W0. Introduction

W0.1

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

At Johnson Controls, headquartered in Cork, Ireland, sustainability is at the heart of our business and fundamental to everything we do. The dedication of our global team of 100,000+ employees, stewards of their communities in more than 150 countries, enables us to achieve our sustainability goals and deliver innovative, sustainable solutions for our customers.

The launch of Johnson Controls' OpenBlue Net Zero Buildings provides a one-stop shop for customers looking to achieve water conservation and carbon reduction. With features such as remote monitoring and predictive maintenance, OpenBlue solutions enable customers to achieve their sustainability strategy and goals that can drive significant improvement in water reduction energy efficiency. This business transformation set forth a strategy to position Johnson Controls as a leader in decarbonization and water stewardship by enhancing our services and digital capabilities both internally and externally.

Within our own operations, we committed to achieving 10% water reduction in water-stressed locations by 2025 vs. a 2017 baseline. In 2022, we exceeded this goal with a 12% reduction. The reduction goal for water stressed locations is specific to a set of 23 locations under the guidance of the WRI Aqueduct 3.0 tool. In March 2022, our team launched a focused, global effort to reduce water consumption at our updated list of water-stressed locations globally. Starting with our facilities in Mexico, our team is designing a global program for water reduction, reuse and recycling with best practices implemented in each of our water-stressed locations. This systematic approach to water conservation will be added to our Johnson Controls Manufacturing System (JCMS) for application throughout our global facility network.

We also engage across our supply chain in sustainability requiring suppliers to submit an EcoVadis rating. This rating includes water stewardship metrics and is weighted equally on suppliers' global scorecards to cost, quality and delivery in supplier performance evaluations.

In 2022, we joined the pilot project for the Taskforce on Nature-related Financial Disclosures (TNFD) as one of just six companies in the built environment pilot program. Through that work, we performed scenario analysis and mapping from the locate, evaluate, assess, and prepare (LEAP) model to help better prepare our risk analysis process and establish a background for setting future goals. We incorporated some of this early guidance into our most recent Sustainability Report. We have initiated several updates to how we view nature and plan to incorporate new strategies and targets into our business, including:
1. Value chain scoping and locating aligned with the LEAP process, including using tools like EcoVadis
2. Considering water-related material aspects on our business intensity, water impacts and dependencies, and business revenue.
3. Creating metrics and targets and performing scenario analysis aligned with TNFD's target-setting guidance.

We expect to see the final TNFD guidance, including upstream and downstream aspects, in September 2023 and plan to incorporate this guidance into our future water goals and disclosures.

For our customers, water is an important focus area for Johnson Controls and the industries in which we participate. We are investing millions to build our heat pump capabilities, especially for industrial applications—a sector least penetrated by heat pumps and responsible for huge amounts of water loss in process applications and in cooling tower dissipation of heat via destructive consumption of water.

Our work with digitally enabled building upgrades and other building technology solutions has helped customers save significant amounts of water. For example, four large scale district heating and cooling systems in Hamburg, Germany contribute towards the 2.1 million gallons of water we conserve annually in these district applications. Similarly, with the installation of two heat pumps, we reduced water consumption at the manufacturing facility of a large, global beverage producer, saving 70,600 tons of water annually.

Water is a key consideration for customers and data center site selection. We now offer a full portfolio of data center cooling solutions to address the energy-water nexus, providing technologies to optimize the usage of energy and water across all geographies, with a specific shift to air-cooled chillers in hot and humid climates.

Our water stewardship program falls within our climate ESG workstream. Johnson Controls impacts global water resources not only through our own operations but by envisioning the way our equipment is used by others, and we are focused on building partnerships where our products can help customers achieve their targets for water reduction, efficiency, and sanitation.

We are proud to share this CDP Water report of our progress to date on water conservation.

W0.2

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

	Start date	End date
Reporting year	October 1 2021	September 30 2022

W0.3

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

Argentina
Australia
Austria
Bahrain
Belgium
Brazil
Canada
Chile
China
Colombia
Czechia
Denmark
Finland
France
Germany
Hong Kong SAR, China
Hungary
India
Indonesia
Ireland
Isle of Man
Israel
Italy
Japan
Kazakhstan
Kuwait
Luxembourg
Malaysia
Mexico
Netherlands
New Zealand
Norway
Oman
Panama
Peru
Philippines
Poland
Portugal
Qatar
Romania
Russian Federation
Singapore
Slovakia
South Africa
Spain
Sweden
Switzerland
Taiwan, China
Thailand
Turkey
Ukraine
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
Uruguay
Uzbekistan
Viet Nam

W0.4

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

USD

W0.5

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

Companies, entities or groups over which operational control is exercised

W0.6

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Water sources used beyond those captured by water invoices and for some estimated sites.	The water usage data represents purchased water volumes tracked through billing by the local water provider. We successfully track greater than 90%+ of global water withdrawals, discharges, and consumption all sourced through municipalities. For the remaining locations, we plan to estimate water withdrawals from using average water usage rates for like facility use and guidance on water use from the U.S. Environmental Protection Agency (EPA)'s Lean & Water Toolkit: Appendix C. This data will be reviewed by our ESG council and we plan on including this estimated data in the future. Exclusions from water discharges represent a small portion of our overall discharges, and typically occur in locations where we do not have access to sewer billing data. We are working to 1) capture more discharge data at a site level, and 2) develop a methodology to better estimate discharge data for remaining sites. The methodology for updating our estimated sites will kick off in FY23 and implement through FY24.

W0.7

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

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	US4783661071

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	We use water for drinking, sanitary purposes, and industrial processes at our plants. Availability of water at the quantities we need is important to our businesses. Typically, our facilities are in industrial corridors or complexes where other industrial activities are present, and our impacts on source water are managed by the water supplier. We embrace our role and know we have and can make a positive difference to conserve water at our facilities and for our customers. We embrace access to clean and potable water as a necessary human right. Water is a valued resource and Johnson Controls also helps water providers and consumers to reduce water usage, increase efficiency of the systems that distribute and use water, and create healthy and sustainable environments. Our water efficiency products and solutions enable our full value chain to become more sustainable as our offering also helps suppliers reduce water use within their operations. We minimize the upfront CAPEX investment by offering a financing model that allows customers to pay for infrastructure improvements over time through OPEX, using the water cost savings without the upfront investment. Our approach to the siting and management of all of our facilities remains consistent with our commitments as a signatory to the United Nations Global Compact, our Code of Ethics, our EHS standards, and our Johnson Controls Manufacturing System (JCMS) process, and all applicable laws and regulations. Our EHS and JCMS playbooks direct working groups to track and share best practices in water conservation and we prioritize facility retrofit opportunities and minimize greenfield development opportunities whenever possible. Site selection management begins with optimizing current locations to mitigate greenfield development to the greatest extent practicable. Driven by our water stewardship program, we are working to provide access to clean water and sanitation and conserve water across the value chain.
Sufficient amounts of recycled, brackish and/or produced water available for use	Neutral	Neutral	We use water for drinking, sanitation, and industrial processes. We continuously improve and innovate by implementing best business practices in water management, with water recycling being no exception. For example, water reclamation is used at all three of our HQ buildings, all LEED certified: Glendale, Wisconsin; Cork, Ireland; and Shanghai, China. The Glendale facility has a 30,000-gallon rooftop cistern to capture rainwater for reuse in water closets and urinals. Our global operations playbook includes the evaluation of water risk for any new location. We prioritize brownfield redevelopment and work to avoid greenfield sites for our facilities. Johnson Controls has working groups to track and share best practices in water conservation across all locations to enable a database that is then required and expected to be implemented at all facilities. This systematic approach is backed by our Johnson Controls Manufacturing System (JCMS) for application across the enterprise. Our plant managers have a monetary incentive to achieve a set of goals at the plant level, which includes energy, water, and waste reduction targets. We provide company recognition to the leaders who implement the Johnson Controls Manufacturing System (JCMS) for our global manufacturing locations. JCMS includes requirements across nine principles, including Environment & Sustainability. For water stressed locations, we have issued standard guidance for mapping water uses, identifying improvements, and prioritizing an action plan to achieve water reduction targets. We also established a consortium of facility managers across water stressed locations to share best practices.

W1.2

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

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	100%	Yearly	Calculated and tracked data from manufacturing sites.	We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. We track greater than 90%+ of global water withdrawals. Water withdrawals are annually verified by independent auditor Apex LLC. For the remaining locations, we plan to estimate water withdrawals from using average water usage rates for like facility use and guidance on water use from the U.S. Environmental Protection Agency (EPA)'s Lean & Water Toolkit: Appendix C. This data will be reviewed by our ESG council and we plan on including this estimated data in the future. The methodology for updating our estimated sites will kick off in FY23 and implement through FY24.
Water withdrawals – volumes by source	100%	Yearly	Calculated and tracked data from manufacturing sites .	We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. We track greater than 90%+ of global water withdrawals, all sourced through municipalities. For the remaining locations, we plan to estimate water withdrawals from using average water usage rates for like facility use and guidance on water use from the U.S. Environmental Protection Agency (EPA)'s Lean & Water Toolkit: Appendix C. This data will be reviewed by our ESG council and we plan on including this estimated data in the future. The methodology for updating our estimated sites will kick off in FY23 and implement through FY24.
Entrained water associated with your metals & mining and/or coal sector activities - total volumes [only metals and mining and coal sectors]	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Water withdrawals quality	76-99	Yearly	Water quality data comes from local municipality monitoring for greater than 90% of our water withdrawals.	Greater than 90% of our water withdrawals come from municipalities. Water quality is monitored locally according to the regional regulatory standard. Purchased water quality data is publicly available from our municipal water suppliers.
Water discharges – total volumes	51-75	Yearly	Calculated and tracked data from manufacturing sites	We track wastewater data at global manufacturing locations, where data is available. Since we collect water discharge data through our billing systems, some data gaps exist in jurisdictions where wastewater discharge services are not billed. A key task of our internal water working groups is to close these gaps to the extent feasible through, for example our own data tracking and reporting processes. Per CDP's guidance in W0.6, we do not currently collect discharge data where particular geographies, business activities, and/or small facilities for which it is difficult to gather data when water impacts are sufficiently small.

