Climate change continues to increase water stress globally as indicated by the latest update to the WRI Aqueduct water risk mapping tool, with the trend expected to follow the same trajectory into the future.

25% of total water withdrawals in 2022 by PepsiCo Company
owned manufacturing operations were from areas designated as high water risk. All new acquisitions and mergers during the current three-year cycle will be assessed for water risk independently of the holistic water risk assessment process. In 2022, PepsiCo had 107 company owned high water risk operations up from 99 as reported last year. The PepsiCo corporate water risk assessment process leverages a number of filters, such as WRI Aqueduct, local detailed operating site assessment and third party experienced environmental consulting firm and networks.
We chose to use a combination of all three tools in order to make our assessment comprehensive, blending both external data with local facility knowledge (historical and current).

All facilities are geographically plotted using the WRI Aqueduct tool to determine the relative stress based on the Aqueduct data sets including overall water risk, baseline water stress and projected (2025) baseline water stress. These results are then combined with an independent score from our external consultancy’s global network who draw from local knowledge and experience to
determine a facility's relative risk exposure using proprietary insights. PepsiCo’s internal assessment considers a range of indicators across physical water stress (including quality), regulatory risk, and social/reputational risk. Each facility responds to questions based on site experience both current and past as well as anticipated future scenarios. The external and internal assessments are scored separately and the combined rating of both is used to plot each facility on our water risk matrix. PepsiCo has determined a
scoring range from 0 – 5 which then allocates facilities into different water risk categories. All sites receiving a score of 3.5 or higher are classified as high water risk. Ratings are calculated for current and future trend (3-5 years) conditions. As noted earlier, we will undertake this global water risk assessment process again after 2025, reassessing all company-owned sites using the comprehensive approach to ensure we remain focused on executing site-level and watershed-level programs in critical water stressed locations.

In 2021, PepsiCo
launched a new, bold pep+ agenda that will guide our business — how we operate within planetary boundaries and inspire positive change for the planet and people. PepsiCo aims to become Net Water Positive by 2030, reducing absolute water use and replenishing back into the local watershed more than 100% of the water used at company-owned sites in high-water-risk areas. Further, we continue our focus on reduction in the amount of water used at these sites compared to a 2015 baseline. PepsiCo has set a "best-in-class" standard (1.2 liters of water per liter of...
beverage or 0.4 liters per kilogram of food) for all company-owned, bottler and franchisee sites in high-risk watersheds. Additionally, we are aiming for all company-owned manufacturing facilities located in high-risk watersheds to adopt the Alliance for Water Stewardship Standard by 2025. Finally, we aim to fully replenish the water used in third-party sites in high-water risk areas by 2030. Although our withdrawals are about the same compared to prior year reporting, we have made much progress. In 2022, PepsiCo spent over $34 million via its
centrally-funded Capital Investments Sustainability fund for water use efficiency and upgrade projects. This has directly resulted in reducing the water use at some of our high risk facilities where CAPEX projects have been implemented.

**W-FB1.2e/W-AC1.2e**

*(W-FB1.2e/W-AC1.2e) For each commodity reported in question W-FB1.1a/W-AC1.1a, do you know the proportion that is produced/sourced from areas with water stress?*

<table>
<thead>
<tr>
<th>Agricultural commodities</th>
<th>The proportion of this commodity produced in areas with water stress is known</th>
<th>The proportion of this commodity sourced from areas with water stress is known</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| Maize/corn               | Not applicable                                                                | Yes                                                                             | In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one
<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Applicability</th>
<th>Engagement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palm oil</td>
<td>Not applicable</td>
<td>Yes</td>
<td>In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress.</td>
</tr>
<tr>
<td>Sugar</td>
<td>Not applicable</td>
<td>Yes</td>
<td>In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress.</td>
</tr>
<tr>
<td>Other commodities from W-FB1.1a/W-AC1.1a, please specify</td>
<td>Not applicable</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
<td>----------------</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Potatoes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress. With this information, we can engage with farmers in discussions about water challenges and opportunities.

<table>
<thead>
<tr>
<th>Other commodities from W-FB1.1a/W-AC1.1a, please specify</th>
<th>Not applicable</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0's Agricultural Weighting Scheme. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Additionally, the assessment considers a range of indicators across physical water stress (including both quantity and quality), regulatory risk, and social or reputational risk. PepsiCo takes it one step further to also look at climate modeling to understand how climate change may impact water stress.

**W-FB1.2g/W-AC1.2g**

(W-FB1.2g/W-AC1.2g) What proportion of the sourced agricultural commodities reported in W-FB1.1a/W-AC1.1a originate from areas with water stress?
Agricultural commodities | % of total agricultural commodity sourced from areas with water stress | Please explain
---|---|---
Maize/corn | 26-50 | 28% of our whole maize volume originates from water stressed areas and is in-scope of PepsiCo’s agriculture water efficiency goal. This figure is unchanged from prior reporting years as we perform this assessment every three years and it was last performed in 2020. This figure was calculated as part of our base-lining exercise for the agriculture water efficiency goal. The figure could either increase or decrease in future years depending on changes to our procurement of maize. The metric also provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.

Other sourced commodities from W-FB1.2e/W-AC1.2e, please specify Potatoes | 26-50 | 34% of our potato volume originates from water stressed areas and is in-scope of PepsiCo’s agriculture water efficiency goal. This figure was calculated as part of our base-lining exercise for the agriculture water use efficiency goal. This figure is unchanged from prior reporting years as we perform this assessment every three years and it was last performed in 2020. The figure could either increase or decrease in future years depending on changes to our procurement of potatoes. The metric also provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.

Palm oil | 0% | In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0’s Agricultural Weighting Scheme. This figure is unchanged from prior reporting years as we perform this assessment every three years and it was last performed in 2020. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Based on this assessment, 0% of our palm oil growers are in high water risk areas. The figure could either increase or
<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar</td>
<td>26-50</td>
<td>In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0’s Agricultural Weighting Scheme. This figure is unchanged from prior reporting years as we perform this assessment every three years and it was last performed in 2020. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Based on this assessment, 43% of our sugar beet and cane sugar growers are in high water risk areas. The figure could either increase or decrease in future years depending on changes to our procurement of sugar. The metric provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.</td>
</tr>
<tr>
<td>Other sourced commodities from W-FB1.2e/W-AC1.2e, please specify Wheat</td>
<td>11-25</td>
<td>In 2020 the Antea Group conducted an agricultural water risk screening for PepsiCo based on a global listing of PepsiCo growers that utilized WRI Aqueduct 3.0’s Agricultural Weighting Scheme. This figure is unchanged from prior reporting years as we perform this assessment every three years and it was last performed in 2020. Current and Future Risk exports were consolidated and mapped. Each grower had a Composite Water Risk ranking calculated based on the Overall Water Risk, Baseline Water Stress, and Future Water Stress for each location. Based on this assessment, 16% of our wheat growers are in high water risk areas. The figure could either increase or decrease in future years depending on changes to our procurement of wheat. The metric provides our agronomy teams the geographic areas to focus on in terms of reducing water use in irrigation and in so doing supporting our 2025 agricultural water efficiency goal.</td>
</tr>
</tbody>
</table>

**W1.2h**

(W1.2h) Provide total water withdrawal data by source.
| Fresh surface water, including rainwater, water from wetlands, rivers, and lakes | Relevant | 28 | Much lower | Facility closure | Fresh surface water is relevant because we are investing in rainwater harvesting, and recovery and reuse water technologies to reduce our reliance on potable fresh water, where product food safety and quality is assured. The reason for the big drop in surface water used in 2022 was due to the fact that we divested a majority stake in our Tropicana business, which included our largest single US site that was harvesting rainwater at a significant scale. We continue to drive water usage |
PepsiCo promotes the adoption of rainwater harvesting at our facilities and in 2022 our Research & Development teams have been investigating novel treatment for rainwater cleanup involving nano-filtration. We would like, where possible and feasible, to decouple fresh water increases with food business growth through efficiency and innovation and rainwater harvesting play a role in here.

<table>
<thead>
<tr>
<th>Source of Water</th>
<th>Relevant or Not</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brackish surface water/Seawater</td>
<td>Not relevant</td>
<td>PepsiCo does not currently directly withdraw any brackish surface water or seawater for use in our company</td>
</tr>
</tbody>
</table>
owned manufacturing plants. A very small proportion of the municipal water supplying our manufacturing plants in a couple of markets comes from desalinated sources. As water scarcity increases and the economics associated with operating desalination systems becomes more accepted, it may grow in some parts of the world.

<table>
<thead>
<tr>
<th>Groundwater – renewable</th>
<th>Relevant</th>
<th>21,075</th>
<th>Much lower</th>
<th>Increase/decrease in efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundwater is relevant because approximately 27% of our water withdrawals is obtained from renewable ground water sources. In 2022 we abstracted approximately 10% less groundwater than in 2021. This decrease can be</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
explained by both a reduction in total beverage and foods volumes produced by ~4% in 2022 and performance towards our pep+ water efficiency 2030 goals. In 2022, we recorded a 22% improvement in our water-use efficiency rate in our high water-risk locations when compared to our 2015 baseline. As part of our pep+ (PepsiCo Positive) Net Water Positive ambition, by 2030 efficiency improvement tactics include best practice development and deployment, research and development innovation in design of equipment, new ways of manufacturing "sustainable from the start"
<table>
<thead>
<tr>
<th>Groundwater – non-renewable</th>
<th>Not relevant</th>
<th>PepsiCo does not draw from non-renewable groundwater sources and does not plan to do so in the future.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Produced/Entrained water</td>
<td>Not relevant</td>
<td>PepsiCo does not rely on produced water at a water source at this point in time. However, we have spent the last couple of years innovating technology solutions that could allow us to recover water contained in agricultural raw materials for reuse, such as entrained water in potatoes and perhaps corn. During 2022 we were also innovative in unlocking lower capital and opex options for achieving this condensate water</td>
</tr>
</tbody>
</table>
Third party sources made up 73% of our sourced water for operations in 2022. The change is due to a 4% reduction in foods & beverages production compared to 2021. Relevant third party sources made up 73% of our sourced water for operations in 2022. Much lower in efficiency than in 2021.

<table>
<thead>
<tr>
<th>Third party sources</th>
<th>Relevant</th>
<th>57,341</th>
</tr>
</thead>
</table>

Third party sources have now been achieved at 3 food manufacturing locations as of the end of 2022, including Kolkata, Pune (India) and Lamphun (Thailand), with additional applications coming on line during 2023.
prior year, and progress towards our 2030 pep+ water efficiency goals. In 2022, we recorded a 22% improvement in our water-use efficiency rate in our high water-risk locations when compared to our 2015 baseline, advancing towards our 2025 target of a 25% reduction compared to 2015. We are optimizing efficiency at source, through deployment of our in house Resource Conservation program (ReCon) as well as significant capital investment scaling water efficiency technology. PepsiCo's first circular water innovation at Vallejo Mexico
City enabled their reduced freshwater demand by almost 70% in 2021 vs. 2019 (pre-project). Additionally, PepsiCo implemented a groundbreakin g method for condensing and treating steam from fryers to recover over 50% of the water used in potato chip manufacturing lines.

### W1.2i

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

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Volume (megaliters/year)</th>
<th>Comparison with previous reporting year</th>
<th>Primary reason for comparison with previous reporting year</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh surface water</td>
<td>Relevant</td>
<td>6,059</td>
<td>Lower</td>
<td>Increase/decrease in efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fresh surface water is a relevant discharge destination. There was a 10% decrease in wastewater discharged to surface water due to a facility closure and efficiency projects. Where we discharge to surface water</td>
</tr>
</tbody>
</table>
bodies, it is always within local quality and PepsiCo regulations. PepsiCo directly treated and discharged to fresh surface water from 24 global manufacturing locations in 2022.

<table>
<thead>
<tr>
<th>Discharge Destination</th>
<th>Relevance</th>
<th>Frequency</th>
<th>Increase/Decrease in Business Activity</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brackish surface water/seawater</td>
<td>Relevant</td>
<td>91</td>
<td>Much lower</td>
<td>Increase/decrease in business activity is a relevant discharge destination. In 2022, PepsiCo discharged treated wastewater into brackish surface water / seawater at one manufacturing location. As business activity fluctuates for this one plant, this total will vary as well.</td>
</tr>
<tr>
<td>Groundwater</td>
<td>Relevant</td>
<td>5,055</td>
<td>Much lower</td>
<td>Other, please specify Divestiture</td>
</tr>
</tbody>
</table>

Groundwater is a relevant discharge destination. Eleven PepsiCo facilities discharge treated water to groundwater. There was a 39% decrease in wastewater discharged to groundwater. The
reduction is due primarily to the divestiture of the Tropicana business, which had two large facilities with deep well injection. As per last year’s reporting, data relating to treated wastewater that is used for land application is included here. This has been done to align with CDP’s definition of groundwater discharge. No adjustments to account for evapotranspiration of cover crops rates have been made.

<table>
<thead>
<tr>
<th>Third-party destinations</th>
<th>Relevant</th>
<th>40,490</th>
<th>Lower</th>
<th>Divestment from water intensive technology/processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third-party destinations are a relevant discharge destination. The majority of PepsiCo manufacturing facilities discharge treated wastewater to third-party destinations. There were also production increases in both beverage and foods businesses in North America. We anticipate that</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
as our water withdrawals decline in line with our sustainability agenda, as well as efforts around increased circular water, our wastewater discharges will also decrease even as production increases with business performance.

W1.2j

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

<table>
<thead>
<tr>
<th>Relevan ce of treatme nt level to dischar ge</th>
<th>Volume (megaliters/year)</th>
<th>Comparis on of treated volume with previous reporting year</th>
<th>Primary reason for comparison with previous reporting year</th>
<th>% of your sites/facilities/operations this volume applies to</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary treatment</td>
<td>Relevant</td>
<td>13,402</td>
<td>Much lower</td>
<td>21-30</td>
<td>This year we re-evaluated what types of treatment we consider to be tertiary. Plants that were included in this category last year because of sludge</td>
</tr>
</tbody>
</table>
treatment technologies were removed because these do not affect the wastewater itself at that stage. In addition, two facilities with tertiary treatment were divested with Tropicana. 63% of facilities with tertiary treatment discharge to an external treatment facility. Approximately 70% of sites discharging to the environment have primary, secondary, and tertiary treatment. When discharged to the environment
If wastewater meets local regulations and/or PepsiCo internal requirements, whichever are higher. The most common treatment methods include clarifiers, dissolved air flotation, and activated carbon. Tertiary treatment such as disinfection is employed at locations treating water for reuse on-site. There are also tertiary treatment anaerobic digesters and biological treatment with full nitrate and phosphate.
This year, as part of our re-evaluation of what types of treatment we consider to be tertiary, some plants that were included in tertiary treatment previously, were reclassified to be included in secondary treatment instead. Therefore we saw an increase in the volume of wastewater treated in the secondary treatment category. Examples of on-site secondary treatment in PepsiCo include systems such as biological removal systems.

<table>
<thead>
<tr>
<th>Secondary treatment</th>
<th>Relevant</th>
<th>6,526</th>
<th>Much higher</th>
<th>Change in accounting methodology</th>
<th>11-20</th>
</tr>
</thead>
</table>

activated sludge systems, membrane bioreactors (MBRs) and anaerobic digesters. There are both chemical and biological nutrient removal (BNR) processes. These efforts are made because PepsiCo is focused on achieving our pep+ (PepsiCo Positive) agenda and is investing to meet these ambitious goals. PepsiCo maintains compliance with all local regulatory standards as well as internal PepsiCo standards.
<table>
<thead>
<tr>
<th>Primary treatment only</th>
<th>Relevant</th>
<th>31,767</th>
<th>Lower</th>
<th>Divestment from water intensive technology/process</th>
<th>61-70</th>
</tr>
</thead>
</table>

Primary treatment on-site is common for the US and Canada beverage operations where only pH adjustment occurs before discharge to an external treatment facility (ETF). These ETFs have the capability to treat other effluent parameters, such as BOD and oil and grease. In addition, many snack plants remove some primary solids, such as potato peels, and then discharge to ETFs for...
Lastly, evaluations have been completed for the Pioneer Foods locations and upgrades have been planned where required to achieve PepsiCo effluent standards.

