Welcome to your CDP Water Security Questionnaire 2023

W0. Introduction

W0.1

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

Texas Instruments (TI) is a global semiconductor company that designs, manufactures, tests and sells analog and embedded processing chips. Our approximately 80,000 products help over 100,000 customers efficiently manage power, accurately sense and transmit data and provide the core control or processing in their designs, going into markets such as industrial, automotive, personal electronics, communications equipment and enterprise systems. With headquarters in Dallas, Texas, we have sites in more than 30 countries and have ~33,000 employees.
For decades, Texas Instruments has operated with a passion to create a better world by making electronics more affordable through semiconductors. This passion is alive today as we help our customers develop electronics and new applications, particularly in industrial and automotive markets. For many years, we've run our business with three overarching ambitions in mind: We will act like owners who will own the company for decades; we will adapt and succeed in a world that's ever changing; and we will be a company that we're personally proud to be a part of and would want as our neighbor. When we're successful in achieving these ambitions, our employees, customers, communities and shareholders all win.
Our commitment to being a good corporate citizen – including environmental, social and governance (ESG) and sustainability priorities –impacts our communities and the world in two ways.
• Our ambitions guide how we run our business and are foundational to ensuring that we operate in a sustainable, socially thoughtful and environmentally responsible manner. Central to these ambitions is a belief that in order for all stakeholders to benefit, the company must grow stronger over the long term.
• Semiconductors are and will continue to play a critical role in creating a better world and helping reduce environmental impacts. Semiconductors reduce energy consumption by making electric motors smarter and more efficient. They electrify vehicles for a cleaner environment and preserve

natural resources by sensing water and gas leaks. Our passion to make electronics more affordable through semiconductors is alive today, and is central to the growing list of the ways in which semiconductors help create a better world.

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, 2022	December 31, 2022

W0.3

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

China
Germany
India
Japan
Malaysia
Mexico
Philippines
Taiwan, 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 financial control is exercised

W0.6

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Leased and owned facilities that are less than 50,000 square feet in size.	Facilities smaller than 50,000 square feet are typically design or sales facilities where usage is limited to common sanitary and potable uses.

W0.7

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

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, a Ticker symbol	TXN

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	Water is a critical for semiconductor manufacturing. We use it to create deionized water, a critical component in our production processes. Our primary water supply at most of our manufacturing sites is local municipal water. We consider indirect use to be important to operations because many of our suppliers use water in their production processes.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Neutral	In 2022, our sites recycled 25.5% of the water used. For example, recycled water is used in cooling towers, scrubbers or in manufacturing processes.

W1.2

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

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	76-99	Continuously	Water withdrawals are regularly monitored via flow meters at all non-excluded TI locations not excluded per W0.6a.	Water withdrawals (total volume) are tracked across all TI facilities not excluded per W0.6a.

Water withdrawals – volumes by source	76-99	Continuously	Water withdrawals- volumes by source are monitored by flow meters at TI facilities. Water provided by groundwater or third party are measured by flow meter.	Water withdrawals by source are tracked across all TI facilities not excluded per W0.6a.
Water withdrawals quality	76-99	Continuously	Quality of water withdrawals (source water) is measured for certain parameters by standard analytical methods and online-monitors.	Water withdrawals quality is regularly monitored at all of our manufacturing facilities. Within the U.S., we predominantly use municipal water, the quality of which is determined by federal and state regulations. To confirm water quality, regular testing is conducted to ensure internal standards are maintained.
Water discharges – total volumes	76-99	Continuously	Total volume of water discharges is continuously monitored at TI facilities with flow meters.	Water discharges (total volume) are tracked across our manufacturing facilities.
Water discharges – volumes by destination	76-99	Continuously	Total volume of water discharges is continuously monitored at TI facilities with flow meters. Discharges to third party and surface water are both continuously monitored with flow meters.	Volume of water discharged by destination is tracked across our manufacturing facilities.
Water discharges – volumes by treatment method	76-99	Continuously	Volumes of discharge by treatment method are tracked continuously by flow meters in each type of treatment system. Where treatment systems have	Volume of water discharges by treatment are tracked across our manufacturing facilities.