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water discharges – volumes by destination	51-75	Yearly	Calculated and tracked data from manufacturing sites	We track water discharge destination at the plant level and in alignment with all local laws and regulation. The majority of our discharge is going to municipality. A corporate assessment of water discharge destination occurs centrally when there is a major change in operations, processing, management, or any other reason. Per CDP's guidance in W0.6, we do not currently collect discharge data where particular geographies, business activities, and/or small facilities for which it is difficult to gather data when water impacts are sufficiently small.
Water discharges – volumes by treatment method	51-75	Yearly	Water discharge treatment data available from local municipality monitoring for site-based tracking	We track water discharge at the plant level and ensure alignment to all local laws and regulation. Site with treatment technologies are tracked and measured to determine progress year-over-year to help track progress and updates related to our water reduction goals for water-stressed locations. Per CDP's guidance in W0.6, we do not currently collect discharge data where particular geographies, business activities, and/or small facilities for which it is difficult to gather data when water impacts are sufficiently small.
Water discharge quality – by standard effluent parameters	51-75	Yearly	Water discharge treatment data available from national monitoring, such as the Integrated Compliance Information System - National Pollutant Discharge Elimination System (ICIS-NPDES)	We track water discharge at the plant level and ensure alignment to all local laws and regulation. Discharge allowances and thresholds are specific to the municipality, country and local thresholds. Some of our sites in water-stressed locations also include treatment operations which allow us to monitor discharge aspects such as water quality. More details on our treatment can be found in W1.2j Per CDP's guidance in W0.6, we do not currently collect discharge data where particular geographies, business activities, and/or small facilities for which it is difficult to gather data when water impacts are sufficiently small.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	Not relevant	<Not Applicable>	<Not Applicable>	Johnson Controls is not exposed to risks from these water pollutants and does not use nitrates, phosphates, and other priority substances in its manufacturing or other business. We do not expect this to change in the future.
Water discharge quality – temperature	Not monitored	<Not Applicable>	<Not Applicable>	We track water discharge at the plant level and ensure alignment to all local laws and regulation. This data is collected to comply with local permit and/or other regulatory requirements. Some of our sites in water-stressed locations also include treatment operations which allow us to monitor discharge aspects such as water quality. A formal mechanism for tracking temperature across all sites is not yet planned, but may be implemented after tracking and estimating data across all sites. More details on our treatment can be found in W1.2j. Per CDP's guidance in W0.6, we do not currently collect discharge data where particular geographies, business activities, and/or small facilities for which it is difficult to gather data when water impacts are sufficiently small.
Water consumption – total volume	51-75	Yearly	Calculated and tracked data from manufacturing sites and estimated data from remaining sites.	Water consumption is calculated as the difference between water withdrawals and water discharge. We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. Water withdrawals are annually verified by independent auditor Apex LLC. Estimated water withdrawals are estimated following a standardized methodology, using average water usage rates for like facility use and guidance on water use from the U.S. Environmental Protection Agency (EPA)'s Lean & Water Toolkit: Appendix C. We track water discharge at global manufacturing locations, where data is available. Since we collect water discharge data through our billing systems, some data gaps exist in jurisdictions where wastewater discharge services are not billed.
Water recycled/reused	Less than 1%	Yearly	We track recycling/reuse and other metrics at our water-stressed locations to ensure continued progress towards our goals.	We track water reuse and recycling data at the plant level. As part of our work to reduce water consumption at water stressed locations, we are working to expand our reporting of water reductions, including water reuse and recycling. Across the enterprise, we continuously work on water recycling. In our Taoyuan, Taiwan factory we run fire systems testing for 30 minutes each week, consuming large amounts of water. To reduce consumption, a water storage tank was installed, allowing downstream water recycling and reuse for the watering of flowers and water closets. We've also applied these learnings to other facilities, such as our active water recycling project at our manufacturing facility in Kadi, India.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Yearly	Johnson Controls ensures these services are available at all locations and is laid out in our Human Rights and Sustainability Policy.	All Johnson Controls employees have access to water, sanitation and hygiene (WASH) services. Our Human Rights and Sustainability Policy establishes our commitment to operating in accordance with the Ten Principles of the UN Global Compact and related global standards. Johnson Controls provides clean toilet facilities, access to potable water, and sanitary food preparation and storage facilities. We strive to continuously improve health and safety performance in all of our operations.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals	3322	Lower	Increase/decrease in efficiency	Lower	Increase/decrease in efficiency	We are committed to reducing water usage at water-stressed locations by 10% by 2025, from a 2017 baseline and are on-track to exceed the goal with a recorded 12% reduction in water use in FY22 compared to the 2017 baseline and a 6.32% decrease compared to FY21. In FY21, our organization reported 4,222 megaliters per year of total withdrawals for tracked sites. This value is based on our validated and reported Corporate Sustainability Report values of 4,221,762 m3/year. This year's reporting is based on our validated and reported water withdrawals of 3,322,347 m3/year for tracked sites. This reflects a decrease in water withdrawals of 21%. For the remaining locations, we plan to estimate water withdrawals from using average water usage rates for like facility use and guidance on water use from the U.S. Environmental Protection Agency (EPA)'s Lean & Water Toolkit: Appendix C. This data will be reviewed by our ESG council and we plan on including this estimated data in the future. The methodology for updating our estimated sites will kick off in FY23 and implement through FY24. We identify our water stressed locations in alignment with the WRI Aqueduct Tool 3.0 with classification of High or Extremely High water stress. We have 23 water-stressed locations, including facilities in Mexico, India, Brazil, Thailand, and Arizona in the United States. Our forecast of water withdrawals is continued reductions as we focus on improving our efficiency of water use in manufacturing as well as new systems to reduce withdrawals through increased metering and shut-off systems.
Total discharges	1214	About the same	Increase/decrease in efficiency	Lower	Increase/decrease in efficiency	We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We are working with our facilities management team to improve our discharge tracking, closing all data gaps, especially in locations where sewer and other discharge data is not tracked or billed. The total reported discharge volume is 1,214 cubic meters for FY22 for our tracked sites. Exclusions from water discharges represent a small portion of our overall discharges, and typically occur in locations where we do not have access to sewer billing data. We are working to 1) capture more discharge data at a site level, and 2) develop a methodology to better estimate discharge data for remaining sites. We estimate water discharges based on employee count and facility type and will incorporate guidance for calculations from the U.S. Environmental Protection Agency (EPA)'s Lean & Water Toolkit: Appendix C. All water withdrawals for these future estimated sites are sanitary and assumed to discharge back to the municipality. The methodology for updating our estimated sites will kick off in FY23 and implement through FY24. Our forecast of water discharge is to acheive continued reductions as we focus on decreasing water withdrawals, as described in the previous section, to drive reductions in discharged water and increasing water recycling systems across our portfolio. We have an active water recycling project at our manufacturing facility in Kadi, India.
Total consumption	2108	Lower	Increase/decrease in efficiency	Lower	Increase/decrease in efficiency	Water consumption is calculated as the difference between water withdrawals and water discharge. We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. Water withdrawals are annually verified by independent auditor Apex LLC. We track water discharge at global manufacturing locations, where data is available. Since we collect water discharge data through our billing systems, some data gaps exist in jurisdictions where wastewater discharge services are not billed. A key task of our ESG data team is to close these gaps. Our forecast of water consumption is continued reductions as we focus on decreasing water consumption, as described in the previous section, and increasing water recycling systems across our portfolio. We have an active water recycling project at our manufacturing facility in Kadi, India.

W1.2d

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

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Identification tool	Please explain
Row 1	Yes	1-10	Lower	Increase/decrease in efficiency	Lower	Increase/decrease in efficiency	WRI Aqueduct	Our water stress analysis with the WRI Aqueduct 3.0 tool identifies the JCI facilities globally that operate in water stressed locations. Across our operation, we have identified 23 sites that operate in a water stressed location. The proportion of water withdrawn from sites in areas of water stress is calculated as follows: total water use at water stress sites / total water use. The 2022 water withdrawals from water-stressed locations was 294,011 cubic meters (m3) / 3,322,347 cubic meters (m3), or 8.8% of our total water withdrawals in tracked locations and reflected a 6.32% reduction over FY21 withdrawals. FY22 reductions are a result of site-specific reduction efforts. 54% percent of water withdrawals in our water stressed locations is attributable to nine facilities in Latin America. As an example, the EHS team in Mexico created a structured approach through a Kaizen event to map water usage from beginning to end and enables identification of immediate and long-term water reduction actions. With this better understanding, we achieved a 63% reduction in withdrawals at a site in Mexico. The practice is foundational for building a fulsome water reduction strategy across all water stressed locations. To accelerate the adoption of best water management practices, we formed a consortium of facility managers who manage these water-stressed locations to share best practices and ensure that these facilities continue to reduce water withdrawals. Water-stressed locations are tracked yearly and each facility's reductions are mapped. Our forecast of water withdrawals is continued reductions as we focus on improving our efficiency of water use in manufacturing as well as new systems to reduce withdrawals through increased metering and shut-off systems.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. Given that we track greater than 90%+ of global water withdrawals through municipalities, we believe any potential amount of freshwater withdrawal to be limited as a percent of total water usage because municipalities do not provide fresh surface water.
Brackish surface water/Seawater	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. Given that we track greater than 90%+ of global water withdrawals through municipalities, we believe any potential amount of brackish surface water to be limited as a percent of total water usage because municipalities do not provide brackish surface water.
Groundwater – renewable	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. Given that we track greater than 90%+ of global water withdrawals through municipalities, we believe any potential amount of renewable groundwater to be limited as a percent of total water usage because municipalities do not provide renewable groundwater.
Groundwater – non-renewable	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. Given that we track greater than 90%+ of global water withdrawals through municipalities, we believe any potential amount of non-renewable groundwater to be limited as a percent of total water usage because municipalities do not provide non-renewable groundwater.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Water does not enter our organizational boundary as a result of extraction, processing, or use of any raw material.
Third party sources	Relevant	3322	Lower	Increase/decrease in efficiency	We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. We successfully track greater than 90%+ of global water withdrawals, all sourced through municipalities. The methodology for calculating water withdrawals is described in W1.2b. Our forecast of water withdrawals is continued reductions as we focus on improving our efficiency of water use in manufacturing as well as new systems to reduce withdrawals through increased metering and shut-off systems.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track wastewater data at global manufacturing locations, where data is available. We track water discharge by destination at the plant level and in alignment with all local laws and regulation. The majority of our discharge is going to municipality, and we are working to improve visibility centrally by collecting more discharge and billing data at our sites. A corporate assessment of water discharge by destination occurs centrally when there is a major change in operations, processing, management, or other special reason which helps us to directly track data as these changes occur.
Brackish surface water/seawater	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track wastewater data at global manufacturing locations, where data is available. We track water discharge by destination at the plant level and in alignment with all local laws and regulation. The majority of our discharge is going to municipality, and we are working to improve visibility centrally by collecting more discharge and billing data at our sites. A corporate assessment of water discharge by destination occurs centrally when there is a major change in operations, processing, management, or other special reason which helps us to directly track data as these changes occur.
Groundwater	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track wastewater data at global manufacturing locations, where data is available. We track water discharge by destination at the plant level and in alignment with all local laws and regulation. The majority of our discharge is going to municipality, and we are working to improve visibility centrally by collecting more discharge and billing data at our sites. A corporate assessment of water discharge by destination occurs centrally when there is a major change in operations, processing, management, or other special reason which helps us to directly track data as these changes occur.
Third-party destinations	Relevant	1214	About the same	Increase/decrease in efficiency	We track wastewater data at global manufacturing locations, where data is available. We track water discharge by destination at the plant level and in alignment with all local laws and regulation. The methodology for calculating water discharges is described in W1.2b. The majority of our discharge is going to municipality, and we are working to improve visibility centrally by collecting more discharge and billing data at our sites. For the sites that discharge to municipalities, we receive billing and other sewer data to track these discharges. A corporate assessment of water discharge by destination occurs centrally when there is a major change in operations, processing, management, or other special reason which helps us to directly track data as these changes occur.

