

W0. Introduction

W0.1

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

The Bridgestone Group, headquartered in Tokyo, is the world's largest tire and rubber company. In addition to tires for use in a wide variety of applications, it also manufactures a broad range of diversified products, which include industrial rubber and chemical products and sporting goods. Its products are sold in over 150 nations and territories around the world.

The Corporate Strategy and Planning Division is responsible for answering the 2020 CDP questionnaire. This division coordinates and manages the Group's Environmental Mission Statement compliance, providing environmental support to business sections, Strategic Business Units (SBUs), at a global level.

W0.2

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

	Start date	End date
Reporting year	January 1 2019	December 31 2019

W0.3

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

Argentina
 Australia
 Belgium
 Brazil
 Canada
 China
 China, Hong Kong Special Administrative Region
 Costa Rica
 France
 Hungary
 India
 Indonesia
 Italy
 Japan
 Malaysia
 Mexico
 Philippines
 Poland
 Russian Federation
 South Africa
 Spain
 Taiwan, Greater China
 Thailand
 Turkey
 United Kingdom of Great Britain and Northern Ireland
 United States of America
 Viet Nam

W0.4

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

JPY

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
Non-production sites, the production sites where the number of employees does not consistently exceed 50, and the production sites under preparation to be certified according to ISO-14001.	Impact from the excluded sites is estimated to be negligible compared to the total impact.

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	In our production process, we use water resources for cooling water and steam. Employees also need sufficient water of proper quality for drinking and washing. In addition, sufficient quantity and quality of water also is indispensable throughout the value chain for the production of various raw material and components, such as natural rubber, synthetic rubber, carbon, cord, and steel belt, among others. Our suppliers use water resources for washing, cooling water and steam. Therefore, continuous use of sufficient amounts of freshwater of adequate quality is important for continuing operation of our business (direct operations) and our value chain (indirect operations). According to the result of the "Future Water Stress" of the World Resources Institute (WRI) Aqueduct analysis, we believe that our water dependency in direct/indirect use will not change much in the future. However, if abnormal weather such as high temperature and/or drought occur frequently, the importance of water security will be higher.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	In our production process, we use recycled water as cooling water. For example, sewage-treated water is used as cooling water or steam. Also in our value chain (raw material production sites), recycled water is being utilized as cooling water. Therefore, continuous use of sufficient amount of recycled water is important for continuing operation of our business (direct operations) and our value chain (indirect operations). According to the result of the "Future Water Stress" of the World Resources Institute (WRI) Aqueduct analysis, we believe that our water dependency in direct/indirect use will not change much in the future. However, if abnormal weather such as high temperature and/or drought occur frequently, the importance of water security will be higher.

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	We monitor water withdrawal volume by water source at all our facilities on a monthly basis. The monitoring method is based on bills for water purchased from the outside, and measurement meters for water taken in-house. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
Water withdrawals – volumes by source	100%	We monitor water withdrawal volume by water source at all our facilities on a monthly basis. The monitoring method is based on bills for water purchased from the outside, and measurement meters for water taken in-house by water source. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	Water supplied by third parties, such as city water and industrial water, will be subjected to appropriate water quality analysis by them. For example, in Japan, pH, turbidity, bacteria, heavy metals, etc. are analyzed by the methods specified by the Water Supply Act and ministerial ordinances. Nonetheless, we also conduct our own analysis as necessary according to local regulations and our own standards. When we analyze it, we do it on a monthly basis or as often as required by local regulations. The analysis may be performed by a specialized external organization or it may be done in-house. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
Water discharges – total volumes	100%	Because our finished products (tires, etc.) contain almost no water, we discharge most of the water we withdraw. Based on the monthly water discharge data of our facilities that monitor the data based on bills or in-house measurement meters, we estimate the total volume of water discharges at all our facilities and are working to understand that impact. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
Water discharges – volumes by destination	100%	Because our finished products (tires, etc.) contain almost no water, we discharge most of the water we withdraw. Based on the monthly water discharge data of our facilities that monitor the data based on bills or in-house measurement meters, we estimate the water discharges (volumes by destination) at all our facilities and are working to understand that impact. For our company, "facilities" refers to our production sites certified according to ISO-4001 and consistently with 50 employees or more.
Water discharges – volumes by treatment method	100%	Because our finished products (tires, etc.) contain almost no water, we discharge most of the water we withdraw. Based on the monthly water discharge data of our facilities that monitor the data based on bills or in-house measurement meters, we estimate the water discharges (volumes by treatment method) at all our facilities and are working to understand that impact. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
Water discharge quality – by standard effluent parameters	100%	We monitor water discharge quality based on applicable regulations (such as pH, BOD, COD, SS, harmful substances, etc.) by continuous real time monitoring or in-house/third-party sampling analysis at all of our facilities (mostly on a monthly basis), based on the standards of the countries and regions where the facilities are located. Our facilities have implemented water effluent standards of their own that meet or tighten applicable government standards, and endeavor not to exceed government-established limits. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
Water discharge quality – temperature	26-50	We measure and manage the water discharge temperature by continuous real time monitoring or sampling analysis (mostly on a monthly basis), based on the standards of the countries and regions where the facilities are located. In areas where administrative agencies judge that it is unnecessary to measure water discharge temperature, some facilities do not measure it. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
Water consumption – total volume	100%	The monitoring method for water consumption is calculated by subtracting the water discharge volume from the water withdrawals volume at all our facilities yearly and we are working to grasp the impact. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
Water recycled/reused	100%	Based on the monthly water recycled/reused data of our facilities that monitor the data measured by flow meter, we estimate the water recycled/reused volumes at all our facilities and are working to understand that impact. The monitoring method for recycled/reused water is calculated by reading the value of flow meters installed on equipment, and to estimate using design values for some equipment. For sites where flow rates cannot be measured, estimates are made based on the data of sites where flow rate can be measured. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.
The provision of fully-functioning, safely managed WASH services to all workers	100%	We recognize access to clean water and sanitation as human rights. We supply all employees with clean water and sanitation at all production facilities. Our method for monitoring: Most sites are supplied clean water purified by public agencies or private water treatment plants. The items to be analyzed and the frequency vary depending on the country rules and vary from once a day to once a month. The water supplied by the public agencies is analyzed by them, and when using the groundwater pumped in-house, we or external analysis organizations analyze the quality. For our company, "facilities" refers to our production sites certified according to ISO-14001 and consistently with 50 employees or more.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	69753.1	About the same	Through efforts to reduce water withdrawal, total water withdrawals were reduced by 4.0% from the previous year. However, there was no significant change (about the same) in water withdrawals compared to the previous year. In the future, no major change is expected (about the same), but it is expected that the amount of water withdrawals in 2020 will greatly decrease since the impact of COVID-19 will significantly reduce production. From a long-term perspective, since it is expected that the water withdrawals will increase due to the increase in production volume, we promote reduction of water withdrawals continuously. In particular, we will focus on sites located in water stress areas. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%
Total discharges	57254.4	About the same	Through efforts to reduce water withdrawals, total withdrawals were reduced by 4.0% from the previous year. Along with that, the total water discharges also reduced by 5.1%, but there was no significant change (about the same) in water discharges compared to the previous year. In the future, no major change is expected (about the same), but it is expected that the amount of water discharges in 2020 will greatly decrease since the impact of COVID-19 will significantly reduce production. From a long-term perspective, since it is expected that the water discharges will increase due to the increase in production volume, we promote reduction of water withdrawals continuously. In particular, we will focus on sites located in water stress areas. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%
Total consumption	12498.8	About the same	Total water consumption increased by 1.8% from the previous year. However, there was no significant change (about the same) compared to the previous year. The reason for this was likely due to abnormally high temperatures in 2019 that have occurred in many parts of the world. For example, increasing the amount of water that evaporates from the cooling towers of air conditioners, increasing the amount of water used to sprinkle trees and lawns on the sites. In the future, no major change is expected (about the same), but it is expected that the amount of water consumption in 2020 will greatly decrease since the impact of COVID-19 will significantly reduce production. From a long-term perspective, since it is expected that the water consumption will increase due to the increase in production volume, we promote reduction of water consumption continuously. In particular, we will focus on sites located in water stress areas. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%