<table>
<thead>
<tr>
<th>Discharge to the natural environment without treatment</th>
<th>Not relevant</th>
<th>Not relevant because all of PepsiCo’s on-site operations include at least a primary wastewater treatment step for process wastewater.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge to a third party without treatment</td>
<td>Not relevant</td>
<td>Not relevant because all of PepsiCo’s on-site operations include at least a primary wastewater treatment step for process wastewater.</td>
</tr>
</tbody>
</table>
### W1.2k

(W1.2k) Provide details of your organization's emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

<table>
<thead>
<tr>
<th>Emissions to water in the reporting year (metric tonnes)</th>
<th>Category(ies) of substances included</th>
<th>List the specific substances included</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1 116</td>
<td>Nitrates, Phosphates</td>
<td>Nitrates, Phosphates, Nickel and Lead</td>
<td>One location samples for lead and nickel, one for just lead, two for nitrates, and seven for phosphates per local regulatory requirements. Monitoring of these substances is not typically required of PepsiCo locations because they are not expected to be present in wastewater due to the nature of our businesses.</td>
</tr>
</tbody>
</table>

### W1.3

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

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Total water withdrawal volume (megaliters)</th>
<th>Total water withdrawal efficiency</th>
<th>Anticipated forward trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>86,392,000,000</td>
<td>78,444</td>
<td>With the launch of pep+ (PepsiCo Positive) in September 2021, and our expanded goal to become Net Water Positive by 2030 across all company owned operations, not just high water risk locations, we anticipate ongoing improvement to our water withdrawal efficiency. Additionally, this figure represents PepsiCo's owned operations only and we expect to</td>
</tr>
</tbody>
</table>
W-FB1.3/W-AC1.3

(W-FB1.3/W-AC1.3) Do you collect/calculate water intensity for each commodity reported in question W-FB1.1a/W-AC1.1a?

<table>
<thead>
<tr>
<th>Agricultural commodities</th>
<th>Water intensity information for this produced commodity is collected/calculated</th>
<th>Water intensity information for this sourced commodity is collected/calculated</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize/corn</td>
<td>Not applicable</td>
<td>Yes</td>
<td>We have a goal to improve the water-use efficiency of our direct agricultural supply chain by 15% by 2025 in high water risk sourcing areas against a 2015 baseline. Maize is in scope for this goal. We are measuring theoretical water-use efficiency based on applied water, which will be validated and refined through in-field measurements. In collaboration with WRI, we undertook a study to evaluate our high water risk crops, and we utilized the UN Food and Agriculture Organization’s (FAO) Cropwat 8 modelling tool to determine our baseline crop water footprint. We gathered the baseline data and progress through at least the 2020 crop year. For each farmer group, we have calculated their baseline water opportunity and identified local goals and implementation plans.</td>
</tr>
<tr>
<td>Palm oil</td>
<td>Not applicable</td>
<td>Yes</td>
<td>Palm Oil is part of PepsiCo’s Sustainable from the Start Program (SftS), which aims to incorporate sustainability into all aspects of new product development. PepsiCo’s Sustainable from the Start</td>
</tr>
</tbody>
</table>
Program provides tools to estimate a product’s total environmental impact – including potential water consumption impact and water risk. It also provides guidelines on reducing impacts with changes to alternative ingredients, improved packaging, and more sustainable technology and distribution. In order to understand potential water consumption impact and decide the most sustainable course of action for product development, we need to know the water intensity of the crops we are using.

| Sugar   | Not applicable | Yes | Sugar is part of PepsiCo’s Sustainable from the Start Program (SftS), which aims to incorporate sustainability into all aspects of new product development. PepsiCo’s Sustainable from the Start Program provides tools to estimate a product’s total environmental impact – including potential water consumption impact and water risk. It also provides guidelines on reducing impacts with changes to alternative ingredients, improved packaging, and more sustainable technology and distribution. In order to understand potential water consumption impact and decide the most sustainable course of action for product development, we need to know the water intensity of the crops we are using. |
| Other commodities from W-FB1.1a/W-AC1.1a, please specify | Not applicable | Yes | Wheat is part of PepsiCo’s Sustainable from the Start Program (SftS), which aims to incorporate sustainability into all aspects of new product development. PepsiCo’s Sustainable from the Start Program provides tools to estimate a product’s total environmental impact – including potential water consumption impact and water risk. It also provides guidelines on reducing impacts with changes to alternative ingredients, improved packaging, and more sustainable technology and distribution. In order to understand potential water consumption impact and decide the most sustainable course of action for product development, we need to know the water intensity of the crops we are using.

Other commodities from W-FB1.1a/W-AC1.1a, please specify Potatoes | Not applicable | Yes | We have a goal to improve the water-use efficiency of our direct agricultural supply chain by 15% by 2025 in high water risk sourcing areas against a 2015 baseline. Potatoes are in-scope for this goal. We are measuring theoretical water-use efficiency based on applied water, which will be validated and refined through in-field measurements. In collaboration with WRI, we undertook a study to evaluate our high water risk crops, and we utilized the UN Food and Agriculture Organization’s (FAO) Cropwat 8 modelling tool to determine our baseline crop water footprint. We gathered the |
baseline data and progress through at least the 2020 crop year. For each farmer group, we have calculated their baseline water opportunity and identified local goals and implementation plans.

### W-FB1.3b/W-AC1.3b

(W-FB1.3b/W-AC1.3b) Provide water intensity information for each of the agricultural commodities identified in W-FB1.3/W-AC1.3 that you source.

<table>
<thead>
<tr>
<th>Agricultural commodities</th>
<th>Maize/corn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water intensity value (m³/denominator)</td>
<td>357</td>
</tr>
<tr>
<td>Numerator: Water aspect</td>
<td>Total water withdrawals</td>
</tr>
<tr>
<td>Denominator</td>
<td>Tons</td>
</tr>
<tr>
<td>Comparison with previous reporting year</td>
<td>About the same</td>
</tr>
</tbody>
</table>

**Please explain**

This data is collected at least every three years; therefore, it remains unchanged from the prior year's reporting when it was updated with 2020 data. Our global goal is to improve water-use efficiency in high water risk direct agricultural supply chain by 15% by 2025 (against 2015 baseline). We undertook a study to evaluate our high water risk crops, utilizing UN FAO Cropwat 8 to determine our baseline crop water footprint. We calculated each farmer group's baseline water opportunity and identified local goals and implementation plans. Calculated water intensity of corn was 357 m³ of water per metric ton (mt) of corn, which reflected an improvement of 156 m³ of water per mt of corn from 2017, when we last reported this data. This has been driven by a number of factors including introducing PepsiCo's "Irrigation Water Efficiency Toolkit," creating a global "irrigation water champions network," improvements to water scheduling practices and technology, optimizing planting windows and shifting to more efficient irrigation technology. We have been using this data to inform our strategy to improve performance against our 2025 goal and are working with farmers through various interventions including enabling the transition from flood irrigation to more efficient methods, such as drip irrigation. We expect the water intensity to continue to decrease in the future. This metric supports our decision making toolkit in terms of gauging where...
additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling, etc.

Agricultural commodities
Other sourced commodities from W-FB1.3/W-AC1.3, please specify

Potatoes

Water intensity value (m3/denominator)

136

Numerator: Water aspect
Total water withdrawals

Denominator
Tons

Comparison with previous reporting year
About the same

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

Agricultural commodities
Palm oil

Water intensity value (m3/denominator)

5,099

Numerator: Water aspect
Total water consumption

**Denominator**

Tons

**Comparison with previous reporting year**

About the same

**Please explain**

2021 was the first year PepsiCo reported against this indicator. This data is collected every three years; therefore, we cannot measure progress against the previous year, but will have updated data in 2023. The water intensity metric for palm oil comes from PepsiCo’s internal Sustainable from the Start water footprint tool. We expect the water intensity to decrease in the future. This metric supports our decision-making toolkit and strategies to improve water efficiency by helping us gauge where additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling etc. PepsiCo’s goal is to promote the transformation of the palm oil sector to support thriving communities, human rights and the health of vital ecosystems and source 100 percent sustainable palm oil, which includes 100 percent Roundtable on Sustainable Palm Oil (RSPO). Additionally, our Global Policy on Sustainable Palm Oil outlines our commitments to no deforestation, no development on peat, and no exploitation of the rights of indigenous peoples, workers and local communities. Our strategy is to continue using our position in the global supply chain to promote sustainable palm oil production through purchasing 100 percent Roundtable on Sustainable Palm Oil (RSPO). Through purchasing 100% RSPO certified palm oil we are supporting the standards and requirements that the RSPO places on palm oil producers. These standards include water management best practices like harvesting surface and subsurface water in wet seasons to utilize in dry seasons.

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**Agricultural commodities**

Sugar

**Water intensity value (m3/denominator)**

1,671

**Numerator: Water aspect**

Total water consumption

**Denominator**

Tons

**Comparison with previous reporting year**

About the same

**Please explain**

2021 was the first year PepsiCo reported against this indicator. This data is collected every three years; therefore, we cannot measure progress against the previous year, but will have updated data in 2023. The water intensity metric for sugar comes from
PepsiCo’s internal Sustainable from the Start water footprint tool and reflects the water consumption for sugar beet. This metric supports our decision-making toolkit and strategies to improve water efficiency by helping us gauge where additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling etc. By 2030, we aim to sustainably source priority-supplier-sourced raw materials – those that we don’t source directly from farmers – including sugar beet. Our strategy to achieve this and decrease future water use is to work with those suppliers to champion and help implement regenerative agriculture practices where appropriate. Some examples of these practices include irrigation efficiency, riparian buffers on the edge of crop fields, and drainage water management. For crops on a verified volumes pathway, we use an equivalency framework to recognize crop volumes that are verified to a sustainability standard benchmarked by a third party, as equivalent to our SFP.

Agricultural commodities
Other sourced commodities from W-FB1.3/W-AC1.3, please specify
Wheat

Water intensity value (m3/denominator)
1,620

Numerator: Water aspect
Total water consumption

Denominator
Tons

Comparison with previous reporting year
About the same

Please explain
2021 was the first year PepsiCo reported against this indicator. This data is collected every three years; therefore, we cannot measure progress against the previous year, but will have updated data in 2023. The water intensity metric for wheat comes from PepsiCo’s internal Sustainable from the Start water footprint tool and reflects the water consumption for wheat grain. This metric supports our decision-making toolkit and strategies to improve water efficiency by helping us gauge where additional work may be required to improve irrigation efficiency such as looking at pivot telemetry, irrigation scheduling etc. By 2030, we aim to sustainably source priority-supplier-sourced raw materials – those that we don’t source directly from farmers – including wheat. Our strategy to achieve this and decrease future water use is to work with those suppliers to champion and help implement regenerative agriculture practices where appropriate. Some examples of these practices include irrigation efficiency, riparian buffers on the edge of crop fields, and drainage water management.
W1.4

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

<table>
<thead>
<tr>
<th>Products contain hazardous substances</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>No</td>
</tr>
</tbody>
</table>

W1.5

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

<table>
<thead>
<tr>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppliers</td>
</tr>
<tr>
<td>Other value chain partners (e.g., customers)</td>
</tr>
</tbody>
</table>

W1.5a

(W1.5a) Do you assess your suppliers according to their impact on water security?

Row 1

Assessment of supplier impact

Yes, we assess the impact of our suppliers

Considered in assessment

- Basin status (e.g., water stress or access to WASH services)
- Supplier dependence on water
- Supplier impacts on water availability
- Supplier impacts on water quality

Number of suppliers identified as having a substantive impact

7,545

% of total suppliers identified as having a substantive impact

51-75

Please explain

As part of our PepsiCo Positive (pep +) goals we are aiming to improve water-use efficiency in our direct sourced crops from high-water risk areas by 2030. Since water stress is a localized issue, we work with WWF to evaluate individual water impact thresholds in each water basin. Using a combination of local watershed health data, identifying local stakeholders and future stress analysis, we determine what the water impact threshold for each water basin we source from should be. It is embedded in our Sustainable Farming Program (SFP) to assess our suppliers’ impacts on water security.
through measurement of their water use efficiency and water withdrawal. In evaluating their baseline water use, we analyze their dependence on water and work to identify opportunities to optimize their water-use efficiency and ensure that their impact on water availability and water quality are within the localized water impact threshold.

W1.5b

(W1.5b) Do your suppliers have to meet water-related requirements as part of your organization’s purchasing process?

<table>
<thead>
<tr>
<th>Suppliers have to meet specific water-related requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
</tr>
</tbody>
</table>

W1.5c

(W1.5c) Provide details of the water-related requirements that suppliers have to meet as part of your organization’s purchasing process, and the compliance measures in place.

---

**Water-related requirement**

Complying with going beyond water-related regulatory requirements

- % of suppliers with a substantive impact required to comply with this water-related requirement
  - 76-99

- % of suppliers with a substantive impact in compliance with this water-related requirement
  - 51-75

**Mechanisms for monitoring compliance with this water-related requirement**

Supplier self-assessment

**Response to supplier non-compliance with this water-related requirement**

Retain and engage

**Comment**

PepsiCo’s Sustainable Farming Program (SFP) encourages growers to use 4R nutrient management. To do this, growers sample their soil to assess their crops’ needs and understand which fertilizer will provide the most benefit to their crop. In addition to optimizing the nutrient source, 4R nutrient management encourages growers to optimize application timing and application methods to ensure maximized nutrient uptake and minimized leaching of the nutrients into nearby water sources. SFP also requires growers to implement Integrated Pest Management (IPM). IPM ensures growers monitor their crops and have a strong understanding of potential pest threats in their area. Understanding when their crops are most susceptible to pest infestation and what pests are posing risk allows farmers to optimize their pesticide application, reducing total...
application. If growers don't meet these requirements, we work with them to build a strategy ensuring the supplier meets the requirements in the future.

Water-related requirement
Reducing water demands in water stressed basins

% of suppliers with a substantive impact required to comply with this water-related requirement
76-99

% of suppliers with a substantive impact in compliance with this water-related requirement
51-75

Mechanisms for monitoring compliance with this water-related requirement
Supplier self-assessment

Response to supplier non-compliance with this water-related requirement
Retain and engage

Comment
In our supply chain, we aim to improve our water-use efficiency of our direct crop suppliers in high-water risk areas by 15% by 2025 versus 2015 baseline. Achieving this goal means promoting less-water-intensive irrigation methods, low-water crop varieties where appropriate and the use of on-farm water-saving technology and tools. Our response to non-compliance to efficient water usage is exemplified by our work with smallholder potato farmers in Uttar Pradesh, India. Most smallholder potato farmers in Uttar Pradesh use flood irrigation. In order to help these farmers achieve our water use reduction goals and continue working with PepsiCo for years to come, we began introducing them to micro-irrigation methods to increase their crop yields while reducing the amount of water withdrawn from local watersheds. Through our work, these smallholders have been able to reduce their water withdrawals by over 40%.

W1.5d

(W1.5d) Provide details of any other water-related supplier engagement activity.

Type of engagement
Innovation & collaboration

Details of engagement
Encourage/incentivize innovation to reduce water impacts in products and services
Educate suppliers about water stewardship and collaboration
Other, please specify
Share pep+ (PepsiCo Positive) commitments with global suppliers and explore how our suppliers can help us achieve these commitments.
% of suppliers by number
51-75

% of suppliers with a substantive impact
51-75

Rationale for your engagement
We engage with growers on farms of all sizes and types around the world. Through Our Sustainable Farming Program (SFP), we encourage continual improvement in sustainable farming practices, expand respect for workers’ human rights, enhance growers’ capabilities, and address risks. We have initiated SFP with farmers from which we source directly, given our existing relationships with those farmers and the importance of directly sourced agricultural raw materials to the continuity of our business. We believe that incentivizing farmers for improved water management and stewardship practices is crucial for them to improve those practices and in turn reduce their water impact. Success of our engagement activities can be measured by progress to our 2025 goal to improve water use efficiency by 15% (compared to a 2015 baseline) in our direct, high-water risk agricultural supply chain. One specific supplier-engagement activity that drove substantial water use reduction was implementing N-Drip across India and the North American corn belt. Beginning in 2020, PepsiCo began partnering with N-Drip, an Israeli-based company that created a drip irrigation system to help farmers increase their output while reducing their impact on local watersheds. Through subsidizing the cost of implementation and providing extensive training on user best practices, PepsiCo has helped implement this technology at farms across India and the North American corn belt.

Additionally, we work with our third-party facilities to share best practices and drive towards best-in-class and world-class water-use efficiency. In 2021, we performed a water risk assessment of all third-party manufacturers to identify those located in high-water risk watersheds. This was completed using WRI Aqueduct tool as well as the expertise of external independent hydrologists with local knowledge. Information from these sources is compiled to develop a comprehensive view of water-related risk impacting each site within their specific local context. In 2022, we built on this by adding requirements specific to reaching our pep + goals to our new and renewed contracts, holding sustainability summits and one-on-one workshops to share PepsiCo’s industry knowledge and build out plans specific to each region. We plan to continue building out these roadmaps in 2023 and continue working towards our 2030 water use efficiency goals at our third-party manufacturers.

