

# Bridgestone Corporation - Water 2018

## W0. Introduction

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### W0.1

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

Bridgestone is a global leader in the tire industry, whose business consists of the "Tire sector"; manufacturing/sales of tires/tubes, sales of tire related products and car maintenance /repairs, "Diversified products sector"; chemical & industrial products, sports products, bicycle manufacturing and sales, and other various businesses, and "Solution Business"; new "solutions" service package by combining maintenance services, IT/sensing technology, tires and diversified products.

The CSR, Environment and Quality Management Planning Division responds to CDP. This division plays the role of coordination and management on a global level based on our Environmental Mission Statement, providing environmental support to business sections (Strategic Business Units).

### W0.2

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

	Start date	End date
Reporting year	January 1 2017	December 31 2017

### W0.3

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**(W0.3) Select the countries/regions 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  
South Africa  
Spain  
Taiwan (Province of China)  
Thailand  
Turkey  
United Kingdom of Great Britain and Northern Ireland  
United States of America  
Viet Nam

## W0.4

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

JPY

## W0.5

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

Companies, entities or groups over which operational control is exercised

## W0.6

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

Yes

## W0.6a

### (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 as 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. Therefore, continuous use of sufficient amounts of freshwater of adequate quality is important for continuing operation of our business. According to the result of the "Future Water Stress" of the WRI Aqueduct analysis, we believe that 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 facilities), 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. According to the result of the "Future Water Stress" of the WRI Aqueduct analysis, we believe that water dependency in direct/indirect use will not change much in the future. However, if abnormal weather such as high temperature and 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. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.
Water withdrawals – volumes from water stressed areas	100%	We consider our water risk with the measure classified into five levels from Level 1: Low risk to Level 5: Extremely high risk based on WRI Aqueduct analysis. We perform analysis on all facilities using WRI Aqueduct once every year. According to the latest Aqueduct analysis, there were no sites corresponding to Level 5. This means it is 100% confirmed that the water withdrawals from the stressed area is zero. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.
Water withdrawals – volumes by source	100%	We monitor water withdrawal volume by water source at all our facilities on a monthly basis. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.
Produced water associated with your metals & mining sector activities - total volumes	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes	<Not Applicable>	<Not Applicable>
Water withdrawals quality	76-99	In our production process, we use water resources as cooling water and steam, not as a direct material. Therefore, some facilities do not regularly measure and monitor by themselves. However, at the beginning of the supply, we confirmed that it meets our group's requested level, then the suppliers are monitoring it. In that sense, we believe that most of all our facilities are measuring and monitoring water quality periodically (mostly, on a monthly basis), so we respond to the left column based on that idea. Since the rate includes estimated values, we did not select 100% for "% of facilities" in the left column. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.
Water discharges – total volumes	76-99	Because our finished products (tires, etc.) contain almost no water, we discharge most all of the water we withdraw. Based on the monthly water discharge data of our major facilities, we estimate the total volume of water discharges at all our facilities and are working to understand that impact. Since the rate includes estimated values, we did not select 100% for "% of facilities" in the left column. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.

	% of sites/facilities/operations	Please explain
Water discharges – volumes by destination	76-99	Because our finished products (tires, etc.) contain almost no water, we discharge most all of the water we withdraw. Based on the monthly water discharge data of our major facilities, we estimate the water discharges (volumes by destination) at all our facilities and are working to understand that impact. Since the rate includes estimated values, we did not select 100% for "% of facilities" in the left column. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.
Water discharges – volumes by treatment method	76-99	Because our finished products (tires, etc.) contain almost no water, we discharge most all of the water we withdraw. Based on the monthly water discharge data of our major facilities, we estimate the water discharges (volumes by treatment method) at all our facilities and are working to understand that impact. Since the rate includes estimated values, we did not select 100% for "% of facilities" in the left column. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.
Water discharge quality – by standard effluent parameters	100%	We monitor water discharge quality at all of our facilities periodically (mostly on a monthly basis). 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 with more than 50 employees.
Water discharge quality – temperature	26-50	We measure and manage the water discharge temperature periodically (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 quality temperature, some facilities do not water discharge temperature. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.
Water consumption – total volume	76-99	Because our finished products contain almost no water, we discharge most all of the water we withdraw. Therefore, we place relatively low priority on the volume of water we consume, and consequently do not yet have a comprehensive grasp of the total volume of water consumption by all of our facilities. Accordingly, we regard the difference between the volume of water withdrawals and the volume of water discharges as our water consumption at present. Based on the above data, we estimate the water consumption at all our facilities yearly and are working to grasp the impact. Since the rate includes estimated values, we did not select 100% for "% of facilities", the left column. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.
Water recycled/reused	76-99	Based on the monthly water recycled/reused data of our major facilities, we estimate the water recycled/reused volumes at all our facilities and are working to understand that impact. Since the rate includes estimated values, we did not select 100% for "% of facilities", the left column. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.

