

W0. Introduction

W0.1

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

Cree is an innovator of Wolfspeed® power and radio frequency (RF) semiconductors and lighting class LEDs. Cree's Wolfspeed product families include silicon carbide materials, power-switching devices and RF devices targeted for applications such as electric vehicles, fast charging, inverters, power supplies, telecom and military and aerospace. Cree's LED product families included blue and green LED chips, high-brightness LEDs and lighting-class power LEDs targeted for indoor and outdoor lighting, video displays, transportation and specialty lighting applications. In 2020, Cree announced the divestiture of its LED business, which was finalized in March 2021.

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 2020	December 31 2020

W0.3

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

China
China, Hong Kong Special Administrative Region
Finland
Germany
India
Japan
Malaysia
Republic of Korea
Sweden
Taiwan, Greater China
United States of America

W0.4

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

USD

W0.5

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

Companies, entities or groups over which operational control is exercised

W0.6

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

No

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	Vital	Important	Most of our water is used for manufacturing including cooling tower use, but water is also used for irrigation and human consumption (i.e., drinking water, sanitary sewer and water for on-site cafeterias). We chose vital because our manufacturing processes require a specific quantity and quality (ultra-pure) of freshwater to operate without product contamination. Our leased operations like R&D-only facilities, warehouses and sales offices also rely on freshwater, mostly for employee use (WASH). Because we are constructing a new fabrication facility complemented by our expansion currently underway at our headquarters, we will remain dependant on good quality water and anticipate our water dependency to increase. We continuously explore options for water recycle improvements to help offset expected increases in water use as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts (planned to be released toward the end of 2021). Because our leased facilities use small quantities of water and based on the activities that occur there, we do not anticipate the demand of water at our leased facilities to drastically change in the future. We chose important for our indirect activities because extraction and formulation of raw materials and process chemicals in our upstream supply chain rely on good quality freshwater, while the use of our products downstream does not require water and feel the disposal/recycling of our products at the end of their lives does not require large amounts of water. Water is important upstream because disruptions to our supply chain and raw materials could affect our business. We do not anticipate the raw materials we use to drastically change in the future, but because we are expanding our direct operations and will require more raw materials, we anticipate future water dependency of our supply chain to increase in line with our growth.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	We chose important because direct operations have access to sufficient freshwater sources while also operating internal recycled water systems at our manufacturing facilities which require the most water. Because we are constructing a new state-of-the-art, automotive-qualified 200mm-capable wafer fabrication facility in Marcy, New York, complemented by our mega materials factory expansion currently underway at our Durham headquarters, we will remain dependant on good quality water and anticipate our total water dependency to increase in the future. We continuously explore options for water recycle improvements to help offset the expected increase in water discharges as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021. Because our leased facilities do not require large quantities of water and based on the types of activities that occur at our leased facilities, we do not anticipate the demand of water at our leased facilities to drastically change in the future. Although we have not yet evaluated specific suppliers for use of recycled, brackish, and/or produced water upstream, we feel that this is important because extraction and formulation of raw materials and process chemicals in our upstream supply chain rely on the use of freshwater. We plan to further evaluate our supply chain to conduct such risk assessments. Recycled, brackish and/or produced water is not relevant to our downstream products because the use of our products does not require water. We also feel the disposal/recycling of our products at the end of their lives does not require large amounts of water.

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%	All owned site water withdrawals are measured at least monthly. Data is acquired via purchased water bills and internal meters for rainwater harvesting. For smaller leased facilities, we estimate water withdrawals annually based on square footage and the type of operation (i.e., R&D, sales office, etc.). Water withdrawal (total volumes) is reported annually in our Sustainability Report.
Water withdrawals – volumes by source	100%	All owned site water withdrawals are measured at least monthly. Data is acquired by purchased water bills (third-party source) and internal meters for rainwater harvesting. For smaller leased facilities, we estimate water withdrawals annually based on square footage and the type of operation (i.e., R&D, sales office, etc.). Water withdrawal (volumes by source) is reported annually in our Sustainability Report.
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	1-25	Most of our water withdrawals are for manufacturing processes or cooling capacity. We clean the manufacturing process water to ultrapure standards using internal systems that are maintained regularly, therefore producing high quality water. All water purchased from municipalities is regulated and therefore is required to be within quality limits. Other internal sources (rainwater, recycle) are pre-treated before use in order to be at or above municipal quality. We do not currently measure or estimate water withdrawals quality for our smaller leased facilities.
Water discharges – total volumes	100%	Water discharges are tracked using utility bills, water balance, and on-site flow meters where applicable. Data is collected at least monthly. For smaller leased facilities, we estimate water discharges (total volume) annually based on square footage and the type of operation (i.e., R&D, sales office, etc.). Water discharge (total volumes) is reported annually in our Sustainability Report.
Water discharges – volumes by destination	100%	Water discharges are tracked using utility bills, water balance, and on-site flow meters where applicable. Data is collected at least monthly. Water discharged from our facilities goes to a municipal wastewater treatment facility (Publicly Owned Treatment Works). For smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility. Water discharge (volumes by destination) is reported annually in our Sustainability Report.
Water discharges – volumes by treatment method	100%	All our manufacturing water discharges are sent to a municipal wastewater treatment facility (Publicly Owned Treatment Works). Additional onsite treatment may be required at some of our locations to comply with local regulations, permits, and water quality standards. Water discharges are tracked using utility bills, water balance, and on-site flow meters where applicable. Data is collected at least monthly. For smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility. Water discharge (volumes by treatment method) is reported annually in our Sustainability Report.
Water discharge quality – by standard effluent parameters	1-25	All our owned manufacturing facilities discharge to a municipal wastewater treatment facility (Publicly Owned Treatment Works) and are subject to local discharge requirements. Water discharged meets local regulatory requirements for water quality, including nutrients levels, metals, pH, temperature, etc. All our manufacturing sites have wastewater permits that mandate the quality of water discharged. Additional onsite treatment may be required at some of our locations to comply with local regulations, permits, and water quality standards. Those regulated parameters may be measured at locations to ensure compliance. Our smallest owned manufacturing facility discharges an insignificant amount of process wastewater and therefore is not required by its permit to complete quantitative water quality testing. We do not currently measure or estimate water discharge quality (standard effluent parameters) for our smaller leased facilities.
Water discharge quality – temperature	1-25	All our owned manufacturing facilities discharge to a municipal wastewater treatment facility (Publicly Owned Treatment Works) and are subject to local discharge requirements. Water discharged meets local regulatory requirements for water quality, including nutrients levels, metals, pH, temperature, etc. All our manufacturing sites have wastewater permits that mandate the quality of water discharged. At some of our facilities, temperature is measured as required in our permits by the local Publicly Owned Treatment Works. We do not currently measure or estimate water discharge quality (temperature) for our smaller leased facilities. Overall based on the processes in use, water discharge temperature is generally ambient.
Water consumption – total volume	100%	Most of our water is consumed during manufacturing including cooling tower use, but water is also consumed for irrigation and human consumption (i.e., drinking water, sanitary sewer and water used in locations where we have an on-site cafeteria). For our sites without large cooling capacity, it is assumed that water purchased is equal to water discharged. Water consumption (total volume) for all facilities is calculating by subtracting total discharges from total withdrawals. Water consumption (total volume) is reported annually in our Sustainability Report.
Water recycled/reused	100%	Where water recycle systems are installed, recycle volumes are tracked at least monthly using on-site meters. Water recycle systems are installed in our Durham, NC, USA and Huizhou, China facilities to offset municipal water purchases and reduce the consumption of water. Recycled water volumes are reported annually in our Sustainability Report.
The provision of fully-functioning, safely managed WASH services to all workers	100%	All Cree facilities provide fully-functioning, safely managed WASH services to all workers. Access to fully-functioning, safely managed WASH services for all employees is inherent in our culture and care for employees as embodied in our Code of Conduct. At our owned facilities, WASH services are managed by our Facilities department. Employees can report any WASH-related issues through a specific phone number and/or work order system. At our leased facilities, WASH services are required under our leasing terms and maintained by the building owner in compliance with local regulations. In our global locations, drinking water is provided by the local municipal water authority. All sanitation water is discharged to a municipal wastewater treatment facility (Publicly Owned Treatment Works). Our janitorial staff maintains the cleanliness of our facilities daily.