Impact of the engagement and measures of success
We will measure the success of these SFP engagements by the resulting improvements in water-use efficiency in support of our goal to reach 15% improvement by 2025. One measure of success is improved water use intensity for the commodities supplied. In 2020, we improved our agricultural water-use efficiency by 14% in high water risk regions compared to a 2015 baseline. This number remains the same in 2022, as we measure agriculture water-use efficiency every three years. In addition, this engagement is also benefiting the farmers we supply from. As a result of our work with N-Drip, in India we have helped 29 farms implement N-Drip technology, many of which were
Previously using flood irrigation, by the end of 2022, we were able to implement N-Drip irrigation across over 220 acres reducing farmers’ water withdrawals in India by an average of 40%. By the end of 2022, we also had 89 regenerative agriculture demonstration farms and over 600 farmers transitioned from demonstration into broader “landscape” impact programs to scale up proven innovation. We will measure the success of these engagements by the resulting improvements in water-use efficiency. We will measure the success of pep+ engagements with third-party manufacturers by the resulting improvements in water use efficiency in support of our goal to achieve best-in-class and world-class water use efficiency in high water risk and non-high water risk locations, respectively. Additionally, we will measure the success of these engagements by the increase in water replenishment in support of our goal for our third-party manufacturers to replenish 100% of PepsiCo product-related water used by 2030.

Comment

Our Sustainable Farming Program is a multi-faceted program reaching across environmental, economic and social stewardship. It is our main method of carrying out our pep+ water goals within our agricultural supply chain and is used to identify areas of opportunity and ways for PepsiCo to work with our suppliers to increase efficiencies within their operations but more importantly, evaluate their impact on and improve their contribution to the communities in which they operate.

W1.5e

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

Type of stakeholder
Other, please specify
NGOs, peer companies and industry groups

Type of engagement
Innovation & collaboration

Details of engagement
Engage with stakeholders to advocate for policy or regulatory change
Encourage stakeholders to work collaboratively with other users in their river basins toward sustainable water management

Rationale for your engagement
We cannot achieve our PepsiCo Positive ambitions alone. Partner and stakeholder engagements help us learn about new sustainability topics, better inform our efforts, and work to create value for society across our value chain. In 2018, we joined the Alliance for Water Stewardship and have been working to implement the AWS Standard at all PepsiCo-owned, high-water risk sites by 2025. Stakeholder identification, engagement and communication are key components of the AWS Standard. Through use of the Standard, PepsiCo sites can identify and pursue opportunities to be better water
stewards in their local communities, including working with local stakeholders to better understand the unique watershed challenges and focusing their efforts on collective action and advocacy to achieve watershed-level improvements. We are also a member of the California Water Action Collaborative along with 25 other companies and NGOs committed to California’s shared water future. This forum helps us to better understand California’s specific water challenges, identify geographies and issues of shared interest, and collaborate to make measurable positive impacts on water security. Additionally, one of our 2030 ambitions is to improve the livelihoods of over 250,000 people in our agricultural supply chain and communities, focusing on economically empowering women and making farming more diverse. To achieve this goal, PepsiCo needs to partner with key, local stakeholders in our global sourcing regions.

**Impact of the engagement and measures of success**

The impact of our stakeholder engagement can be assessed through progress to our 2030 pep + (PepsiCo Positive) goals. As a result of implementing the AWS Standard, PepsiCo has partnered with many stakeholders to implement replenishment programs targeting ecosystem restoration and protection outcomes. In 2022, we invested in initiatives across 15 countries, replenishing over 8.7B liters across company-owned, high water risk manufacturing locations. An example is in Monterrey, Mexico. We invested in the TNC Water Fund, which uses market financial mechanisms to improve protection of source watersheds. Additionally, in an effort to improve water-use efficiency of our direct agricultural supply chain by 15% in high water risk sourcing areas by 2025, we engaged with Walmart and other peers through the Midwest Row Crop Collaborative, a diverse coalition of industry and nonprofit groups working to expand agricultural solutions that protect air and water quality and enhance soil health. Finally, in accordance with our 2030 PepsiCo Positive goal to provide access to safe water to a total of 100 million people by 2030 in the worlds’ most at-water-risk areas, since 2006, the PepsiCo Foundation has partnered with several organizations to help over 80 million people - including 12 million people in 2022 alone - gain access to safe water through distribution, purification, and conservation programs in some of the planet’s most water-stressed regions such as India, Latin America and China.

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**Type of stakeholder**
- Other, please specify
  - 3rd party manufacturers

**Type of engagement**
- Education / information sharing

**Details of engagement**
- Educate and work with stakeholders on understanding and measuring exposure to water-related risks

**Rationale for your engagement**
- As part of our pep + (PepsiCo Positive) goals launched in 2021, we expanded our scope to include third-party manufacturers. All third-party manufacturers in high water risk facilities are included in our 2030 goals to replenish more than 100% of water withdrawn
from local watersheds and to achieve “best-in-class” water use efficiency, which is defined as 1.2 liters of water per liter of production in beverage plants and 0.4 liters of water per kilogram of food within convenient foods production plants. All third-party manufacturers not located in high-water risk areas must achieve “world-class” water use efficiency by 2030, which is defined by 1.4 liters of water per liter of production in beverage plants and 4.4 liters of water per kilogram of food within convenient foods production plants. By expanding these goals to cover our third-party manufacturers, we increased our scope of impact from approximately 400 facilities to more than 1,000 facilities in high-risk and lower-risk watersheds. This is why it is imperative for us to educate and engage with our third-party manufacturers on understanding and measuring exposure to water-related risks.

Impact of the engagement and measures of success
We work closely with third-party facilities to share best practices and drive towards best-in-class and world-class water-use efficiency. In 2021, we performed a water risk assessment of all third-party manufacturers to identify those located in high-water risk watersheds. This was completed using WRI Aqueduct tool to identify, quantify and categorize risks into physical, quality and quantity, regulatory or social/reputational, and expertise of external independent hydrologists with local knowledge. Information from these sources is compiled to develop a comprehensive view of water related risk impacting each site within their specific local context. In 2022, we built on this by holding sustainability summits and one-on-one workshops to share PepsiCo’s industry knowledge and build out plans specific to each region. We plan to continue building out these roadmaps in 2023 and continue working towards our 2030 water use efficiency goals at our third-party manufacturers. We will measure the success of engagements with third-party manufacturers by the resulting improvements in water use efficiency in support of our goal to achieve best-in-class and world class water use efficiency in high water risk and non-high water risk locations, respectively. We will measure the success of these engagements by the increase in water replenishment in support of our goal for our third-party manufacturing suppliers to replenish 100% of PepsiCo product-related water used by 2030.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?
No

W2.2

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

<table>
<thead>
<tr>
<th>Water-related</th>
<th>Fines, enforcement orders, and/or other penalties</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>regulatory violations</td>
<td>Fines, but none that are considered as significant</td>
<td>Wastewater compliance violations are primarily related to exceedances of pH and BOD/COD permit limits. Facilities investigate all exceedances and other non-conformances, with or without enforcement orders, to ensure root causes are identified and corrective/preventive actions implemented.</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Row 1</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

**W2.2a**

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

- **Row 1**
  - **Total number of fines**: 5
  - **Total value of fines**: $11,532
  - **% of total facilities/operations associated**: 3
  - **Number of fines compared to previous reporting year**: Lower
  - **Comment**: The total number of fines decreased from 7 in 2021 to 5 in 2022. The financial value of water-related fines in the period under review increased from approximately $8,287 to $11,532. One facility incurred an $8,000 fine for pH exceedances.

**W3. Procedures**

**W3.1**

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

<table>
<thead>
<tr>
<th>Identification and classification of potential water pollutants</th>
<th>How potential water pollutants are identified and classified</th>
</tr>
</thead>
</table>
Yes, we identify and classify our potential water pollutants

PepsiCo has strict requirements for incoming and effluent water quality at our facilities. We require adherence to the Company's standards, or local regulatory standards, whichever are more stringent. PepsiCo's Global Environment, Health and Safety Management System (GEHSMS) is a set of management and technical standards providing guidance on acceptable operating parameters for our operations. The GEHSMS Discharge of Wastewater Standard formalizes the expectation that wastewater discharged from company-owned and operated facilities will meet applicable regulatory discharge standards and other requirements, meet minimum PepsiCo discharge standards, and maintain an effluent quality that does not cause degradation of local water quality. Potential pollutants are identified based on a combination of process knowledge at our facilities, and PepsiCo standard parameters. These parameters may include biochemical oxygen demand, chemical oxygen demand, total suspended solids, total Nitrogen, Phosphorous, Oil and grease, pH, Temperature, and/or Fecal coliform/ E. coli. These are categorized by the type of facility discharging the wastewater and are monitored separately. Monitored wastewater constituents that are considered pollutants vary depending on the type of facility, discharge destinations, local requirements, and local conditions such as the receiving body of water's quality and local ecosystem. Effluent measurements are compared to regulatory and PepsiCo requirements.

W3.1a

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

Water pollutant category
Nitrates

Description of water pollutant and potential impacts
Nitrogen can speed up eutrophication in aquatic environments and have disruptive impacts on ecosystems. Because nitrates are commonly found in fertilizers, we have incorporated best management practices for fertilizers into our Sustainable Agriculture Policy in order to reduce nitrate runoff.

Value chain stage
Supply chain

Actions and procedures to minimize adverse impacts
Provision of best practice instructions on product use
Requirement for suppliers to comply with regulatory requirements
Please explain
PepsiCo’s Sustainable Agriculture Policy aims to optimize the applied water footprint to crop and livestock systems, as well as responsibly manage runoff risks of pollution or contamination of ground or surface water with fertilizers, nutrients, or soil. PepsiCo works with farmers to develop effective water management plans for addressing water risk through our larger Sustainable Farming Program (SFP), which works with farmers to assess their operations to identify areas of improvement across environmental, social and economic factors - this includes water pollutant mitigation. As part of the Sustainable Farming Program, growers are required to implement the practice of 4R Nutrient Management (the right fertilizer at the right rate, at the right time and in the right place). To employ 4R nutrient management, growers must sample their soil to assess their crops’ needs. This helps them to know which specific fertilizer will provide the most benefit to their crop. In addition to optimizing the nutrient source, 4R nutrient management also requires growers to apply the fertilizer at the optimal moment in the crop cycle with the most precise application methods to ensure maximized nutrient uptake by the crop and minimized leaching of the nutrients into nearby water sources. Success of 4R nutrient management is evaluated through measuring reduction in fertilizer application and improvement in local biodiversity.

Water pollutant category
Phosphates

Description of water pollutant and potential impacts
Phosphates can speed up eutrophication in aquatic environments and have disruptive impacts on local ecosystems. Because phosphates are commonly found in fertilizers, we have incorporated best management practices for fertilizers into our Sustainable Agriculture Policy in order to reduce phosphate runoff.

Value chain stage
Supply chain

Actions and procedures to minimize adverse impacts
Provision of best practice instructions on product use
Requirement for suppliers to comply with regulatory requirements

Please explain
PepsiCo's Sustainable Agriculture Policy aims to optimize the applied water footprint to crop and livestock systems, as well as responsibly manage runoff risks of pollution or contamination of ground or surface water with fertilizers, nutrients, or soil. PepsiCo works with farmers to develop effective water management plans for addressing water risk through our larger Sustainable Farming Program (SFP), which aims to work with farmers to assess their operations to identify areas of improvement across environmental, social and economic factors - this includes water pollutant mitigation. As part of the Sustainable Farming Program, growers are required to implement the practice of 4R Nutrient Management (the right fertilizer at the right rate, at the right time and in the right place). To employ 4R nutrient management, growers must sample their soil to assess their crops’ needs. This helps them to know which specific fertilizer will
provide the most benefit to their crop. In addition to optimizing the nutrient source, 4R nutrient management also requires growers to apply the fertilizer at the optimal moment in the crop cycle with the most precise application methods to ensure maximized nutrient uptake by the crop and minimized leaching of the nutrients into nearby water sources. Success of 4R nutrient management is evaluated through measuring reduction in fertilizer application and improvement in local biodiversity.

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**Water pollutant category**

Pesticides

**Description of water pollutant and potential impacts**

Due to drift during spraying or drainage, pesticides can end up in surface water and have disruptive impacts on ecosystems; therefore, we have incorporated best management practices for pesticides into our Sustainable Agriculture Policy to reduce the impacts of drift on surface water.

**Value chain stage**

Supply chain

**Actions and procedures to minimize adverse impacts**

- Provision of best practice instructions on product use
- Requirement for suppliers to comply with regulatory requirements

**Please explain**

Another fundamental requirement of the Sustainable Farming Program (SFP) is the adoption of Integrated Pest Management (IPM). Integrated Pest Management requires that growers monitor their crops and have a strong understanding of potential pest threats in their geography. Understanding when their crops are most susceptible to pest infestation and what pests they are at risk of encountering allows farmers to optimize their pesticide application to reduce the amount of pesticides used. Additionally, IPM requires frequent maintenance of equipment used to apply the pesticides to crops to ensure that there is no wastefulness in application due to inaccurate spray nozzles or any other equipment inefficiencies. An example of our work to reduce the potentially harmful impacts of pesticides on freshwater quality is the training programs we have implemented with smallholder farmers in India. We have worked with smallholder potato farmers on more than 40 demo farms, teaching the importance of Integrated Pest Management. Success of IPM in these demo farms is evaluated through the smallholders' increased yields and measuring the increased availability of freshwater in their communities.

**W3.3**

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

Yes, water-related risks are assessed
W3.3a

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

Value chain stage
Direct operations

Coverage
Full

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

Frequency of assessment
More than once a year

How far into the future are risks considered?
More than 6 years

Type of tools and methods used
Tools on the market
Enterprise risk management
International methodologies and standards

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

Contextual issues considered
Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Impact on human health
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees
Other, please specify
River basin management authorities, Alliance for Water Stewardship

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

Comment
In addition to the global operations water risk assessments described in this report, we identify and assess water-related risks through an Enterprise Risk Management process on a 6-month time frame. For our global operations assessment, we use the WRI Aqueduct tool, combined with local site surveys, to determine the level of water risk in three categories: physical, regulatory and reputational/social. Both current risk and anticipated future water risk are assessed and assigned a risk score. Using the WRI 2040 future scenario planning tool, we can understand risk changes over this time period. We conduct this full operations water risk assessment every three years, but we review and assess our water risk every year based on changes to the business and our facilities. In addition, we joined the Alliance for Water Stewardship in 2018 and have been adopting the Standard at high water risk facilities. As of the end of 2022, eight sites have completed adoption and another 61 sites are in the process of implementing the Standard.

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

We believe that sustainable agriculture should optimize the use of resources to improve farm productivity and preserve soil fertility, water and air quality and biodiversity in agricultural operations. Further, PepsiCo is aiming to achieve 100% replenishment of water used in all company-owned manufacturing operations in high water risk locations by 2025, replenishing 52 percent of the water we consumed in our company-owned manufacturing facilities in high-risk watersheds last year. We are increasingly looking to capture the impacts beyond volumetric of these replenishment programs. For example, in partnership with The Nature Conservancy in South Africa, the removal of invasive plant species not only results in increased water security, but also contributes to the conservation and restoration of ecosystem functioning and diversity of native plant life and the habitat of native fauna.

Value chain stage
Supply chain

Coverage
Partial
**Risk assessment procedure**

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

**Frequency of assessment**

More than once a year

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

More than 6 years

**Type of tools and methods used**

Tools on the market
- Databases
- Other

**Tools and methods used**

- WRI Aqueduct
- FAO/AQUASTAT
- Internal company methods
- External consultants

**Contextual issues considered**

- Water availability at a basin/catchment level
- Water quality at a basin/catchment level
- Implications of water on your key commodities/raw materials
- Water regulatory frameworks
- Status of ecosystems and habitats
- Access to fully-functioning, safely managed WASH services for all employees

**Stakeholders considered**

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

**Comment**

Water is imperative to sourcing ingredients for our products; droughts and other water-related events can disrupt our supply chains and impact the availability and cost of our raw materials. Every three years we conduct a global water risk assessment on our major agricultural sourcing regions using WRI Aqueduct, FAO/AQUASTAT and external consultants. In 2021, this assessment identified areas of high water risk and enabled us to target investment in water efficiency improvements with our growers as well as plan for future supply disruptions. In partnership with external consultants and non-governmental organization partners, we identify and assess current issues as well as
emerging issues that may arise based on trends and changes such as climate change. To mitigate some of these risks and integrate regenerative agriculture practices into our value chain, we have created 89 demonstration farms around the world that feature water-use efficiency best practices, demonstrable improvements in water quality and provide an opportunity to engage with large numbers of farmers in hands-on learning and understanding innovation. Additionally, we work with our farmers through our Sustainable Farming Program to identify areas for improvement across environmental, economic and social factors. We believe that agriculture should optimize the use of resources to improve farm productivity while preserving soil fertility, water and air quality and biodiversity in agricultural operations.