	% of sites/facilities/operations	Please explain
The provision of fully-functioning, safely managed WASH services to all workers	100%	During the design phase for new facilities, we specify that attention be given to adequate employee dining and sanitary equipment that reflect the local jurisdiction's standards. In addition, we regularly conduct water quality inspection as necessary according to regional standards. Accordingly, we provide WASH services to employees at all our production facilities worldwide. For our company, "facilities" refers to our production sites certified according to ISO-14001 and with more than 50 employees.

## 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	71519.1	About the same	Due to efforts to reduce water intake, the value fell 0.7% from the previous year. In the future, no major change is expected (About the same). Since it is expected that the water withdrawals will increase due to the increase in production volume, we promote reduction of water withdrawals. 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	55728.1	About the same	We calculate the total discharges from all facilities by estimating some of the facilities that do not measure the water discharge volume. In the future, no major change is expected (About the same). Since it is expected that the water discharges will increase due to the increase in production volume, we promote reduction of water discharges. 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	15791	About the same	There was no major change from the previous year. In the future, no major change is expected (About the same). Since it is expected that the water consumption will increase due to the increase in production volume, we promote improvement of water efficiency. 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) Provide the proportion of your total withdrawals sourced from water stressed areas.**

	% withdrawn from stressed areas	Comparison with previous reporting year	Identification tool	Please explain
Row 1	0	About the same	WRI Aqueduct	We consider our water risk with the measure classified into five levels from Level 1: Low risk to Level 5: Extremely high risk based on WRI Aqueduct analysis. We perform analysis on all facilities using WRI Aqueduct once every year. According to the latest Aqueduct analysis, there were no sites corresponding to Level 5. This means it is 100% confirmed that the water withdrawals from the stressed area is zero. The reason for choosing WRI Aqueduct as an analysis tool is introduced as a useful tool in the "Technical Supplement: The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities" published by TCFD and enables to map future water risks.

## 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	5019.9	About the same	Since we use water resources as cooling water and steam in our production process, we select "Relevant". This volume is composed of river water and rainwater, and almost all is the amount of river water. It is sourced from direct measurement. River water withdrawal volume was increased by 2.1% compared with the previous year. Rainwater withdrawal volume may vary depending on the weather of the year, but the proportion of rainwater to the total water usage is very small (0.3% in 2017). In the future, no major change is expected (About the same). Since it is expected that the water withdrawal will increase due to the increase in production volume, we promote reduction of water withdrawal. 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%

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Brackish surface water/seawater	Relevant	35205.6	About the same	Since we use water resources as cooling water and steam in our production process, we select "Relevant". This volume is sourced from direct measurement. Brackish surface water/seawater withdrawal volume was decreased by 1.4% compared with the previous year. In the future, no major change is expected (About the same). Since it is expected that the water withdrawal will increase due to the increase in production volume, we promote reduction of water withdrawal. 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	11785.1	About the same	Since we use water resources as cooling water and steam in our production process, we select "Relevant". This volume is sourced from direct measurement. Ground water withdrawal volume was increased by 1.4% compared with the previous year. In the future, no major change is expected (About the same). Since it is expected that the water withdrawal will increase due to the increase in production volume, but we promote reduction of water withdrawal. 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>	We do not use deep groundwater. We are unlikely to use deep groundwater in the future.
Produced water	Relevant	18448.1	About the same	Since we use water resources as cooling water and steam in our production process, we select "Relevant". This item contains the amount of tap water, industrial water, steam purchased. This volume is sourced from direct measurement. Produced water withdrawal volume was decreased by 5.6% compared with the previous year. In the future, no major change is expected (About the same). Since it is expected that the water withdrawal will increase due to the increase in production volume, we promote reduction of water withdrawal. 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%