			continuous flow, the measurement is continuous. In systems with batch discharge, the frequency of discharge may vary, but the volume discharged during each batch is monitored via flow meters.	
Water discharge quality – by standard effluent parameters	76-99	Other, please specify Varies by site between continuously to yearly (depending on regulatory requirement)	Water discharge quality is collected via grab, composite or continuous on-line monitoring. All effluent parameters are analyzed via standard methods. Frequency of sample collection and analysis vary by site but ranges from continuous monitoring of some parameters to quarterly and semi-annual monitoring for others.	Water discharge quality by standard effluent parameters is tracked across our manufacturing facilities. Parameters that are evaluated vary for each site, but are typical for the semiconductor sector and typically include biological oxygen demand, total suspended solids, metals, pH, and temperature.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	76-99	Other, please specify Varies by site between continuously to yearly (depending on regulatory requirement)	Water discharge quality is collected via grab, composite or continuous on-line monitoring. All effluent parameters are analyzed via standard methods. Frequency of sample collection and analysis vary by site but ranges from continuous monitoring of some parameters to quarterly and semi-annual monitoring for others.	TI monitors priority pollutants that are included in facility wastewater permits. Priority pollutant concentrations in wastewater discharges from TI are typically below the analytical method limit of detection.
Water discharge quality – temperature	76-99	Other, please specify Varies by site between	Temperature of water discharges is monitored during routine sampling activities.	We monitor, track and comply with water discharge temperature requirements where applicable.

		continuously to yearly (depending on regulatory requirement)		
Water consumption – total volume	76-99	Continuously	Total volume of water consumption is continuously monitored at TI facilities with flow meters.	The volume of water consumption is monitored and tracked across our manufacturing facilities.
Water recycled/reused	76-99	Continuously	Total volume of water consumption is continuously monitored at TI facilities with flow meters.	We reuse water in manufacturing processes, cooling towers, and some irrigation to reduce municipal water consumption.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Monthly	Fully-functioning WASH services that meet local guidelines are a requirement at all of our facilities as outlined in TI's environment, safety and health (ESH) Standards.	Fully-functioning WASH services that meet local guidelines are a requirement at all of our facilities as outlined in TI's environment, safety and health (ESH) Standards. These standards include or reference other standards and codes including the World Health Organization's "Prevention of Foodborne Disease" and the Responsible Business Alliance's (RBA) Validated Audit Process Protocol.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals	24,228	Higher	Other, please specify Facility expansion and Increase/decrease in business activity and Increase/decrease in efficiency	Higher	Other, please specify Facility expansion and Increase/decrease in business activity and Increase/decrease in efficiency	The increase in total withdrawal is primarily driven by production ramping at our Richardson, Texas fab, and a full year of consumption at our fab in Lehi, Utah. Despite the increase in production, in 2022, our water intensity was 68% lower than in 2010. In 2022, we completed 69 water conservation projects resulting in a combined savings of 174.19 million gallons/year or 659 megaliters/year.
Total discharges	18,825	Higher	Other, please specify Facility expansion and Increase/decrease in business activity and Increase/decrease in efficiency	Higher	Other, please specify Facility expansion and Increase/decrease in business activity and Increase/decrease in efficiency	The increase in discharge was driven by our increased total water withdrawal as result of production ramping at our Richardson, Texas fab, and a full year of consumption at our fab in Lehi, Utah. The total water discharged through 2022 increased by 12% from 2021.
Total consumption	5,403	Higher	Other, please specify Facility expansion and Increase/decrease in business activity and Increase/decrease in efficiency	Higher	Other, please specify Facility expansion and Increase/decrease in business activity and Increase/decrease in efficiency	Consumption is calculated as total water withdrawals (water in) minus total water discharged (water out). Water is "consumed" in our operations through evaporation (primarily cooling towers and air pollution control equipment), onsite landscaping irrigation, and in

						some waste streams. During 2022, we consumed approximately 22% of our total water withdrawals globally.