PepsiCo also aims to replenish more than 100% of the PepsiCo product-related water used in company-owned and third-party manufacturing sites in high-water-risk areas by 2030. To support this goal, in 2021 we performed a water risk assessment of PepsiCo’s third party manufacturers covering over 700 facilities globally. Third-party facilities were geographically plotted using the WRI Aqueduct tool to determine relative stress based on the Aqueduct data sets including overall water risk, baseline water stress and projected (2025) baseline water stress. These results were then combined with an independent score from our external consultancy’s global network, drawing from local knowledge and experience to determine a facility’s relative risk exposure using proprietary insights. PepsiCo has determined a scoring range from 0 – 5, and sites receiving a score of 3.5/4 or higher are classified as high water risk.

<table>
<thead>
<tr>
<th>Value chain stage</th>
<th>Other stages of the value chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage</td>
<td>Partial</td>
</tr>
<tr>
<td>Risk assessment procedure</td>
<td>Water risks are assessed in an environmental risk assessment</td>
</tr>
<tr>
<td>Frequency of assessment</td>
<td>Annually</td>
</tr>
<tr>
<td>How far into the future are risks considered?</td>
<td>More than 6 years</td>
</tr>
<tr>
<td>Type of tools and methods used</td>
<td>International methodologies and standards</td>
</tr>
<tr>
<td></td>
<td>Databases</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Tools and methods used</td>
<td>Life Cycle Assessment</td>
</tr>
<tr>
<td></td>
<td>Internal company methods</td>
</tr>
<tr>
<td></td>
<td>Other, please specify</td>
</tr>
</tbody>
</table>
Ecoinvent, World Food Lifecycle Database, and an in-house customized LCA tool for PepsiCo

**Contextual issues considered**
- Water availability at a basin/catchment level
- Water quality at a basin/catchment level
- Implications of water on your key commodities/raw materials
- Water regulatory frameworks
- Access to fully-functioning, safely managed WASH services for all employees

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

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

**W3.3b**

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

<table>
<thead>
<tr>
<th>Rationale for approach to risk assessment</th>
<th>Explanation of contextual issues considered</th>
<th>Explanation of stakeholders considered</th>
<th>Decision-making process for risk response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Enterprise Risk Management process identifies and assesses water-related risks within our direct operations and our larger value chain twice a year and operates in line with the FAO official guidelines.</td>
<td>The comprehensive combination of these methods is used to assess 100% of companies, entities or groups over which financial control is exercised. Our Enterprise Risk</td>
<td>Stakeholder identification, engagement and communication are key component of adoption of the AWS Standard. Through use of the Standard, PepsiCo sites are</td>
<td>The outcome of our operational water risk assessment informs which sites are designated as high risk and allows us to focus our efforts and resources where it matters most. By</td>
</tr>
<tr>
<td>Like other companies in the food and beverage sector, PepsiCo is currently working to fully understand its indirect agriculture sourcing footprint. As such, this is currently excluded from our risk assessment scope. Additionally, we conduct a global water risk assessment of all company-owned operations every three years. This was last completed in 2022 and involves engaging with external consultants to develop and utilize a water stress assessment survey to provide detailed insight into local water conditions that may impact our business. We use the WRI Aqueduct tool, combined with these surveys and engage external consultants to determine the level of water risk across physical, regulatory, and reputational/social categories. Using these tools, both current risk and projected future water risk are assessed and assigned a combined risk score. Sites with a score above 3.5 are designated as high water risk. To increase consideration of biodiversity and ecosystem health, we launched a Watershed Management process focuses on short, medium and long-term potential impacts to our value chain. Our global water risk assessment of all company-owned operations utilizes external consultants to create and perform site-level water stress assessments to obtain detailed insight into local regulatory conditions and stakeholder concerns. We then build out our assessment further with physical, regulatory and reputational risk data from the WRI Aqueduct tool and engagement with external consultants. Finally, in 2022, we further built out our risk assessment to include holistic watershed health metrics within key high risk sourcing regions. Ability to identify and pursue opportunities to be better water stewards in their local communities and watersheds, including working with local stakeholders to better understand the unique local watershed challenges and focusing their efforts on collective action and advocacy to achieve watershed-level improvements. Additionally, as a part of 2022 basin diagnostic efforts, stakeholders were identified in 5 key sourcing regions across India, Pakistan, Mexico and Egypt. The learnings from these assessments will be utilized in partnership with multiple stakeholders to implement projects in 2023 in two of the basins.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Management process focuses on short, medium and long-term potential impacts to our value chain. Our global water risk assessment of all company-owned operations utilizes external consultants to create and perform site-level water stress assessments to obtain detailed insight into local regulatory conditions and stakeholder concerns. We then build out our assessment further with physical, regulatory and reputational risk data from the WRI Aqueduct tool and engagement with external consultants. Finally, in 2022, we further built out our risk assessment to include holistic watershed health metrics within key high risk sourcing regions. Ability to identify and pursue opportunities to be better water stewards in their local communities and watersheds, including working with local stakeholders to better understand the unique local watershed challenges and focusing their efforts on collective action and advocacy to achieve watershed-level improvements. Additionally, as a part of 2022 basin diagnostic efforts, stakeholders were identified in 5 key sourcing regions across India, Pakistan, Mexico and Egypt. The learnings from these assessments will be utilized in partnership with multiple stakeholders to implement projects in 2023 in two of the basins. 2025, we are aiming for company-owned facilities in high water risk locations to achieve 25% operational water use efficiency (versus 2015 baseline) and adopt the Alliance for Water Stewardship standard as a vehicle for water advocacy. High risk direct potato and corn sourcing regions will also be required to improve water-use efficiency by 15% by 2025 (versus 2015 baseline). Taking it one step further, by 2030, we are aiming for company-owned and third party manufacturing facilities designated as high water risk to replenish more than 100% of the water used and achieve a “best-in-class” water efficiency standard (using 1.2 liters of water per liter of beverage production or 0.4 liters of water per kilogram of food production). For replenishment, we are working to capture the impacts beyond volumetric. For example, in partnership with The Nature Conservancy in South Africa, the</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
W4. Risks and opportunities

W4.1

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

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

W4.1a

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

As global freshwater continues to come under increasing stress due to a number of drivers, including exponential demand of a growing population, and compounding effects of climate change, we may be exposed to increasing costs and capacity constraints. In relation to this deteriorating state of water resources, we define substantive financial or strategic impact as change driven by water related events or trends that have the potential to cause significant impact on business, reputation, operations, assets, revenue or expenditures where we are not able to manage the probable likelihood of that impact occurring locally, regionally, or globally.
When defining substantive financial or strategic impact in PepsiCo’s direct operations, revenue or expenditure from water risk, we evaluate the magnitude of potential impact on operating costs and/or current and future revenue.

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

One example of a potential substantive financial or strategic impact would be the prolonged closure of a manufacturing facility due to water-related issues. While neither were characterized as ‘substantive’, we have seen examples of production disruptions at our facilities in Cape Town and in southern India due to flooding. Should such change occur, the impact (and any potential need to review the definition) would be reviewed and re-assessed by our senior executive team. This definition of substantive impact 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).

An example of some work we are doing to combat these potential impacts is taking place in the western United States. PepsiCo associates have formed a task force to review these risks in the western United States and develop a comprehensive plan to mitigate and address water risk for our operations. This team has developed a framework to further assess risk and deliver per-plant action plans. Actions include creation of comprehensive continuity plans tailored to each plant, developed in partnership with local leadership, defined trigger points for sites to initiate the continuity plan, guidance for crisis response should one be needed and pre-water constraint outreach guidelines. Additionally, PepsiCo’s Public Policy and Government Affairs teams work closely together to position PepsiCo as a reputable stakeholder through developing advocacy guidance, fostering relationships with government actors and initiating multistakeholder discussions to ensure PepsiCo is a positive contributor to the local watershed.

**W4.1b**

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

<table>
<thead>
<tr>
<th>Total number of facilities exposed to water risk</th>
<th>% company-wide facilities this represents</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1 12</td>
<td>1-25</td>
<td>PepsiCo conducts water risk assessments for all of its company-owned manufacturing operations using the data collected from the following three input methods: 1) WRI Aqueduct tool; 2) internal company knowledge at site level; and 3) expertise of external independent hydrologists with local knowledge and expertise. Additionally, PepsiCo conducts water risk assessments for all of its third-party</td>
</tr>
</tbody>
</table>
manufacturing operations using data collected from the following two input methods: 1) WRI Aqueduct tool; 2) expertise of external independent hydrologists with local knowledge and expertise. Information from these sources is compiled to develop a comprehensive view of water-related risk facing each site within their specific local context, both now and out to 2040, and to categorize risks as physical, both quality and quantity, as well as regulatory or social/reputational.

All sites receiving a (X:Y axis) score of 3.5/4 or higher (from within a range of 0 to 5) are classified as high water risk and are subject to mitigation requirements, including targets on water efficiency improvements, adoption of the Alliance for Water Stewardship Standard (for company-owned manufacturing operations only) and watershed replenishment. Additional sites with a lower score that are designated as high water risk based on local knowledge are subject to mitigation requirements as well.

We utilize the expertise of independent hydrologists to validate the results of both the tools and the site surveys in an effort to ensure the results are consistent and credible. In line with the 2021 submission, PepsiCo has disclosed high risk facilities in line with the CDP definition of facilities with “Substantive Risk”.

**W4.1c**

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

**Country/Area & River basin**

Mexico
Other, please specify
Moctezuma Basin

**Number of facilities exposed to water risk**

4

**% company-wide facilities this represents**

1-25

**% company’s total global revenue that could be affected**

1-10
Comment
Estimate based on net book value of reported facilities.

Country/Area & River basin
United States of America
Sacramento River - San Joaquin River

Number of facilities exposed to water risk
4

% company-wide facilities this represents
1-25

% company’s total global revenue that could be affected
Less than 1%

Comment
Estimate based on net book value of reported facilities.

Country/Area & River basin
United States of America
Other, please specify
San Francisco / Greater California

Number of facilities exposed to water risk
2

% company-wide facilities this represents
Less than 1%

% company’s total global revenue that could be affected
Less than 1%

Comment
Estimate based on net book value of reported facilities.

Country/Area & River basin
United States of America
Other, please specify
San Gabriel / Greater California

Number of facilities exposed to water risk
2

% company-wide facilities this represents
1-25
% company’s total global revenue that could be affected
Less than 1%

Comment
Estimate based on net book value of reported facilities.

W4.2

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

Country/Area & River basin
Mexico
Other, please specify
Moctezuma Basin

Type of risk & Primary risk driver
Chronic physical
Groundwater depletion

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Current and future water stress around the Moctezuma watershed in Mexico could impact the ability of our current facilities to continue production without disruption in the future. In 2022, PepsiCo had four high water risk convenient foods manufacturing facilities located within the Moctezuma watershed. Prolonged drought conditions coupled with increasing demand for fresh groundwater in the area will continue to result in high water stress for years to come. This will affect water availability for all water stakeholders, including our facilities. As a food and beverage company, good quality water is critical to our business. We use water throughout our snacks production process and in order to maintain sanitary conditions throughout our operations, we need to be able to procure good quality freshwater. Failure to procure groundwater in this area would result in delays in production and potentially stopping production all together. In the event that groundwater depletion results in the shut down of just one plant in this area, PepsiCo could see a financial impact of over $642,000,000 in stranded assets.

Timeframe
1-3 years

Magnitude of potential impact
High

Likelihood
Likely
Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
642,039,145

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

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

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
At PepsiCo, we are constantly identifying new opportunities for reusing water, and we've invested in world-class technology to reduce our freshwater footprint. One of our pep+ (PepsiCo Positive) goals is to be net water positive in our operations by 2030, which would include not only water efficiency efforts, but also replenishing more water than we use. Our Vallejo facility in the Moctezuma basin is a clear depiction of how we are working to achieve that goal. Beginning in 2009, the facility installed several water-saving methods including a state-of-the-art microfiltration system, low-water cooking processes and rainwater harvesting. These technologies have helped the facility increase its water-use efficiency by 85% (compared to a 2015 baseline). In 2020, Vallejo began collecting the water used by neighboring facilities during their production processes. That water is treated and purified back to the highest international standards, then reused throughout Vallejo's operation. As a result, Vallejo has reduced freshwater consumption by more than 76% compared to 2019, and it is still decreasing. By the end of 2022, the Vallejo plant consumed zero freshwater for over 90 days, well on their way to their goal of zero freshwater consumption for an entire year, which equates to approximately 550 million liters of water. To maximize impact at the watershed-level, Vallejo has begun efforts to expand its network of third-party water suppliers to further relieve reliance on freshwater and offer the potential to share the reclaimed water with other facilities to aid in their conservation efforts as well. Additionally, in tandem with reducing total water withdrawals from the high risk watershed, PepsiCo has supported The Nature Conservancy's work to improve the health of the watershed. In 2022, through projects in the Valle de Mexico, just over 90 hectares were reforested and over 200 protected, which will result in reduced runoff and improved hydrological conditions, improving both water supply and quality.

Cost of response
356,000
Explaination of cost of response

The provided cost of response encompasses our actual 2021 - 2022 financial support of The Nature Conservancy’s work in the Valle de Mexico. This work and our financial support is expected to be complete in 2023. This is one piece of a larger, multi-year, multi-country partnership with The Nature Conservancy in Latin America, with project implementation planned through 2023. In an effort to improve both water supply and quality in the Valle de Mexico, this project reforested over 90 hectares and protected over 200 hectares. This work will result in reduced runoff and improved hydrological conditions in the area.

Country/Area & River basin

United States of America
Other, please specify
Greater California

Type of risk & Primary risk driver

Acute physical
Drought

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Current and future water stress around the Greater California watershed in the U.S. could impact the ability of our current facilities to continue production without disruption in the future. In 2022, PepsiCo had several high water risk beverages and convenient foods manufacturing facilities located within the California watershed. Prolonged drought conditions in the basin in 2021 and 2022 are expected to continue for a fourth year in a row. This will affect water availability for all water stakeholders, including our facilities. As a food and beverage company, good quality water is critical to our business and failure to procure it, will result in disruptions to our production capacity. As a key ingredient in our beverages and as a critical element to maintaining sanitary conditions throughout our operations, we need to be able to procure good quality freshwater. Further, as drought conditions worsen, the potential for significant regulatory changes that could result in reduced licenses to operate in the watershed increases. Should drought conditions force PepsiCo to close even one plant in the watershed, we could see financial impacts of over $148,000,000.

Timeframe

1-3 years

Magnitude of potential impact

High

Likelihood

Likely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

**Potential financial impact figure (currency)**

148,000,000

**Potential financial impact figure - minimum (currency)**

**Potential financial impact figure - maximum (currency)**

**Explanation of financial impact**

The potential financial impact estimate is based on a scenario whereby the sites located in this high water risk watershed could be forced to close due to lack of water, leaving stranded assets. This figure is based on the value of property, plant, and equipment for each facility in the greater California area.

**Primary response to risk**

Implement nature-based solutions

**Description of response**

PepsiCo’s response in these watersheds is to implement our global water strategy to strive for Net Water Positive impact in our manufacturing facilities and the communities where we operate - 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. Launched in 2021, pep+ (PepsiCo Positive) established a new set of 2030 goals, building on our already ambitious 2025 goals, and including the aim to become Net Water Positive by 2030. By 2025, we aim for company-owned facilities in high water risk locations to achieve 25% operational water use efficiency (versus a 2015 baseline) and adopt the Alliance for Water Stewardship standard as a vehicle for water advocacy. By 2030, we aim for these same sites to replenish more than 100% of the water used and achieve a “best-in-class” water efficiency standard, meaning 1.2 liters of water per liter of beverage production, or 0.4 liters of water per kilogram of food production. Third-party manufacturing sites are also included in PepsiCo’s 2030 goals and those in high water risk locations will replenish 100% of water used at the site back into the watershed and achieve the same “best-in-class” water efficiency standard. This addition through pep+ triples the number of manufacturing facilities in scope for PepsiCo’s water stewardship efforts. In partnership with TNC, we collaborate on conservation activities within the Colorado River basin as well as support irrigation efficiency improvements to reduce demand for water in this area. From 2020 - 2022, these efforts in Colorado alone replenished over 780 million liters of water back to the Colorado River basin. We are also a member of the California Water Action Collaborative along with about 30 other companies and NGOs committed to California’s shared water future. This collaboration provides a forum for us to better learn about and understand California’s water challenges, identify geographies and issues of shared interest, and collaborate to make measurable positive impacts on water security in the state. PepsiCo has participated in joint CWAC projects and in partnership with the Arbor Day Foundation along with partnerships with Ducks Unlimited and the Water
Replenishment District, over 3.7 billion liters of water were replenished in California watersheds.

Cost of response
4,398,000

Explanation of cost of response
We estimate response costs to be ‘low’, specifically we estimate them to be <1% of PepsiCo’s global revenue. We utilized the cost of response through our investment in currently active replenishment collaborations to estimate an approximate total annual cost of responses to these risks. These investments include support of four nonprofit partners to implement six projects in California and Colorado to improve the health of those local watersheds. We expect these costs to continue into the future.