	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Third party sources	Relevant	1060.4	Much higher	Since we use water resources as cooling water and steam in our production process, we select "Relevant". This item contains the amount of recycled water that used and recycled by external third parties (Not a municipal supplier). This volume is sourced from direct measurement. Third party sourced withdrawal volume was increased by 3.2 times compared with the previous year. In the future, no major change is expected (About the same). Since it is expected that the water withdrawal will increase due to the increase in production volume, we promote reduction of water withdrawal. 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	13031.1	About the same	If a facility is adjacent to a river, it drains the wastewater to a river after meeting the wastewater standards. Therefore, we think that selecting "Relevant" is appropriate. Based on the monthly water discharge data of our major facilities, we estimate the volume of water discharges at all our facilities and are working to understand that impact. The volume of water discharge to fresh surface water was increased by 3.7% compared with the previous year. In the future, no major change is expected (About the same). Since it is expected that the water discharge will increase due to the increase in production volume, we promote reduction of water discharge. 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%

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Brackish surface water/seawater	Relevant	37070.5	About the same	If a facility is adjacent to a sea, it drains the wastewater to a sea after meeting the wastewater standards. Therefore, we think that selecting "Relevant" is appropriate. The volume of water discharge to seawater is sourced from direct measurement. It was decreased by 1.6% compared with the previous year. In the future, no major change is expected (About the same). Since it is expected that the water discharge will increase due to the increase in production volume, we promote reduction of water discharge. 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, we chose "Not relevant".
Third-party destinations	Relevant	5626.5	About the same	When a facility is located in the inland area, it drains the wastewater to a third-party's wastewater treatment facility after meeting the wastewater standards. Therefore, we think that selecting "Relevant" is appropriate. Based on the monthly water discharge data of our major facilities, we estimate the volume of water discharges at all our facilities. The volume was increased by 3.8% compared with the previous year. In the future, no major change is expected (About the same). Since it is expected that the water discharge will increase due to the increase in production volume, we promote reduction of water discharge. This water discharge is not used by a third-party directly, but is appropriately purified by a third-party (e.g. municipal/industrial wastewater treatment plant.). 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%

## W1.2j

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

	% recycled and reused	Comparison with previous reporting year	Please explain

	% recycled and reused	Comparison with previous reporting year	Please explain
Row 1	76-99%	About the same	We used CDP's definition and calculation method. Based on the monthly water recycled/reused data of our major facilities, we estimate the volume of recycled/reused water at all our facilities. Further treatment of waste water would generate more energy use, emissions, chemical use and air emissions as well as financial cost. Therefore, in promoting the recycle/reuse activities, it is necessary to comprehensively consider the increase of them and the water intake risk (e.g. water shortage, water quality decline) on a case by case basis. Anticipated effects of the recycling/reuse are reduction of freshwater withdrawal, avoidance of drought risk and cost savings depending on the area. In the future, no major change is expected (About the same). An important key to further promoting recycle/reuse activities is how to suppress not only the introduction cost but also the running cost. 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

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

Yes, our suppliers

## W1.4a

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

#### Row 1

##### % of suppliers by number

1-25%

##### % of total procurement spend

1-25

#### Rationale for this coverage

Our company requests suppliers to identify their water shortage risks and to strive to conserve water withdrawal volumes based on the criteria of its Global Sustainable Procurement Policy. In 2017, we targeted suppliers in Japan where Bridgestone's headquarters is located. The types of data we seek relate primarily to levels of supplier effort in this area. To that end, we ask if suppliers are aware of their water shortage risk, have implemented measures to address that risk, and have established targets for the reduction of water withdrawal volumes. We utilize the data they provide to measure the level of risk relative to water procurement volume. We hold training sessions for those

suppliers that significantly fail to meet our requested levels and urge them to better identify their water-related risks and conserve water withdrawal volumes. Among the incentives we provide, we share best-practices with our suppliers through training sessions and briefings on our procurement policies.