W1.2j

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	Primary reason for comparison with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track and treat wastewater at all relevant sites, to include features such as water reuse and recycling. Johnson Controls uses Industrial Effluent Treatment Stations (IETS) and has seen improvements of 50% reductions in water discharge, for example, in some sites.
Secondary treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track and treat wastewater at all relevant sites, to include features such as water reuse and recycling. Johnson Controls uses Industrial Effluent Treatment Stations (IETS) and has seen improvements of 50% reductions in water discharge, for example, in some sites.
Primary treatment only	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	We track and treat wastewater at all relevant sites, to include features such as water reuse and recycling. Johnson Controls uses Industrial Effluent Treatment Stations (IETS) and has seen improvements of 50% reductions in water discharge, for example, in some sites.
Discharge to the natural environment without treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	In locations where a risk assessment determined treatment is not needed, water may be discharged to the natural environment.
Discharge to a third party without treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	In locations where a risk assessment determined treatment is not needed, water may be discharged to a third party.
Other	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	Some locations with water discharge do not require treatment and are not relevant.

W1.3

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

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	25301	3327	7.604749023143 97	We anticipate a continued increase in efficiency as we implement more water efficiency measures, such as new systems to reduce withdrawals through increased metering and shut-off systems and increased water recycling measures. Our revenue data can also be tracked in concert with our water data in our annual Sustainability Report.

W1.4

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

	Products contain hazardous substances	Comment
Row 1	Yes	<Not Applicable>

W1.4a

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

Regulatory classification of hazardous substances	% of revenue associated with products containing substances in this list	Please explain
Annex XVII of EU REACH Regulation	Less than 10%	This Annex has very limited applicability to our products because we meet the Annex XVII exemptions.
Candidate List of Substances of Very High Concern for Authorisation above 0.1% by weight (EU Regulation)	Don't know	A limited portion of some of our fire protection products such as sprinklers, valves, piping, etc. can contain lead which is a Substance of Very High Concern mentioned on the Candidate List. We meet all reporting obligations to the EU for this list. We have taken several actions to reduce the use of these substances in our products, including requesting both a Full Material Disclosure – FMD and a Supplier Declaration from our suppliers to ensure the phase-out of substances of very high concern. We have also taken steps in our manufacturing processes such as eliminating lead in our circuit boards produced in Mexico.
Annex XIV of UK REACH Regulation	Less than 10%	This Annex has very limited applicability to our products.
Candidate List of Substances of Very High Concern (UK Regulation)	Don't know	A limited portion of some of our fire protection products such as sprinklers, valves, piping, etc. can contain lead which is a Substance of Very High Concern mentioned on the Candidate List. We meet all reporting obligations to the UK for this list. We have taken several actions to reduce the use of these substances in our products, including requesting both a Full Material Disclosure – FMD and a Supplier Declaration from our suppliers to ensure the phase-out of substances of very high concern. We have also taken steps in our manufacturing processes such as eliminating lead in our circuit boards produced in Mexico.
Other, please specify (Restriction of Hazardous Substances (RoHS))	Don't know	Some electrical equipment contains plasticizers and insulator chemicals on wiring and other aspects. We have taken several actions to reduce the use of these substances in our products, including requesting both a Full Material Disclosure – FMD and a Supplier Declaration from our suppliers to ensure the phase-out of RoHS-listed substances.

W1.5

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

	Engagement	Primary reason for no engagement	Please explain
Suppliers	Yes	<Not Applicable>	<Not Applicable>
Other value chain partners (e.g., customers)	Yes	<Not Applicable>	<Not Applicable>

W1.5a

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

Row 1

Assessment of supplier impact

No, we do not currently assess the impact of our suppliers, but we plan to do so within the next two years

Considered in assessment

<Not Applicable>

Number of suppliers identified as having a substantive impact

<Not Applicable>

% of total suppliers identified as having a substantive impact

<Not Applicable>

Please explain

We identify suppliers responsible for the majority of our total spend and plan to track and enforce ESG activity across over 80% of our supplier partners in the next three years. Suppliers are expected to be evaluated annually on their sustainability performance, which includes water use and water risk and management practices.

In 2022, we adopted EcoVadis as the global tool to evaluate our suppliers and working to onboard all suppliers. To date, 36% of our suppliers have disclosed data through EcoVadis, including water risk data, that we will leverage to assess supplier impact on water security.

In EcoVadis there are clear risk rating thresholds for the overall organization as well as within each environment, labor & human rights, supply chain, and ethics sub-section. Any rating below 45 is considered at risk. EcoVadis also adds deadlines and guidance for corrective actions that will enable suppliers to raise their score, such as water conservation policies or data audits.

W1.5b

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

	Suppliers have to meet specific water-related requirements	Comment
Row 1	Yes, water-related requirements are included in our supplier contracts	<Not Applicable>

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
<Not Applicable>

% of suppliers with a substantive impact in compliance with this water-related requirement
<Not Applicable>

Mechanisms for monitoring compliance with this water-related requirement
Community-based monitoring
Fines and penalties

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

Comment
Suppliers that are compliant and demonstrate high performance on their annual sustainability reviews through EcoVadis will be considered for status as a strategic partner. Suppliers who refuse to abide by the Code of Ethics or have significant environmental or social performance issues that cannot be resolved in a timely manner will not be considered for growth or new business opportunities.

Starting October 1, 2022, all suppliers are required to fill out an EcoVadis survey to rate environmental, labor & human rights, ethics, and sustainable procurement practices.

W1.5d

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

Type of engagement
Information collection

Details of engagement
Collect water management information at least annually from suppliers

% of suppliers by number
1-25

% of suppliers with a substantive impact
<Not Applicable>

Rationale for your engagement
Through our new EcoVadis assessment we track water management information and plan to fully leverage this data to understand supplier impact in the future.

Impact of the engagement and measures of success
To date, 36% of our suppliers have provided EcoVadis data and we aim to collect data from at least 80% of our suppliers. Within Ecovadis, improvement areas are identified as "identifiable improvement areas" and assigned as corrective actions directly to suppliers. This visibility enables our category managers to directly ensure corrective actions are resolved as soon as reasonably possible. Water management is included in these supplier assessments. Currently, 30% of suppliers have corrective actions logged in the system with active plans to resolve.

In addition to EcoVadis, our procurement contacts include sustainability requirements that apply to 100% of our suppliers, such as voluntary initiatives to reduce environmental impacts, including water impacts.

Comment
We expect to see more progress in EcoVadis yearly assess water impacts yearly.

W1.5e

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

Type of stakeholder
Customers

Type of engagement
Innovation & collaboration

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

Rationale for your engagement
We focus on achieving water and cost savings for our customers. We help our customers achieve energy savings using energy performance contracting. Through these projects, we deploy equipment upgrades and management services to deliver guaranteed energy savings and help customers achieve water use reductions

Impact of the engagement and measures of success
Our work with digitally enabled building upgrades and other building technology solutions have helped some customers to save significant amounts of water. For example, four large scale district heating and cooling systems in Hamburg, Germany contribute towards the 2.1 million gallons of water we conserve annually in similar district applications. Similarly, with the installation of two heat pumps, we reduced water consumption at the manufacturing facility of a large, global beverage producer, saving 70,600 tons of water annually. Adding controls such as 126,000 water meter upgrades and replacements in Toledo, Ohio across large commercial, intermediate, and residential locations ensure the city can automate its billing processes and conserve water.

Water is a key consideration for customers and data center site selection. We now offer a full portfolio of data center cooling solutions to address the energy-water nexus, providing technologies to optimize the usage of energy and water across all geographies, with a specific shift to air-cooled chillers in hot and humid climates.

In Denmark, our ability to design optimized solutions allowed a data center customer to utilize heat pumps as a cooling solution instead of traditional evaporated water-cooling technology. The project saved 132,000 tons of water each year, or 360 tons per day. In addition to the water savings, the design also enabled waste heat generated from the data center to be reused to heat 6,900 homes.

W2. Business impacts

W2.1

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

W2.2

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

	Water-related regulatory violations	Fines, enforcement orders, and/or other penalties	Comment
Row 1	No	<Not Applicable>	Johnson Controls was not subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations.

W3. Procedures

W3.1

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

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified	Please explain
Row 1	Yes, we identify and classify our potential water pollutants	We review all chemicals and potential water pollutants used in our operations to ensure there are no activities that could have a detrimental impact on water ecosystems or human health	<Not Applicable>

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
Other synthetic organic compounds

Description of water pollutant and potential impacts
We source alternative chemicals in our manufacturing to minimize the risk and reduce the use of synthetic organic compounds that could pose a risk to water. Some refrigerants used in the HVAC industry and foams and blowing agents used in our fire suppression and security business have the potential to pollute water through the introduction of fluorinated carbon chains entering groundwater. Many controls are in place to ensure the recovery and hermetic use of these chemicals to minimize pollution risk.

Value chain stage
Direct operations
Supply chain
Product use phase

Actions and procedures to minimize adverse impacts
Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Resource recovery
Implementation of integrated solid waste management systems
Industrial and chemical accidents prevention, preparedness, and response
Provision of best practice instructions on product use
Water recycling
Reduction or phase out of hazardous substances

Please explain
Current refrigerants such as R-134a and R-410A offer proven solutions that provide efficiency and safety. Alternative refrigerants with lower GWPs are being developed and commercialized. We are working to balance safety, performance, environmental impact, and total cost of ownership for each application and ensure sustainable applications of our products.

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
International methodologies and standards

Tools and methods used
EcoVadis
WRI Aqueduct
IPCC Climate Change Projections

Contextual issues considered
Water availability at a basin/catchment level
Water regulatory frameworks
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered
Customers
Employees
Investors
Local communities
NGOs
Regulators
Water utilities at a local level
Other, please specify (Future Generations)

Comment
As a global multi-industrial company, we face a range of risks, including general economic, credit and capital market conditions risks, regulatory risks, global climate change

risks, and several other risks that are fully listed and explained in our fiscal 2022 Form 10-K. The company's Enterprise Risk Management (ERM) process provides the enterprise with a common framework and terminology to ensure consistency in identification, reporting, and management of key risks. It also informs the strategic planning process and includes formal processes to identify and document the key risks to Johnson Controls as perceived by a variety of stakeholders within the Company.