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	1449.8	Higher	We selected "higher" because we withdrew 1378.68 megaliters in 2019 compared to 1449.8 megaliters in 2020. Because we purchased more water for withdrawals at some of our manufacturing facilities, it caused our total withdrawals value to increase. We have also made process changes at some of our facilities, causing water to be used and discharged at an increased rate. The withdrawal volume also increased slightly in 2020 compared to our reported 2019 value because in 2020 we included water withdrawals for all our leased facilities in our scope for the first time, as data related to such withdrawals was not available previously. Our water demand is expected to increase in the future because we are building a brand new, state-of-the-art, automotive-qualified 200mm-capable wafer fabrication facility in Marcy, New York, complemented by our mega materials factory expansion currently underway at our Durham headquarters. We continuously explore options for water use efficiency and water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.
Total discharges	1112.3	Higher	We selected "higher" because we discharged 892.5 megaliters in 2019 compared to 1112.3 megaliters in 2020. Because we purchased more water for withdrawals at some of our manufacturing facilities, it caused our total discharge value to increase also. We have also made process changes at some of our facilities, causing water to be used and discharged at an increased rate. The discharge volume also increased slightly in 2020 compared to our reported 2019 value because in 2020 we included water discharges for all our leased facilities in our scope for the first time, as data related to such withdrawals was not available previously. Our water discharges are expected to increase in the future because we are building a brand new, state-of-the-art, automotive-qualified 200mm-capable wafer fabrication facility in Marcy, New York, complemented by our mega materials factory expansion currently underway at our Durham headquarters. We continuously explore options for water use efficiency and water recycle improvements to help offset the expected increase in water discharges as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.
Total consumption	337.5	Lower	We selected "lower" because we consumed 486.18 megaliters in 2019 compared to 337.5 megaliters in 2020. Our water consumption value is calculated by subtracting total discharges from total withdrawals, both of which increased in 2020. At one of our facilities we initiated a new process that increased our water usage, but that discharges water directly (i.e., very little water consumption), causing our total water consumption value to decrease. Our water consumption is expected to increase in the future because we are building a brand new, state-of-the-art, automotive-qualified 200mm-capable wafer fabrication facility in Marcy, New York, complemented by our mega materials factory expansion currently underway at our Durham headquarters. We continuously explore options for water use efficiency and water recycle improvements to help offset the expected increase in water consumption as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

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	11-25	This is our first year of measurement	WRI Aqueduct	Depending on the facility, we use either or both of the WRI Aqueduct and the WWF Water Risk Filter tools to assess our facilities' overall water risks. All our facilities were analyzed for water stress using the WRI Aqueduct tool, which is a customizable global atlas used to evaluate how water risk and water stress may affect operations at the watershed level. We used the WRI Aqueduct tool to assess water stress because it is a good first step to easily assess water stress based on location and allows us to view future (2030 and 2040) water stress risks for all facilities. Based on CDP's guidance, we consider areas with water stress to be those locations with the risk category "High (40-80%)" or "Extremely High (>80%)" for baseline water stress. Based on that criteria, six of our small leased facilities are located in areas with the risk category "High" or "Extremely High." These offices use small amounts of water and represent only 0.03% of our total 2020 global water withdrawals. One of our owned manufacturing facilities is located in an area with the risk category "High." Its 2020 water withdrawals represent approximately 12.8% of our total 2020 global water withdrawals.

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	0.24	About the same	Water withdrawal from rainwater is relevant because it helps us to offset our water withdrawal amounts from third-party purchased water. Our facilities captured 0.24 megaliters of rainwater for use in 2020. Rainwater is the only source of fresh surface water utilized at our facilities. Because we used the same rainwater system at our facility in 2020, we captured about the same volume in 2019, approximately 0.23 megaliters.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because our facilities do not use brackish surface water/seawater for our water withdrawals. At our owned facilities, all water is supplied by a third-party (municipal water) or from rainwater (fresh surface water). For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all withdrawals come from a third-party source.
Groundwater – renewable	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because our facilities do not use groundwater for our water withdrawals. At our owned facilities, all water is supplied by a third-party (municipal water) or from rainwater (fresh surface water). For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all withdrawals come from a third-party source.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because our facilities do not use groundwater for our water withdrawals. At our owned facilities, all water is supplied by a third-party (municipal water) or from rainwater (fresh surface water). For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all withdrawals come from a third-party source.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because our facilities do not use produced/entrained for our water withdrawals. At our owned facilities, all water is supplied by a third-party (municipal water) or from rainwater (fresh surface water). For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all withdrawals come from a third-party source.
Third party sources	Relevant	1449.6	Higher	Water withdrawal from third-party sources is relevant because this is our main source of incoming water for our manufacturing sites. For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all water comes from third-party sources. Our facilities used approximately 1449.6 megaliters of third-party water in 2020, as compared to 1378.4 megaliters in 2019. Because we purchased more water for withdrawals at some of our manufacturing facilities, it caused our total withdrawals value to increase. We have also made process changes at some of our facilities, causing water to be used and discharged at an increased rate. The withdrawal volume also increased slightly in 2020 compared to our reported 2019 value because in 2020 we included water withdrawals for all our leased facilities in our scope for the first time, as data related to such withdrawals was not available previously.