W4.2a

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

Country/Area & River basin

  India
  Other, please specify
  Uttar Pradesh

Stage of value chain

  Supply chain

Type of risk & Primary risk driver

  Chronic physical
  Water scarcity

Primary potential impact

  Supply chain disruption

Company-specific description

  High water demand from rapid population growth coupled with lack of sanitation and wastewater treatment has caused Uttar Pradesh to be classified as one of the highest water demand areas in the world. As a key sourcing location for PepsiCo’s potatoes, Uttar Pradesh is responsible for over 70,000 MT of supply annually. In the event that yields are inversely impacted by water-related risks to the point of supply interruption, PepsiCo could see financial impact of approximately $10 million. This potential risk to our supply chain as well as our vision to better the state of water resources in the communities where we operate makes supplier engagement in Uttar Pradesh a priority for PepsiCo.

Timeframe

  More than 6 years
Magnitude of potential impact
   Medium-high

Likelihood
   Likely

Are you able to provide a potential financial impact figure?
   Yes, a single figure estimate

Potential financial impact figure (currency)
   10,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact
   This is a very high level calculation derived by multiplying the minimum quantity of goods sourced from the Uttar Pradesh region in 2022 by the average commodity price in India over the reporting year.

Primary response to risk
   Supplier engagement
   Promote the adoption of sustainable irrigation practices among suppliers

Description of response
   In line with our 2030 goal to spread the adoption of regenerative farming practices across 7 million acres and our goal to increase water-use efficiency by 15% in our high-water risk sourcing regions by 2025 (versus 2015 baseline) for direct-sourced ingredients, we have engaged with suppliers and global stakeholders in Uttar Pradesh to increase their agricultural yields while implementing regenerative agriculture practices to reduce water usage. Specifically, in 2022 we helped potato smallholder farmers move from flood irrigation to micro-irrigation methods through providing funds and training. Through our work, these smallholders have been able to reduce their water withdrawals by 40%.

   In tandem with supplier engagement, in late 2022, we conducted a basin diagnostic of Hathras district to further understand the key risk drivers within the basin. From this diagnostic, we learned water stress, water depletion, seasonal variability, groundwater table decline, and drought are key contributors to the high-water risk status of the Hathras District in Uttar Pradesh. As a result of this assessment, we evaluated opportunities for replenishment in this basin and plan to partner on and implement projects in 2023.

Cost of response
   120,000

Explanation of cost of response
The cost of response is the budget allocated for funding replenish projects in 2023 that were identified as a result of the basin diagnostic conducted on the Hathras District in 2022. PepsiCo investments in improving crop yields are proprietary. PepsiCo has a corporate Sustainable Agriculture team in place which is supported by agriculture experts in our business divisions in implementing sustainable agriculture practices at our key crop suppliers.

**W4.3**

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

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

**W4.3a**

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

---

**Type of opportunity**
- Other

**Primary water-related opportunity**
- Other, please specify
  - securing supply chain by replenishing more than 100% of the water we use in high water risk facilities

**Company-specific description & strategy to realize opportunity**

As a food and beverage company, good quality, freshwater is vital to our business, and is a key ingredient in many of our products. Replenishing the local watersheds that we withdraw water from needs to be a strategic opportunity for us because without good quality, freshwater, we don't have any production. If we need to close down one production site due to loss of license to operate in a watershed, we could see a financial impact of over $300 million in stranded assets alone. The aim of our water stewardship program is to improve water security for our supply chain and the communities in which we operate to mitigate local water insecurity and increase fresh water supply. This will in turn increase business resilience through protecting PepsiCo’s license to operate in the watershed, while also helping other local watershed stakeholders to maintain their basic human right to good quality, freshwater. As one example, part of our 2030 pep+ (PepsiCo Positive) strategy is to replenish more than 100% of the water we use in company-owned manufacturing operations located in high-water-risk areas, ensuring that such replenishment takes place in the same watershed where the extraction has occurred. Additionally, this strategy includes replenishing 100% of the water used in third party manufacturing operations located in high water risk areas back into upstream watershed where the extraction occurred. In 2022, we invested in initiatives across 15 countries, replenishing over 8.7B liters across company-owned, high water risk manufacturing locations. One example of these initiatives is In Monterrey, Mexico. In
2022, we invested in the TNC Water Fund to support conservation activities such as reforestation and soil conservation across 250 hectares of land in the “Cumbres de Monterrey” National Park. These activities are expected to improve the hydrological conditions of the area by reducing runoff and promoting infiltration to restore groundwater supply. These efforts delivered a volumetric benefit of 274 ML in 2022 and are expected to continue to provide benefits to the watershed for years to come.

Estimated timeframe for realization
More than 6 years

Magnitude of potential financial impact
Low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
8,150,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact
This financial impact is based on the actual investments we made in replenishment projects in 2022, which has increased nearly 6% as compared to the 2021 investment of $7,700,000.

Type of opportunity
Markets

Primary water-related opportunity
Improved community relations

Company-specific description & strategy to realize opportunity
Working collaboratively with the PepsiCo Foundation and other partners, our strategy is to provide access to safe water to a total of 100 million people by 2030 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 safe water; as these geographies are important to PepsiCo's business, we also have a desire to act as a responsible corporate citizen in the communities where we operate. 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 and more sustainable solutions to the global water crisis. Since 2006,
PepsiCo and the PepsiCo Foundation have partnered with several organizations to help over 80 million people - including 12 million people in 2022 alone - gain access to safe water through distribution, purification, and conservation programs in some of the planet’s most water-stressed regions such as India, Latin America and China. This has been supported by $53M in investments since 2006. One specific example is the work we have done in Pak Colony, Pakistan that was completed in 2022. Through support from the PepsiCo Foundation and WaterAid, a new water filtration plant in Pak Colony filters 50,000 gallons of water every day for over 100,000 residents, including three educational institutions. Now these children have plenty of clean and safe water to drink, and their teachers no longer worry about students dropping out or getting sick, hence focusing on their one mission in life: to seek knowledge and achieve their dreams.

**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)**
53,000,000

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

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

**Explanation of financial impact**
The financial impact disclosed is based on PepsiCo’s actual investment. Since 2006, PepsiCo and the PepsiCo Foundation have invested over $53 million in safe water access solutions with strategic collaborators as part of its goal to support a total of 100 million people with safe water access by 2030. Since 2006, over 80 million people have been reached.

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**Type of opportunity**
Resilience

**Primary water-related opportunity**
Increased supply chain resilience

**Company-specific description & strategy to realize opportunity**
PepsiCo produces a lot of products that rely heavily on agricultural commodities, such as potatoes and corn. As climate change continues and weather events, such as droughts, become more frequent, it is important that we are doing all that we can to improve crop resilience. Should any of our key sourcing regions experience large-scale
impacts due to weather, we could see substantial disruptions in our production schedules and our ability to put product on the shelf for our customers. Our strategy to increase our agricultural supply chain's resilience is to improve the water-use efficiency of our direct agricultural supply chain by 15% in high-water-risk sourcing areas by 2025 and to work with external partners to improve overall crop resiliency through better water management practices. We are doing this through engaging 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. We have worked on many crop resiliency projects with MRCC since 2018, but one example is the Iowa Regenerative Agriculture Cover Crop Program. This program began in 2018 and will extend through 2028, with the goal of increasing the adoption rate of regenerative agriculture practices in Iowa. The adoption of regenerative agriculture practices is proven to improve water quality and reduce the quantity of water needed. In 2021, as a result of this project, the Iowa Soybean Association reported a 33% improvement in water quality since the implementation of this project. By the end of 2021, PepsiCo invested $540,000 in MRCC for projects to improve supply chain resilience in one of PepsiCo's top agricultural sourcing regions.

Estimated timeframe for realization
4 to 6 years

Magnitude of potential financial impact
Low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
540,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

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

Type of opportunity
Other

Primary water-related opportunity
Other, please specify
Collective Action

Company-specific description & strategy to realize opportunity

Strategic relevance: our strategy is to advocate for strong water governance in communities and watersheds where we operate, promoting water solutions that meet local water needs, and to initiate and support collaborative efforts with other stakeholders to address water risk and mitigate water insecurity. Action taken: Our ability to achieve our goals is possible in part by collaborating with businesses, academic experts and NGOs. For example, we are actively involved in the UN Global Compact’s CEO Water Mandate, the WBCSD’s Water Leadership Group and the Beverage Industry Environmental Roundtable. These forums allow us to learn from other companies and share our own experiences across a spectrum of industries, including food and beverage manufacturing, power generation and construction. This also enables us to discuss water-related issues and advance solutions.

Estimated timeframe for realization
4 to 6 years

Magnitude of potential financial impact
Low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
60,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact
This is an estimate; our collective action efforts will, in most cases, align with our water stewardship efforts, whose costs have been estimated separately. One specific example here is our support of the CEO Water Mandate, the Beverage Industry Environmental Roundtable and the Alliance for Water Stewardship. PepsiCo has made total contributions to an amount of $60,000 to take part in these forums and collectively drive activities focused on water stewardship.

Type of opportunity
Efficiency

Primary water-related opportunity
Cost savings

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

Water efficiency is an opportunity for PepsiCo because it delivers cost savings to our operations through reductions in water abstraction costs, utilities costs as well as wastewater discharge compliance costs and chemical consumables.

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

Estimated timeframe for realization
4 to 6 years

Magnitude of potential financial impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
30,100,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact
The potential impact figure was determined from PepsiCo's actual investments in 2021. In 2021 PepsiCo spent over $30 million via its centrally-funded Capital Investments Sustainability fund for water use efficiency and upgrade projects. This has directly
resulted in reducing the water use at some of our high risk facilities where CAPEX projects have been implemented.

**W5. Facility-level water accounting**

**W5.1**

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

<table>
<thead>
<tr>
<th>Facility reference number</th>
<th>Facility 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility name (optional)</td>
<td></td>
</tr>
<tr>
<td>Country/Area &amp; River basin</td>
<td>United States of America</td>
</tr>
<tr>
<td></td>
<td>Sacramento River - San Joaquin River</td>
</tr>
<tr>
<td>Latitude</td>
<td>38.483212</td>
</tr>
<tr>
<td>Longitude</td>
<td>-121.398597</td>
</tr>
<tr>
<td>Located in area with water stress</td>
<td>Yes</td>
</tr>
<tr>
<td>Total water withdrawals at this facility (megaliters/year)</td>
<td>466</td>
</tr>
<tr>
<td>Comparison of total withdrawals with previous reporting year</td>
<td>Higher</td>
</tr>
<tr>
<td>Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes</td>
<td>0</td>
</tr>
<tr>
<td>Withdrawals from brackish surface water/seawater</td>
<td>0</td>
</tr>
<tr>
<td>Withdrawals from groundwater - renewable</td>
<td>0</td>
</tr>
<tr>
<td>Withdrawals from groundwater - non-renewable</td>
<td>0</td>
</tr>
</tbody>
</table>
Withdrawals from produced/entrained water
0

Withdrawals from third party sources
466

Total water discharges at this facility (megaliters/year)
158

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
309

Comparison of total consumption with previous reporting year
Higher

Please explain
Net consumption at this facility in 2022 was 8% higher than 2021 due to shifts in production. Other challenges include the move to sugar free formulations which tend to have more components and ingredients requiring more line cleaning between product runs. Another challenge included the in-sourcing of some previously outsourced stages in the process such as the sugar melt process, for productivity as well as business continuity reasons, this practice adds a new energy and water demand to the site demand. However, sustainability efforts and projects relating to on site efficiency projects continued during 2022.

Facility reference number
Facility 2

Facility name (optional)

Country/Area & River basin
United States of America
Sacramento River - San Joaquin River
Latitude
36.692868

Longitude
-119.769691

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
375

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
375

Total water discharges at this facility (megaliters/year)
142

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
142
Total water consumption at this facility (megaliters/year)
233

Comparison of total consumption with previous reporting year
About the same

Please explain
Net consumption at this facility was approximately 2% less in 2022 than the prior year, which corresponded with the same reduction in production output over the same period. Collective efficiency projects and resourcing allowed the site to reduce its absolute withdrawals by 4.5% in 2022 as the site aims for 2030 pep+ water efficiency goal delivery.

Facility reference number
Facility 3

Facility name (optional)

Country/Area & River basin
United States of America
Other, please specify
San Fran Bay / Greater CA

Latitude
37.612216

Longitude
-122.082406

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
274

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
Withdrawals from produced/entrained water
0

Withdrawals from third party sources
274

Total water discharges at this facility (megaliters/year)
103

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
103

Total water consumption at this facility (megaliters/year)
171

Comparison of total consumption with previous reporting year
About the same

Please explain
While this site increased in production output by ~2% over 2021 absolute withdrawals went up by 3% during the year. Some of the challenges on increased water demand include the move to sugar free formulations which tend to have more components and ingredients requiring more line cleanings between product runs. Another challenge included the in-sourcing of some previously outsourced stages in the process such as the sugar melt process, for productivity as well as business continuity reasons, this practice adds a new energy and water demand on the site demand. Sustainability efforts and projects relating to on site efficiency projects continued during 2022 as the site continues its efforts to deliver the PepsiCo positive (pep +) best in class ambition for water use efficiency.

Facility reference number
Facility 4

Facility name (optional)
Country/Area & River basin
United States of America
Other, please specify
San Fran Bay / Greater CA

Latitude
37.766187

Longitude
-122.202848

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
215

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
215

Total water discharges at this facility (megaliters/year)
90

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
Discharges to third party destinations
90

Total water consumption at this facility (megaliters/year)
126

Comparison of total consumption with previous reporting year
Lower

Please explain
The site continued to deliver on its ops water efficiency strategy and delivered strong performance in the year. This site recorded a 10% reduction in volume of product bottled, and a corresponding 10% reduction in withdrawal volume. The site will continue efforts to deliver the PepsiCo Positive best-in-class ambition for water use efficiency.

Facility reference number
Facility 5

Facility name (optional)

Country/Area & River basin
United States of America
Other, please specify
San Gabriel / Greater CA

Latitude
33.929963

Longitude
-117.297394

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
448

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0
Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
448

Total water discharges at this facility (megaliters/year)
124

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
124

Total water consumption at this facility (megaliters/year)
324

Comparison of total consumption with previous reporting year
Higher

Please explain
This site continues to be one of PepsiCo’s most efficient beverage operations, recording a 3% annual efficiency improvement in 2022. While it increased production output by 6.3% in the year, its absolute water withdrawals were less than half of this. The site is very proactive at identifying opportunities and sustaining progress.

Facility reference number
Facility 6

Facility name (optional)

Country/Area & River basin
United States of America
Sacramento River - San Joaquin River

**Latitude**
35.383414

**Longitude**
-119.238414

**Located in area with water stress**
Yes

**Total water withdrawals at this facility (megaliters/year)**
1,268

**Comparison of total withdrawals with previous reporting year**
Lower

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**
0

**Withdrawals from brackish surface water/seawater**
0

**Withdrawals from groundwater - renewable**
1,268

**Withdrawals from groundwater - non-renewable**
0

**Withdrawals from produced/entrained water**
0

**Withdrawals from third party sources**
0

**Total water discharges at this facility (megaliters/year)**
1,141

**Comparison of total discharges with previous reporting year**
Lower

**Discharges to fresh surface water**
0

**Discharges to brackish surface water/seawater**
0

**Discharges to groundwater**
1,141

**Discharges to third party destinations**
Total water consumption at this facility (megaliters/year)
127

Comparison of total consumption with previous reporting year
Lower

Please explain
This is a large water consumer site for PepsiCo and is also one of our most complex foods sites due to its geographic location, the age of the plant and the portfolio mix. Water use efficiency opportunities and investment plans have been identified since 2020 and have been piloted. During 2022, the site has doubled down on driving water efficiency at this site from on the line efficiency to installation of new water technology, e.g., Slice Wash Support Module 2.0 which allows for a more efficient potato slice washing operation innovation on site. This site was the 1st to pilot and install a full commercial application of this technology. The technology is now being scaled across our US foods operations from 2023. This site has improved its water usage efficiency rate by 7.9% in 1 year.

Facility reference number
Facility 7

Facility name (optional)

Country/Area & River basin
United States of America
Sacramento River - San Joaquin River

Latitude
37.6308

Longitude
-120.919063

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
796

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0
Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
789

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
717

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
717

Total water consumption at this facility (megaliters/year)
80

Comparison of total consumption with previous reporting year
About the same

Please explain
This is another important foods site for PepsiCo. Water withdrawals decreased by 2.3% over the prior year. Water use efficiency opportunities and improvements continue to be identified at this site and built into annual operating plans. In 2022, the site recorded a 5.4% water usage efficiency rate improvement over prior year. This is a priority high water risk site for our US convenient foods operations, and PepsiCo will be investing significant capital in order to deliver the 2030 best in class goal for the site.