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

We ask if suppliers are aware of their water shortage risk, have implemented measures to address that risk, and have established targets for the reduction of water withdrawal volumes. We utilize the data they provide to measure the level of risk relative to water procurement volume. Currently, the quantitative evaluation has not been completed, but we believe our suppliers will steadily promote activities on the following matters to reduce their water usage and water risks. It will make a great contribution to our activities. - Visualization of water withdrawals, discharges, and risks - Creating a framework for reducing water withdrawals - Efforts to reduce water withdrawals - Improvement of consciousness about water through internal education

### **Comment**

In 2018, Bridgestone Group introduced a new Global Sustainable Procurement Policy, which reflects our commitment to creating a thriving and sustainable supply chain including natural rubber. The policy will help identify and evaluate qualified suppliers, promote best practices, and serve as a communication and improvement tool for the industry. It applies to all purchased materials, products and services, as well as all suppliers globally.

## **W1.4b**

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

#### **Type of engagement**

Incentivizing for improved water management and stewardship

#### **Details of engagement**

Water management and stewardship is featured in supplier awards scheme

#### **% of suppliers by number**

1-25

#### **% of total procurement spend**

1-25

#### **Rationale for the coverage of your engagement**

Number of companies eligible for entry (= Number of companies procured by Japan Tire SBU / Number of companies procured by all tire SBUs) \* SBU; Strategic Business Unit

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

Activities related to water such as water consumption reduction activities will be subject to our "Green Partner Award". For the awarded supplier, it will become external PR material. Therefore, the suppliers themselves are motivated to act positively. As a measure of success, there are the number of entries for the awards and its activity level.

## Comment

In 2013, Bridgestone established the "Green Partner Award" in Japan to recognize suppliers for their environmental activities. Based on the 3 aspects of Environmental Mission Statement of the Bridgestone Group, -"In harmony with nature", "Value natural resources", and "Reduce CO2 emissions"- we commend activities that help reduce the environmental footprint and result in an environmental contribution. Water is one of the most important themes.

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## W2. Business impacts

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### W2.1

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

Yes

### W2.1 a

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**(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and total financial impact.**

**Country/Region**

Japan

**River basin**

Other, please specify (Chikugo river)

**Type of impact driver**

Physical

**Primary impact driver**

Severe weather events

**Primary impact**

Reduction or disruption in production capacity

**Description of impact**

Due to heavy rain, rainwater overflowed and caused pool within the premises. It caused temporary delay in the production of tires. However, on the next day, we were able to return to normal production and regain the delay. The impact was minor.

**Primary response**

Other, please specify (Communication between facility and HQ)

**Total financial impact**

**Description of response**

By inspection and maintenance of equipment, we could return to normal operation the next day without additional cost. We have prepared BCP at each facility to quickly respond to such situation in the future.

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**Country/Region**

United States of America

**River basin**

Other, please specify (Sugar Creek)

**Type of impact driver**

Regulatory

**Primary impact driver**

Tighter regulatory standards

**Primary impact**

Increased compliance costs

**Description of impact**

Because NPDES (National Pollutant Discharge Elimination System) permit program regulated by US EPA (Environmental Protection Agency) was revised, we have been required to monitor storm water. So, we installed a new monitoring equipment (Actual cost; 1,100,000 yen). Since it was the addition of monitoring equipment, its installation cost is temporarily incurred, and future maintenance cost will be incurred as well, but the impact on our company as a whole is minor.

**Primary response**

Improve monitoring

**Total financial impact**

1100000

**Description of response**

Storm water monitoring has been improved to fulfill the requirements of the new NPDES permits (Actual cost; 1,100,000 yen). The introduction of equipment helps us prevent future troubles, not affecting the operation. In order to comply with regulations, we constantly collect information on regulations and respond appropriately.