W1.2d

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

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Identification tool	Please explain
Row 1	Yes	11-25	Lower	Other, please specify Facility expansion and Increase/decrease in business activity and Increase/decrease in efficiency	Higher	Other, please specify Facility expansion and Increase/decrease in business activity and Increase/decrease in efficiency	WRI Aqueduct	Our water withdrawals come from local utility companies. We designate areas as water stressed if they are noted in the Aqueduct Water Risk Atlas as high, extremely high, or arid and low water use. The percentage of water withdrawals from water-stressed areas

								decreased slightly from 12.6% in 2021 to 11.4% in 2022.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Not relevant				We do not withdraw from fresh surface water, such as rainwater, wetlands, rivers or lakes for any manufacturing purposes.
Brackish surface water/Seawater	Not relevant				We do not withdraw brackish surface water or seawater.
Groundwater – renewable	Relevant	3,708	Higher	Other, please specify Facility expansion, Increase/decrease in business activity, and Increase/decrease in efficiency.	Some of our manufacturing sites use groundwater, primarily as a substitute for municipal water depending on quality. In 2021, TI purchased a manufacturing site at Lehi, Utah which uses groundwater, increasing our overall result.
Groundwater – non-renewable	Not relevant				We do not withdraw non-renewable groundwater.
Produced/Entrained water	Not relevant				We do not produce water or use produced water in our manufacturing process.

Third party sources	Relevant	20,520	Higher	Other, please specify Facility expansion, Increase/decrease in business activity, and Increase/decrease in efficiency.	Increase in water use was primarily driven by an increase in production due to production ramping at our Richardson, Texas fab, and a full year of consumption at our fab in Lehi, Utah in 2022.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Relevant	1,212	Lower	Increase/decrease in business activity	Very slight decrease due to change in manufacturing at sites with direct discharge to surface water.
Brackish surface water/seawater	Not relevant				We do not release to brackish surface water or seawater.
Groundwater	Not relevant				We not discharge directly to groundwater.
Third-party destinations	Relevant	17,613	Higher	Increase/decrease in business activity	Discharge is primarily into municipal wastewater plants. The increase is primarily driven by production ramping at our Richardson, Texas fab, and a full year of consumption at our fab in Lehi, Utah in 2022.

W1.2j

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	Primary reason for comparison with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	918	Higher	Other, please specify Facility expansion, Increase/decrease in business activity, and Increase/decrease in efficiency.	1-10	Some manufacturing sites have systems that remove undesirable colloidal and dissolved solids through a chemical treatment system, typically through coagulation and flocculation.
Secondary treatment	Relevant	661	Higher	Other, please specify Facility expansion, Increase/decrease in business activity, and Increase/decrease in efficiency.	1-10	Some manufacturing sites have systems that treat high chemical oxygen demand waste streams with a biological process, such as activated sludge.
Primary treatment only	Not relevant					No water discharge with only primary treatment.
Discharge to the natural environment without treatment	Not relevant					Water is not discharged to the natural environment without treatment.
Discharge to a third party	Not relevant					Water is not discharged to a third party without treatment.

without treatment						
Other	Relevant	17,246	Higher	Other, please specify Facility expansion, Increase/decrease in business activity, and Increase/decrease in efficiency.	91-99	Although primary, secondary and tertiary treatment is not performed at all sites, all wastewater undergoes elementary neutralization prior to discharge to municipal waste plants for further treatment. Certain waste streams are segregated from wastewater to prevent pollutants from entering TI's wastewater. For example, solvent and organic waste streams are segregated from industrial wastewater for reuse or disposal. Waste streams containing concentrated metals are collected for metals reclaim and/or disposal.