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	Not relevant	<Not Applicable>	<Not Applicable>	This destination is not relevant because our facilities do not discharge directly to fresh surface water. Water from our owned facilities is all discharged to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works). For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility.
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	This destination is not relevant because our facilities do not discharge directly to brackish surface water/seawater. Water from our owned facilities is all discharged to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works). For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	This destination is not relevant because our facilities do not discharge directly to groundwater. Water from our owned facilities is all discharged to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works). For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility.
Third-party destinations	Relevant	1112.3	Higher	This destination is relevant because all our owned facilities discharge wastewater to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works). For smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility. In 2020 our facilities discharged 1112.3 megaliters, as compared to 892.5 megaliters in 2019. Because we purchased more water for withdrawals at some of our manufacturing facilities, it caused our total discharges value to increase. We have also made process changes at some of our facilities, causing water to be used and discharged at an increased rate. The discharge volume also increased slightly in 2020 compared to our reported 2019 value because in 2020 we included water discharges for all our leased facilities in our scope for the first time, as data related to such discharges was not available previously.

W1.2j

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	This treatment option is not relevant at our owned facilities because our facilities do not use tertiary treatment. All discharges go to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works). We operate a wastewater pre-treatment system at a number of our owned facilities prior to discharging to the Publicly Owned Treatment Works, but this pre-treatment process does not include tertiary treatment. For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility and are not treated prior to discharge.
Secondary treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	This treatment option is not relevant at our owned facilities because our facilities do not use secondary treatment. All discharges go to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works). We operate a wastewater pre-treatment system at a number of our owned facilities prior to discharging to the Publicly Owned Treatment Works, but this pre-treatment process does not include secondary treatment. For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility and are not treated prior to discharge.
Primary treatment only	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	This treatment option is not relevant at our owned facilities because our facilities do not use primary treatment. All discharges go to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works). We operate a wastewater pre-treatment system at a number of our owned facilities prior to discharging to the Publicly Owned Treatment Works, but this pre-treatment process does not include primary treatment. For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility and are not treated prior to discharge.
Discharge to the natural environment without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	This treatment option is not relevant at our owned facilities because our facilities do not discharge directly to the natural environment. All discharges go to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works). For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility and are not treated prior to discharge.
Discharge to a third party without treatment	Relevant	4.45	This is our first year of measurement	81-90	This treatment option is relevant at our owned facilities because some of our facilities discharge directly to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works) without treatment. We operate a wastewater pre-treatment system at a number of our facilities prior to discharging to the Publicly Owned Treatment Works, but not all of our owned facilities have a pre-treatment system and therefore discharge directly to a Publicly Owned Treatment Works without treatment. For our smaller leased facilities, we estimate water discharges annually based on square footage and the type of operation (i.e., R&D, sales office, etc.) and assume all discharges go to a third-party facility and are not treated prior to discharge.
Other	Relevant	1107.83	This is our first year of measurement	11-20	All our owned manufacturing facilities discharge to a third-party municipal wastewater treatment facility (Publicly Owned Treatment Works) and are subject to local discharge requirements. Water discharged meets local regulatory requirements for water quality, including nutrients levels, metals, pH, temperature, etc. We operate a wastewater pre-treatment system at a number of our facilities. For example, the wastewater pre-treatment system at our North Carolina manufacturing facilities treats fluorides before being sent to our local Publicly Owned Treatment Works.

W1.4

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

Yes, our customers or other value chain partners

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

Cree engages with customers by responding to customer surveys as requested. Cree engages with all stakeholders by providing water-related information and data in our annual Sustainability Report. Transparency and direct engagement with customers help maintain positive relationships and develop new relationships with our customers.

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?

Yes, fines, enforcement orders or other penalties but none that are considered as significant

W2.2a

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

Row 1

Total number of fines

0

Total value of fines

0

% of total facilities/operations associated

4,5

Number of fines compared to previous reporting year

About the same

Comment

We received a Notice of Violation from the Publicly Owned Treatment Works for failure to submit documentation in advance of operation of a new system. This occurred at one of our facilities. No fines were associated with this Notice of Violation. This is the same number as 2019, when we received one Notice of Violation from the Publicly Owned Treatment works for a similar minor permit violation.

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 in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market

Tools and methods used

WRI Aqueduct

WWF Water Risk Filter

Comment

We use the WRI Aqueduct and the WWF Water Risk Filter tool to assess our facilities' water risks. We assess the water stress of our facilities using the WRI Aqueduct tool. This information is reported annually in our Sustainability Report.

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

We have not yet assessed water-related risks in our supply chain.

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market

Tools and methods used

WRI Aqueduct

WWF Water Risk Filter

Comment

We use the WRI Aqueduct and the WWF Water Risk Filter tool to assess our facilities' water risks. We assess the water stress of our facilities using the WRI Aqueduct tool. We use the results of the risk assessments to understand how our risks may affect other stakeholders in our value chain, such as investors, local communities and customers.