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**Country/Region**

Thailand

**River basin**

Other, please specify (Bangpakong)

**Type of impact driver**

Regulatory

**Primary impact driver**

Regulation of discharge quality/volumes

**Primary impact**

Increased compliance costs

**Description of impact**

We have been required by regional government to monitor the discharge volume and quality. So, we installed new online monitoring equipment on 2 final discharge points (Actual cost; 3,500,000 yen). Since it was the addition of monitoring equipment, its installation cost is temporarily incurred, and future maintenance costs will be incurred as well, but the impact on our company as a whole is minor.

**Primary response**

Improve monitoring

**Total financial impact**

3500000

**Description of response**

Installed online monitoring equipment on 2 final discharge point (Actual cost; 3,500,000 yen). The introduction of the equipment does not affect the operation, it helps to prevent future troubles. In order to comply with regulations, we constantly collect information on regulations and respond appropriately.

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W2.2

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

No

W3. Procedures

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W3.3

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

Yes, water-related risks are assessed

W3.3a

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

**Direct operations**

**Coverage**

Full

**Risk assessment procedure**

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

**Frequency of assessment**

Annually

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

>10 years

**Type of tools and methods used**

Tools on the market

Other

**Tools and methods used**

WBCSD Global Water Tool

WRI Aqueduct

Internal company methods

**Comment**

We performed macro analyses with the WBCSD Global Water Tool and WRI Aqueduct. These are the tools most widely utilized worldwide to assess water risks and are considered to provide highly reliable results. In addition to the timing of tool updates and the frequency of our plant closures and our operations' relocating to new facilities, we perform water risk assessments at least annually. We also assess regulatory and regional-level demands on a facility-by-facility basis as necessary.

**Supply 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**



## 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	Because water availability could affect production, we utilize the parameters of the WBCSD Water Tool and WRI Aqueduct and evaluate our production sites.
Water quality at a basin/catchment level	Relevant, always included	Because water withdrawal quality could affect production, we evaluate the parameters of our production sites using the WBCSD Water Tool and WRI Aqueduct. 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	There is no current conflict with stakeholders that is an issue at local level, but in preparation for any future incidents, Bridgestone is gathering information from each operating site. We strive to maintain good relationships with local stakeholders through 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 own facilities that produce our raw materials (natural and synthetic rubber products, etc.) and use WBCSD Water Tool and WRI Aqueduct to assess their water risks.

	Relevance & inclusion	Please explain
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.
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. 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. This activity is being undertaken as an industry-academia collaboration project between Bridgestone and Waseda University, through which we have evaluated the importance of the biodiversity of the surviving forest in the region and we are engaging in this activity to enable us to make a significant contribution to biodiversity of the overall region 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. 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	Using internal company methods, we conduct surveys and studies on the access to WASH services for employees at all production facilities at the time new facilities are placed into operation. We regularly conduct water quality inspection as necessary according to regional standards.
Other contextual issues, please specify	Please select	

### W3.3c

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

	Relevance & inclusion	Please explain
Customers	Not relevant, explanation provided	Since our final products do not contain water and they do not need water even when used by customers, we do not factor "Customers" into our water risk assessments. The way of thinking is also applied to consideration in the future.
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 intake due to water shortages affects employees' productivity. Thus, we strive to measure that risk on a facility-by-facility 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 and 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.