Facility reference number
Facility 8
Facility name (optional)

Country/Area & River basin
United States of America
Other, please specify
San Gabriel / Santa Ana

Latitude
34.079394

Longitude
-117.591129

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
293

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
293

Total water discharges at this facility (megaliters/year)
264

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
Discharges to groundwater
0

Discharges to third party destinations
264

Total water consumption at this facility (megaliters/year)
29

Comparison of total consumption with previous reporting year
About the same

Please explain
This site recorded an ~5% increase in water withdrawals compared to 2021. A multimillion-dollar capital investment in wastewater reuse is being installed at this site during 2022 and expects to be operating early 2023. This project will incorporate membrane bioreactor design and Reverse Osmosis membranes to produce potable grade water for reuse within the potato and corn processing site. This project is expected to significantly reduce the site’s freshwater footprint during 2023.

Facility reference number
Facility 9

Facility name (optional)

Country/Area & River basin
Mexico
Other, please specify
Moctezuma Basin

Latitude
19.381861

Longitude
-99.220573

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
4.7

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
Withdrawals from brackish surface water/seawater
0
Withdrawals from groundwater - renewable
0
Withdrawals from groundwater - non-renewable
0
Withdrawals from produced/entrained water
0
Withdrawals from third party sources
4.7

Total water discharges at this facility (megaliters/year)
4.3

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
0
Discharges to brackish surface water/seawater
0
Discharges to groundwater
0
Discharges to third party destinations
4.3

Total water consumption at this facility (megaliters/year)
0.48

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain

-------------------------------------------------------------

Facility reference number
Facility 10

Facility name (optional)

Country/Area & River basin
Latitude
19.483789

Longitude
-99.157738

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
8.86

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
8.86

Total water discharges at this facility (megaliters/year)
7.98

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
Total water consumption at this facility (megaliters/year)
0.89

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain

Facility reference number
Facility 11

Facility name (optional)

Country/Area & River basin
Mexico
Other, please specify
Moctezuma Basin

Latitude
19.48391

Longitude
-99.157593

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
37.66

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
27.41

Withdrawals from groundwater - non-renewable
0
Withdrawals from produced/entrained water
0

Withdrawals from third party sources
10.25

Total water discharges at this facility (megaliters/year)
33.9

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
33.9

Total water consumption at this facility (megaliters/year)
3.77

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain

---

Facility reference number
Facility 12

Facility name (optional)

Country/Area & River basin
Mexico
Other, please specify
Moctezuma Basin

Latitude
19.484251

Longitude
-99.161801
Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
35.07

Comparison of total withdrawals with previous reporting year
This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0
Withdrawals from brackish surface water/seawater
0
Withdrawals from groundwater - renewable
0
Withdrawals from groundwater - non-renewable
0
Withdrawals from produced/entrained water
0
Withdrawals from third party sources
35.07

Total water discharges at this facility (megaliters/year)
31.57

Comparison of total discharges with previous reporting year
This is our first year of measurement

Discharges to fresh surface water
0
Discharges to brackish surface water/seawater
0
Discharges to groundwater
0
Discharges to third party destinations
31.57

Total water consumption at this facility (megaliters/year)
0.35

Comparison of total consumption with previous reporting year
This is our first year of measurement
Please explain

**W5.1a**

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

<table>
<thead>
<tr>
<th>Water withdrawals – total volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>% verified</td>
</tr>
<tr>
<td>76-100</td>
</tr>
</tbody>
</table>

**Verification standard used**

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

<table>
<thead>
<tr>
<th>Water withdrawals – volume by source</th>
</tr>
</thead>
<tbody>
<tr>
<td>% verified</td>
</tr>
<tr>
<td>76-100</td>
</tr>
</tbody>
</table>

**Verification standard used**

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

<table>
<thead>
<tr>
<th>Water withdrawals – quality by standard water quality parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>% verified</td>
</tr>
<tr>
<td>76-100</td>
</tr>
</tbody>
</table>

**Verification standard used**

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

<table>
<thead>
<tr>
<th>Water discharges – total volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>% verified</td>
</tr>
<tr>
<td>76-100</td>
</tr>
</tbody>
</table>

**Verification standard used**

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

<table>
<thead>
<tr>
<th>Water discharges – volume by destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>% verified</td>
</tr>
<tr>
<td>76-100</td>
</tr>
</tbody>
</table>
Verification standard used

Based on local regulatory authority standards

Water discharges – volume by final treatment level

| % verified | 76-100 |

Verification standard used

Based on local regulatory authority standards

Water discharges – quality by standard water quality parameters

| % verified | 76-100 |

Verification standard used

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

Water consumption – total volume

| % verified | Not verified |

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

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?
Yes, we have a documented water policy that is publicly available

W6.1a

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

<table>
<thead>
<tr>
<th>Scope</th>
<th>Content</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Company-wide</td>
<td>Description of business dependency on water</td>
</tr>
</tbody>
</table>
beverages company, PepsiCo is reliant on water in our products, supply chain and in the communities in which we operate. We believe that water is a fundamental human right and are acutely aware that climate change and other factors are placing a heightened burden on both water supply and quality. That is why it is our vision that wherever in the world PepsiCo operates, water resources will be in a better state because of our presence. To this end, in 2021, we announced a new, impact-driven ambition, including a set of 2030 goals aimed at becoming net water positive in our operations, enhancing watershed management in our agricultural supply chain and contributing to community water health. We also understand the importance of mitigating water insecurity on a broader level through advocacy and collective action. We are actively involved in the UN Global Compact’s CEO Water Mandate 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, while enabling us to discuss water-related issues and advance solutions.

W6.2

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

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.
Position of individual or committee | Responsibilities for water-related issues
---|---
Board-level committee | The Board plays an essential role in determining our strategic priorities and considers sustainability issues (e.g., water stewardship) as an integral part of its business oversight. To this end, the Board established a Sustainability, Diversity and Public Policy Committee (SDPPC) to assist the Board in providing more focused oversight of key sustainability, diversity, equity and inclusion and public policy matters. One of the primary responsibilities of the Committee is to review PepsiCo’s key sustainability programs and related goals and monitor the Company’s progress toward achieving those goals, including progress against its water goals. The SDPPC typically meets four times per year. An example of a Board Committee Decision is: 1) In 2022 to support the use of a shadow price model in partnership with our already active actual cost of water methodology in order to properly reflect true cost of water in our value chain. This decision will result in a pilot program in 2023.

Chief Executive Officer (CEO) | The PepsiCo Risk Committee (PRC), including PepsiCo’s Chairman and CEO, assists to identify, assess, prioritize, and address our top strategic, operating, and business risks. The PRC is also responsible for reporting progress on our risk mitigation efforts to the Board, including with respect to water-related risks. The PepsiCo Executive Committee (PEC) has direct oversight of the sustainability and water agenda, including strategic decisions and performance management. The PEC is made up of the Chairman & CEO, the CFO, sector CEOs and functional heads, ensuring that sustainability is a key accountability for every member of our senior leadership team. The PEC also signed off on our new PepsiCo Positive (pep+) 2030 water strategy which was publicly released in September 2021.

W6.2b

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

<table>
<thead>
<tr>
<th>Frequency that water-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which water-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Scheduled - some meetings</td>
<td>Monitoring implementation and performance Monitoring progress towards corporate targets Overseeing acquisitions, mergers, and divestitures</td>
</tr>
</tbody>
</table>
Overseeing and guiding public policy engagement
Overseeing major capital expenditures
Overseeing the setting of corporate targets
Overseeing value chain engagement
Providing employee incentives
Reviewing and guiding annual budgets
Reviewing and guiding business plans
Reviewing and guiding corporate responsibility strategy
Reviewing and guiding major plans of action
Reviewing and guiding risk management policies
Reviewing and guiding strategy
Reviewing innovation/R&D priorities
Setting performance objectives
Other, please specify
Operations and supply chain priorities

including progress against our respective water goals. The PepsiCo Risk Committee (PRC) is a cross-functional diverse group that meets regularly and is responsible for reporting progress on risk mitigation efforts to the Board. Agendas for these meetings include various governance mechanisms including reviewing PepsiCo's progress on water-related risks and risk mitigation strategy. The Risk Committee also reviews the potential impacts to agricultural commodity supplies and production disruptions due to water related risks that may impact PepsiCo's business. The Board receives regular updates on key risks throughout the year. Key risks related to water scarcity identified by the Company are included in our 2022 Annual Report on Form 10-K. At one level below the Board, the PepsiCo Executive Committee (PEC - made up of the Chairman & CEO, the CFO, sector CEOs and functional heads), meets quarterly to review progress against goals; progress against broader environmental risk mitigation (such as our efforts to mitigate the impacts of water stress/risk); and to ensure that we are adapting our sustainability strategy to changes in science, stakeholder expectations and marketplace conditions. In addition, the PepsiCo Sustainability Sub Committee of the PEC comprised of the CEO, the CFO and functional heads takes further responsibility for sustainability matters and meets every month to discuss strategy and progress.

W6.2d

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

<p>| Board member(s) have competence | Criteria used to assess competence of board member(s) on water-related issues |</p>
<table>
<thead>
<tr>
<th>Row</th>
<th>Yes</th>
</tr>
</thead>
</table>

| **Our Board has a comprehensive, ongoing director succession planning process designed to provide for a highly independent, well-qualified Board, with the diversity, experience and background to be effective and to provide strong oversight. Our Board regularly evaluates the needs of the Company and adds new attributes, viewpoints and experiences to the Board as necessary to best position the Company to navigate through a constantly changing global landscape. The Board established a Public Policy and Sustainability Committee in 2017. In 2020, the Board amended the Committee’s charter and changed its name to Sustainability, Diversity and Public Policy Committee to reflect the Committee’s ongoing oversight over diversity and inclusion matters. The Committee assists the Board in providing more focused oversight over PepsiCo’s policies and programs and related risks that concern key sustainability, diversity and inclusion and public policy matters. Members of this Committee provide the Board with unique perspectives on human capital management, talent development and diversity and inclusion and insights on public policy and sustainability-related matters that are particularly valuable as PepsiCo continues to focus on its sustainability goals and pursue strategies to drive long-term growth.** |

**W6.3**

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

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

Chief Sustainability Officer (CSO)

Water-related responsibilities of this position

- Assessing future trends in water demand
- Assessing water-related risks and opportunities
- Managing water-related risks and opportunities
- Setting water-related corporate targets
- Monitoring progress against water-related corporate targets
- Managing public policy engagement that may impact water security
- Managing value chain engagement on water-related issues
- Integrating water-related issues into business strategy
- Managing annual budgets relating to water security
- Managing major capital and/or operational expenditures related to low water impact products or services (including R&D)
- Managing water-related acquisitions, mergers, and divestitures
- Providing water-related employee incentives

Frequency of reporting to the board on water-related issues
More frequently than quarterly

Please explain

PepsiCo’s Chief Sustainability Officer is actively part of the Executive Committee Sustainability Subcommittee that was convened in 2019. The Subcommittee meets monthly to discuss water security topics including reviewing progress against and assessing/approving improvements to PepsiCo’s water strategy, integrating water-related issues into business strategy and assessing water-related risks/opportunities. An example includes launching our pep+ (PepsiCo Positive) agenda in September 2021 announcing our aim to become Net Water Positive by 2030, reduce absolute water use and replenish back into the local watershed more than 100% of the water used at company-owned and third-party sites in high-water-risk areas. Our CSO also sits on the PepsiCo Risk Committee, meeting regularly to identify, assess, prioritize, manage, monitor and communicate our top risks. The PRC is responsible for annual reporting of our risk assessment, mitigation plans and strategies and other efforts to the Board.

Name of the position(s) and/or committee(s)
Chief Executive Officer (CEO)

Water-related responsibilities of this position
Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Monitoring progress against water-related corporate targets

Frequency of reporting to the board on water-related issues
More frequently than quarterly

Please explain

In 2019, our CEO convened an Executive Committee Sustainability Subcommittee, which he chairs and comprises Executives including our Chief Sustainability Officer, who reports to the CEO. This has continued through 2022. The Subcommittee meets at least quarterly and water security topics addressed include reviewing progress against and assessing / approving improvements to PepsiCo’s water strategy. An example includes launch of our pep+ (PepsiCo Positive) agenda in September 2021 announcing our aim to become Net Water Positive by 2030, reduce absolute water use and replenish back into the local watershed more than 100% of the water used at company-owned and third-party sites in high-water-risk areas. Our CEO also sits on the PepsiCo Risk Committee, meeting regularly to identify, assess, prioritize, address, manage, monitor and communicate our top risks. The PRC is responsible for annual reporting of our risk assessment, mitigation plans and strategies and other efforts to the Board.

W6.4

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

<table>
<thead>
<tr>
<th>Row</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comment</td>
<td>Our executive officers have certain annual strategic objectives that are aligned with the achievement of our long-term sustainability agenda (including water goals), generally tailored to each executive’s role and scope of responsibilities. Performance against these objectives is evaluated for each executive officer, in conjunction with individual contributions to broader strategic business imperatives, impacting the payout of the annual incentive award.</td>
</tr>
</tbody>
</table>

W6.4a

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

<table>
<thead>
<tr>
<th>Role(s) entitled to incentive</th>
<th>Performance indicator</th>
<th>Contribution of incentives to the achievement of your organization’s water commitments</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monetary reward</td>
<td></td>
<td></td>
<td>As a result of embedding sustainability into our pay-for-performance policy, we have integrated sustainability and our pep+ (PepsiCo Positive) goals into the annual objectives and everyday work of our leadership team, which has trickled down to the daily work of their teams. In 2022, we reached total operational efficiency improvement of 22% in high water risk areas vs our 2015 baseline, approaching our goal of 25% by 2025. We replenished over 8.7 billion liters across company-owned, high water risk manufacturing locations, restoring watersheds across 15 countries. Additionally, we</td>
</tr>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>Reduction of water withdrawals – direct operations</td>
<td>Our executive officers, including our Chairman and CEO, our Chief Sustainability Officer and our Business Unit CEOs have annual strategic objectives that are aligned with the achievement of our pep+ (PepsiCo Positive) sustainability agenda, generally tailored to each executive’s role and scope of responsibilities. Performance against these objectives is evaluated for each executive, in conjunction with individual contributions to broader strategic business imperatives, impacting the payout of the annual incentive award. Some of our business unit managers, water</td>
<td></td>
</tr>
<tr>
<td>Chief Sustainability Officer (CSO)</td>
<td>Reduction in water consumption volumes – direct operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other C-suite Officer Business Unit CEOs</td>
<td>Reduction of water withdrawal and/or consumption volumes – supply chain</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Improvements in water efficiency – direct operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Improvements in water efficiency – supply chain</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased access to workplace WASH – direct operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased investment in water-related R&amp;D</td>
<td>Implementation of employee awareness campaign or training program on water-related issues</td>
<td>managers, and facility managers also have annual water efficiency performance targets that line up with our 25% water use efficiency 2025 goal. PepsiCo has a pay-for-performance philosophy, and the annual performance rating may impact annual merit increases, including bonus payouts. In addition, a wide range of complementary awards recognizes teams and associates for exceptional performance in sustainability, including projects that increase product water efficiency. As a result of these incentives, we have integrated sustainability and our PepsiCo Positive goals into the annual objectives and everyday work of PepsiCo employees. In 2022, we reached total operational efficiency improvement of 22% in high water risk areas vs our 2015 baseline, approaching our goal of 25% by 2025 and replenished over 8.7 billion liters across company-owned, high water risk manufacturing locations, restoring watersheds across 15 countries.</td>
<td>further embedded pep + into the daily lives of PepsiCo employees through funding and founding employee engagement groups, which provide employees with opportunities to learn more about the pep + agenda and integrate sustainability into their offices and teams.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Non-monetary reward</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?
   Yes, direct engagement with policy makers
   Yes, trade associations
   Yes, funding research organizations

W6.5a

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

PepsiCo's Public Policy and Government Affairs teams develop advocacy guidance, manage relationships with government actors, and coordinate activities that may influence regulatory policy globally. These teams work closely with the Office of Sustainability and other functions within the business to ensure that our external engagements are aligned with our overall water strategy. Per internal policy, prior to meetings with government officials for political purposes, PepsiCo employees are required to consult with their local Public Policy and Government Affairs. Our advocacy efforts focus on providing an enabling environment to meet our PepsiCo Positive water commitments and improve sustainable water management globally. We have identified priority markets for advocacy based on where our high water risk facilities are located in accordance with our PepsiCo Positive goals. Corporate Control reviews external communications for reasonableness and consistency with existing policies and commitments. Should an instance arise where public policy actions are inconsistent with our water policy/water commitments, appropriate action would need to be evaluated on a case by case basis.