W1.2d

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

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	1-10	About the same	WRI Aqueduct	The percentage of water withdrawal at facilities located in the water stress area decreased from 4.9% in 2018 to 4.7% in 2019. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with 50 employees or more. In a large group such as a basin, the actual situation may not match the desk analysis, so we determine the facilities located in the water stress area by the following method. 1. Extract facilities located in water stress area using WRI Aqueduct, a recognized analysis tool used worldwide. 2. Collect local information on each region (e.g. past drought information, information on future water resource security, etc.). 3. Whether the factory uses water for the production process. In the future, no major change is expected (About the same), but it is expected that the amount of water withdrawn from areas with water stress in 2020 will greatly decrease since COVID-19 will significantly reduce production. From a long-term perspective, since it is expected that the water withdrawals will increase due to the increase in production volume, we promote reduction of water withdrawals continuously in water stress areas in particular. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	3298.5	About the same	Since we use water resources for cooling and steam in our production process, we select "Relevant". We cannot produce products such as tires without fresh surface water. This volume is composed of river water and rainwater, most of which is river water. They are sourced from direct measurement. Fresh surface water volume was increased by 6.8% compared with the previous year. This is due to the change of water withdrawal source (e.g. change from groundwater to river water) In the future, no major change is expected (about the same), but it is expected that the amount of withdrawals in 2020 will greatly decrease since the impact of COVID-19 will significantly reduce production. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%
Brackish surface water/Seawater	Relevant	37844.1	About the same	Since we use seawater for cooling water at one site located on seaside, we select "Relevant". We cannot produce raw materials without seawater. This volume is composed of seawater and sourced from direct measurement. Brackish surface water/seawater withdrawal volume was decreased by 4.6% compared with the previous year. This is because there was a time when the site using seawater had been shut down for periodical maintenance in 2019. In the future, no major change is expected (About the same), but it is expected that the amount of withdrawals in 2020 will greatly decrease since COVID-19 will significantly reduce production. From a long-term perspective, since it is expected that the withdrawals will increase due to the increase in production, we promote reduction of withdrawals continuously. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%
Groundwater – renewable	Relevant	9719	About the same	Since we use groundwater (renewable) for cooling and steam in at the sites where groundwater can be used, we select "Relevant". We cannot produce products such as tires without groundwater. This volume is sourced from direct measurement. Groundwater withdrawal volume was decreased by 5.9% compared with the previous year by efforts to reduce the amount of water withdrawal. In the future, no major change is expected (about the same), but it is expected that the amount of withdrawals in 2020 will greatly decrease since COVID-19 will significantly reduce production. From a long-term perspective, since it is expected that the withdrawals will increase due to the increase in production, we promote reduction of withdrawals continuously. In particular, we will focus on sites located in water stress areas. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	Since we do not use non-renewable groundwater that cannot be naturally recharged on the human time-scale, and we use renewable groundwater at shallow depths, we select "Not relevant". Since we have no plan to use non-renewable groundwater, no major change is expected in the future.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	We select "Not relevant" since we don't have produced water that enters our boundaries as a result of the extraction, processing, or use of any raw material. Since we have no plan to get produced/entrained water, no major change is expected in the future.
Third party sources	Relevant	18891.6	About the same	Since we use third party sources of water for cooling and steam in our production, we select "Relevant". We cannot produce products such as tires without it. This item contains the amount of city & industrial water, steam and wastewater recycled by others. This volume is sourced from direct measurement or invoice information. The volume was decreased by 3.3% compared with the previous year by water saving efforts and production fluctuations. In the future, no major change is expected, but it is expected that the amount of withdrawals in 2020 will greatly decrease since the impact of COVID-19 will significantly reduce production. From a long-term perspective, since it is expected that the withdrawals will increase due to the increase in production, we promote reduction of withdrawals continuously. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	11786.5	About the same	If a site is adjacent to a river, it discharges the wastewater to a river after meeting the wastewater standards. Therefore, "Fresh surface water" is closely related to our business, we select "Relevant". Based on the monthly water discharge data of our facilities, we estimate the volume of water discharges at all our sites and are working to understand that impact. The volume was decreased by 9.2% compared with the previous year. This is because the amount of water withdrawal was reduced due to water saving efforts and production fluctuations at the factory that discharges to fresh surface water. In the future, no major change is expected, but it is expected that the amount of withdrawals in 2020 will greatly decrease since the impact of COVID-19 will significantly reduce production. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%
Brackish surface water/seawater	Relevant	39675	About the same	At the facility that uses seawater for cooling, used seawater is returned to the sea after meeting the wastewater standards. Therefore, "Brackish surface water/seawater" is closely related to our business, we select "Relevant". The volume of water discharge to seawater is sourced from direct measurement. Since the facility using seawater stopped operations for maintenance temporarily in 2019, it was decreased by 4.7% compared with the previous year. We have defined 85%-115% of the previous year as "About the same", so we chose "About the same". (See threshold below for details) In the future, no major change is expected, but it is expected that the amount of withdrawals in 2020 will greatly decrease since the impact of COVID-19 will significantly reduce production. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	Since we do not send wastewater to groundwater directly, we chose "Not relevant". We will not change this direction in the future.
Third-party destinations	Relevant	5792.8	About the same	When a site is located in the inland, it drains the wastewater to a third-party's treatment facility. Therefore, "Third-party destinations" is closely related to our business, we select "Relevant". Based on the monthly water discharge data of our facilities that monitor the data based on bills or in-house measurement meters, we estimate the volume at all our sites. It was increased by 1.0% compared with the previous year. This is mainly due to the production fluctuations at the facilities that discharge the water into third-party destinations, and not to any particular changes. In the future, no major change is expected, but it is expected that the amount of withdrawals in 2020 will greatly decrease since the impact of COVID-19 will significantly reduce production. Our company-specific explanation for these thresholds is below. Much lower: Less than 49%, Lower: 50% - 85%, About the same: 85% - 115%, Higher: 115% - 150%, Much higher: More than 150%