W1.2k

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

	Emissions to water in the reporting year (metric tonnes)	Category(ies) of substances included	List the specific substances included	Please explain

Row 1	90	Nitrates Priority substances listed under the EU Water Framework Directive	Substances included in the emissions to water are cadmium, lead, nickel and nitrates.	TI monitors priority pollutants that are included in facility wastewater permits. Priority pollutant concentrations in wastewater discharges from TI are typically below the analytical method limit of detection. At most TI locations, wastewater is discharged to a POTW for further treatment and removal of constituents in effluent. Almost all detectable emissions to water, reported in this table, are from nitrates in wastewater effluent that is sent to a POTW for additional treatment.

W1.3

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

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	20,030,000,000	24,228	826,729.403995377	Anticipated trend to remain steady.

W1.4

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

	Products contain hazardous substances
Row 1	Yes

W1.4a

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

Regulatory classification of hazardous substances	% of revenue associated with products containing substances in this list	Please explain

Annex XVII of EU REACH Regulation	Less than 10%	TI's comprehensive approach to environmental and product stewardship includes all aspects of its operations. We go beyond simply doing what is required by rule or regulation with respect to restricted chemicals and materials (RCMs) in TI IC products. Additional environmental information on our products and compliance statements is found at this site: https://www.ti.com/support-quality/environmental-info/environmental-home.html
Candidate List of Substances of Very High Concern (UK Regulation)	Less than 10%	TI's comprehensive approach to environmental and product stewardship includes all aspects of its operations. We go beyond simply doing what is required by rule or regulation with respect to restricted chemicals and materials (RCMs) in TI IC products. Additional environmental information on our products and compliance statements is found at this site: https://www.ti.com/support-quality/environmental-info/environmental-home.html
List of substances (Canadian Environmental Protection Act)	Less than 10%	TI's comprehensive approach to environmental and product stewardship includes all aspects of its operations. We go beyond simply doing what is required by rule or regulation with respect to restricted chemicals and materials (RCMs) in TI IC products. Additional environmental information on our products and compliance statements is found at this site: https://www.ti.com/support-quality/environmental-info/environmental-home.html

W1.5

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

	Engagement	Primary reason for no engagement	Please explain
Suppliers	No	Other, please specify We continue to assess the need for more specific engagement on	We continue to assess the need for more specific engagement on water-related issues with our value chain. We encourage our suppliers to consider all relevant environmental issues as part of their responsible management processes through

		water-related issues with our value chain, as detailed in the comments.	our supplier agreements and additional information provided via our various supplier engagement programs (including our commitments to the RBA). TI requires suppliers to: (1) achieve and maintain benchmark levels of performance in ensuring manufacturing processes are environmentally responsible, (2) demonstrate their commitment by complying with the TI Supplier Code of Conduct, (3) establish and implement appropriate policies and procedures, including (but not limited to) the following: - an ESH policy that is approved by the supplier's board of directors, the chief executive officer or equivalent management. - a process or system to identify all applicable ESH laws, regulations, rules, ordinances, permits, licenses, approvals, orders, standards, and relevant customer requirements and ensure compliance with them. More information on our supplier responsibility programs can be found here: https://www.ti.com/about-ti/suppliers/supplier-overview.html
Other value chain partners (e.g., customers)	No	Other, please specify We continue to assess the need for more specific engagement on water-related issues with our value chain, as detailed in the comments.	We continue to assess the need for more specific engagement on water-related issues with our value chain. Please refer to our Corporate Citizenship Report, found at this link: https://www.ti.com/about-ti/citizenship-community/overview.html

W2. Business impacts

W2.1

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

No

W2.2

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

	Water-related regulatory violations	Comment
Row 1	No	

W3. Procedures

W3.1

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

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified
Row 1	Yes, we identify and classify our potential water pollutants	All Texas Instruments sites are required to have an industrial wastewater management program based on the requirements of TI's Water Management standard and applicable regulations to identify potential water pollutants and comply with discharge limitations.