	Relevance & inclusion	Please explain
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 facility 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	There may be some risk of difference of opinion with NGOs due to lack of activities related to water. We constantly gather information on NGO trends and have a framework in place to integrate NGO demands into our environmental action programs. For example, we are providing NGOs, etc. with access to ponds on facility 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 facilities, there may be some risk of affecting in the downstream ecosystems and fisheries. Where there are fishing areas in the drainage area of the facility or downstream of the facility, sometimes we have entered into agreements with local groups regarding the temperature of the discharges and the amount of floating matter. Therefore, we collect and evaluate information on fishers and other water users as part of our CSR focus.
Regulators	Relevant, always included	There is the risk that production may be stagnated without being able to respond to the strengthening of water regulations. (e.g. Tightening of wastewater quality) We collect information from regulatory authorities on a facility-by-facility and region-by-region basis at regular intervals and explore measures that will ensure operations at our facilities are not impacted. Regarding global trends of water regulations, the corporate headquarters provides updates, which are used to anticipate risks on a regional level.
River basin management authorities	Relevant, always included	There are risks to be stagnated production if Bridgestone is not address water regulation strengthened. (e.g. Restrictions on water intake volume) We collect information from river basin management authorities on a facility-by-facility 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 is the risk that production may be stagnated without being able to assume 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. When local issues arise, the potentially impacted facility communicate with local groups to gather information, implement and evaluate measures in close liaison with corporate headquarters.
Suppliers	Relevant, always included	We recognize that measures of our suppliers for water risks are important for sustainable procurement, therefore we request suppliers to perform water risk assessments and reduce water withdrawal volumes. For example, we are requesting suppliers to make efforts as a supplier by communicating the importance of reducing water consumption through the opportunities such as "Explanatory meeting of procurement policy" held annually for suppliers.
Water utilities at a local level	Relevant, always included	There is the risk of production stagnation due to lack of sufficient water quality or sufficient amount of water not being supplied. Since water is important to operations, from early stage of facility 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.
Other stakeholder, please specify	Please select	

**(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 WBCSD Global Water Tool and WRI Aqueduct. These are the tools most widely utilized worldwide to assess water risks and are 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. In addition to the timing of tool updates and the occurrence of our plant closures and our operations’ relocating to new facilities, we perform water risk assessments at least annually. We are targeting all Bridgestone Group production facilities. In addition, since we own facilities 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. 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 deal with 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 GCEC (Global CSR Enhancement Committee) and the Global EXCO (Executive Committee) as necessary.

## W4. Risks and opportunities

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### W4.1

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

No

### W4.1 a

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

We consider substantive financial or strategic impact from water risk in case of the status of the highest level of comprehensive water risk (level 5: Extremely high risk) based on WRI Aqueduct analysis. At the moment, this definition is applied to direct operations. We perform analysis on all production facilities using WRI Aqueduct once every year.

According to the latest Aqueduct analysis, there was no site corresponding to Level 5. Therefore, currently we recognize no substantive financial or strategic impact in direct operations.

However, we considered the potential for substantive change (e.g. drought, rising price, etc.) because operations might be impacted by water risk at all of the production facilities under our direct management.

## W4.2b

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**(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 consider substantive financial or strategic impact from water risk in case of the status of the highest level of comprehensive water risk (level 5: Extremely high risk) based on WRI Aqueduct analysis. We perform analysis on all production facilities using WRI Aqueduct once every year. According to the latest Aqueduct analysis, there was no site corresponding to Level 5. Therefore, currently we recognize no substantive financial or strategic impact in direct operations. However, we consider the potential for substantive change because operations might be impacted by water risk at production facilities under our direct management.

## W4.2c

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**(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	Not yet evaluated	Because our value chain is very diverse and spread all over the world, we are not yet able to analyze its water risks at the moment. It is under consideration how to analyze the water risk in our value chain.

## W4.3

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

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

## W4.3a

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

#### **Type of opportunity**

Efficiency

#### **Primary water-related opportunity**

Cost savings

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

In the tire curing process, the heat and pressure of steam are frequently used. By changing this steam curing to the Nitrogen curing, there is a possibility that the steam amount (that is to say, water) can be reduced.