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)
   2022-pepsico-annual-report.pdf

W7. Business strategy

W7.1

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

<table>
<thead>
<tr>
<th>Are water-related issues integrated?</th>
<th>Long-term time horizon (years)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term business objectives</td>
<td>Yes, water-related issues are integrated</td>
<td>&gt; 30</td>
</tr>
<tr>
<td>Strategy for achieving long-term objectives</td>
<td>Yes, water-related issues are integrated</td>
<td>&gt; 30</td>
</tr>
</tbody>
</table>
future, we build into our long-term strategy for that acquisition plans to maximize water-use efficiency in plant locations. Since those locations are long-term (over 30 years) assets to PepsiCo, our strategy is intended to help protect those assets from water-related risks for that time period.

Financial planning | Yes, water-related issues are integrated | > 30 |
--- | --- | --- |
Our sectors and business units incorporate water-related issues, including necessary investments in our operational water use efficiency, replenishment and Alliance for Water Stewardship adoption goals, into annual budgets. Our financial planning includes consideration of business growth and new water-related issues that might impact the business. Our Performance with Purpose strategy, launched in 2016, includes our positive water impact strategy and several 2025 goals. Our pep+ (PepsiCo Positive) agenda, launched in 2021, established a Net Water Positive goal which includes water use efficiency and water replenishment 2030 goals. Our financial planning to achieve our long-term business objectives extends well beyond 2025 and 2030. One example of this is our requirement for a water risk assessment of any merger and acquisition activity. If an acquisition is projected to experience water stress, we build plans to maximize water-use efficiency in plant locations into our long-term strategy. Since those locations are long-term (30+ years) assets to PepsiCo, our strategy is intended to help protect those assets from water-related risks for that time period. Further, PepsiCo issued its second Green Bond in July 2022, a 10-year, $1.25 billion senior notes offering. The net proceeds of which are being used to support our efforts in driving progress in sustainable plastics and packaging, decarbonization of our operations and supply chain and water sustainability initiative.

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

<table>
<thead>
<tr>
<th>Water-related CAPEX (+/- % change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
</tr>
</tbody>
</table>
Anticipated forward trend for CAPEX (+/- % change)  
16

Water-related OPEX (+/- % change)  
14

Anticipated forward trend for OPEX (+/- % change)  
16

Please explain  
Water-related CAPEX and OPEX was 14% higher in 2022 vs 2021. Additionally, we forecast a 16% increase in CAPEX and OPEX spend in 2023 compared to 2022. This increase is attributed to increased investments in water-use efficiency technologies to reach our goal of obtaining world class water efficiency at our high water risk operations by 2030. An example contributing to the above reported CAPEX is submetering. We invested in submetering automation for real time information of individual lines, ingredient water room upgrades, e.g., installing high efficiency recovery reverse osmosis systems. CAPEX and OPEX spend on water is prioritized to the most water stressed locations and approval is conditional on technical feasibility, material freshwater savings and replicability across our manufacturing network and other criteria. We aim to deliver on its 2025 and 2030 water goals by continuing to invest in technology and R&D in both process efficiency and water recovery/reuse opportunities.

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

<table>
<thead>
<tr>
<th>Use of scenario analysis</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1: Yes</td>
<td>Description of scope and method: PepsiCo completed its first climate-related scenario analysis in 2020. Our assessment covered our manufacturing footprint including all company owned plants, warehouses and distribution centers, offices and R&amp;D sites, key franchise and JV locations, as well as our entire agricultural supply chain. The assessment allows us to evaluate impacts to our business from physical and transition risks based on varying temperature scenarios (RCP 8.5 and RCP 4.5) and different time frames (by decadal period up to 2100). This helps us identify high risk areas to focus on and build resiliency plans. We selected the two scenarios of RCP 8.5 and RCP 4.5 as the two relevant and probable future climate scenarios relevant for informing our business strategies. The first scenario gives us a view of business as usual and very little limitation on emissions while the second one gives us a view of how regulations on emissions may play out in the future.</td>
</tr>
</tbody>
</table>
W7.3a

(7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.

<table>
<thead>
<tr>
<th>Type of scenario analysis used</th>
<th>Parameters, assumptions, analytical choices</th>
<th>Description of possible water-related outcomes</th>
<th>Influence on business strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>We analyzed two scenarios in our scenario analysis: RCP 8.5 and RCP 4.5. RCP 8.5 assumes that no major global effort to limit greenhouse gas emissions will go into effect. RCP 8.5 is characterized by increasing greenhouse gas emissions over time representative for scenarios in the literature leading to high greenhouse gas concentration levels. RCP 8.5 implies warming of 4.2-5.4 °C, and consequently high physical-related climate risks, including water risks. RCP 4.5 assumes coordinated action to limit greenhouse gas emissions to achieve a global temperature warming limit of approximately 2 degrees Celsius. It is a stabilization scenario where total radiative forcing is stabilized before 2100 by employment of a range of technologies and strategies for reducing greenhouse gas emissions. If the pledges and voluntary agreements of the Paris agreement were implemented in full, the implied warming is</td>
<td>Because freshwater is critical to our food and beverage manufacturing, the availability of freshwater is a main focus of our water risk scenario analysis. Drought risk and water stress are the main water-related outcomes in our analysis. Drought risk is measured as the annual probability of severe drought conditions (above the historical 90th percentile), as compared to the baseline period (1980-2000) at the particular location. Our analysis then calculates a widely-used drought index driven by the localized climate model data. Water stress is modeled using location-specific data from WRI Aqueduct’s 3.0. Baseline water stress indicator and the projected changes in water stress level are used in the modeling. The outcome of the scenario analysis and risk modeling procedures is a quantifiable understanding of the physical, reputational and regulatory risks facing our operations, which informs which sites are designated</td>
<td>The analysis provides directional focus which, allows us to tailor our approach depending on whether sites are characterized as high water risk or not. Our operational response is multi-faceted and includes implementing our Resource Conservation (ReCon) program at all PepsiCo-owned facilities, which aims to improve water use efficiency in our manufacturing sites through new technologies and practices as well as best practice sharing globally. Our goal is to improve water use efficiency in high water risk facilities by 25% over a 2015 baseline by 2025 and achieve “best in class” water use efficiency by 2030. “Best in class” is defined as 1.2 liters of water for per liter of beverage production and 0.4 liters of water per kg of food production. For sites not characterized as high-water risk, our goal is to achieve “world-class” water use efficiency by 2030. This is defined as 1.4 liters of water per liter</td>
</tr>
</tbody>
</table>
approximately 3.0 degrees Celsius. RCP 4.5 therefore implies warming of 1.7-3.2°C. We also considered risks over time. The analysis we conducted allows us to view risks and opportunities in financial terms by decade starting with the current decade we’re in going all the way to 2100. It was important for our business to understand short-term risks while taking a pulse of long-term risks. Short-term or current decadal period risks are important for planning purposes and for internal stakeholders to act upon.

as high water risk. As a result of this process, at the end of 2022, there were 107 PepsiCo-owned sites in high water risk locations. While our pep+ goals enable us to employ water stewardship principles across our entire value chain, this information allows us to focus our efforts and resources where it matters most.

of beverage production and 4.4 liters of water per kg of food production. In watersheds where high-risk facilities are located, we aim to replenish over 100% of the water we use by 2030. We are also adopting the Alliance for Water Stewardship (AWS) Standard at our high-water risk sites, which will serve as a vehicle for advocacy to ensure freshwater resources in high water risk locations are available for all water stakeholders. Finally, within our supply chain, we aim to improve agricultural water use efficiency in high water risk areas by 15% by 2025 over a 2015 baseline.

W7.4

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

Row 1

Does your company use an internal price on water?
Yes

Please explain

PepsiCo recognizes and integrates the social and environmental costs and benefits of water through our pep+ (PepsiCo Positive) water goals. PepsiCo manufacturing operations use a water cost model which includes the water-related costs that are usually ‘hidden’ such as energy, maintenance, or chemical costs. This tool can be utilized by any type of facility and includes incoming water costs, incoming water treatment costs, chemical costs, non-returned condensate costs, water transportation costs, wastewater discharge costs and water related maintenance costs. Use of this model results in a total ‘actual’ cost summary of water. Additionally, in late-2022, the Board ratified use of a shadow price of water model that was developed with the help of an external consultant. Our goal is to combine use of both the water cost model and the shadow price model to achieve true cost of water at all PepsiCo manufacturing operations. Plans have been implemented to pilot this approach in 2023.
W7.5

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

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

W8. Targets

W8.1

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

Yes
W8.1a

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

<table>
<thead>
<tr>
<th>Category of target</th>
<th>Target set in this category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water pollution</td>
<td>Yes</td>
</tr>
<tr>
<td>Water withdrawals</td>
<td>Yes</td>
</tr>
<tr>
<td>Water, Sanitation, and Hygiene (WASH) services</td>
<td>Yes</td>
</tr>
<tr>
<td>Other</td>
<td>Yes</td>
</tr>
</tbody>
</table>

W8.1b

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

---

**Target reference number**
- Target 1

**Category of target**
- Water use efficiency

**Target coverage**
- Company-wide (direct operations only)

**Quantitative metric**
- Increase in water use met through recycling/reuse

**Year target was set**
- 2021

**Base year**
- 2021

**Base year figure**
- 2.4

**Target year**
- 2030

**Target year figure**
- 0.4

**Reporting year figure**
- 2.4

**% of target achieved relative to base year**
- 0
Target status in reporting year
New

Please explain
This target is part of our larger water-use efficiency goals for 2030. PepsiCo Positive (pep+), launched in 2021, is our strategic end to end transformation with sustainability at the center of how PepsiCo will create growth and value by operating within planetary boundaries and inspire positive change for the planet and people. pep+ encompasses Positive Agriculture, Positive Value Chain and Positive Choices. As part of our Positive Value Chain goals, PepsiCo's ambition is to become net water positive. To achieve this, our goal is to achieve best in class water-use efficiency at all high-water risk, company-owned manufacturing facilities by 2030. Best in class for foods production is defined as 0.4 liters of water per kilogram of food produced. In 2022, our high water-risk foods production metric measured at 2.4L/Kg which was unchanged from 2021 despite a shift of 7 new foods sites into high water risk classification. These sites were added to the high water-risk list due to climate change challenges and increased pressure on global water systems. Our approach to improving operational water-use efficiency is multi-faceted and aims to capture efficiencies through initiatives such as our Resource Conservation (ReCon) program, which identifies and shares operational efficiency best practices across our locations globally. We are also developing low water footprint manufacturing processes and investing in world-class technology, such as membrane technology, that allow us to safely reuse water within our manufacturing processes.

-----------------------------------------------
Target reference number
Target 2

Category of target
Water use efficiency

Target coverage
Company-wide (direct operations only)

Quantitative metric
Increase in water use met through recycling/reuse

Year target was set
2021

Base year
2021

Base year figure
1.8

Target year
2030

Target year figure
1.2

**Reporting year figure**

1.7

**% of target achieved relative to base year**

16.6666666667

**Target status in reporting year**

New

**Please explain**

This target is part of our larger water-use efficiency goals for 2030. As part of our Positive Value Chain goals, PepsiCo's ambition is to become net water positive, replenishing more water than we use at high water risk locations. To achieve this, our goal is to achieve best in class water-use efficiency at all high-water risk, company-owned manufacturing facilities by 2030. Best in class for beverage production is defined as 1.2 liters of water per liter of beverage produced. In 2022 our high-water risk beverage production metric measured was 1.7L/L which translates to a 5.5% improvement over 2021 performance. This improvement is due to increased water efficiency investments and implementation of best practices. Our approach to improving operational water-use efficiency is multi-faceted and aims to capture efficiencies through initiatives such as our Resource Conservation (ReCon) program which identifies and shares operational efficiency best practices across our locations globally. We are also developing low water footprint manufacturing processes and investing in world-class technology, such as membrane technology, that allow us to safely reuse water within our manufacturing processes.

**Target reference number**

Target 3

**Category of target**

Water use efficiency

**Target coverage**

Company-wide (direct operations only)

**Quantitative metric**

Increase in water use met through recycling/reuse

**Year target was set**

2021

**Base year**

2021

**Base year figure**

5
Target year
2030

Target year figure
4.4

Reporting year figure
5.3

% of target achieved relative to base year
-50

Target status in reporting year
New

Please explain
This target is part of our larger water-use efficiency goals for 2030. As part of our positive value chain goals PepsiCo's ambition is to become net water positive, replenishing more water than we use at high water risk locations. To achieve this, our goal is to achieve world class water-use efficiency at all non-high water risk, company-owned manufacturing facilities by 2030. World class water-use is defined as 4.4 liters of water per kilogram of food production. In 2022, our non-high water risk foods metric measured was 5.3 L/Kg, which was a slightly higher than prior year performance. The reason for this was a global reduction in production output at non-high water risk foods sites of 8% coupled with an absolute water reduction of 4% for the same locations. Unfortunately, this water reduction was not enough to compensate for the reduction in production. Looking forward we can see that our investment in water-use efficiency in non-high water risk location is having an impact on absolute water use, and we aim to hit our 2030 pep+ targets. Our approach to improving operational water-use efficiency is multi-faceted and aims to capture efficiencies through initiatives such as our Resource Conservation (ReCon) program which identifies and shares operational efficiency best practices across our locations globally. We are also developing low water footprint manufacturing processes and investing in world-class technology, such as membrane technology, that allow us to safely reuse water within our manufacturing processes.

Target reference number
Target 4

Category of target
Water use efficiency

Target coverage
Company-wide (direct operations only)

Quantitative metric
Increase in water use met through recycling/reuse

Year target was set

---
2021

**Base year**

2021

**Base year figure**

1.8

**Target year**

2030

**Target year figure**

1.4

**Reporting year figure**

1.7

**% of target achieved relative to base year**

25

**Target status in reporting year**

New

**Please explain**

This target is part of our larger water-use efficiency goals for 2030. As part of our positive value chain goals PepsiCo's ambition is to become net water positive, replenishing more water than we use at high water risk locations. To achieve this, our goal is to achieve world class water-use efficiency at all non-high-water risk, company owned manufacturing facilities by 2030. World class water-use efficiency is defined as 1.4 liters of water per liter of beverage production. In 2022, our non-high-water risk beverages metric measured was 1.7L/L, which represents a 5.5% improvement over prior year's performance. This improvement is due to increased implementation of water efficiency practices and significant investment. At PepsiCo, we recognize that climate change and other factors are placing a heightened burden on both water supply and water quality. As one of the first companies of our size to acknowledge water as a human right, we have a vision to reduce our freshwater footprint and become net water positive. Our approach to improving operational water-use efficiency is multi-faceted and aims to capture efficiencies through initiatives such as our Resource Conservation (ReCon) program which identifies and shares operational efficiency best practices across our locations globally. We are also developing low water footprint manufacturing processes and investing in world-class technology, such as membrane technology, that allow us to safely reuse water within our manufacturing processes.

**Target reference number**

Target 5

**Category of target**

Watershed remediation and habitat restoration, ecosystem preservation
Target coverage
Company-wide (direct operations only)

Quantitative metric
Other, please specify
Percent replenished

Year target was set
2015

Base year
2022

Base year figure
0

Target year
2025

Target year figure
16,861,440,670

Reporting year figure
8,747,062,097

% of target achieved relative to base year
51.8761253453

Target status in reporting year
Underway

Please explain
Replenishment progress is calculated with current year water use and current year replenishment volumetric benefit. It is not compared against a baseline year’s water use. It is for this reason that we have listed the baseline year as 2022 and report ‘base year figure’ as zero and ‘target year figure’ as the 2022 water use volume. This approach will achieve the correct calculation of 52% for our progress to goal, or ‘% of target achieved’, which is auto-calculated. We aim to replenish 100% of the water we use in company-owned manufacturing operations in high water-risk areas by 2025, ensuring that such replenishment takes place in the local watershed where the extraction has occurred. To achieve this goal, we are working with partners to deploy a range of initiatives that restore the health of high-risk watersheds. For example, we have partnered with The Nature Conservancy in South Africa to implement a project to remove invasive plant species from an aquifer’s primary recharge zone, reducing the amount of the ecosystem’s water used by invasive plant life and increasing water security. In 2022, we replenished over 8.7 billion liters of water across 15 countries in projects in places including South Africa, Dominican Republic, Guatemala, India, Pakistan, Peru, Belgium, Mexico, and the US. This is calculated based on current year high water risk manufacturing operations water use within each local watershed as compared to the replenishment project volumetric benefit in each watershed. Globally, we have met 52%
of our 2025 target, an increase of over 50% as compared to progress made in 2021 towards that same target. This percentage excludes additional company-owned high water-risk facilities identified during an updated water risk assessment in 2022, which facilities are not included for purposes of measuring progress against our 2025 goal.