A Risk Committee assesses risks throughout the year and escalates any new risks to the Executive Committee. The Governance and Sustainability Committee of the board of directors oversees the ERM process. In addition, we have key teams in place to oversee and advise on our sustainability risks and opportunities including the Board's Governance and Sustainability Committee, the Executive Committee, and the ESG Leadership Committee.

These committees review data which we track, including water withdrawals globally and data collected centrally for all manufacturing, three HQ locations, and significant R&D facilities.

We successfully track greater than 90%+ of global water withdrawals through utility invoicing. For the remaining locations, we plan to estimate water withdrawals from using average water usage rates for like facility use and guidance on water use from the U.S. Environmental Protection Agency (EPA)'s Lean & Water Toolkit: Appendix C. This data will be reviewed by our ESG council and we plan on including this estimated data in the future.

Exclusions from water discharges represent a small portion of our overall discharges, and typically occur in locations where we do not have access to sewer billing data. We are working to 1) capture more discharge data at a site level, and 2) develop a methodology to better estimate discharge data for remaining sites.

The methodology for updating our estimated sites will kick off in FY23 and implement through FY24.

Value chain stage
Supply chain

Coverage
Full

Risk assessment procedure
Water risks are assessed in an environmental risk assessment

Frequency of assessment
Annually

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

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

Tools and methods used
EcoVadis

Contextual issues considered
Implications of water on your key commodities/raw materials

Stakeholders considered
Customers
Investors
Local communities
Regulators
Suppliers

Comment
To specifically identify and assess risks related to our supply chain, we also review supplier data related to water and other environmental topics. All suppliers are expected to conduct their business in a safe, sustainable manner, consistent with all laws and regulations, and with a focus on consistently reducing their environmental footprint. Significantly, we transformed the way we assess suppliers. Supplier sustainability performance is reflected in our supplier ratings, representing 21 percent of the overall rating, equal to cost, quality and delivery in supplier performance evaluations. Our sourcing board reviews the supplier scorecard and specific EcoVadis rating. Suppliers who do not take the assessment are disqualified for a performance award in the Johnson Controls supplier recognition event and are escalated to the Johnson Controls Sourcing Board to assess how we are mitigating risks in the absence of EcoVadis.

Our procurement contacts include sustainability requirements that apply to 100% of our suppliers, such as voluntary initiatives to reduce environmental impacts, including water impacts.

Suppliers that are compliant and demonstrate high performance on their annual sustainability reviews will be considered for preferred supplier status as a strategic partner. Suppliers who refuse to abide by the Code of Ethics or have significant environmental or social performance issues that cannot be resolved in a timely manner will not be considered for growth or new business opportunities.

Our suppliers are required to fill out an EcoVadis assessment. In EcoVadis there are clear risk rating thresholds for the overall organization as well as within each environment, labor & human rights, supply chain, and ethics sub-section. Any rating below 45 is considered at risk. EcoVadis also adds deadlines and guidance for corrective actions that will enable suppliers to raise their score, such as water conservation policies or data audits.

W3.3b

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

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	We conduct a physical climate risk scenario analysis looking at the impact to our key suppliers and our own operations in the case of temperature increase within a moderate and a "hot house world" scenario (RCP 4.5 and RCP 8.5). Nearly 400 of our locations and 600 supplier locations were entered into a tool created by WTW, called Climate Diagnostic, which applies the climate scenarios and a subsequent analysis of exposure to physical climate risk. We evaluate water risk as part of our overall TCFD Climate Risks & Opportunities evaluation every other year, a process aligned with our annual Enterprise Risk Management (ERM) assessment. Our methods include regional government databases, WRI stress definitions and WRI Aqueduct tool, and internal/external stakeholder analysis. The water-related risks monitored includes acute physical (tornadoes, hurricanes, and floods) and chronic physical (water stress, extreme heat) weather events resulting in damage, business disruption, and impact to our employees. Our Human Rights and Sustainability Policy establishes our commitment to operating in accordance with the Ten Principles of the UN Global Compact and related global standards.	Our focus on reducing water use informs our approach to risk management. Our most recent assessment of water stressed locations was 2021 identified 23 water stressed locations, in alignment with the WRI Aqueduct Tool 3.0 with classification of High or Extremely High water stress. Facilities identified are located in Mexico, India, Brazil, Thailand, and Arizona in the United States. We have strategies for water reduction in all locations within the scope, developed from a detailed analysis of water withdrawals, consumption and discharge throughout facility operations. We also monitor locations classified as Medium - High Risk areas according to the WRI Aqueduct Tool. All global operations managers are aware of their water stress classification and have access to resources for best practice management of water conservation. All water stressed locations are mapped at the basin level. In 2022, we were part of the pilot project for the Taskforce on Nature-related Financial Disclosures (TNFD) with PwC and the World Business Council for Sustainable Development (WBCSD) one of just six companies in the built environment pilot. Through that work, we performed scenario analysis and mapping through the LEAP model to help better prepare our risk analysis process and establish a background for setting future goals.	Our stakeholders cover the full value chain: 1 - We provide clean water, sanitation, and hygiene (WASH) services to all employees. 2 - Customers want suppliers who are environmentally responsible and ensure a resilient supply chain. 3 - Investors expect management of water-related risk. 4 - We respect the local communities in which we operate, and communities of our employees. 5 - NGOs advance our work in water stewardship, in particular UN Global Compact and SDG 6: Clean Water and Sanitation. 6 - Regulators manage the municipalities from which we withdrawal water and provide guidance with local laws and regulatory to our global footprint. 7 - We work with suppliers to maintain good water practices, reduce water consumption, and manage water related risks, ensuring the resiliency of our supply chain. 8 - Water utilities are stewards of best practice water management with advanced metering and other technologies to reduce total consumption.	Our ERM process informs the strategic planning process and includes formal processes to identify and document the key risks to Johnson Controls as perceived by a variety of stakeholders within the Company. A Risk Committee assesses risks throughout the year and escalates any new risks to the Executive Committee. The Governance and Sustainability Committee of the board of directors oversees the ERM process. We have key teams in place to oversee and advise on our sustainability risks and opportunities including the Board's Governance and Sustainability Committee, the Executive Committee, and the ESG Leadership Committee. Our ESG Leadership Committee is chaired by our Vice President of Global Sustainability and Regulatory Affairs, who reports to the Chief Sustainability and External Relations Officer. This team manages the materiality assessment and six workstreams focused on managing our sustainability commitments. Performance related to our water commitments are reviewed monthly. Suppliers who refuse to abide by the Code of Ethics or have significant environmental or social performance issues that cannot be resolved in a timely manner will not be considered for growth or new business opportunities. Our preferred suppliers are required to fill out an EcoVadis assessment. In EcoVadis there are clear risk rating thresholds and ratings below 45 are considered at risk. EcoVadis also provides guidance for corrective actions to be completed by the supplier.

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, only within our direct operations

W4.1a

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

Exclusively for purposes of this report, Johnson Controls defines a substantive impact when identifying or assessing climate-related risks based on a mix of qualitative and quantitative assessments in line with our ERM framework. These assessments include potential impact (assuming minimal risk management efforts) measured in terms of the following factors: people, environmental, image/ reputation, regulatory/ legal, and financial (profit) as well as the likelihood of the impact. For example, a major risk is defined within the ERM framework as an event causing a quantitative decline in financial performance, such as a 5 – 10% decrease in sales or profit, together with the occurrence of other qualitative factors, such as a major impact on market position and the ability to meet the Company's near-term strategic objectives, and the probability of occurrence is between 10 and 25%. The mix of these quantitative or qualitative factors may result in identifying a substantive impact at a lesser or greater quantitative threshold, depending on the nature of the impact and its overall probability. For example, based on our fiscal 2022 revenue, a substantive impact would represent $1.3B impact on revenues or a $80 million impact on our profit, subject to the probability of the event and other non-qualitative factors listed above.

"Substantive" as used in this report is used within the context of the CDP reporting framework and is different than the definition in the context of filings with the Securities and Exchange Commission. An issue deemed substantive for purposes of this report may not be considered substantive or material for reporting purposes under U.S. federal securities laws, including in filings with the Securities and Exchange Commission.

W4.1b

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

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	23	1-25	We updated our water stressed locations in alignment with the WRI Aqueduct Tool 3.0 with classification of High or Extremely High water stress in 2021. We have identified 23 water stressed locations, including facilities in Mexico, India, Brazil, Thailand, and Arizona in the United States. In March 2022, our team launched a focused, global effort to reduce water consumption at our updated list of water-stressed locations globally. Starting with our facilities in Mexico, the team is designing a global program for water reduction, reuse and recycling with best practices implemented in each of our water-stressed locations. This systematic approach to water conservation will be added to our Johnson Controls Manufacturing System (JCMS) for application throughout our global facility network. One of our highest facilities for water withdrawals is in Kadi, India, we have an active project to reduce withdrawals through rain water capture and automated shut off systems and increase water reuse through a new water recycling system.

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	Bravo

Number of facilities exposed to water risk

8

% company-wide facilities this represents

1-25

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

United States of America	Bravo

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

United States of America	Colorado River (Pacific Ocean)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

Germany	Elbe River

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

United States of America	Sabine River

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

United States of America	Cape Fear River

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

United States of America	Other, please specify (Santa Ana)

Number of facilities exposed to water risk
2

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

Thailand	Chao Phraya

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

United States of America	Trinity River (Texas)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

India	Tapti River

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

Italy	Other, please specify (Italy, East Coast)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

Turkey	Other, please specify (Mediterranean Sea, East Coast)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

India	Other, please specify (Sabarmati)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

Brazil	Parana

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

Country/Area & River basin

Republic of Korea	Han-Gang (Han River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
Percentage of company-wide facilities provided is percentage of our manufacturing locations.

W4.2

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

Country/Area & River basin

United States of America	Other, please specify (Global: Risk Assessment for our Global Facility Footprint)

Type of risk & Primary risk driver

Acute physical	Other, please specify (This risk describes the acute and chronic physical impact to our operations of climate-related physical risks)

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Extreme weather events could result in damage to our physical plants and other assets, create the need for new transportation routes, and impact our suppliers and customers, thereby resulting in production delays, temporary reduction of our production capacity, and loss of revenue, among other impacts. As an example, our sites near coastal areas could be impacted by weather events like hurricanes. We track events and enact our crisis management program for potentially impacted sites during extreme weather events. We are in close contact with site management staff to ensure they are conducting pre-storm assessments and shutdown protocols and post-storm damage assessments to determine if business continuity plans need to be enacted to ensure continued operation for our customers.