W1.4

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

Yes, our suppliers

W1.4a

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

Row 1

% of suppliers by number

26-50

% of total procurement spend

51-75

Rationale for this coverage

In Feb.2018, we issued the "Global Sustainable Procurement Policy" which is applicable to all purchased materials and services, as well as all suppliers globally. The journey towards a "Sustainable society", Bridgestone's goal for 2050 and beyond as our long-term environmental vision including water viewpoint, will not be simple, nor can we achieve it alone. Each of our businesses is supported by many suppliers. Regardless of the size of the supplier or where they operate in any region, we believe that the efforts of each supplier are important. This is why all of our suppliers were selected for reporting. The following incentives for suppliers to respond to assessments using EcoVadis were introduced together with the policy; 1. Receive a score card with strengths/weaknesses that they can use for the next activity, 2. Receive an evaluation of gold, silver and bronze that can appeal to outside, 3. Use the EcoVadis assessment to respond to the same request from other customers.

Impact of the engagement and measures of success

Through a 2018 partnership with EcoVadis, we assessed suppliers' current sustainability practices, as well as the possible support needed to improve performance. This activity could be an opportunity for suppliers to confirm and improve their actions for preventing water-related issues further. Details of the type of information requested from suppliers are "water policy", "water management actions", and "water consumption". Based on that information, we have started to assess the sustainability practices of our suppliers and support them for improvement as needed. Details of how success is measured by the ratio of completion of audit by third-party. 48% of our Tier 1 major tire material suppliers completed the third-party assessment with EcoVadis.

Comment

W1.4b

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

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

1-25

% of total procurement spend

1-25

Rationale for the coverage of your engagement

Since our headquarters is located in Japan, we started to hold a "procurement policy briefing session" every year in Japan, focusing on global and non-global suppliers based in Japan. One of the topics of the briefing session is to tackle environmental issues including water, and we educate our suppliers on the importance of managing water usage and preventing illegal drainage. The ratios are calculated by the following formula. % of suppliers by number = Number of companies procured by Japan Tire SBU / Number of companies procured by all SBUs. % of total procurement spend = Procurement spend by Japan Tire SBU / Procurement spend by all SBUs. * SBU; Strategic Business Unit

Impact of the engagement and measures of success

With continuous education every year, our suppliers are becoming more aware of the importance of water. As a result, in our past "Green Partner Awards", which recognizes suppliers' environmental efforts, some suppliers applied for their water saving efforts. And, we have not received any reports of serious water problems from our suppliers. The results of supplier activities lead to reduce water withdrawals and water-related issues, which in turn leads to cost savings. And, it is considered that they bring about a virtuous cycle that leads not only to our company, but also to the improvement of evaluation by a third-party organization (e.g. EcoVadis, CDP Water Security). As a measure of success, we use a response rate on our annual original self-check sheet evaluations. We aim to have all requested suppliers respond.

Comment

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?

No

W3. Procedures

W3.3

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

Yes, water-related risks are assessed

W3.3a

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

Direct operations

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market

Other

Tools and methods used

WRI Aqueduct

Internal company methods

Comment

We performed macro analyses with the WRI Aqueduct. It is one of the most widely utilized tools in the world to assess water risks and is considered to provide highly reliable results. In addition to the timing of tool updates and the frequency of our site closures and our operations' relocating to new sites, we perform water risk assessments at least annually. We also assess regulatory and regional-level demands on a site-by-site basis as necessary.

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Other

Tools and methods used

External consultants

Comment

Through a 2018 partnership with EcoVadis, a leading provider of sustainability, risk and performance ratings for global supply chains, we conducted assessments to suppliers with current sustainability practices including water, and offered support as needed to improve their performance. This activity could be an opportunity for suppliers to confirm and improve their actions for preventing water-related issues further.

Other stages of the value chain

Coverage

None

Risk assessment procedure

<Not Applicable>

Frequency of assessment

<Not Applicable>

How far into the future are risks considered?