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	Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. Water availability at a basin/catchment level is included in our assessments, as it is built into the WRI Aqueduct and WWF Water Risk Filter risk analysis. Water availability at a basin/catchment level is relevant to our business because our facilities require specific quantities water for our operations. Most of our water is used during manufacturing including cooling tower use, but water is also used for irrigation and human consumption (i.e., drinking water, sanitary sewer and water used in locations where we have an on-site cafeteria).
Water quality at a basin/catchment level	Relevant, always included	Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. Water quality at a basin/catchment level included in our assessments, as it is built into the WRI Aqueduct and WWF Water Risk Filter risk analysis. Water quality at a basin/catchment level is relevant because our facilities require a specific quality of water for our operations.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. Conflicts concerning water resources at a basin/catchment level are built into the WRI Aqueduct and WWF Water Risk Filter risk analysis. Stakeholder conflicts concerning water resources at a basin/catchment level are relevant to our business because our facilities require water for our operations. We also rely on external stakeholders, including maintaining relationships with our local Publicly Owned Treatment Works, for example.
Implications of water on your key commodities/raw materials	Relevant, not included	At this time, our risk assessment scope only includes direct operations and we have not yet assessed the implications of water on our key commodities/raw materials. We plan to incorporate implications of water on our key commodities/raw materials in water risk assessments in the coming years.
Water-related regulatory frameworks	Relevant, always included	Regulatory frameworks are relevant because Cree is committed to compliance with all regulations and permit requirements at our sites. We also maintain third-party audited ISO 14001 certifications at our facilities. Within our Environmental Management Systems for our manufacturing sites we track regulatory requirements in order to ensure we maintain compliance. Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. Water-related regulatory frameworks are included in our assessments, as it is built into the WRI Aqueduct and WWF Water Risk Filter risk analysis in terms of regulatory risks.
Status of ecosystems and habitats	Relevant, always included	Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. The status of ecosystems and habitats is included in our assessments, as it is built into the WRI Aqueduct and WWF Water Risk Filter risk analysis in terms of biodiversity risks. The status of ecosystems and habitats is relevant to our business to ensure we comply with regulations designed to protect the ecosystems and habitats in the areas in which we operate.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Accessibility to WASH services for all employees is relevant because it is a service that is provided to all Cree employees. Access to fully-functioning, safely managed WASH services for all employees is inherent in our culture and care for employees as embodied in our Code of Conduct. Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. Drinking water and sanitation risks are included in our assessments, as it is built into the WRI Aqueduct and WWF Water Risk Filter risk analysis.
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	At this time, our water-related risk assessment scope only includes direct operations, but customers are tangentially included in our assessment. A variety of risks for our direct operations are considered during our WRI Aqueduct and WWF Water Risk Filter assessment, which have the potential to affect our customers. For example, Cree could experience a water scarcity issue that affects the ability for us to properly manufacture our products, causing brand image and customer relations issues; customers are included in our evaluation of risks for these reasons. We are also transparent with our annual Sustainability data, posting it publicly on our website for any customer to see. To ensure this transparency, we provide water data in a standardized manner (per GRI 303: Water and Effluents). We also provide water use information to our customers through completion of their supplier questionnaires.
Employees	Relevant, always included	Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks of direct operations, which includes employees. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. Drinking water and sanitation risks are included in our assessments, as it is built into the WRI Aqueduct and WWF Water Risk Filter risk analysis. Accessibility to WASH services for all employees is relevant to our business because it is a service that is provided to all Cree employees. Access to fully-functioning, safely managed WASH services for all employees is inherent in our culture and care for employees as embodied in our Code of Conduct.
Investors	Relevant, always included	At this time, our water-related risk assessment scope only includes direct operations, but investors are tangentially included in our assessment. A variety of risks for our direct operations are considered during our WRI Aqueduct and WWF Water Risk Filter assessment of our direct operations, which have the potential to affect how we are perceived by investors. For example, Cree could experience a water scarcity issue that affects the ability for us to properly manufacture our products, causing brand image, revenue and customer relations issues. Investors are included in our assessment because these issues could affect how investors perceive our business and affect investment decisions. We are also transparent with our annual Sustainability data, posting it publicly on our website for any investor to access. To ensure this transparency, we provide water data in a standardized manner (per GRI 303: Water and Effluents).
Local communities	Relevant, always included	At this time, our water-related risk assessment scope only includes direct operations, but local communities are tangentially included in our assessment. Risks associated with water quantity and quality at a basin/catchment level, stakeholder conflicts concerning water resources at a basin/catchment level, and status of ecosystems and habitats, for example, are part of the WRI Aqueduct and WWF Water Risk Filter assessment, which have the potential to affect our local communities. Local communities are considered in our risk assessments because water-related issues at the basin/catchment level could both affect our operations and our local communities. Cree aims to ensure we are good stewards in the communities in which we operate. We obtain and comply with all required water-related permits and regulations and work with regulators in the event of incidents. We are also transparent with our annual Sustainability data, posting it publicly on our website for any community members to access. To ensure this transparency, we provide water data in a standardized manner (per GRI 303: Water and Effluents).
NGOs	Not relevant, explanation provided	At this time, our water-related risk assessment scope only includes direct operations. We have not engaged with NGOs on water-related issues at any of our global facilities. Our facilities that use the largest amounts of water are located in areas with developed water and wastewater technologies. At this time, in general we feel our facilities are outside the scope of NGOs.
Other water users at a basin/catchment level	Relevant, always included	At this time, our water-related risk assessment scope only includes direct operations, but other water users at the basin/catchment level are tangentially included in our assessment. Risks associated with water quantity and quality at a basin/catchment level and stakeholder conflicts concerning water resources at a basin/catchment level, for example, are part of the WRI Aqueduct and WWF Water Risk Filter assessment. Other water users are the basin/catchment level are considered in our risk assessments because water-related issues at the basin/catchment level could both affect our operations and our local communities. Cree aims to ensure we are good stewards in the communities in which we operate. We obtain and comply with all required water-related permits and regulations and work with regulators in the event of incidents. We are also transparent with our annual Sustainability data, posting it publicly on our website for any community members to access. To ensure this transparency, we provide water data in a standardized manner (per GRI 303: Water and Effluents).
Regulators	Relevant, always included	Regulators and regulatory frameworks are included in our water-related risk assessments because Cree is committed to compliance with all regulations and permit requirements at our sites. We also maintain third-party audited ISO 14001 certifications at our facilities. Within our Environmental Management Systems for our manufacturing sites we track regulatory requirements to ensure we maintain compliance. Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. Regulators are considered as part of our assessments, as regulatory risks are built into the WRI Aqueduct and WWF Water Risk Filter risk analysis. Cree aims to ensure we are good stewards in the communities in which we operate. We obtain and comply with all required water-related permits and regulations and work with regulators in the event of incidents.
River basin management authorities	Relevant, always included	We consider river basin management authorities similar to how we consider regulators in our risk assessment. Cree is committed to compliance with all regulations, river basin management authorities and permit requirements at our sites. We also maintain third-party audited ISO 14001 certifications at our facilities. Within our Environmental Management Systems for our manufacturing sites we track regulatory requirements to ensure we maintain compliance. Depending on the facility, we use the WRI Aqueduct and/or the WWF Water Risk Filter tool to assess our water risks. We use the WWF Water Risk Filter tool to analyze the water risks of our owned manufacturing facilities, which represent our largest water users, because the tool allows us to answer questions related to our specific industry (i.e., semiconductors) and specific questions related to each of our facilities to obtain a deeper look at our risks. We used the WRI Aqueduct tool to assess water stress of all facilities and risks for smaller leased facilities because it is a good first step to easily assess water risks based on location and allows us to view future (2030 and 2040) water risks for all facilities. River basin management authorities are considered as part of our assessments, as regulatory risks and water risks at a basin/catchment level are built into the WRI Aqueduct and WWF Water Risk Filter risk analysis. Cree aims to ensure we are good stewards in the communities in which we operate. We obtain and comply with all required water-related permits and regulations and work with regulators in the event of incidents.
Statutory special interest groups at a local level	Not relevant, explanation provided	Statutory special interest groups at a local level are not relevant to any Cree locations. Cree is not obliged to consult with special interest groups on water issues due to a statutory or regulatory requirement.
Suppliers	Relevant, not included	At this time, our water-related risk assessment scope only includes direct operations and we have not yet included our suppliers in our assessment. Suppliers are relevant, and we expect to include them in water-related risk assessments in the coming years.
Water utilities at a local level	Relevant, sometimes included	Depending on the facility, especially for our manufacturing facilities that require higher quantities of water, local utilities are included in our risk assessments. We engage with water utilities at a local level as needed, typically at the planning stage for facility projects to ensure capacity and infrastructure is sufficient to support it. Local utilities are not included in risk assessments for our smaller leased facilities at this time.
Other stakeholder, please specify	Not considered	We have not yet considered other stakeholders beyond what is reported above in our water-related risk assessments.

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.

Cree publishes an annual Sustainability Report, which follows the reporting framework of GRI 303: Water and Effluents for water-related information and data. Following a recognized standard allows us to properly quantify and understand our water impacts. Our facilities are therefore analyzed according to their water footprint and regional stress and risks. 2020 was our first year to use different tools (WWF Water Risk Filter and WRI Aqueduct) to analyze all our global facilities (both owned and leased) for current and future water risks. We also assessed the risks of our new wafer fabrication facility currently being constructed in Marcy, New York. We plan to use the results of the analyses to inform our internal decision-making process, including planning for future water stewardship projects and goals/targets setting. We are working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021. We have not yet fully assessed risks for all stages of our value chain but plan to incorporate such contextual issues into our water risk assessments in the coming years.