We have specific processes in place to mitigate risk. Actions include expanding dual capability or creating extra inventory. Each facility has an emergency response plan to keep our employees and visitors safe as well as a business continuity plan to sustain business operations for each site that outlines site-specific potential courses of actions to ensure business continuity for our customers.

To help address water risk, our goal is to reduce water consumption by 10% at our water-stressed facilities by 2025. We recently conducted a refreshed, detailed analysis with the WRI AqueductTM tool to update which of our locations are in water-stressed areas. Johnson Controls has 23 manufacturing facilities that are located in regions that have high or extremely high risk of water scarcity with most in Mexico, the United States, China, and India.

In March 2022, our team launched a focused, global effort to reduce water consumption at our updated list of water-stressed locations globally. Starting with our facilities in Mexico, the team is designing a global program for water reduction, reuse and recycling with best practices implemented in each of our water-stressed locations. One of our highest facilities for water withdrawals is in Kadi, India, we have an active project to reduce withdrawals through rain water capture and automated shut off systems and increase water reuse through a new water recycling system. This systematic approach to identifying water conservation is part of our Johnson Controls Manufacturing System (JCMS) for application throughout our global facility network.

Timeframe
More than 6 years

Magnitude of potential impact
Medium-low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
2000000

Potential financial impact figure - maximum (currency)
500000000

Explanation of financial impact
We conducted a physical climate risk scenario analysis looking at the acute and chronic risks to our global locations. Nearly 400 of our locations were entered into a tool created by Willis Towers Watson, Climate Diagnostic, which applies these scenarios and time-horizons aligned with geospatial information to analyze these locations for physical climate risk exposure. It analyzed extreme weather events such as cyclones or floods (acute risk) and gradual changes in key variables such as temperature, humidity and precipitation (chronic stress factors). This tool has the ability to identify our operations most likely to be exposed to physical risks within a medium-term and long-term time horizon under RCP 4.5 and RCP 8.5. At Johnson Controls, we have a team dedicated to operational risk management, and this data is in line with, and confirms our overall operational risk management approach which effectively mitigates these and other physical risks.

Based on our analysis we examined the facilities identified as having the greatest risk of exposure to an adverse physical climate event. We calculated the potential financial exposure for each location at the greatest risk of exposure. The location with the highest cost of replacement has an estimated replacement cost of $500M. The location with the lowest cost of replacement has an estimated replacement cost of $2M. These amounts represent the estimated replacement costs of the identified facilities if any were destroyed by an acute physical impact and excludes any potential insurance or other recoveries to offset the loss of the facility. The financial impact is calculated based on the cost that would be incurred during a single fiscal year and assumes that only one facility would be impacted during a fiscal year based on the overall low probability of such an event occurring. These costs represented in the financial impact would include labor, machinery, and building materials to construct a new plant and make the building operational along with the loss of business income during the rebuilding period and additional expense to ship materials from manufacturing locations in other areas. All company facilities are insured for physical and business interruption losses, so this represents the unmitigated risk.

Primary response to risk
Amend the Business Continuity Plan

Description of response
Business Continuity Planning and Crisis Management programs are key pillars in our risk mitigation program. Although the full repercussions of climate-change in particular locations remain to be fully identified, we update site assessments to allow for adequate risk mitigation planning. Designated facilities go through a facility risk audit every two to three years to ensure they can properly respond to risks.

In September 2022, five locations were affected by the Hurricane Ian in Florida and the Carolinas and had intermittent power, pipe damage, water shortages and/or natural gas leaks as well. A crisis response team was mobilized to address facility and employee needs. The response team quickly went into action providing water, plumbing supplies, fuel, generators and other supplies. As a result of our planning and quick response, damage/interruption of business was very limited, and the situation is a good example of the effectiveness of our strategies to mitigate climate risks.

Although this risk did not meet our definition of substantive impact, we have included it to illustrate the physical risk that climate change poses to our business and operations. Our physical assets are critical to our ability to serve our customers, and we closely control our physical risks, including climate-related physical risk to our operations.

Cost of response
25000000

Explanation of cost of response
This cost represents residual risk before insurance comes into play. This cost assumes insurance recovery and represents the maximum residual replacement cost to our company should a location be destroyed by climate-related physical risk. We have teams and processes in place to respond to physical risks, which may eliminate additional cost associated with this risk. Potential exposure from physical changes is assessed and managed through risk assessments. We are committed to protecting life, property, the environment and market share by constructing eligible facilities to the highest level of property protection known as Highly Protected Risk and constructing them where possible outside of known natural catastrophe areas. Designated facilities go through a third-party facility risk management audit every 2 - 3 years. For new construction, we evaluate multiple sites against risks such as environmental contamination, proximity risks and natural catastrophe (flood, windstorm) exposure and develop policies, plans and procedures where risks are optimally managed. Our global property protection program is designed to protect Johnson Controls' employees, facilities and assets from events that could affect our property (e.g., fire, explosion, natural disaster, machinery breakdown) as well as business interruption resulting from those risks. Our property insurance program insures our physical assets on a Replacement Cost New basis.

Business Continuity Planning and Crisis Management programs are key pillars in our risk mitigation program. Although the full repercussions of water risk in particular locations remain to be fully identified, we update site assessments to allow for adequate risk mitigation planning. Designated facilities go through a facility risk audit every two to three years to ensure they can properly respond to risks.

In September 2022, operations, facilities, and employees were impacted by Hurricane Ian in Florida and the Carolinas. Over 30 locations and 3,000 team members were affected by the storm and had power outages, downed trees, water damage, food/water shortages and fuel shortages as well. A crisis response team was mobilized to address facility and employee needs. The response team quickly went into action providing food, water, fuel, generators and other supplies. As a result of our planning, quick response, and effectiveness of our strategies to mitigate climate risks, damage/interruption of business lasted less than a week.

W4.2c

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

	Primary reason	Please explain
Row 1	Evaluation in progress	We piloted a physical climate risk assessment looking at the impact to our key suppliers within a within a moderate and a "hot house world" scenario (RCP 4.5 and RCP 8.5). We analyzed the acute and chronic related physical risks of these scenarios to as portion of our supply chain aligned to short-term, medium-term and long-term time horizons. We entered nearly 600 supplier locations from about 450 critical suppliers into a modelling tool created by WTW, Climate Diagnostic. The tool applies scenarios and time-horizons aligned with geospatial information to analyze locations for physical climate risk exposure. It produced analysis for extreme weather events such as cyclones or floods (acute risk) and gradual changes in key variables such as temperature, humidity and precipitation (chronic stress factors). Our next step is to break down those supplier locations identified as high physical risk in the Climate Diagnostic tool and understand the risk profile by category. For example, understanding how many steel supplier locations are considered high risk. We will engage with those critical suppliers to understand their risk management plans, our potential exposure, and cost of response. Tools like EcoVadis also provide additional data that we can incorporate into our risk evaluation.

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
Products and services

Primary water-related opportunity
Sales of new products/services

Company-specific description & strategy to realize opportunity
Water is a strategic component for our customers to achieve net zero emissions. We offer the world's largest portfolio of building technology, software, and service solutions. Our offering includes world-class heating, ventilation and air conditioning (HVAC) equipment, control systems, security systems, and fire detection and suppression systems. Our contribution to water conservation and emissions reduction creates long-term benefits for our customers, employees, and shareholders.

Buildings account for nearly 40% of GHG emissions and provide access to clean water and sanitation. The linkage between carbon and water drives our focus on both energy and water reduction. We offer products to balance the water-energy nexus, enabling one of the most water- and energy-efficient technologies, a few of which are described below. Optimizing and modernizing building technologies have a positive impact on both climate change and water use.

Recently, we've realized several opportunities:
1. We work with data center customers to design an optimized solution for their specific location. In Denmark, our ability to design optimized solutions allowed a data center customer to utilize heat pumps as a cooling solution instead of traditional evaporated water-cooling technology. The project saved 132,000 tons of water each year, or 360 tons per day. In addition to the water savings, the design also enabled waste heat generated from the data center to be reused to heat 6,900 homes.

2. Given water-intensive products and manufacturing processes, efficient use of water is a focus for our customers in the consumer product goods and chemicals industries. Water consumption can also be reduced with heat pump technology. With the installation of two heat pumps, we reduced water consumption at the manufacturing facility of a large, global beverage producer, saving 70,600 tons of water annually.

3. Acknowledging the major energy and greenhouse gas footprint associated with water pumping and treatment, we have delivered 37 projects in wastewater treatment facilities and distribution systems focused on energy efficiency and resource recovery. We worked with the City of Evansville, Indiana, in the U.S., for example, and others to and others to convert gas from their anaerobic digesters into electrical and thermal energy to offset the energy use at the wastewater treatment plant.

Estimated timeframe for realization
1 to 3 years

Magnitude of potential financial impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
35000000

Explanation of financial impact
Our financial impacts are directly linked to several products in our portfolio and deliver water savings to a wide variety of customers. As a result, the financial impacts of these water-based opportunities directly affect our revenue. As mentioned in the examples above, revenue from our building products offer water savings and help our customers to meet their water conservation targets. The upper range of the estimate was based on the average revenue associated with these projects over the past several years.