<Not Applicable>

Type of tools and methods used

<Not Applicable>

Tools and methods used

<Not Applicable>

Comment

W3.3b

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

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Water is an essential resource for our operations and used for cooling and creating steam in our manufacturing processes. Therefore, whenever we consider building a new facility, we investigate the water availability at the phase of site selection. Furthermore, since water availability is not constant and changes with supply-demand conditions and climate change, so we analyze it using Aqueduct once a year. As such, we consider "Water availability at a basin/catchment level" is important in our water-related risk assessment. We use the WRI Aqueduct and evaluate our production sites. In addition, we communicate with local government agencies where the facilities are located as necessary to collect information on water availability.
Water quality at a basin/catchment level	Relevant, always included	Water is an essential resource for our operations and used for cooling and creating steam in our manufacturing processes. Regarding water quality, it can affect the quality of the product, especially when cooling components. Therefore, whenever we consider building a new facility, we investigate the water quality at the phase of site selection. Furthermore, since water quality is not constant and may fluctuate, we analyze it using Aqueduct once a year. As such, we consider "Water quality at a basin/catchment level" is important in our water-related risk assessment. We use the WRI Aqueduct and evaluate our production sites. In addition, we communicate with local government agencies where the facilities are located as necessary to collect information on water quality. To prevent water pollution in the downstream area, we are reducing the risk by controlling the quality of discharges by administrative regulation values or our self -standards that are stricter than that.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	We recognize that freshwater is an unevenly distributed and limited resource that must be shared locally and responsibly. When water shortages occur due to abnormal weather or increased demand, water conflicts may occur. Therefore, we recognize the necessity to maintain good relationships with local stakeholders (local governments, communities, NGOs, etc.), and we consider "Stakeholder conflicts concerning water resources at a basin/catchment level" is important in our water-related risk assessment. To minimize the water-related risk of conflict with stakeholders concerning water resources at a basin/catchment level, we are gathering information from each operating site. We strive to maintain good relationships with local stakeholders through facility tour, forest conservation activities with municipalities, collaboration with river conservation groups and river clean-ups, for example. Regarding risk assessment, we have used the results of WRI Aqueduct's Regulatory & Reputational Risk (Media Coverage & Access to Water).
Implications of water on your key commodities/raw materials	Relevant, always included	We have some production facilities within our group that manufactures natural rubber, synthetic rubber, carbon black, and steel cords used as raw materials for tires in final products. Water is an essential resource in their operations and used for cooling and creating steam in their manufacturing processes. Therefore, whenever we consider building a new raw material facility, we investigate the water availability and quality at the phase of site selection, and analyze them using Aqueduct once a year. For suppliers other than our own group, we request the following items in our "GLOBAL SUSTAINABLE PROCUREMENT POLICY" as preferred practices, "Suppliers analyze their operations, and identify risks related to environmental, social, or business impacts, particularly in Water Stressed Areas".
Water-related regulatory frameworks	Relevant, always included	Because the regulation of water could affect our production including costs, we evaluate potential impacts using WRI Aqueduct's Regulatory & Reputational Risk. Regulatory and reputational risks identify areas of concern regarding uncertainty in regulatory change, as well as conflicts with the public regarding water issues. In addition, each facility strives to understand trends in laws and regulations through communication on a regular basis with local government agencies.
Status of ecosystems and habitats	Relevant, always included	Regarding the estimation of the impact on ecosystems and habitats at local level, necessary measures are considered and carried out in accordance with the standards of each region. Especially, the production of natural rubber, our main raw material, consists of symbiosis with ecosystems and habitats, so they are closely linked to our business. Specifically, in some regions where biodiversity is expected to fall, we are providing the local community with rubber tree seedlings and instruction in their cultivation, with the intention of regenerating the forest through agroforestry. In other locations around the world, we are cooperating with neighboring regions and NGOs in activities for the protection of biodiversity and evaluating the results. For example, Bridgestone Americas, Inc. acquired "Wildlife Habitat Conservation and Environmental Education Certification" from the Wildlife Habitat Council (WHC) for its 11 Wildlife Habitat Sites. Obtaining such third-party certification is also used as one of the assessment tools. The new information and expertise gained through these activities are being applied to future activities and to activities at sites within the Bridgestone Group.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	A working place where all employees can use safe and secure water is an important basis for them to work with peace of mind. Therefore, we recognize that "Access to fully-functioning, safely managed WASH services" is closely related to our business. Using internal company methods, we conduct surveys and studies on the access to WASH services for employees at all production sites at the time new sites are placed into operation. We regularly conduct water quality inspection as necessary according to regional standards.
Other contextual issues, please specify	Not considered	