W4. Risks and opportunities

W4.1

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

W4.1a

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

We define a substantive financial or strategic impact as something that will cause significant impact to our business both internally (i.e., our direct operations) or externally (i.e., our upstream and downstream value chain). We use \$1 Million USD to establish a threshold for substantive financial impact when determining potential impacts due to water-related impacts. An example of a substantive financial impact could be water scarcity issues affecting the ability for us to manufacture our products, causing brand image, revenue and/or customer relations issues. Good quality freshwater is vital for direct use (rinsing, cooling, cutting) for our manufacturing processes. Because our manufacturing processes require a specific quantity and quality (ultra-pure) of freshwater to operate without product contamination, any disruptions to our supply of water at our manufacturing facilities could result in a substantive financial impact to us and other members of our value chain (e.g., our customers),

W4.1b

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

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	2	1-25	We believe that two of our manufacturing facilities exposed to water risks have the potential for a substantive financial or strategic impact on our business. Using the results of our WWF Water Risk Filter analysis, two of our manufacturing sites exhibit Physical risks that could affect our business, including water scarcity and quality. Other manufacturing facilities were analyzed using the WWF Water Risk Filter but not found to have high risks in terms of the potential for a substantive financial or strategic impact our business. We also assessed our smaller leased facilities using the WRI Aqueduct tool, and although the results of the analysis show varied levels of risk depending on location, we do not feel that these risks have the potential to cause a substantive financial or strategic impact on our business based on the activities and size of those operations.

W4.1c

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

Country/Area & River basin

United States of America	Other, please specify (Neuse River)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Unknown

Comment

Country/Area & River basin

United States of America	Cape Fear River
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Unknown

Comment

W4.2

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

Country/Area & River basin

United States of America	Other, please specify (Neuse River)
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Type of risk & Primary risk driver

Physical	Increased water scarcity
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Primary potential impact

Upfront costs to adopt/deploy new practices and processes

Company-specific description

Using the WRI Aqueduct tool, we have assessed our future risks out to 2030 and 2040 for water stress and water supply of the area in which this facility is located. The WRI Aqueduct tool shows that there will be "near normal" change in water scarcity and water supply in the area by 2030 and 2040. However, we feel that increased water scarcity could be a potential risk for us in the Raleigh/Durham/Research Triangle Park area in the longer-term future, which is where our manufacturing operations are located. We feel this could be a risk based on the current and future expected growth in the area, in terms of increased manufacturing, commercial operations and residential developments. Raleigh is one of the fastest growing cities in the United States and increased growth in the area could potentially lead to water availability issues in the future. About 10 years ago, we also experienced a drought at this facility and were required to evaluate alternative sources for water withdrawals. Although the WWF Water Risk Filter indicates a very low Drought Frequency Probability for this facility, we believe water scarcity still has the potential to have a substantive financial or strategic impact on our business.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-low

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

We understand the potential for these risks but do not yet have a potential financial impact calculated. However, we feel the impacts could be substantive (i.e., could be more than \$1 million depending on the event).

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

Our facility operates a water recycle system to offset municipal water purchases and reduce the consumption of water. We continuously explore options for water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021. The reservoirs in the area from which we receive water were man-made to provide flood control and water supply to the Raleigh/Durham/Research Triangle Park area, and specifically designed to provide sufficient water even in severe drought situations. The state of North Carolina requires local governments to apply for allocations of water supply storage, which includes their current water supply sources, projected water needs and alternative water sources. Allocations are made based on different timelines, including 20-year and 30-year water need projections. We purchase water directly from the municipality and work closely with them to communicate changes in water demand. Cree also has a business continuity plan, which takes into consideration potential risks that could cause a significant business interruption and describes strategies for how we mitigate and respond to major events. Cree also has a crisis response team, which is comprised of key Cree personnel in different departments throughout the company, that reviews possible solutions in the event of a situation that could cause a significant business interruption.

Cost of response

10000000

Explanation of cost of response

We estimate the cost of response to be a range from \$0 to \$10,000,000. The cost of response represents the operating costs required to install, operate and maintain our current or future water recycle systems. It also includes estimated salaries for employees who work directly with our onsite water recycle system and employees who work with the municipality regarding changes in our water demand. All crisis response members are Cree employees and we do not anticipate extra costs beyond current salary compensation for these employees.

Country/Area & River basin

United States of America	Cape Fear River
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Type of risk & Primary risk driver

Physical	Increased water scarcity
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Primary potential impact

Upfront costs to adopt/deploy new practices and processes

Company-specific description

Using the WRI Aqueduct tool, we have assessed our future risks out to 2030 and 2040 for water stress and water supply of the area in which this facility is located. The WRI Aqueduct tool shows that there will be "near normal" change in water scarcity and water supply in the area by 2030 and 2040. However, we feel that increased water scarcity could be a potential risk for us in the Raleigh/Durham/Research Triangle Park area in the longer-term future, which is where our manufacturing operations are located. We feel this could be a risk based on the current and future expected growth in the area, in terms of increased manufacturing, commercial operations and residential developments. Raleigh is one of the fastest growing cities in the United States and increased growth in the area could potentially lead to water availability issues in the future. About 10 years ago, we also experienced a drought at this facility and were required to evaluate alternative sources for water withdrawals. Although the WWF Water Risk Filter indicates a very low Drought Frequency Probability for this facility, we believe water scarcity still has the potential to have a substantive financial or strategic impact on our business.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

We understand the potential for these risks but do not yet have a financial impact calculated. However, we feel the impacts could be substantive (i.e., could be more than \$1 million depending on the event).

Primary response to risk

Other, please specify (business continuity plan, crisis response team)

Description of response

We are working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021. The reservoirs in the area from which we receive water were man-made to provide flood control and water supply to the Raleigh/Durham/Research Triangle Park area, and specifically designed to provide sufficient water even in severe drought situations. The state of North Carolina requires local governments to apply for allocations of water supply storage, which includes their current water supply sources, projected water needs and alternative water sources. Allocations are made based on different timelines, including 20-year and 30-year water need projections. We purchase water directly from the municipality and work closely with them to communicate changes in water demand. Cree also has a business continuity plan, which takes into consideration potential risks that could cause a significant business interruption and describes strategies for how we mitigate and respond to major events. Cree also has a crisis response team, which is comprised of key Cree personnel in different departments throughout the company, that reviews possible solutions in the event of a situation that could cause a significant business interruption.

Cost of response

0

Explanation of cost of response

All crisis response members are Cree employees and we do not anticipate extra costs beyond current salary compensation for these employees.