W5. Facility-level water accounting

W5.1

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

Facility reference number
Facility 1

Facility name (optional)
04214

Country/Area & River basin

Turkey	Other, please specify (Mediterranean Sea, East Coast)

Latitude
38.340613

Longitude
27.13066

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
4.13

Comparison of total withdrawals with previous reporting year
Much 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
4.13

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 2

Facility name (optional)
13378

Country/Area & River basin

United States of America	Bravo

Latitude
31.858092

Longitude
-106.603564

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
20.57

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
20.57

Total water discharges at this facility (megaliters/year)
20.57

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
20.57

Total water consumption at this facility (megaliters/year)
0

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

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 3

Facility name (optional)
There are three co-located facilities listed under facility 3.
13386
13387
13464

Country/Area & River basin

Mexico	Bravo

Latitude
31.680492

Longitude
-106.444268

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
65.72

Comparison of total withdrawals with previous reporting year
Much 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
65.72

Total water discharges at this facility (megaliters/year)
31.82

Comparison of total discharges with previous reporting year
Much lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
31.82

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

Comparison of total consumption with previous reporting year
Much higher

Please explain
Water meters from three plants at this campus are captured together because metering changes over the years make site-level comparisons misleading.
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 4

Facility name (optional)
14431A

Country/Area & River basin

Mexico	Bravo

Latitude
25.908

Longitude
-97.584317

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
10.66

Comparison of total withdrawals with previous reporting year
Much 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
10.66

Total water discharges at this facility (megaliters/year)
7.32

Comparison of total discharges with previous reporting year
Much lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
7.32

Total water consumption at this facility (megaliters/year)
3.34

Comparison of total consumption with previous reporting year
Much lower

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 5

Facility name (optional)
05344

Country/Area & River basin

Mexico	Bravo

Latitude
25.788864

Longitude
-100.144432

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
35.75

Comparison of total withdrawals with previous reporting year
Much 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
35.75

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 6

Facility name (optional)
27989

Country/Area & River basin

Mexico	Bravo

Latitude
25.962653

Longitude
-100.178529

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
8.55

Comparison of total withdrawals with previous reporting year
Much 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
8.55

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 7

Facility name (optional)
14278

Country/Area & River basin

Germany	Elbe River

Latitude
52.907837

Longitude
12.772491

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
2.91

Comparison of total withdrawals with previous reporting year
Much 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
2.91

Total water discharges at this facility (megaliters/year)
1.98

Comparison of total discharges with previous reporting year
Much higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
1.98

Total water consumption at this facility (megaliters/year)
0.92

Comparison of total consumption with previous reporting year
About the same

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 8

Facility name (optional)
13400

Country/Area & River basin

Mexico	Bravo

Latitude
31.667864

Longitude
-106.393321

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
39.83

Comparison of total withdrawals with previous reporting year
Much 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
39.83

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 9

Facility name (optional)
13384

Country/Area & River basin

United States of America	Other, please specify (Santa Ana)

Latitude
34.005009

Longitude
-117.537843

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
0.69

Comparison of total withdrawals with previous reporting year
Much 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
0.69

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 10

Facility name (optional)
13479

Country/Area & River basin

India	Tapti River

Latitude
20.770231

Longitude
72.982377

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
3.29

Comparison of total withdrawals with previous reporting year
Much 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
3.296

Total water discharges at this facility (megaliters/year)

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 11

Facility name (optional)
14408

Country/Area & River basin

Republic of Korea	Han-Gang (Han River)

Latitude
37.442345

Longitude
127.177024

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
2.6

Comparison of total withdrawals with previous reporting year
Much 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
2.6

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
Please select

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 12

Facility name (optional)
14687

Country/Area & River basin

United States of America	Sabine River

Latitude
29.911945

Longitude
-93.936075

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
0.28

Comparison of total withdrawals with previous reporting year
Much 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
0.28

Total water discharges at this facility (megaliters/year)
0.28

Comparison of total discharges with previous reporting year
Much lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0.28

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
Much lower

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 13

Facility name (optional)
13769

Country/Area & River basin

India	Other, please specify (Sabarmati)

Latitude
23.292786

Longitude
72.346161

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
104.46

Comparison of total withdrawals with previous reporting year
Much 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
104.46

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 14

Facility name (optional)
13804

Country/Area & River basin

Brazil	Parana

Latitude
-23.588316

Longitude
-46.584737

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
13.36

Comparison of total withdrawals with previous reporting year
Much 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
13.36

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 15

Facility name (optional)
00484

Country/Area & River basin

Mexico	Bravo

Latitude
26.05084

Longitude
-98.297895

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
2.42

Comparison of total withdrawals with previous reporting year
Much 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
2.42

Total water discharges at this facility (megaliters/year)
2.42

Comparison of total discharges with previous reporting year
Much higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
2.42

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 16

Facility name (optional)
13396

Country/Area & River basin

United States of America	Other, please specify (Santa Ana)

Latitude
34.005009

Longitude
-117.537843

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
9.5

Comparison of total withdrawals with previous reporting year
Much 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
9.5

Total water discharges at this facility (megaliters/year)
9.5

Comparison of total discharges with previous reporting year
Much higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
9.5

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 17

Facility name (optional)
13407

Country/Area & River basin

Thailand	Chao Phraya

Latitude
14.071198

Longitude
101.831393

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
4.63

Comparison of total withdrawals with previous reporting year
Much 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
4.63

Total water discharges at this facility (megaliters/year)
3.67

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
3.67

Total water consumption at this facility (megaliters/year)
0.96

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

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 18

Facility name (optional)
14395A

Country/Area & River basin

Italy	Other, please specify (Italy, East Coast)

Latitude
42.823431

Longitude
13.839734

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
1.37

Comparison of total withdrawals with previous reporting year
Much 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
1.376

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
Discharge data is not available for this facility. We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 19

Facility name (optional)
13379

Country/Area & River basin

United States of America	Colorado River (Pacific Ocean)

Latitude
32.274522

Longitude
-110.986429

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
8.93

Comparison of total withdrawals with previous reporting year
Much 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
8.937

Total water discharges at this facility (megaliters/year)
8.93

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
8.937

Total water consumption at this facility (megaliters/year)
0

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

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 20

Facility name (optional)
13381

Country/Area & River basin

United States of America	Cape Fear River

Latitude
35.479875

Longitude
-79.180299

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
11.21

Comparison of total withdrawals with previous reporting year
Much 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
11.215

Total water discharges at this facility (megaliters/year)
11.21

Comparison of total discharges with previous reporting year
Much higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
11.215

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
Much lower

Please explain
We have also updated our methodology compared to last year to more accurately track withdrawals, consumption, and discharge across our facilities. We track wastewater data at global manufacturing locations, where data is available. Water discharge data is sourced through our water billing systems. We understand the importance of accurate water discharge information to fully calculate total consumption. We have an active working group focused on water stressed locations, through which we are working with our facilities management team to improve our discharge tracking, closing all data gaps at our water stressed locations.
We have defined the comparison threshold as:
Much lower: >5% below
Lower: 3 -4.9% below
About the same: 0-2.9%
Higher: 3 - 4.9% above
Much higher: > 5% above

Facility reference number
Facility 21

Facility name (optional)
13404

Country/Area & River basin

United States of America	Trinity River (Texas)

Latitude
32.92582

Longitude
-96.923093

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
0

Comparison of total withdrawals with previous reporting year
Much 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
0

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
Much lower

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)
0

Comparison of total consumption with previous reporting year
Much lower

Please explain
Data is no longer available for this location.

W5.1a

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

Water withdrawals – total volumes

% verified
76-100

Verification standard used
We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. The value provided is the percentage of our total global footprint. Greater than 90% of our water withdrawals come from municipalities. The water withdrawal data from municipalities is third party verified.

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.

Reporting Protocols against which verification was reported:
CDP Water Disclosure Reporting Guidelines – Total Water Withdrawal Only
GRI Sustainability Reporting Guidelines

Verification from Apex Companies, LLC.

Please explain
<Not Applicable>

Water withdrawals – volume by source

% verified
76-100

Verification standard used
We track water withdrawals globally and data is collected centrally for all manufacturing, three HQ locations, and significant R&D facilities. The value provided is the percentage of our total global footprint. Greater than 90% of our water withdrawals come from municipalities. The water withdrawal data from municipalities is third party verified.

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.

Reporting Protocols against which verification was reported:
CDP Water Disclosure Reporting Guidelines – Total Water Withdrawal Only
GRI Sustainability Reporting Guidelines

Verification from Apex Companies, LLC.

Please explain
<Not Applicable>

Water withdrawals – quality by standard water quality parameters

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain
This data is not verified.

Water discharges – total volumes

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain
This data is not verified.

Water discharges – volume by destination

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain
This data is not verified.

Water discharges – volume by final treatment level

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain
This data is not verified.

Water discharges – quality by standard water quality parameters

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain
This data is not verified.

Water consumption – total volume

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain
This data is not verified.

W6. Governance

W6.1

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

W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Commitment to align with international frameworks, standards, and widely-recognized water initiatives Commitment to prevent, minimize, and control pollution Commitment to reduce or phase-out hazardous substances Commitment to reduce water withdrawal and/or consumption volumes in direct operations Commitment to reduce water withdrawal and/or consumption volumes in supply chain Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Commitment to water stewardship and/or collective action Commitments beyond regulatory compliance Reference to company water-related targets Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change Other, please specify (Within EHS and Sustainability policy)	Water is addressed in the social and environmental sections of our Human Rights and Sustainability policy, found here: https://www.johnsoncontrols.com/-/media/jci/suppliers/media-folder/corporate-responsibility/batteries/sustainability/conflict-minerals/human-rights-policy102017.pdf? la=en&hash=2AE227EA176EB6B9B2567D4EE93DF48B81D44124 We plan to improve our water stewardship over the next year by forming an expert council to set next-generation water targets, tracking processes, calculations improvements, and specific deadlines to ensure we remain an industry leader in the water space. The ongoing success of Johnson Controls is supported by our strong relationships with customers, employees, suppliers, shareholders and communities. To nurture and sustain such relationships, we are committed to operating in accordance with the Ten Principles of the UN Global Compact, of which we are a member. Our Human Rights and Sustainability Policy defines how we abide by these principles and related global. To find further detail on our sustainability reporting and policies, please visit: https://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies

W6.2

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

Yes

W6.2a

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

Position of individual or committee	Responsibilities for water-related issues
Board-level committee	Our commitment to water conservation starts at the top with our Board of Directors and CEO. Our Governance and Sustainability Committee receives quarterly progress briefings on ESG programs and goals - including water conservation - as well as sustainability management, sustainability risks, sustainability trends, and environmental health and safety. This Board Committee reviews annual targets for each ESG Commitment and has oversight for our performance quarterly. Our CEO reports on progress monthly to our board of directors. A quarterly ESG scorecard is prepared with performance against annual targets and reviewed with the Board of Directors Governance and Sustainability Committee. The Committee also reviews key strategies and progress towards decarbonization, water conservation, waste reduction, and value chain management. Integrating sustainability into the goals of our executive team and linking them to compensation ensures sustainability is embedded into our products, services and culture. Our focus on water conservation is aligned to SDG 6: Clean Water and Sanitation. We are committed to operating in accordance with the Ten Principles of the UN Global Compact, of which we are a member.
Chief Executive Officer (CEO)	ESG Strategy is reviewed and approved by the CEO and the Executive Committee. The Executive Committee is comprised of senior executives responsible for all our major corporate functions, including our Vice President, Chief Sustainability and External Relations Officer, all the Presidents of our businesses, Chief Human Resources Officer, and Chief Supply Chain Officer. The Executive Committee reviews, approves and monitors our sustainability goals and commitments, overseeing both annual targets as well as long term planning. The CEO and Executive Committee regularly monitors progress against our water commitments and has oversight responsibility for all initiatives, investments, processes, and technologies needed to reduce water consumption. We linked executive compensation to our sustainability and diversity goals to drive individual leadership accountability. Sustainability and diversity performance goals are required for the top leaders of our company, including our CEO and executive team. These goals are included as part of the individual contribution modifier applied to their annual incentive award calculation. Our CEO reports on progress toward these goals to our board of directors.
Chief Sustainability Officer (CSO)	The ESG Leadership Committee is chaired by our Vice President of Global Sustainability and Regulatory Affairs, and reports to the Chief Sustainability and External Relations Officer. Its members consist of senior leaders across our businesses, functions and regions. The leadership committee ensures that clear responsibility for achieving our targets is assigned and that colleagues are held to account for progress. The leadership committee also develops policies for internal governance as well as for external advocacy.