#### **Estimated timeframe for realization**

1 to 3 years

#### **Magnitude of potential financial impact**

Low-medium

#### **Potential financial impact**

70000000

#### **Explanation of financial impact**

It is a trial calculation at one facility includes energy and water savings. (save 12,000,000 gallons and 60,000 MMBtu, note, this is first year savings from a 3-year project)

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## W6. Governance

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### W6.1

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

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

## W6.1 a

**(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 Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitments beyond regulatory compliance Commitment to stakeholder awareness and education Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	<p>We are disseminating our water policy through the Sustainability Report etc., not as a single statement. The following are described based on them. We recognize that the issues of water environment and water resources are not independent issues, but are also related to climate change. We have set the 2020 target of reducing water intake by 35%, which is beyond regulatory compliance. The target is applicable to the entire Group and is a performance standard target for direct operations. In our Environmental Mission Statement, we are promoting stakeholder awareness and education. Security of access to water and public sanitation is incorporated in our facility design manual. To ensure no loss of human right of access to them, each site has created and is active in mechanisms to prevent contamination. We disclose our efforts through CDP Water which is widely-recognized water initiatives. Suppliers are required in the Procurement Guidelines to meet requirements for water.</p>

## 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) 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 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.

## 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 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	Senior-level CSR responsible officers report to the board various topics including environment and water-related issues which have been reviewed by Global Executive Committee (G-EXCO), Bridgestone highest-level execution committee, including water-related issues. In 2017, (1) establishment of a collaborative network made up of a global CSR management system, a regional CSR management system, and working groups for specific areas and functions including Environmental Working Group which promotes environmental activities such as water intake reduction. (2) Social issues including water-related issues were reported to the board.



## W6.3

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**(W6.3) Below board level, provide the highest-level management position(s) or committee(s) with responsibility for water-related issues.**

**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**

The CEO is the highest-level management position responsible for water-related issues. CEO, COO and full-time corporate officers participate in the Global Executive Committee (G-EXCO) which is the highest-level committee associated with Bridgestone Group business execution. Under the G-EXCO, we have the Global CSR Enhancement Committee (GCEC) comprised of executive officers in charge of CSR and representatives of Strategic Business Units and functions. GCEC has 7-Working Groups (WG). Among the WGs, "BCP, Risk Management WG" leads risk assessments including water-related issues. And "Environmental WG" reports previous year results related to water and proposes next strategies to the GCEC taking into account the latest social trend and the risk assessments. According to such deliverables, GCEC prioritizes CSR initiatives in areas pertaining to a variety of global issues, formulates global CSR strategies, confirms the progress of activities in each area and reports to the G-EXCO.

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## W6.5

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**(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?**

No

## W7. Business strategy

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### W7.1

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**(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	No, water-related issues were reviewed but not considered as strategically relevant/significant	5-10	Bridgestone's MTP (Mid-Term Management Plan) covers a five-year period. We institute it yearly, rolling updates to this plan to reflect changes in the operating environment and our outlook for the future. We thereby aim to utilize this plan as an important tool for advancing reforms in the Group's management. In our production process, we use water resources as cooling water and steam, not as a direct material. And, according to our latest Aqueduct analysis on all production facilities, there are no sites where enormous risks are expected. Therefore, water-related issues are not integrated into our MTP at the moment.
Strategy for achieving long-term objectives	No, water-related issues were reviewed but not considered as strategically relevant/significant	5-10	Bridgestone's MTP (Mid-Term Management Plan) covers a five-year period. We institute it yearly, rolling updates to this plan to reflect changes in the operating environment and our outlook for the future. We thereby aim to utilize this plan as an important tool for advancing reforms in the Group's management. In our production process, we use water resources as cooling water and steam, not as a direct material. And, according to our latest Aqueduct analysis on all production facilities, there are no sites where enormous risks are expected. Therefore, water-related issues are not integrated into our MTP at the moment.
Financial planning	Yes, water-related issues are integrated	5-10	We are working towards the mid-term target of reducing water intake by 35% compared with 2005 in 2030. We are planning to update aging equipment and introduce highly efficient equipment in order to reduce the amount of water intake, and we have secured necessary expenses for that purpose systematically.