W3.3c

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

	Relevance & inclusion	Please explain
Customers	Relevant, always included	Our final products, tires and diversified products (anti-vibration rubber, sporting goods, bicycles, etc.) do not contain water and they do not need water when used by customers (auto manufacturers other companies and individuals). However, auto manufacturers are increasingly interested in water initiatives throughout their supply chains, as can be seen from the increasing number of companies that use the CDP Water Security to collect information on water. So, every year, we assess the demands of our customers, study and implement solutions aimed at addressing those demands.
Employees	Relevant, always included	We recognize that the risk that low water quality can affect the livelihoods and health of our employees and that limits on tap water withdrawal due to water shortages affects employees' health, safety, and productivity. Thus, we strive to measure that risk on a site-by-site basis. In addition, we provide employees with information on water risk and encourage them to take care of water. For example, in Japan, we continually raise our employees' awareness about environmental information, including water conservation, through our intranet.
Investors	Relevant, always included	As investors' requests include advanced level efforts, it is valuable hint for our activities. Every year, we assess the demands of our investors, study and implement solutions aimed at addressing those demands. We also exchange views on various environmental themes/risks, including water, at individual interviews with investors. Finally, we regard the response to CDP Water Security as one of the important information disclosure methods to investors.
Local communities	Relevant, always included	We recognize that the risk that low-quality discharges can affect the livelihoods, health and business activities in the downstream area. When water impacts occur, we strive to avoid impacts to local communities by gathering local data for each site and explore countermeasures. We also exchange views on various environmental themes including water at regional roundtable meetings held periodically at each facility as needed.
NGOs	Relevant, always included	NGOs are valuable stakeholders who can advise us about our activities regarding water, based on their specialized knowledge. We collect information from NGOs constantly, sometimes consult with NGOs and reflect their feedback in our environmental action programs. Each facility is encouraged to engage independently in collaboration with NGOs. For example, we had NGOs teach at our nature observation events, we provided NGOs with access to ponds on site property for the purpose of breeding research of an endangered species.
Other water users at a basin/catchment level	Relevant, always included	Depending on the discharges from sites, there may be some risks of affecting in the downstream ecosystems and fisheries. Where there are fishing areas in the drainage area of the site or downstream of the site, sometimes we have entered into agreements with local groups regarding the water quality (e.g. temperature of the discharges, amount of floating matter). Therefore, as part of our sustainability focus, we collect and evaluate information on fisheries and other water uses in our neighborhoods and downstream areas.
Regulators	Relevant, always included	There are some risks that production may be required to cease in the event if we are unable to respond to the strengthening of water regulations. (e.g. Tightening of wastewater quality) We collect information from regulatory authorities on a site-by-site and region-by-region basis continually and explore measures that will ensure operations at our sites are not impacted. Regarding global trends of water regulations, the corporate headquarters provides updates, which are used to anticipate risks on a regional level. One of the ways to engage with stakeholders is through dialogues with industry-wide organizations, which we have joined, such as the WBCSD's Tire Industry Project, the chemical industry association and the rubber industry association.
River basin management authorities	Relevant, always included	There are some risks that production may be required to cease in the event if we are unable to respond to the strengthening of water regulations. (e.g. Restrictions on water withdrawal volume) One of the ways to engage with stakeholders is face-to-face information exchange. We collect information from river basin management authorities on a site-by-site and region-by-region basis periodically as needed and explore measures that will mitigate impact to operations.
Statutory special interest groups at a local level	Relevant, sometimes included	There are some risks that production may be required to cease if we are unable to address water-related issues pointed out by statutory special interest groups at a local level suddenly. As of today, there is no important issue to be tackled in cooperation with statutory special interest groups at local level. One of the ways to engage with stakeholders is face-to-face information exchange. When local issues arise, the potentially impacted site communicate with local groups to gather information, implement and evaluate measures in close liaison with corporate headquarters.
Suppliers	Relevant, always included	Our main products, tires, are made from various raw materials such as natural rubber, synthetic rubber, carbon black, and steel cords. The production of these raw materials is dependent on stable operation of suppliers all over the world, and if floods and droughts affect the production and logistics of our suppliers, our production will be affected. Therefore, we recognize that water risk for suppliers is an important issue. In February 2018, we issued a Global Sustainable Procurement Policy that applies to all purchased materials and services, and to all suppliers worldwide. In it, the item "Water management" has been mentioned, and our suppliers are required to comply with laws and regulations, to have full knowledge to identify associated potential water risks or opportunities, and to manage their water usage and prevent unlawful effluent discharge. We communicate about water-related risks through the development of the policy, audits of suppliers, and opportunities for dialogue.
Water utilities at a local level	Relevant, always included	There are some risks of impact to production if there is a lack of sufficient water quality or sufficient amount of water not being supplied from water utilities at a local level. Since water is important to our operations, from early stage of site establishment, we are conducting risk assessments to determine whether stable water quality and quantity are available for long term and whether sustainable measures can be implemented. Based on the results of the risk assessments, we continue to discuss with our stakeholders to ensure sufficient water quality and quantity.
Other stakeholder, please specify	Not considered	

W3.3d

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

We perform macro analyses with the WRI Aqueduct. It is one of the most widely utilized tools in the world to assess water risks and is considered to provide highly reliable results.

We have analyzed the change of water stress (2020, 2030, and 2040) in each of the three climate-related scenarios. We conduct water risk assessments at least once a year, and also when the tool updated and when new facilities are considered for installation.

We are targeting all Bridgestone Group production sites. In addition, since we own sites that produce our raw materials (natural and synthetic rubber, carbon black, steel code, etc.), we are also analyzing some of the raw material procurement stage of the value chain.

Since water usage at non-manufacturing sites such as offices and dealers is very small, they are not covered. We do not periodically analyze raw material suppliers and dealers outside our group, but analyze using WRI Aqueduct as necessary.

The severity of risk is decided based on the five-rank risk level derived by WRI Aqueduct. As we deal with risks, conditions vary from region to region. So, we collect the following information under the cooperation of municipalities that are closely communicating on a regular basis.

We collect information such as regulations, opinions of stakeholders (local governments and communities, NGOs, etc.), water resource information (Usage situation, water volume, price in the area such as city water, groundwater, river water, etc.), and possibility of impact on ecosystem.

Based on those information, each SBU (Strategic Business Unit) decides how to manage water-related risks (mitigate, transfer, accept, or control risks) by comprehensively considering how to cope with sustainability for the region and for our business, and report the Global Environment Working Group, the Global Sustainability Committee (the Global CSR Enhancement Committee as of 2019) and the Global EXCO (Executive Committee) as necessary.

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?

No

W4.1a

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

i) A definition of substantive financial or strategic impact is given:

We define substantive financial or strategic impact resulting from water risks as any changes which cause significant impact on our relationships with stakeholders, operation, financial performance and reputation in real terms. Specific examples of the impacts include plant shutdowns, property damage, supply chain disruptions, increasing operation costs, environmental regulation violations, and environmental accidents.

ii) The measure(s), metric(s) or indicator(s) used to identify substantive change:

When formulating a Business Continuity Plan (BCP) for each business or production site, "probability" and "impact on business" are used as indicators, and these are multiplied to measure the impact on finance or strategy. Furthermore, we use the results of risk analysis by WRI Aqueduct to estimate the impact based on objective, universal data.

iii) The threshold or amount of change in the metric/measure/indicator which indicates substantive change:

We judge risk based on the following rank classification obtained from the analysis result of Aqueduct. At the highest risk level (Extremely high risk), we consider that there is a substantive financial or strategic impact of water risk.