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	Monitoring implementation and performance Reviewing and guiding corporate responsibility strategy Reviewing and guiding strategy Setting performance objectives	The Board of Directors approves and oversees the implementation of the Company's mission, vision and values. The Governance and Sustainability Committee (Governance Committee) provides oversight of our ESG programs and goals, sustainability management, sustainability risks, sustainability trends and environmental health and safety, receiving quarterly briefings on our progress. The Governance Committee includes members with experience in leading, overseeing and /or otherwise having responsibility for corporate sustainability strategy and executive level initiatives. The Governance Committee receives quarterly progress updates on the Company's progress towards its climate related goals. It regularly receives updates on key climate-related areas of focus, including the Company's sustainability strategy, key sustainability initiatives, emerging climate-related regulations and the Company's climate-related reporting. For example, it provided oversight and guidance on the Company's efforts to organize a new ESG Leadership Committee and launch six workstreams focused on managing our sustainability commitments and ESG material topics, our readiness program for upcoming mandatory ESG regulatory reporting and 2023 ESG Materiality Assessment, guiding management in developing and executing its sustainability strategy.

W6.2d

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

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues	Primary reason for no board-level competence on water-related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
Row 1	Not assessed	<Not Applicable>	<Not Applicable>	<Not Applicable>

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 water-related risks and opportunities
Managing water-related risks and opportunities
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Integrating water-related issues into business strategy

Frequency of reporting to the board on water-related issues
Quarterly

Please explain
The Board of Directors subcommittee, Governance and Sustainability Committee, receives quarterly progress briefings on ESG programs and goals, sustainability management, sustainability risks, sustainability trends, and environmental health and safety.

The briefing is a standing agenda item for all quarterly Board meetings. Within the briefing we include a scorecard measuring progress towards ESG commitments, benchmarks of our performance vs. the industry, and a detailed reviewed of strategies.

Our commitment of 10% reduction in water stressed locations and current 12% achievement level is reported on the standard scorecard each month, with progress to date (vs. 2017 baseline), annual target, performance YTD. This level of detail ensures water is reviewed and spoken to at each quarterly meeting.

W6.4

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

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	Executive compensation is linked to our sustainability and diversity goals to drive individual leadership accountability. Sustainability and diversity performance goals are required for the top leaders of our company, including our CEO and executive team. These goals are included as part of the individual contribution modifier applied to their annual incentive award calculation. In 2022, over 16,000 employees tied their annual goals to sustainability and diversity. These goals are included as part of the individual performance goals of +10/-25 percent used to modify executive compensation. Our CEO reports on progress toward these goals to our board of directors.

W6.4a

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

	Role(s) entitled to incentive	Performance indicator	Contribution of incentives to the achievement of your organization's water commitments	Please explain
Monetary reward	Corporate executive team Chief Executive Officer (CEO)	Reduction of water withdrawals – direct operations	These incentives have helped to drive our progress towards water reductions in water-stressed locations and we are on track to meet our targets as a result.	The company provides monetary, KPI-based incentives to its employees at the highest management level (and at every level of the organization). Sustainability and diversity performance goals are required for the top leaders of our company, including our CEO and executive team. These goals are included as part of the individual performance modifier of +10/-25 percent used to adjust executive compensation. Integrating sustainability into the goals of our executive team and linking them to compensation ensures sustainability is embedded into our products, services and culture. Goals include those that drive our Sustainability Strategy and Commitments, which include water use targets, emissions reduction targets, energy reduction targets and efficiency targets. Leaders cascade our sustainability goals and employees across the company are embedding them into their annual goal setting process. Our plant managers have a monetary incentive to achieve a set of goals at the plant level, which includes energy, water and waste reduction targets. We provide monetary and company recognition to the Operations Leadership who lead our Johnson Controls Manufacturing System (JCMS) for our global manufacturing locations globally. JCMS includes requirements across nine principles, including Environment & Sustainability.
Non-monetary reward	Corporate executive team Chief Executive Officer (CEO) Chief Sustainability Officer (CSO)	Reduction of water withdrawals – direct operations	These incentives have helped to drive our progress towards water reductions in water-stressed locations and we are on track to meet our targets as a result.	Water reduction is one of the Key Performance Indicators (KPI), to monitor progress towards our 2025 Commitment of 10% reduction in water-stress locations. Water is shown to the subcommittee of the Board of Directors quarterly. The CEO Scorecard is compiled and rand each KPI within the CEO Scorecard is owned by a member of the Executive Committee, the most senior leaders of our organization. At the end of the year, the scorecard is used as guidance for demonstrating performance towards achieving our ESG Commitments. Including water reduction targets, the CEO Scorecard also includes GHG and Energy Intensity reduction targets.

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, other

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?

Our Sustainability and Government Relations teams are part of the same organization within the company, and report into our Chief Sustainability and External Relations Officer, who reports directly to the CEO. We use annual governmental affairs meetings and other regular business meetings to ensure our direct and indirect activities that influence policy are consistent with our overall climate change strategy and policy.

The Governance Committee of the Board of Directors (BOD) receives quarterly updates from the Chief Sustainability and External Relations Officer. The updates include both Government Relations and Sustainability scorecard performance and strategy updates. Government Relations is a member to of our water working group, ensuring consistent messaging on public policy.

Overall implementation of sustainability is the responsibility of company management with oversight by the CEO, his Executive Committee and the Governance and Sustainability Committee of the BOD. Our Energy and Climate Change Policy helps guide and ensure consistency across our climate change strategy and work.

Our engagement with non-governmental (NGO) partners is critical to our water conservation work. We partner with and invest in the World Business Council for Sustainable Development (WBCSD), the Business Council for Sustainable Energy (BCSE), American Council for an Energy-Efficient Economy (ACEEE), Sustainable Markets Initiative (SMI), and others to drive our water conservation policies.

W6.6

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

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

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	Buildings account for almost 40 percent of global greenhouse gas emissions and provide critical access to clean water and sanitation. Water is used for human consumption as well as the operational processes, including the heating and cooling of the facility. This means that optimizing and modernizing building technologies can drive sustainability directly and have a positive impact on both climate change and water use. With our customers, we accelerate sustainability with smarter, more efficient buildings that enable smart cities and communities by providing products and services that optimize building performance, improve safety and enhance comfort. Our long-term planning includes anticipating future business models, products, and services necessary to manage the carbon transition. Two key areas for our planning: 1 - The carbon and water use in the operation of a building and how we can move to zero carbon and water neutral / positive in operation. 2 - The embedded carbon and water in our products from the materials used and manufacturing processes.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	The launch of Johnson Controls' OpenBlue Net Zero Buildings provides a one-stop shop for customers looking to achieve water conservation and carbon reduction. With features such as remote monitoring and predictive maintenance, OpenBlue solutions enable customers to achieve their sustainability strategy and goals that can drive significant improvement in water reduction energy efficiency We are expanding our capabilities in building controls with our launch of OpenBlue Enterprise Manager. This digital platform measures and manages water, energy, emissions use. One module, Net Zero Advisor, measures emissions real-time and models a path to net zero. These tools are the launching point of our long term plans of building a portfolio of products and services to manage the carbon transition in the Built Environment. To help deliver these innovations, we commit over 90% of annual R&D spend on sustainable products & solutions. We are integrating sustainability indicators into our product development stage gate process. Even in the hottest climates, we have helped Dubai Energy and Water Authority design their new government building, reducing water by more than 50%. Our datacenter portfolio offers best in class air- and water-cooling technologies to build water efficient datacenters anywhere in the world and our heat pump technology has enabled a consumer manufacturing company to save over 70K tons of water annually.
Financial planning	No, water-related issues were not reviewed and there are no plans to do so	<Not Applicable>	Our long range planning includes the investments needed in resources, product development, capital expenditures, training, and marketing.

W7.2

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

Row 1

Water-related CAPEX (+/- % change)

24

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

-27

Water-related OPEX (+/- % change)

24

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

-27

Please explain

We accelerated our level of focus to reduce total water use, including our focus on water reduction at water stressed locations in FY22. We realized increased spending in water monitoring, measurements and improvements in both OPEX and CAPEX in FY22 vs. FY21, and expect this initial increase to reduce and maintain a more consistent level in future years.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	We conducted a physical climate risk scenario analysis looking at the impact to our global locations within a moderate and a "hot house world" scenario (RCP 4.5 and RCP 8.5). In the scenario analyses we conducted, we examined both the acute and chronic physical risks to our global locations. Within these physical risks we evaluate the impact of water scarcity and storm surge. We recognize that global temperatures are increasing, extreme droughts are becoming more frequent, hurricanes and cyclones are becoming more frequent and more severe, and river and coastal flooding is increasing. Climate change is expected to lead to increased drought in dry areas and the expansion of dry areas.

W7.3a

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

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related Climate-related	We conducted a physical climate risk scenario analysis looking at the impact to our global locations within within a moderate and a "hot house world" scenario (RCP 4.5 and RCP 8.5). In the scenario analyses we conducted, we examined both the acute and chronic physical risks to our global locations. We analyzed the acute and chronic related physical risks of these scenarios to our operations aligned to our short-term, medium-term and long-term time horizons. Nearly 400 of our locations were entered into a tool created by Willis Towers Watson, Climate Diagnostic, which applies these scenarios, time-horizons aligned with geospatial information to analyze these locations for physical climate risk exposure. It analyzed extreme weather events such as cyclones or floods (acute risk) and gradual changes in key variables such as temperature, humidity and precipitation (chronic stress factors). We updated our water stressed locations in alignment with the WRI Aqueduct Tool 3.0 with classification of High or Extremely High water stress as of 2021. We identified 23 water stressed locations, including facilities in Mexico, India, Brazil, Thailand, and Arizona in the United States.	Extreme weather events could result in damage to our physical plants and other assets, create the need for new transportation routes, and impact our suppliers and customers, thereby resulting in production delays, temporary reduction of our production capacity, and loss of revenue, among other impacts. For our water stressed locations, water scarcity could lead to decreased production for processes requiring water and impact our employee access to clean water and sanitation.	For near term impacts, we are in close contact with site management staff to ensure they are conducting pre-storm assessments and shutdown protocols and post-storm damage assessments to determine if business continuity plans need to be enacted. Designated JCI facilities go through a third-party facility risk management audit every 2-3 years. For new construction, we evaluate multiple sites against risks such as environmental contamination, proximity risks and natural catastrophe (earthquake, flood, windstorm) exposure and seek to develop policies, plans and procedures where risks are optimally managed. Our global property protection program is designed to protect Johnson Controls' employees, facilities and assets from events that could affect our property. Business Continuity Planning and Crisis Management programs are key pillars in our risk mitigation program. We have a Water Stressed Location working group of EHS, Global Operations, and Sustainability. The team meets to implement near-term actions to reduce water consumption. The team manages to an annual reduction target which is reviewed monthly. Each site is required to develop a reduction plan out to 2025. The team has implemented a process to monitor locations within the Medium-High water stress according to the WRI Aqueduct tool, sharing best practices with local management of those facilities. Each Director within Global Operations understands the water stressed sites within their responsibility.