Country/Area & River basin

United States of America	Other, please specify (Neuse River)
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Type of risk & Primary risk driver

Technology	Other, please specify (Malware/ransomware attack)
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Primary potential impact

Upfront costs to adopt/deploy new practices and processes

Company-specific description

In 2020, the city and county government systems where our Durham facility is located experienced a malware attack, causing their data servers to be taken offline for a few days. At this manufacturing facility, we purchase water through the city government's utility and discharge our water to the county's Publicly Owned Treatment Works. Although the malware attack in 2020 did not affect our ability to receive or discharge water during the event, this kind of event has the potential to have a substantive financial or strategic impact on our business. If a malware or ransomware attack affects our city and county, we may have issues being able to purchase water if the city government's utility is forced to shut down and/or issues being able to discharge water if the county's Publicly Owned Treatment Works is unable to operate. If we are unable to receive water, it could cause us to stop some of our manufacturing processes. If we are unable to discharge water to our Publicly Owned Treatment Works it could also stop some of our manufacturing processes or we would be required to find an alternative method to dispose of our water, such as dispose of our wastewater as waste.

Timeframe

Current up to one year

Magnitude of potential impact

Medium-low

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

We understand the potential for these risks but do not yet have a financial impact calculated. However, we feel the impacts could be substantive (i.e., could be more than \$1 million depending on the event).

Primary response to risk

Other, please specify (water recycling, business continuity plan, crisis response team)

Description of response

Our facility operates a water recycle system to offset municipal water purchases and reduce the consumption of water. We continuously explore options for water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021. Cree also has a business continuity plan, which takes into consideration potential risks that could cause a significant business interruption and describes strategies for how we mitigate and respond to major events. Cree also has a crisis response team, which is comprised of key Cree personnel in different departments throughout the company, that reviews possible solutions in the event of a situation that could cause a significant business interruption.

Cost of response

10000000

Explanation of cost of response

We estimate the cost of response to be a range from \$0 to \$10,000,000. The cost of response represents the operating costs required to install, operate and maintain our current or future water recycle systems. It also includes estimated salaries for employees who work directly with our onsite water recycle system and employees who work with the municipality regarding our water demand. All crisis response members are Cree employees and we do not anticipate extra costs beyond current salary compensation for these employees.

Country/Area & River basin

United States of America	Cape Fear River
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Type of risk & Primary risk driver

Technology	Other, please specify (Malware/ransomware attack)
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Primary potential impact

Upfront costs to adopt/deploy new practices and processes

Company-specific description

In 2020, the city and county government systems where our Durham facility is located experienced a malware attack, causing their data servers to be taken offline for a few days. At this manufacturing facility, we purchase water through the city government's utility and discharge our water to the county's Publicly Owned Treatment Works. Although the malware attack in 2020 did not affect our ability to receive or discharge water during the event, this kind of event has the potential to have a substantive financial or strategic impact on our business. If a malware or ransomware attack affects our city and county, we may have issues being able to purchase water if the city government's utility is forced to shut down and/or issues being able to discharge water if the county's Publicly Owned Treatment Works is unable to operate. If we are unable to receive water, it could cause us to stop some of our manufacturing processes. If we are unable to discharge water to our Publicly Owned Treatment Works it could also stop some of our manufacturing processes or we would be required to find an alternative method to dispose of our water, such as dispose of our wastewater as waste.

Timeframe

Current up to one year

Magnitude of potential impact

Medium-low

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

We understand the potential for these risks but do not yet have a financial impact calculated. However, we feel the impacts could be substantive (i.e., could be more than \$1 million depending on the event).

Primary response to risk

Other, please specify (business continuity plan, crisis response team)

Description of response

We are working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021. Cree also has a business continuity plan, which takes into consideration potential risks that could cause a significant business interruption and describes strategies for how we mitigate and respond to major events. Cree also has a crisis response team, which is comprised of key Cree personnel in different departments throughout the company, that reviews possible solutions in the event of a situation that could cause a significant business interruption.

Cost of response

0

Explanation of cost of response

All crisis response members are Cree employees and we do not anticipate extra costs beyond current salary compensation for these employees.

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	At this time, our water-related risk assessment scope only includes direct operations, but other stakeholders, like customers, local communities and investors, are tangentially included in our assessment. A variety of risks for our direct operations are considered during our WRI Aqueduct and WWF Water Risk Filter assessments, which have the potential to affect our value chain. For example, Cree could experience a water scarcity issue that affects the ability for us to manufacture our products, causing brand image and/or customer relations issues. We have reviewed some of our value chain in our assessment and continue to broaden our assessment to include other stakeholders. We feel we are potentially exposed to risks in our value chain but have not yet assessed all potential risks in terms of whether they have the potential to have a substantive financial or strategic impact to our business.

(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**

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

We operate a water recycle system and rainwater harvesting system at our Durham, NC, USA facility. Cree continues to evaluate newer technologies with respect to rainwater harvesting and water recycling and reuse, and plans to implement them when feasible. Additional water recycle and rainwater capture opportunities have been identified at this facility and are currently under review for technical feasibility, cost, and potential timeline. We continuously explore options for water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

400000

Potential financial impact figure – maximum (currency)

1000000

Explanation of financial impact

The potential financial impact represents the amount of money saved annually by harvesting rainwater and recycling our water versus purchasing water from the local utility. The financial impact includes the savings from our current system as well as estimated savings from potential additional opportunities.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Because we are constructing a new state-of-the-art, automotive-qualified 200mm-capable wafer fabrication facility in Marcy, New York, complemented by our mega materials factory expansion currently underway at our Durham headquarters, we will remain dependant on good quality water and anticipate our total water dependency to increase in the future. Our Marcy, New York facility is planned to use a water recycling system similar to that used at our Durham, NC, USA facility. Cree continues to evaluate newer technologies with respect to water recycling and reuse and plans to implement them when feasible. We continuously explore options for water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

100000

Potential financial impact figure – maximum (currency)

300000

Explanation of financial impact

The potential financial impact represents the estimated amount of money that will be saved annually by various water efficiency projects built into the design of the new wafer fabrication facility we are constructing and recycling our water versus purchasing water from the local utility. We still wanted to highlight the water efficiency projects, including our recycle system, planned for our new wafer fabrication facility even though these opportunities do not meet our \$1 million threshold for substantive financial impact on our business.