- Low risk (0-0.99)
- Low to medium risk (1.00-1.99)
- Medium to high risk (2.00-2.99)
- High risk (3.00-3.99)
- Extremely high risk (4.00-5.00)

iv) Whether the definition applies to direct operations, or supply chain, or both:

At the moment, this definition is applied to direct operations. We perform analysis on all production sites using Aqueduct once every year.

v) At least one example of substantive impact considered:

According to the latest Aqueduct analysis, there was a site corresponding to Level 5 in India. The site was evaluated as having a risk of not getting enough water in the quality and quantity needed for its operation. However, the site is one of the smallest of ours, with a total water withdrawal ratio of 0.02%, and it has never been any substantive financial or strategic impacts on its business in the past. Therefore, we recognize that water quality and quantity is important to the success of our business, but we do not believe there is an immediate substantive financial or strategic impact in direct operations at this point.

W4.2b

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

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	We judge risk based on the following rank classification obtained from the analysis result of Aqueduct. At the highest risk level (Extremely high risk), we consider that there is a substantive financial or strategic impact of water risk. At the moment, this definition is applied to direct operations. We perform analysis on all production sites using Aqueduct once every year. According to the latest Aqueduct analysis, there was a site corresponding to Level 5 in India. But, the ratio of the water withdrawal of this site to the total is 0.02%, and there has never been any substantive financial or strategic impacts on its business in the past. Therefore, we recognize that water quality and quantity is important to the success of our business, but we do not believe there is an immediate substantive financial or strategic impact in direct operations at this point.

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 are the world's largest tire and rubber company with operations in more than 150 countries, and we have many suppliers all over the world. For this reason, it is inefficient to conduct a survey of all suppliers at once, and we will proceed with the survey in order from the suppliers that have the greatest impact on our business. The evaluation process is as follows. 1. Identification of supplier's impact on our business, 2. Identification of manufacturing sites that supply raw materials and products to our group, 3. Identification of their coordinates (latitude/longitude), 4. Analysis using Aqueduct We are currently in the process of identifying water risks in our value chain. We are beginning the work to identify the suppliers that have the greatest impact on our production activities and aim to complete a pilot analysis in the coming year.

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

Markets

Primary water-related opportunity

Improved community relations

Company-specific description & strategy to realize opportunity

i) Why this opportunity is considered strategic for the company: Based on our 2050 vision, "Bridgestone continues to provide social value and customer value as a sustainable solutions company", we aim to co-create social and customer value, which require great levels of trust from our stakeholders including improved community relations. Water is one of the important factors, and maintaining and further improving our good relationships with the local communities in which our sites are located regarding water use is an important strategic opportunity for us to continue our business and grow with local communities. ii) Action to realize the opportunity: As water-related situations and issues differ from community to community, actions to realize opportunities will depend on each site. For example, in the effective use of wastewater, it is possible to take measures such as recycling and cascade using the water used in the process. Each site selects appropriate measures, taking into account relevant materials and communication with local governments and other water users. Depending on local circumstances, we work together with them to help resolve water related issues in addition to our individual efforts. By engaging with other water users in the local community, our business may share in the value created from tackling difficult local water challenges in a collective manner. This is an opportunity to influence how water is used locally and help ensure the sustainability of our business locally in the face of water challenges such as increasing water scarcity. iii) Example of the strategy in action: One example is the "cascade use of water" within the community, which leads to a reduction in water withdrawal for the entire community. In 2019, Bridgestone Argentina S.A.I.C (BSAR), located in a water stress area, started a partnership with a nearby cement manufacturer (Loma Negra) to reduce overall water withdrawal in the Llavallol suburb of Buenos Aires. BSAR recycles wastewater generated from its operations, and provides Loma Negra with approximately 200,000 liters per day of filtered water for industrial use. Although this partnership does not directly lead to the reduction of our water withdrawal, it realizes our long-term vision of minimizing our footprint while enhancing our environmental contribution by reducing impact of water discharge and water withdrawal in the water stress area.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2400000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

The main goal of this BSAR project is to achieve environmental contributions that go beyond our own boundaries by collaborating with stakeholders to review processes and business models. BSAR provides cement manufacturer (Loma Negra) with approximately 14,000 cubic meters of water per year with this project, which will reduce the amount of groundwater withdrawal to zero. The approach used to calculate the figure is expressed by the following formula. (Financial impact) = (Recycled water sales income) - (Recycled water manufacturing cost) + (Reduction of drainage cost) + (Other effects (e.g. PR effect)) BSAR does not exchange money with Loma Negra on this project, and there is no substantial change in drainage costs. Therefore, our "Potential financial impact figure" listed is only an original estimation of the PR effects introduced in many media (ex. newspapers, radio programs, etc.). The financial impact is not great, but in the sense of reducing groundwater withdrawal, we think that it has made a great contribution to the community. This project is also an example for other companies to start thinking in possible synergy projects with nearby companies and lead toward a more sustainable society.

W6. Governance

W6.1

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

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

W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	Our water policy is applied company wide since we need to take actions under the common policy on a global level. Although water-related issues and measures differ depending on the region/basin. Our policy is composed of "Our Mindset" and "Our Way" to achieve the water access which is socially equitable and environmentally sustainable. And, this policy commit to respect the international engagements such as the SDGs and the international standards. Our Mindset consists of "Socially Equitable" and "Water Cycle Preservation". < Socially Equitable > Water is a shared resource. Ensuring socially equitable water access demands the shared responsibility and the cooperation of all stakeholders. The Bridgestone Group remains committed to socially equitable water access through cooperation with communities and stakeholders in order to address water challenges. We believe access to clean water is a basic human right. Accordingly, we provide safe water and promote proper hygiene and sanitation to all employees, contractors and visitors. < Water Cycle Preservation > A healthy environment is the foundation of our ecosystem and our society, and the water cycle is a critical component in achieving and maintaining long-term growth and the continued health of our communities. The Bridgestone Group makes every effort to demonstrate, promote and preserve the water cycle within our communities by promoting water efficiency, stakeholder engagement and continued compliance with regulations. Our Way consists of "Understand", "Improve Locally" and "Maintain". < Understand > - Understand the local water sources, how water is used and the balance between water withdrawal and discharge, - Understand water challenges in local communities through stakeholder engagement, - Educate employees as to the importance of solving local water challenges < Improve Locally > - Reduce water withdrawal and increase water-use efficiency through our innovations and continuous improvement, - Improve the balance in the local water cycle in cooperation with local communities through stakeholder engagement, - Require suppliers to comply with laws and regulations regarding water < Maintain > - Strive to maintain a balance between water withdrawal and discharge, - Comply with regulatory and internal water usage and efficiency standards, - Promote stakeholder interaction through sharing water efficiency best practices and knowledge that are employed across our operations