W7.4

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

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

We are working to understand the framework in development from the Science-Based Target Network (SBTN) and joined as a pilot company of the Taskforce for Nature-related Financial Disclosure (TNFD). Both frameworks include water management and/or measurement criteria.

W7.5

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

	Products and/or services classified as low water impact	Definition used to classify low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	Yes	Johnson Controls measures water conservation in both absolute terms and water efficiency (WUE). WUE was specifically developed to help data centers measure how much water a facility uses for cooling and other needs. Our measurement of low water impact for our customers, includes a comparison to the existing solution in a retrofit situation. For new buildings, we compare the water saved vs. the product installation that exists in a comparable building. Examples of low water impact: 1 - In our Industry / Commercial segment, water efficiency is a focus in high water intensity manufacturing processes. We are able to lower water impact through our heat pump technology, leveraging wastewater systems as a primary source of energy, cooling tower optimization, smart water controls. An example of our work is with a large, global beverage producer. With the installation of two heat pumps, the manufacturing facility saved 70,600 tons of water annually. 2 - BlueStream hybrid cooling enabling options for both air- and water-cooling dependent on environmental conditions. The Johnson Controls BlueStream™ hybrid cooling system combines water- and air-cooling technologies to reduce water consumption by up to 80 percent while maintaining energy performance, allowing our customers to optimize performance for energy and water objectives. We have partnered with two national laboratories - the National Renewable Energy Laboratory in Golden, Colorado, and Sandia National Laboratory in Albuquerque, New Mexico - to test the BlueStream in data center cooling applications. NREL's high-performance computing datacenter saved 1.16 million gallons of water in its first year of incorporating BlueStream and 2.10 million gallons during a two-year period, while also maintaining a power usage efficiency (PUE) below NREL's threshold of 1.06, allowing the datacenter to retain the title of one of the most efficient in the world. 3 - Water is a key consideration for data center site selection. Our acquisition of Silent Aire enabled a full portfolio of data center cooling solutions to address the energy-water nexus, optimizing the usage of energy and water across all geographies. Our portfolio offers air cooling, water cooling, and direct evaporative cooling. In Denmark, our solution enabled a customer to utilize heat pumps as a cooling solution, saving 132,000 tons of water annually. The design also enabled waste heat generated from the data center to be reused to heat 6,900 homes. 4 - Our Municipal water conservation portfolio offers smart metering, advanced metering infrastructure, high efficiency fixtures, water reclamation and reuse systems, leak detection, among many other services. In the City of Toledo, Ohio 126,000 mechanical water meters that will lose their accuracy over time are being upgraded to new static water meters, which maintain their accuracy over their useful life and can also identify leaks at the customer's property. These new water meters will be read through an Advanced Metering Infrastructure (AMI) system to fully automate meter readings and virtually eliminate vehicle emissions from the meter reading process. The project also includes a customer engagement web portal that informs account holders about leaks on their property and provides them with useful information about finding and repairing leaks on domestic plumbing and offers useful tips for conserving water 5 - In Higher Education, Stanford University cut its water use by 15 percent and projected to save $420 million in operational costs. The savings are a result of ultra-efficient building technologies, hot and cold water thermal energy storage, and a patented smart technology system that uses weather and electricity pricing forecasts to optimize operations.	<Not Applicable>	For customers, we have a holistic approach to both energy and water efficiency, working to simultaneously optimize both given the specific environment, or managing the water - energy nexus. Buildings account for almost 40 percent of global greenhouse gas emissions, as well as provide critical access to clean water and sanitation. Water is used for human consumption as well as the operational processes, including the heating and cooling of the facility. This means that optimizing and modernizing building technologies can drive sustainability directly and have a positive impact on both climate change and water use.

W8. Targets

W8.1

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

Yes

W8.1a

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

	Target set in this category	Please explain
Water pollution	No, and we do not plan to within the next two years	We do not currently have plans to set a water pollution target and are not exposed to significant risk due to pollution in our operations.
Water withdrawals	Yes	<Not Applicable>
Water, Sanitation, and Hygiene (WASH) services	No, and we do not plan to within the next two years	Through our water policies and company implementation, all employees have access to water, sanitation and hygiene (WASH) services. Our Human Rights and Sustainability Policy establishes our commitment to operating in accordance with the Ten Principles of the UN Global Compact and related global standards. Johnson Controls provides clean toilet facilities, access to potable water, and sanitary food preparation and storage facilities. We strive to continuously improve health and safety performance in all of our operations.
Other	No, and we do not plan to within the next two years	We are exploring biodiversity in the context of water through our engagement with TNFD, but do not currently have any plans or targets related to it.

W8.1b

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

Target reference number
Target 1

Category of target
Water withdrawals

Target coverage
Company-wide (direct operations only)

Quantitative metric
Reduction in total water withdrawals

Year target was set
2017

Base year
2017

Base year figure
334

Target year
2025

Target year figure
300

Reporting year figure
294

% of target achieved relative to base year
117.647058823529

Target status in reporting year
Achieved

Please explain
Our goal is to reduce water consumption by 10% at our water-stressed facilities by 2025.

We updated our water-stressed locations in alignment with the WRI Aqueduct 3.0 with classification of High or Extremely High water stress in 2021. We have identified 23 water-stressed locations, including facilities in Mexico, India, Brazil, Thailand, and Arizona in the United States. In 2022, we surpassed the target by achieving 12% reduction in water withdrawals across our water stressed locations.

To achieve this target, we started with our facilities in Mexico where the designed a global program for water reduction, reuse and recycling with best practices implemented in each of our water-stressed locations. This systematic approach to water conservation will be added to our Johnson Controls Manufacturing System (JCMS) for application throughout our global facility network.

Through this process, the facility gains insight to the flow of water from withdrawal to discharge or recycling and puts together a plan to increase water efficiency, and opportunities for conservation through process improvement, increased water metering, and installation of rainwater capture and recycling systems. This work continues to be rolled out across water stressed locations and all facilities across our global footprint through JCMS.

W9. Verification

W9.1

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

W9.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	In question W1.2b, data behind total withdrawals was verified.	ISAE 3000	Since 2011, Bureau Veritas, now part of Apex, an independent auditor recognized by the Carbon Disclosure Project, has audited our water data per the International Standard on Assurance Engagements (ISAE) 3000. The audit provides further confidence that our reported data have a low margin of error and are consistent with external or internally defined sustainability accounting principles. Per the Apex report: Boundaries of the water withdrawal covered by the verification include Operational Control and Worldwide Data Verified is Total Water Withdrawal. Data and information supporting the water withdrawal assertion were in most cases historical in nature, but in some cases estimated. The period covered by water withdrawal verification was Fiscal Year 2022 (October 1, 2021 to September 30, 2022). The reporting Protocols against which verification was conducted include the CDP Water Disclosure Reporting Guidelines (Total Water Withdrawal Only), GRI Sustainability Reporting Guidelines Verification Protocols, and International Standard on Assurance Engagements (ISAE) 3000 Revised. The verification methodology included interviews with relevant personnel, review of documentary evidence, review of data and information systems and methodology for collection, aggregation, analysis and review of information used to determine water withdrawal, and audit of samples of data used to determine water withdrawal. https://www.johnsoncontrols.com/-/media/jci/corporate-sustainability/reporting-and-policies/2023/report/water--jci-fy-2022-verification-statement.pdf

W10. Plastics

W10.1

(W10.1) Have you mapped where in your value chain plastics are used and/or produced?

	Plastics mapping	Value chain stage	Please explain
Row 1	Please select	<Not Applicable>	

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?

	Impact assessment	Value chain stage	Please explain
Row 1	Please select	<Not Applicable>	

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.

	Risk exposure	Value chain stage	Type of risk	Please explain
Row 1	Please select	<Not Applicable>	<Not Applicable>	

W10.4

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

	Targets in place	Target type	Target metric	Please explain
Row 1	Please select	<Not Applicable>	<Not Applicable>	

W10.5

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

	Activity applies	Comment
Production of plastic polymers	Please select	
Production of durable plastic components	Please select	
Production / commercialization of durable plastic goods (including mixed materials)	Please select	
Production / commercialization of plastic packaging	Please select	
Production of goods packaged in plastics	Please select	
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	Please select	

W11. Sign off

W-FI

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

W11.1

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

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

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	25301000000

SW1.1

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

No, CDP supply chain members do not buy goods or services from facilities listed in W5.1

SW1.2

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

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	Yes, for all facilities	Data below.

SW1.2a

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

Identifier	Latitude	Longitude	Comment
Facility 1 - 04214	38.340613	27.13066	
Facility 2 - 13378	31.858092	-106.603564	
Facility 3 - 13386, 13387, 13464	31.680492	-106.444268	
Facility 4 - 14431A	25.908	-97.584317	
Facility 5 - 05344	25.788864	-100.144432	
Facility 6 - 27989	25.962653	-100.178529	
Facility 7 - 14278	52.907837	12.772491	
Facility 8 - 13400	31.667864	-106.393321	
Facility 9 - 13384	34.005009	-117.537843	
Facility 10 - 13479	20.770231	72.982377	
Facility 11 - 14408	37.442345	127.177024	
Facility 12 - 14687	29.911945	-93.936075	
Facility 13 - 13769	23.292786	72.346161	
Facility 14 - 13804	-23.588316	-46.584737	
Facility 15 - 00484	26.05084	-98.297895	
Facility 16 - 13396	34.001163	-117.525454	
Facility 17 - 13407	14.071198	101.831393	
Facility 18 - 14395A	42.823431	13.839734	
Facility 19 - 13379	32.274522	-110.986429	
Facility 20 - 13381	35.479875	-79.180299	
Facility 2 - 13404	32.92582	-96.923093	

SW2.1

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

SW2.2

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

No

SW3.1

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

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Yes, CDP may share our Main User contact details with the Pacific Institute

Please confirm below

I have read and accept the applicable Terms