W3.1a

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

Water pollutant category

Nitrates

Description of water pollutant and potential impacts

Potential impacts of nitrates vary depending on source and how nitrates are treated at Texas Instruments wastewater treatment facilities or by a third party. If inadequately removed from wastewater effluent, nutrient loading and oxygen depletion are potential impacts from some of the pollutants in wastewater effluent.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Implementation of integrated solid waste management systems
Industrial and chemical accidents prevention, preparedness, and response
Provision of best practice instructions on product use
Requirement for suppliers to comply with regulatory requirements
Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements
Upgrading of process equipment/methods

Please explain

TI operates under a set of an environment, safety and health (ESH) standards, one of which is a Water Management standard. Under our standards, the integrity of critical infrastructure is routinely assessed at TI and all sites have a chemical storage, spill control, and spill response program to effectively prevent spills and leaks and ensure that secondary containment structures are properly designed and operated. We also routinely assess our process equipment and methods used and invests significantly in R&D to identify areas of improvement and implement upgrades. TI complies with all applicable regulations and emphasizes supply-chain responsibility through our supplier agreements. TI uses sector-specific processes to treat our discharge to comply with all permits and applicable regulations before our discharges are further treated at a POTW. All chemicals and direct materials undergo a screening process to understand the impact of their use and necessary controls and TI continuously works to reduce or phase out hazardous materials. In addition, all TI sites have a site-specific waste management plan to recover, treat, properly dispose of or recycle all hazardous and industrial waste. All of these actions together minimize the adverse impacts of potential water pollutants on water ecosystems or human health associated with TI operations.

Water pollutant category

Phosphates

Description of water pollutant and potential impacts

Potential impacts of phosphates vary depending on source and how phosphates are treated at Texas Instruments wastewater treatment facilities or by a third party. If inadequately removed from wastewater effluent, nutrient loading and oxygen depletion are potential impacts from some of the pollutants in wastewater effluent.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Beyond compliance with regulatory requirements
Implementation of integrated solid waste management systems
Industrial and chemical accidents prevention, preparedness, and response
Provision of best practice instructions on product use
Requirement for suppliers to comply with regulatory requirements
Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements
Upgrading of process equipment/methods

Please explain

TI operates under a set of an environment, safety and health (ESH) standards, one of which is a Water Management standard. Under TI standards, the integrity of critical infrastructure is routinely assessed at TI and all sites have a chemical storage, spill control, and spill response program to effectively prevent spills and leaks and ensure that secondary containment structures are properly designed and operated. We also routinely assess our process equipment and methods used and invests significantly in R&D to identify areas of improvement and implement upgrades. TI complies with all applicable regulation and emphasizes supply-chain responsibility through our supplier agreements. TI uses sector-specific processes to treat our discharge to comply with all permits and applicable regulations before our discharge is further treated at a POTW. All chemicals and direct materials undergo a screening process to understand the impact of their use and necessary controls and TI continuously works to reduce or phase out hazardous materials. In addition, all TI sites have a site-specific waste management plan to recover,

treat, properly dispose of or recycle all hazardous and industrial waste. All of these actions together minimize the adverse impacts of potential water pollutants on water ecosystems or human health associated with TI operations.