---

**Target reference number**
Target 6

**Category of target**
Water, Sanitation and Hygiene (WASH) services

**Target coverage**
Other, please specify
Communities where PepsiCo operates

**Quantitative metric**
Increase in the proportion of local population using safely managed drinking water services around our facilities and operations

**Year target was set**
2021

**Base year**
2010

**Base year figure**
56,200

**Target year**
2030

**Target year figure**
100,000,000

**Reporting year figure**
80,000,000

**% of target achieved relative to base year**
79.9887536796

**Target status in reporting year**
Underway

**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, PepsiCo and the PepsiCo Foundation have partnered with several organizations to help over 80 million people - including 12 million people in 2022 alone - gain access to safe water through distribution, purification, and conservation programs
in some of the planet’s most water-stressed regions such as India, Latin America and China. After reaching our original 2025 safe water access goal early and almost doubling our target of reaching 25 million people by 2025, PepsiCo set an ambitious new target: helping to expand safe water access to 100 million people by 2030. One specific example is in Pak Colony, Pakistan. Through support from the PepsiCo Foundation and WaterAid, a new water filtration plant in Pak Colony filters 50,000 gallons of water every day for over 100,000 residents, including three educational institutions. Now these children have plenty of clean and safe water to drink, and their teachers no longer worry about students dropping out or getting sick, hence focusing on their one mission in life: to seek knowledge and achieve their dreams.

---

**Target reference number**
Target 7

**Category of target**
Other, please specify
Agricultural water use efficiency

**Target coverage**
Company-wide (direct operations only)

**Quantitative metric**
Other, please specify
percent water use efficiency improvement

**Year target was set**
2015

**Base year**
2015

**Base year figure**
190,000

**Target year**
2025

**Target year figure**
161,000

**Reporting year figure**
162,800

**% of target achieved relative to base year**
93.7931034483

**Target status in reporting year**
Underway
Please explain

Our goal is to improve the water-use efficiency of our direct agricultural supply chain by 15% in high-water-risk sourcing areas by 2025. We are supplying farmers with more efficient irrigation equipment, enabling them to move from flood to drip irrigation. This conversion, in turn, changes the way farmers apply nutrients, improving soil health, yields and crop quality. We are also increasingly promoting the use of cover crops, which improves soil moisture. We have gathered baseline data from countries where we have direct crops in water-stressed regions and are focusing on establishing required processes and developing tailored roadmaps. For each farmer group, we have calculated their baseline water opportunity and are identifying local goals and implementation plans. In 2020, we improved agriculture water-use efficiency by 14% across our agricultural supply chain (focused on corn and potatoes) in high water-risk areas, making progress that represents achieving 93% of our goal of a 15% reduction by 2025. This is measured every three years, so this number has not changed for 2022.

Target reference number

Target 8

Category of target

Water pollution

Target coverage

Company-wide (direct operations only)

Quantitative metric

Increase in proportion of wastewater that is safely treated

Year target was set

2017

Base year

2017

Base year figure

94

Target year

2025

Target year figure

100

Reporting year figure

99

% of target achieved relative to base year

83.3333333333

Target status in reporting year
Underway

Please explain

The provided base year, reporting year and target year figures represent the percentage of wastewater from our operations that met PepsiCo's high standards for protection of the environment in that year. Our base year figure of 94% was calculated by dividing the volume of liters compliant with PepsiCo's high standards for protection of the environment (45,400,000,000 liters) by the total wastewater volume in that year (48,300,000,000 liters). Similarly, the reporting year figure of 99% was calculated by dividing the volume of liters compliant (49,162,000,000 liters) by the total wastewater volume in that year (49,612,000,000 liters). Due to the fact that our wastewater treatment goal is rolling and dependent on the volume of wastewater produced in that given year, were we to provide absolute volumes instead of percentages, our progress to our goal would not be accurately depicted by the auto-calculated "% of target achieved" figure above. Further, it is important to note that all of PepsiCo's operations wastewater is safely treated. The above target is to ensure that 100% of wastewater from our operations meets PepsiCo's high standards for protection of the environment. PepsiCo's Global Environment, Health and Safety Management System (GEHSMS) is a set of management and technical standards that provide guidance on acceptable operating parameters for our operations. The GEHSMS Discharge of Wastewater Standard formalizes the expectation that wastewater discharged from company-owned and operated facilities will: meet applicable regulatory discharge standards and other requirements, meet minimum PepsiCo discharge standards, and maintain an effluent quality that does not cause degradation of local water quality. PepsiCo maintains the standard that while compliance with local standards is necessary, it is sometimes not enough. In such cases, we require our operations to meet PepsiCo’s more stringent discharge limits.

W9. Verification

W9.1

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

Yes

W9.1a

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

<table>
<thead>
<tr>
<th>Disclosure module</th>
<th>Data verified</th>
<th>Verification standard</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1 Current state</td>
<td>Water withdrawals</td>
<td>ISAE 3000</td>
<td>An external process led by auditors, Apex (formerly Bureau Veritas) on data verification/assurance has been established and has been running in PepsiCo for many years. This is part of our Sustainability Data</td>
</tr>
</tbody>
</table>
(volume and quality) | Governance methodology and is documented. Assurance followed guidelines for external Assurance of Sustainability Reports and International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after Dec. 15, 2015), issued by the International Auditing and Assurance Standards Board. A materiality threshold of ±5-percent was set for the assurance process.

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

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

**W10. Plastics**

**W10.1**

(W10.1) Have you mapped where in your value chain plastics are used and/or produced?
Plastics mapping | Please explain
---|---
Row 1 | Not mapped – but we plan to within the next two years

We have mapped where our products are used, per sales data. We also have visibility into Tier 1 supplier mapping. We do not have full visibility to mapping our full upstream value chain, beyond Tier 1 suppliers, at a global level.

**W10.2**

(W10.2) Across your value chain, have you assessed the potential environmental and human health impacts of your use and/or production of plastics?

<table>
<thead>
<tr>
<th>Impact assessment</th>
<th>Value chain stage</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Yes</td>
<td>Product use phase</td>
</tr>
</tbody>
</table>

PepsiCo maintains strict safety & quality standards for our products. We are focused on working across the value chain to design our packaging for recycling and to improve waste management systems to help avoid packaging ending up in the environment. Our suppliers meet strict health and safety standards in accordance to national law to ensure our packaging does not pose a health risk during consumption.

**W10.3**

(W10.3) Across your value chain, are you exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on your business? If so, provide details.

<table>
<thead>
<tr>
<th>Risk exposure</th>
<th>Value chain stage</th>
<th>Type of risk</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| Row 1 | Yes | Direct operations Supply chain Product use phase | Regulatory Risk [Financial Risk] Potential legal and legislative fees, such as EPR fees (sometimes in the shape of taxes), fees related to MRC laws, and Deposit Return Systems (DRS) related costs are likely to increase. Risk of bans on certain materials or limitations to the use of certain materials that may also result in additional costs, e.g., from sales loss, substitution or having to procure materials at higher premiums. Laws and regulations related to the use or disposal of plastics or other packaging materials can adversely affect our business and financial performance. These laws and regulations have in the past and could continue to increase the cost of our products, impact demand for our products, result in negative publicity and require us and our business partners, including our independent bottlers, to

<table>
<thead>
<tr>
<th>Risk exposure</th>
<th>Value chain stage</th>
<th>Type of risk</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| Row 1 | Yes | Direct operations Supply chain Product use phase | Regulatory Risk [Financial Risk] Potential legal and legislative fees, such as EPR fees (sometimes in the shape of taxes), fees related to MRC laws, and Deposit Return Systems (DRS) related costs are likely to increase. Risk of bans on certain materials or limitations to the use of certain materials that may also result in additional costs, e.g., from sales loss, substitution or having to procure materials at higher premiums. Laws and regulations related to the use or disposal of plastics or other packaging materials can adversely affect our business and financial performance. These laws and regulations have in the past and could continue to increase the cost of our products, impact demand for our products, result in negative publicity and require us and our business partners, including our independent bottlers, to
increase capital expenditures to invest in reducing the amount of virgin plastic or other materials used in our packaging, to develop alternative packaging or to revise product labeling, all of which can adversely affect our business and financial performance. Where laws and regulations support increased collection and recycling rates, enable the use of recycled content in food-grade packaging, or contribute to the scaling of reuse solutions, PepsiCo actively advocates for and promotes improved recycling, composting and collection infrastructure and regulatory reform.

[Strategic Risk] The use of advanced recycling technology for our food and beverage packaging, aimed at increasing food-grade recycled content, is facing heightened scrutiny from external stakeholders

Reputational Risk [Financial risk] Reputational concerns with branded packaging waste leading to sales loss Other Risk [Financial Risk] Increased global financial stress, due to inflationary pressures causing price increases in the packaging supply chain.

W10.4

(W10.4) Do you have plastics-related targets, and if so what type?

<table>
<thead>
<tr>
<th>Targets in place</th>
<th>Target type</th>
<th>Target metric</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Yes</td>
<td>Plastic packaging Waste management</td>
<td>We recognize and share the concern that packaging, when disposed of incorrectly after a product has been consumed, may end up as waste in the marine environment or on land. Our vision is A World Where Packaging Never Becomes Waste. As we pursue it, we are working on a broad set of initiatives to introduce more sustainable packaging; develop appropriate end-of-life solutions; improve the carbon footprint of our packaging, as well as other environmental impacts; and strive for protection of human rights especially in the informal recycling sector. We are working to design 100% of our packaging to be recyclable, compostable, biodegradable, or reusable by 2025. Additionally, by 2030 we aim to cut virgin plastic from non-renewable sources per serving across our global beverages and convenient foods portfolio by 50%. We seek to achieve this in the following</td>
</tr>
</tbody>
</table>
### Increase the proportion of plastic packaging that is recyclable in practice and at scale
- Increase the proportion of plastic packaging that is reusable
- Increase the proportion of plastic packaging that is compostable
- Increase the proportion of recyclable plastic waste that is collected, sorted, and recycled in the community

Ways:
- Scaling new business models that avoid or minimize single-use packaging materials (e.g., models that reuse, refill, prepare at home, utilize concentrates like powders, drops, etc.)
- Delivering 20% of all beverage servings sold through reusable models.
- Reducing our absolute tonnage of virgin plastic from non-renewable sources by 20%, by using market-leading bio-based and renewable materials and 50% recycled content in our plastic packaging.
- Developing and deploying disruptive sustainable packaging materials and new models for convenient foods and beverages (e.g. SodaStream, powders, bio-based materials, reusable or low/no package models).

### W10.5

(W10.5) Indicate whether your organization engages in the following activities.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Activity applies</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production of plastic polymers</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Production of durable plastic components</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Production / commercialization of durable plastic goods (including mixed materials)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Production / commercialization of plastic packaging</td>
<td>Yes</td>
<td>Packaging plays an essential role in safely delivering our products to customers and consumers. At PepsiCo, we design our packaging materials to balance several critical criteria, including compliance with food safety regulations, maintaining freshness and quality of the product, environmental sustainability, affordability and consumer preferences, including convenience.</td>
</tr>
<tr>
<td>Production of goods packaged in plastics</td>
<td>Yes</td>
<td>Packaging plays an essential role in safely delivering our products to customers and consumers. At PepsiCo, we design our packaging materials to balance several critical</td>
</tr>
</tbody>
</table>
criteria, including compliance with food safety regulations, maintaining freshness and quality of the product, environmental sustainability, affordability and consumer preferences, including convenience.

| Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services) | No |

### W10.8

(W10.8) Provide the total weight of plastic packaging sold and/or used, and indicate the raw material content.

<table>
<thead>
<tr>
<th>Plastic packaging sold sold</th>
<th>Total weight of plastic packaging sold / used during the reporting year (Metric tonnes)</th>
<th>Raw material content percentages available to report</th>
<th>% virgin fossil-based content</th>
<th>% virgin renewable content</th>
<th>% post-consumer recycled content</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| Plastic packaging sold     | 2,600,030                                                                       | % virgin fossil-based content                     | 93                           | 0                         | 7                             | In 2022:  
  - PepsiCo Europe announced that brands including Walkers, Doritos and Lay's will transition to 100% recycled or renewable plastic by 2030.  
  - PepsiCo used 7% recycled plastic in its plastic packaging globally, supported by 23% recycled content in Europe and 11% in North America  
  - We transitioned several brands to 100% rPET across 22 global markets  
  - We launched multiple brands, including Aquafina and Pepsi in rPET |
across six AMESA markets (South Africa, Bangladesh, Pakistan, Egypt, Kuwait and Qatar) and plan to expand efforts in 2023.
- In 2021 and 2022, PepsiCo APAC launched 100% rPET beverage products in Australia, New Zealand and Vietnam.
- In 13 European markets, Pepsi-branded products switched to 100% rPET bottles.
- In the U.S., we sell LIFEWTR in 100% rPET bottles and as of 2022, have begun to convert all 20oz bottles of Pepsi, including Pepsi Zero Sugar to 100% recycled PET (we plan to convert all Pepsi-branded products in the U.S. to 100% rPET bottles by 2030)

<table>
<thead>
<tr>
<th>Plastic packaging used</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

W10.8a

(W10.8a) Indicate the circularity potential of the plastic packaging you sold and/or used.

<table>
<thead>
<tr>
<th>Percentages available to report for circularity potential</th>
<th>% of plastic packaging that is reusable</th>
<th>% of plastic packaging that is technically recyclable</th>
<th>% of plastic packaging that is recyclable</th>
<th>Please explain</th>
</tr>
</thead>
</table>

149
<table>
<thead>
<tr>
<th>Plastic packaging sold</th>
<th>% reusable</th>
<th>% technically recyclable</th>
<th>% recyclable in practice and at scale in practice at scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>90</td>
<td>88</td>
</tr>
</tbody>
</table>

% technically recyclable - We are reinventing our packaging materials and solutions to be recyclable, compostable, biodegradable, or reusable by design. We have launched Off The Eaten Path commercially compostable chip bags that can be mailed back and composted through TerraCycle. % recyclable in practice and at scale - We are supporting the development of collection, sortation and recycling infrastructure and are working to help increase consumer education and acceptance. Some challenges remain, such as lack of sufficient collection, sortation and waste management infrastructure and policies to support a more circular plastics supply chain through recycling, composting and reuse. % Reuse is based on a per serving metric. Our total beverage servings account for all beverage sales volume. Reusable servings at customers requiring third-party data are not currently included. 2022 is our baseline year and we expect to be able to report progress against our reusable packaging goal in 2024.
W11. Sign off

W-FI

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

W11.1

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

<table>
<thead>
<tr>
<th>Job title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>Chief Executive Officer (CEO)</td>
</tr>
</tbody>
</table>

SW. Supply chain module

SW0.1

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

<table>
<thead>
<tr>
<th>Annual revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>86,392,000,000</td>
</tr>
</tbody>
</table>

SW1.1

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

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

SW1.2

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

<table>
<thead>
<tr>
<th>Are you able to provide geolocation data for your facilities?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, for some facilities</td>
<td></td>
</tr>
</tbody>
</table>

SW1.2a

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

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>38.483212</td>
<td>-121.398597</td>
<td>As reported in W5.1</td>
</tr>
<tr>
<td>2</td>
<td>36.692868</td>
<td>-119.769691</td>
<td>As reported in W5.1</td>
</tr>
</tbody>
</table>
3 37.612216 -122.082406 As reported in W5.1
4 37.766187 -122.202848 As reported in W5.1
5 33.929963 -117.297394 As reported in W5.1
6 35.383414 -119.238414 As reported in W5.1
7 37.6308 -120.919063 As reported in W5.1
8 34.079394 -117.591129 As reported in W5.1
9 19.381861 -99.220573 As reported in W5.1
10 19.483789 -99.157738 As reported in W5.1
11 19.48391 -99.157593 As reported in W5.1
12 19.484251 -99.161801 As reported in W5.1

**SW2.1**

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

---

**Requesting member**
Wal Mart de Mexico

**Category of project**
Promote river basin collective action

**Type of project**
Invite customer to collaborate with other users in their river basins to reduce impact

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

**Estimated timeframe for achieving project**
2 to 3 years

**Details of project**
In 2016, PepsiCo and The Nature Conservancy announced a new collaboration for water replenishment in Latin America with a commitment to invest $3 million in the next seven years and impact five watersheds in Mexico, Brazil, Guatemala and Colombia. Since then, the partnership has expanded to Argentina, the Dominican Republic and Peru. PepsiCo is supporting Water Funds in these geographies, collaborative efforts that bring together a wide range of stakeholders and partners.

**Projected outcome**
Based on PepsiCo's operational footprint in these geographies, we have set Water Fund-specific targets on outcomes such as replenishment and hectares of land.
restored. PepsiCo's support rolls up into the broader Water Funds' collective action efforts to improve water security within the watersheds.

**SW2.2**

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?
- No

**SW3.1**

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

Submit your response

In which language are you submitting your response?
- English

Please confirm how your response should be handled by CDP

<table>
<thead>
<tr>
<th>Please select your submission options</th>
<th>I understand that my response will be shared with all requesting stakeholders</th>
<th>Response permission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Public</td>
</tr>
</tbody>
</table>

Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.
- No

Please confirm below
- I have read and accept the applicable Terms