**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?**

	Water-related CAPEX (+/- % change)	Anticipated forward trend for CAPEX (+/- % change)	Water-related OPEX (+/- % change)	Anticipated forward trend for OPEX (+/- % change)	Please explain
Row 1	18.7	0	6.5	0	Our estimates apply only to business units and facilities in Japan, measuring the costs associated with measures to prevent water pollution and reduce water withdrawal volumes. Due to update/establishment in drainage gates, water quality monitors, sewage treatment units, etc., our water CAPEX increased by 18.7 % in 2017 comparing with 2016. Regarding our water OPEX, there was no major change, and it increased by 6.5 % in 2017 comparing with 2016. As for CAPEX and OPEX in 2018, we expect to be roughly the same as 2017.

## W7.3

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### (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 that will enable us to earn the trust of all 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 facility-by-facility basis and are currently engaged in a study of countermeasures. For example, we have carried out the analysis and stress testing using AQUEDUCT of WRI (World Resources Institute). 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, BAU scenario, and Pessimistic scenario.

## W7.3a

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

No

## W7.4

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### (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

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### W8.1

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**(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 intake, 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 facility 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".

### W8.1 a

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**(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 target on water intake per unit to reduce 35% by 2020 compared to 2005. It can contribute to achieving water security in the area where our facilities 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 business unit

**Baseline year**

2005

**Start year**

2014

**Target year**

2020

**% achieved**

96

**Please explain**

In 2014, we set a target on water intake per unit to reduce 35% by 2020 compared to 2005. We are continuing to make improvements for each facility to achieve the 2020 target, and marks good progress.

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**W8.1b**

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

**Goal**

Watershed remediation and habitat restoration, ecosystem preservation

**Level**

Company-wide

**Motivation**

Water stewardship

**Description of goal**

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. Activities in water resource conservation and ecosystem protection by all of our group will be important to the achievement of this target. To implement the goal, for example, our group is reusing/recycling water at many of its manufacturing facilities, 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 facility can participate from 2005. Through this activity, many people aim to reaffirm the rich nature of Lake Biwa and increase the interest in the environment. We have held nature observation events (83 times) where local communities and our employees participate. Also, in 2010, we launched a project to develop water-resource forests in Japan. Currently, we have conducted forest preservation activities in 9 districts (Total 119 ha) and held forest preservation events (98 times) where local communities and our employees participate. Through efforts of this kind, we are working to expand our quantitative contributions to the achievement of our long-term vision "in harmony with nature" for 2050 and beyond.

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## W9. Linkages and trade-offs

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### W9.1

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

Yes

### W9.1 a

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

**Linkage or tradeoff**

Tradeoff

**Type of linkage/tradeoff**

Increased energy use

### Description of linkage/tradeoff

We recognize a trade-off between water usage reduction and energy saving. Using advanced water-related equipment such as high efficient cooling tower, recycling water system and water closed system may impose a higher energy burden compared to their conventional counterparts, despite being highly efficient in water usage with this equipment. We use a lot of steam in the tire manufacturing process. So, when introducing new equipment, we compare the amount of CO2 reduction by reducing water usage and the amount of CO2 increase by water recycling beforehand as much as possible and try to balance them in advance. In the reporting year, there were no major impacts with the trade-off.

### Policy or action

In designing new facilities and introducing new equipment, we have comprehensively examined the supply stability of each water and energy supply in the area, CO2 emissions, cost, etc., and selected the more appropriate method.

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## W10. Verification

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### W10.1

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

Yes

[Sustainability\\_VerificationReport\\_Bridgestone2018\\_Eng\\_180518.pdf](#)

### W10.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W1. Current state	Water intake data - Fresh surface water (water from rivers and lakes); W1.2h Row1 - Brackish surface water/seawater; W1.2h Row2 - Groundwater – renewable; W1.2h Row3 - Produced water (City water, Industrial water, Water purchased as steam); W1.2h Row5	ISAE3000	We received the assurance of a third-party institution to ensure transparency, completeness, and accuracy of water intake results (W1.2h). The verification by the third-party is implemented once a year for all facilities of the group that has certificated ISO 14001. We regard water intake 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.

## W11. Sign off

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### W-FI

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

### W11.1

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

	Job title	Corresponding job category
Row 1	Vice President and Officer CSR, Environment and Quality Management Planning	Environment/Sustainability manager

### W11.2

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**(W11.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].**

No