W6.2

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

Yes

W6.2a

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

Position of individual	Please explain
Chief Executive Officer (CEO)	The CEO is a member of the board, and has the highest-level of responsibility for water-related issues, since the CEO is responsible for deciding policies and measures or presenting to the board and overseeing company-wide management activities about management vision, mid-term strategies, annual policies, etc. including water-related issues. One of the water-related decisions made in 2019 is the direction of the "Milestone 2030" including water-related focused target and key actions.

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Setting performance objectives	At Bridgestone, the CEO is the highest-level management position. And the highest-level committee associated with the Bridgestone Group global business execution is the Global Executive Committee (G-EXCO) held quarterly, where the CEO is also one of the members. The Global Sustainability Committee (the Global CSR Enhancement Committee as of 2019) that is comprised of executive officers in charge of CSR and representatives of Strategic Business Units (SBUs) and functions reports water-related issues to the Global EXCO, as of 2019. The reported contents are approved by Global EXCO as necessary. And, important discussions and decisions at Global EXCO are reported to the Board. (1) Progress of our sustainable activities such as education and the enhancement of Global CSR commitment - "Our Way to Serve"- under one of the three priority areas: environment including water withdrawal reduction, (2) New mid-term environmental targets, "Milestone 2030", including water withdrawal reduction. Reporting the water-related issues to the Global EXCO and the Board through this governance mechanism enables the board to direct actions to achieve the target and to commit further resources or support to water-related issues as necessary.

W6.3

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

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

Chief Executive Officer (CEO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

i) Position in the corporate structure: The CEO is the highest-level management position. And the highest-level committee associated with the Bridgestone Group global business execution is the Global Executive Committee (G-EXCO) held quarterly, where the CEO is one of the members. The Global CSR Enhancement Committee that is comprised of executive officers in charge of CSR and representatives of Strategic Business Units reports water-related issues to the G-EXCO, as of 2019. ii) Nature of the report to the board: In addition to progress towards water withdrawal reduction target, occasional water challenges and responses are reported. In 2019, "Milestone 2030" including water-related target and actions were discussed at G-EXCO and then reported to the Board as summary of discussion results. iii) Water-related responsibilities: The CEO has ultimate responsibilities to assess internal/external water-related circumstances, issues and risks, and to determine and manage the water target.

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	No, and we do not plan to introduce them in the next two years	

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?

No

W6.6

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

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

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	> 30	- Which water issues are integrated: Water is required for cooling and creating steam in our manufacturing processes as well as cultivating and processing natural rubber, an essential raw material. In order to reduce impact on the environment and operational interruptions due to restricted water withdrawal, we have set the "Long-term Environmental Vision (for 2050 and beyond)" that includes water-related efforts. Since water-related issues are often difficult to solve in a short period of time, we are steadily working on them by setting milestones for 10 years and incorporating measures into each Strategic Business Unit's (SBU) business plan. For example, it was decided to install highly efficient equipment and use recycled water, etc. - Examples of how are they integrated into the plan: Since water related issues vary greatly depending on the regions/areas, we analyze the water risks at all production facilities using WRI Aqueduct. Based on that information, each SBU decides how to manage water risks by comprehensively considering how to cope with sustainability for the region and for its business, and integrates into its business plan. For example, the Sao Paulo plant launched a joint initiative with the local city designed to promote water recycling in order to help reduce the withdrawal of groundwater. This project enabled over 50% of the water withdrawal to be switched to recycled water supplied from a wastewater treatment company nearby.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	Water is required for cooling and creating steam in our manufacturing processes as well as cultivating and processing natural rubber, an essential raw material. In order to reduce impact on the environment and operational interruptions due to restricted water withdrawal, we have set "Long-term Vision (for 2050 and beyond)" which aims to be "In balance with nature (Contribution> Footprint)". The water withdrawal reduction is positioned as an important indicator of this vision, and milestones for 10 years are set to promote activities. To achieve the milestone, each Strategic Business Unit (SBU) sets a water withdrawal reduction target for each facility and follows the progress status every month. Since water related issues vary greatly depending on the regions/areas, each SBU decides how to manage water risks by comprehensively considering how to cope with sustainability for the region and for its business, and integrates into its business plan. In order to achieve the milestone, we are promoting various measures such as water leakage survey/measures, utilization of rainwater, utilization of recycled water, and recycling, based on the situation at each facility. For example, the Sao Paulo plant launched a joint initiative with the local city designed to promote water recycling in order to help reduce the withdrawal of groundwater. This project enabled over 50% of the water withdrawal to be switched to recycled water supplied from a wastewater treatment company nearby.
Financial planning	Yes, water-related issues are integrated	5-10	Water is required for cooling and creating steam in our manufacturing processes as well as cultivating and processing natural rubber, an essential raw material. In order to reduce impact on the environment and operational interruptions due to restricted water withdrawal, we have set "Long-term Vision (for 2050 and beyond)". The water withdrawal reduction is positioned as an important indicator of this vision, and milestones for 10 years are set to promote activities. To achieve the milestone of reducing water withdrawals, each Strategic Business Unit has secured a budget for necessary research and capital investment, and is working systematically. In addition, we are systematically investing in research to cultivate Guayule, which grows in arid regions, and to extract/purify rubber components. Since, due to the effects of climate change, there is a possibility that natural rubber- which is the main raw material for tires that is mainly collected from Hevea brasiliensis in tropical regions with high precipitation-, cannot be continuously collected. Through these investments, we are concurrently working to reduce the water related impact and create new business opportunities.