W5.1

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

Facility reference number

Facility 1

Facility name (optional)

Durham, NC, USA

Country/Area & River basin

United States of America	Other, please specify (Neuse River)
--------------------------	-------------------------------------

Latitude

35.899478

Longitude

-78.842384

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

776.7

Comparison of total withdrawals with previous reporting year

Higher

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

0.24

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

776.5

Total water discharges at this facility (megaliters/year)

549.1

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

549.1

Total water consumption at this facility (megaliters/year)

227.7

Comparison of total consumption with previous reporting year

Lower

Please explain

Because we purchased more water for withdrawals at this facility, it caused our total withdrawals value to increase. We have also made process changes at some of our facilities, causing water to be used and discharged at a different rate. For example, at this facility we initiated a new process that increased our water usage, but that discharges water out directly (i.e., very little water consumption). We continuously explore options for water use efficiency and water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

Facility reference number

Facility 2

Facility name (optional)

RTP, NC, USA

Country/Area & River basin

United States of America	Cape Fear River
--------------------------	-----------------

Latitude

35.916052

Longitude

-78.872103

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

186

Comparison of total withdrawals with previous reporting year

Higher

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

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

186

Total water discharges at this facility (megaliters/year)

152.2

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

152.2

Total water consumption at this facility (megaliters/year)

33,9

Comparison of total consumption with previous reporting year

About the same

Please explain

Because we purchased more water for withdrawals at this facility, it caused our total withdrawals and discharges value to increase. We continuously explore options for water use efficiency and water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

W5.1a

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

Water withdrawals – total volumes

% verified

76-100

What standard and methodology was used?

Our third party verification was conducted following their standard assurance methodology and approach for external verification of sustainability data, in part based on the International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements Other Than Audits or reviews of Historical Financial Information (2012), suitably adapted.

Water withdrawals – volume by source

% verified

76-100

What standard and methodology was used?

Our third party verification was conducted following their standard assurance methodology and approach for external verification of sustainability data, in part based on the International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements Other Than Audits or reviews of Historical Financial Information (2012), suitably adapted.

Water withdrawals – quality

% verified

Not verified

What standard and methodology was used?

<Not Applicable>

Water discharges – total volumes

% verified

Not verified

What standard and methodology was used?

<Not Applicable>

Water discharges – volume by destination

% verified

Not verified

What standard and methodology was used?

<Not Applicable>

Water discharges – volume by treatment method

% verified

Not verified

What standard and methodology was used?

<Not Applicable>

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

What standard and methodology was used?

<Not Applicable>

Water discharge quality – temperature

% verified

Not verified

What standard and methodology was used?

<Not Applicable>

Water consumption – total volume

% verified

Not verified

What standard and methodology was used?

<Not Applicable>

Water recycled/reused

% verified

Not verified

What standard and methodology was used?

<Not Applicable>

W6. Governance

W6.1

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

No, but we plan to develop one within the next 2 years

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
Director on board	Our Board of Directors is responsible for all Sustainability matters at Cree, including water-related issues, through our Governance and Nominations Committee (https://investor.cree.com/static-files/a6447b2e-8b82-4ddb-8563-064aab5079a2). Our CEO, who is also a Board Director member, is also ultimately responsible for water-related issues impacting the company because he has oversight of departments within Cree, including those that manage water-related issues (e.g., environment, health and safety, sustainability, emergency management, product development, operations, etc.). More information about our CEO's role with the Board of Directors can be found on our website (http://investor.cree.com/board-directors). The Board of Directors helps guide our Sustainability strategy, including goals/targets development. We are working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

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	Overseeing major capital expenditures Reviewing and guiding corporate responsibility strategy Other, please specify (Water-related issues are reviewed as important matters arise.)	Sustainability-related information is presented to our Board of Directors at least once per year, which covers a range of topics, including environmental performance (GHG emissions/climate change, water, etc.) and social responsibility efforts. Our Board of Directors also discusses water-related risks as important matters arise. The Board of Directors helps guide our Sustainability strategy, including goals/targets development. We are working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

W6.3

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

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

Other C-Suite Officer, please specify (Senior Vice President of Global Operations)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

Our SVP of Global Operations oversees both our Facilities and Environment, Health and Safety (EHS) departments. Our Facilities and Operations departments assess and manage water-related risks and opportunities at all Cree facilities. Our EHS department assesses water related risks and opportunities, including overseeing Sustainability Reporting, water-related regulatory compliance and ISO 14001 certification management/Environmental Management System administration.

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

Environmental health and safety manager

Responsibility

Assessing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

The Global Director of Environment, Health and Safety reports to the VP of Global Facilities. This EHS Director manages all EHS operations at Cree facilities. Together with their team, they assess water related risks and opportunities, including overseeing Sustainability Reporting, water-related regulatory compliance and ISO 14001 certification management/Environmental Management System administration.

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

Facilities manager

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

The VP of Global Facilities reports to the SVP of Global Operations. This facilities director manages all Cree facilities. Together with their team, they assess and manage water related risks and opportunities.

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

Other C-Suite Officer, please specify (Senior Vice President of Legal & General Counsel)

Responsibility

Assessing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Annually

Please explain

Our SVP of Legal & General Counsel presents Sustainability-related information to our Board of Directors at least once per year, which covers a range of topics, including environmental performance (GHG emissions/climate change, water, etc.) and social responsibility efforts.

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	The Board of Directors helps guide our Sustainability strategy, including goals/targets development. We are working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

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?

No, and we have no plans to do so

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	5-10	Most of our water is used for manufacturing including cooling tower use, but is also used for irrigation and human consumption (i.e., drinking water, sanitary sewer and water used in locations where we have an on-site cafeteria). Good quality freshwater is vital for our manufacturing processes (rinsing, cooling, cutting). Our processes require a specific quantity and quality (ultra-pure) of freshwater to operate without product contamination. Our business objectives include investing up to \$720 million in the expansion of our silicon carbide (SiC) capacity, which will generate up to a 30-fold increase in SiC wafer fabrication capacity and 30-fold increase in SiC materials production. We are also building a new, state-of-the-art, automotive qualified 200mm-capable wafer fabrication facility in New York, complemented by our materials factory expansion currently underway at our headquarters. The new facility will be a bigger, highly-automated factory with greater output capability. Because we are expanding, we will remain dependant on good quality water and anticipate our total water dependency to increase in the future. We continuously explore options for water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	Most of our water is used for manufacturing including cooling tower use, but is also used for irrigation and human consumption (i.e., drinking water, sanitary sewer and water used in locations where we have an on-site cafeteria). Good quality freshwater is vital for our manufacturing processes (rinsing, cooling, cutting). Our processes require a specific quantity and quality (ultra-pure) of freshwater to operate without product contamination. Our business objectives include investing up to \$720 million in the expansion of our silicon carbide (SiC) capacity, which will generate up to a 30-fold increase in SiC wafer fabrication capacity and 30-fold increase in SiC materials production. We are also building a new, state-of-the-art, automotive qualified 200mm-capable wafer fabrication facility in New York, complemented by our materials factory expansion currently underway at our headquarters. The new facility will be a bigger, highly-automated factory with greater output capability. Because we are expanding, we will remain dependant on good quality water and anticipate our total water dependency to increase in the future. We continuously explore options for water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.
Financial planning	Yes, water-related issues are integrated	5-10	Most of our water is used for manufacturing including cooling tower use, but is also used for irrigation and human consumption (i.e., drinking water, sanitary sewer and water used in locations where we have an on-site cafeteria). Good quality freshwater is vital for our manufacturing processes (rinsing, cooling, cutting). Our processes require a specific quantity and quality (ultra-pure) of freshwater to operate without product contamination. Our business objectives include investing up to \$720 million in the expansion of our silicon carbide (SiC) capacity, which will generate up to a 30-fold increase in SiC wafer fabrication capacity and 30-fold increase in SiC materials production. We are also building a new, state-of-the-art, automotive qualified 200mm-capable wafer fabrication facility in New York, complemented by our materials factory expansion currently underway at our headquarters. The new facility will be a bigger, highly-automated factory with greater output capability. Because we are expanding, we will remain dependant on good quality water and anticipate our total water dependency to increase in the future. We continuously explore options for water recycle improvements to help offset the expected increase in water withdrawals as we expand. We are also working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

W7.2

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

Row 1

Water-related CAPEX (+/- % change)

0

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

870

Water-related OPEX (+/- % change)

0

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

0

Please explain

Water-related CAPEX and OPEX fall within our overall Facilities and Operations budget. Depending on the project, our CAPEX may not be tracked categorically at this time. We estimate water-related CAPEX and OPEX to be about the same in FY2020 (July 2019-June 2020) and FY2021 (July 2020-June 2021). We have some larger one-time projects in our CAPEX plans for FY2022 (July 2021-June 2022), causing our anticipated forward trend for CAPEX to show a large percent increase. We estimate our anticipated forward trend for OPEX to remain about the same from FY2021 to FY2022.

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	Cree uses IRENA because we feel that it is a scenario that could reasonably occur in the future and because it promotes energy efficiency measures and increased adoption of renewable energy, which aligns with our business focus and strategy. We assess our strengths, weaknesses, opportunities, and threats in the IRENA scenario for all Cree operations and our supply chain on a long-term (10 year) timeframe because the IRENA climate-scenario considers CO2 emissions reductions by 2050. Even though IRENA is projected to 2050, the impacts within the next 10 years are significant with existing technologies. The results of Cree's IRENA scenario analysis are included in our CDP Climate Change survey.

W7.3a

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

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?

	Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	Other, please specify (internal risk assessment)	We use IRENA for our climate-related scenario analysis, but have identified risks and opportunities outside of our IRENA analysis. Risk management at Cree is a process undertaken by all functions within the business, including a review of risks related to financial and market performance, operational performance, emergency preparedness and response, environment, health and safety compliance, among other areas. Cree assesses and prioritizes risks based on impacts to our business and products, our employees, the communities in which we operate, and our customers. Cree also assesses and prioritizes risks based on regulatory impacts. In addition, Cree has established a formal Enterprise Risk Management program in order to identify, assess, prioritize and manage key enterprise risks. Climate-related risks and opportunities are discussed and addressed as part of this program. Further, situationally, departments including Environment, Health and Safety, Corporate Sales and Marketing, Legal, Operations, and Investor Relations, among others, assess Cree-specific risks and opportunities due to climate change. We have identified that water stress/availability could be a potential climate-related risk to our operations because we require ultra-pure water for our manufacturing processes. Water availability and quality issues due to climate change could affect our manufacturing operations and product quality.	Depending on the facility, we use either or both of the WRI Aqueduct and the WWF Water Risk Filter tools to assess our facilities' overall water risks. All our facilities were analyzed for water stress using the WRI Aqueduct tool. Based on CDP's guidance, we consider areas with water stress to be those locations with the risk category "High (40-80%)" or "Extremely High (>80%)" for baseline water stress. Based on that criteria, six of our small leased facilities are located in areas with the risk category "High" or "Extremely High." These offices use small amounts of water and represent only 0.03% of our total 2020 global water withdrawals. One of our North Carolina manufacturing facilities is located in an area with the risk category "High." Its 2020 water withdrawals represent approximately 12.8% of our total 2020 global water withdrawals. We understand the potential for these risks but do not yet have a financial impact calculated. However, we feel the impacts could be substantive (i.e., could be more than \$1 million depending on the event). We purchase water directly from the municipality and work closely with them to communicate water demand. Both Cree's Durham and Huizhou sites have water recycle systems to offset municipal water purchases and reduce the consumption of water. We continuously explore options for water recycle improvements to help offset the expected increase in water withdrawals as we expand.

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

Our risk assessment method has indicated that overall we are not in areas of high water risk for direct operations and we have not yet evaluated our supply chain. There are still fundamental elements of water risk assessment that Cree is planning to address in the coming years before using an internal price of water.

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	Site/facility specific targets and/or goals	Targets are monitored at the corporate level	Both Cree's Durham and Huizhou sites have water recycle systems to offset municipal water purchases and reduce the consumption of water. In the past, facility-specific water recycle rate goals were developed for those sites that are Cree's largest water users. The goals were set based on the technology available, the quality of water needed as an output of the process, the availability of water in the operating region, water recycle regulations in place, and to align with our ISO 14001 environmental management systems. The goals aim to ensure each site optimizes their water recycle systems, including ensuring better operation and maintenance of the systems to reduce down time. 2020 was our first year to use different tools (WWF Water Risk Filter and WRI Aqueduct) to analyze all our facilities (both owned and leased) for current and future water risks. We also assessed the risks of our new fabrication facility currently being constructed in Marcy, New York. We plan to use the results of the analyses to inform our internal decision-making process, including planning for future water stewardship projects and goals/targets setting. We are working toward finalizing corporate Sustainability goals, which will include a water-related goal to help further reduce our water impacts. The goals are planned to be released toward the end of 2021.

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 recycling/reuse

Level

Site/facility

Primary motivation

Water stewardship

Description of target

Recurring annual goal to meet 65% water recycle rate.

Quantitative metric

Other, please specify (% of water recycled)

Baseline year

2020

Start year

2020

Target year

2020

% of target achieved

100

Please explain

Our Huizhou, China facility has a recurring annual goal to meet 65% water recycle rate. They achieved their goal in 2020 with an average recycling rate of 68%.

Target reference number

Target 2

Category of target

Water recycling/reuse

Level

Site/facility

Primary motivation

Water stewardship

Description of target

Improve consistent water recycle rate to 3.7 million gallons per month for 6 consecutive months (based on 90% operational time).

Quantitative metric

Other, please specify (water recycle rate (million of gallons/month))

Baseline year

2018

Start year

2018

Target year

2021

% of target achieved

100

Please explain

Our Durham, NC, USA facility had a goal to optimally utilize existing water recycle technology with limited down time. This goal was achieved in 2019 and this goal was retired in 2020.

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

Cree_Trinity Assurance Statement_CY2020 20210726.pdf

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 withdrawals – total volume (Question W1.2b)	ISAE 3000	Cree uses an independent third party to perform a limited assurance verification of our Sustainability Report data. This year they verified our 2020 total water withdrawal values and water withdrawal values by source. Our third party followed their standard assurance methodology and approach for external verification of sustainability data, in part based on the International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements Other Than Audits or reviews of Historical Financial Information (2012), suitably adapted.

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	President and CEO	Director on board

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	903900000

SW0.2

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

No

SW1.1

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

This is confidential

SW1.2

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

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