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)

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

Water-related OPEX (+/- % change)

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

Please explain

W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	Bridgestone's mission is "Serving Society with Superior Quality." In line with that mission, we have explored a company-wide Business Continuity Plan (BCP) that will enable us to earn the trust of stakeholders including our customers and business partners and ensure the safety of our employees. As part of that process, we have endeavored to assess our exposure to water risks and other risks in the interest of preventing a variety of crisis scenarios. We have assessed crisis scenarios that could materialize on a site-by-site basis and are currently engaged in a study of countermeasures. For example, we have carried out the analysis and stress testing using AQUEDUCT of World Resources Institute (WRI). We have analyzed the change of water stress (2020, 2030, and 2040) in each of the following three climate-related scenarios which are included into the result of the AQUEDUCT analysis -Optimistic scenario, Business As Usual (BAU) scenario, and Pessimistic scenario.

W7.3a

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

No

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, and we do not anticipate doing so within the next two years

Please explain

We are in the stage of collecting and examining information and examples on the effect and impact of internal price on water, and there is no plan to introduce it at this point within next two years.

W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	To realize our "Environmental mission statement", We have issued a "Bridgestone Group's Long-term Environment Vision" for the year 2050 and have set a goal to be in balance with nature for 2050 and beyond. In order to achieve this goal, we set our quantitative company-wide 2020 target for the reduction of water withdrawal, and we continue monitoring. Since water is the geographically uneven distributed resource, in setting up the group target, each business set its own individual target taking into account local situations and characteristics of each business first of all. After that, we set the company-wide target. Every year, we monitor the performance against site specific targets, business level specific targets and company-wide target and make use of them in further reduction activities. We believe that this goal & target, and efforts towards them will definitely contribute to SDGs' Goal 6, "Ensure availability and sustainable management of water and sanitation for all".

W8.1a

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

Target reference number

Target 1

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

We have a company-wide target on water withdrawal per unit to reduce 35% by 2020 compared to 2005. We manage water withdrawal by unit of production volume and net sales for each business. A weighted average efficiency of the reduction is used as an index. It can contribute to achieving water security in the area where our sites are located and the realization of Goal 6 of SDGs (Goal 6: Ensure availability and sustainable management of water and sanitation for all).

Quantitative metric

% reduction per unit of production

Baseline year

2005

Start year

2014

Target year

2020

% of target achieved

100

Please explain

In 2014, we set a target on water withdrawal per unit to reduce 35% by 2020 compared to 2005. In 2017, we achieved the target ahead of schedule. After that, we continued to reduce water withdrawals and achieved a 40% reduction in 2019.

W8.1b

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

Goal

Watershed remediation and habitat restoration, ecosystem preservation

Level

Company-wide

Motivation

Water stewardship

Description of goal

Natural rubber, one of the main raw materials we use, comes from the blessings of biodiversity, we have identified strong correlations between our business operations and biodiversity. Accordingly, our group has laid out a long-term environmental vision for the year 2050 and has set a target to be in balance with nature for 2050 and beyond. The implication of this target is that the quantitative indicators of our contribution to biodiversity should outweigh the quantitative indicators of our impact on biodiversity. This goal is very important for us as it leads to the preservation of biodiversity and also leads to the stable procurement of natural rubber. Activities in water resource conservation and ecosystem protection by our entire group will be important to the achievement of this goal. To implement the goal, for example, our group is reusing/recycling water at many of its manufacturing sites, including operations in areas where there are serious concerns regarding water shortage. It is also using water resources more efficiently by enhancing the production process and using rainwater. And, Bridgestone Americas, Inc. (BSAM) acquired wildlife habitat conservation and environmental education certification from the Wildlife Habitat Council for its 11 Wildlife Habitat Sites in the United States and Mexico. BSAM conserves the natural flora and fauna at each of these sites and provides environmental education opportunities in line with local conditions.

Baseline year

2005

Start year

2012

End year

2050

Progress

Bridgestone has implemented actions worldwide to protect water resources and ecosystems. For example, we have been conducting waterside nature observation events where local communities near the site can participate from 2005. Through this activity (8 times in 2019), many people aim to reaffirm the rich nature of Lake Biwa and increase the interest in the environment. Also, in 2010, we launched a project to preserve water-resource forests in Japan. Currently, we have conducted forest preservation activities in 9 districts (Total 137 ha) and held forest preservation events (14 times in 2019). These activities are conducted at sites around the world, and their progress is assessed based on the measurable indicators. For example, % of on-site area managed as habitat compared to on-site area, Number of events, participants focused on environmental conservation, education, etc. Through efforts of this kind, we are working to expand our quantitative contributions to the achievement of our long-term vision "In balance with nature" for 2050 and beyond. Since there is no established international index to quantitatively evaluate the "In balance with nature" at present, we use water withdrawal reduction target as indicators that are used to assess progress at this time. The threshold of success is a 35% reduction by 2020. We achieved a 40% reduction in 2019, ahead schedule. We believe that we are steadily approaching "In balance with nature".

W9. Verification

W9.1

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

Yes

W9.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water withdrawal data - Fresh surface water (water from rivers and lakes); W1.2h Row1 - Brackish surface water/seawater; W1.2h Row2 - Groundwater - renewable; W1.2h Row3 - Third party sources; W1.2h Row6	ISAE 3000	We received the assurance of a third-party institution to ensure transparency, completeness, and accuracy of water withdrawal results (W1.2h). The verification by the third-party is implemented once a year for all production sites of our group that has certificated ISO 14001. We regard water withdrawal which is the starting point of water related issues as the most important indicator among water related indicators, so we are subjecting it to the third-party verification at the present time.

W10. Sign off

W-FI

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

W10.1

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

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