Water pollutant category

Other physical pollutants

Description of water pollutant and potential impacts

Potential impacts of other physical pollutants vary depending on source and how other physical pollutants are treated at Texas Instruments wastewater treatment facilities or by a third party. If inadequately removed from wastewater effluent impacts may include metals and other compounds which may adversely impact aquatic ecosystems.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Resource recovery
Beyond compliance with regulatory requirements
Implementation of integrated solid waste management systems
Industrial and chemical accidents prevention, preparedness, and response
Provision of best practice instructions on product use
Water recycling
Reduction or phase out of hazardous substances
Requirement for suppliers to comply with regulatory requirements
Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements
Upgrading of process equipment/methods

Please explain

TI operates under a set of an environment, safety and health (ESH) standards, one of which is a Water Management standard. Under TI standards, the integrity of critical infrastructure is routinely assessed at TI and all sites have a chemical storage, spill control, and spill response program to effectively prevent spills and leaks and ensure that secondary containment structures are properly designed and operated. We also routinely assess our process equipment and methods used and invests significantly in R&D to identify areas of improvement and implement upgrades. TI complies with all applicable regulations and emphasizes supply-chain responsibility through our supplier agreements. TI uses sector-specific processes to treat our discharge to comply with all permits and applicable regulations before our discharges are further treated at a POTW. All chemicals and direct materials undergo a screening process to understand the impact of their use and necessary controls and TI continuously works to reduce or phase out hazardous materials. In addition, all TI sites have a site-specific waste management plan to recover, treat, properly dispose of or recycle all hazardous and industrial waste. TI also recycles a significant amount of water each year and treats individual streams to meet fit for use specifications. All of these actions together minimize the adverse impacts of potential water pollutants on water ecosystems or human health associated with TI operations.

W3.3

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

Yes, water-related risks are assessed

W3.3a

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

Value chain stage

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Every two years

How far into the future are risks considered?

1 to 3 years

Type of tools and methods used

Tools on the market
Other

Tools and methods used

WRI Aqueduct
Internal company methods
External consultants

Contextual issues considered

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

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs

Regulators
Suppliers
Water utilities at a local level

Comment

W3.3b

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

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	Every three years or as needed, we conduct business impact risk assessments that evaluate whether additional controls on water withdrawals are needed to help ensure business growth, and to assess risks that could reduce or disrupt our water supply. We also continually monitor local and country water restrictions and conservation measures. Our water management standard establishes minimum requirements for water, wastewater and storm water management. This standard applies to our manufacturing and assembly/test	Since semiconductor manufacturing is a water-intensive process, we locate our manufacturing facilities in areas with proven availability of water resources and lower risks of short and long-term water stress. We are committed to investing in water efficiency programs, and managing water resources efficiently and responsibly, to ensure sustainable and continued use. We are also committed to engaging with our water suppliers to ensure an uninterrupted long-term water supply.	TI considers key stakeholders to ensure sustainable use of water sources and continuous access to all of Water availability. To assess the effectiveness of our water management strategies, we conduct comparative assessments of tools and processes, benchmark against peers and share best practices. We also track actual water usage at each site as well as projects that were completed to reduce consumption.	Every three years or as needed, we conduct business impact risk assessments that evaluate whether additional water controls on water withdrawals are needed to help ensure business growth, and to assess risks that could reduce or disrupt our supply chain and/or production. We also continually monitor local and country water restrictions and conservation measures. Our water management standard establishes minimum requirements for water, wastewater and storm water management. This standard applies to our

	sites around the world and often exceeds applicable regulatory requirements. In addition, TI uses WRI Aqueduct to understand physical risks related to water quantity and quality.			manufacturing and assembly/test sites around the world and often exceeds applicable regulatory requirements. In addition, TI uses WRI Aqueduct to understand physical risks related to water quantity and quality.

W4. Risks and opportunities

W4.1

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

No

W4.1a

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

TI defines a substantive financial or strategic impact as anything that significantly affects the company's financial position or ability to manufacture or sell its products.

W4.2b

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

	Primary reason	Please explain

Row 1	Risks exist, but no substantive impact anticipated	Since semiconductor manufacturing is a water-intensive process, we locate our manufacturing facilities in areas with proven availability to water resources and lower risks of short and long-term water stress. In addition, we continually invest in water efficiency programs in order to help manage non-substantive water risks in our manufacturing operations. To assess the effectiveness of our water management strategies, we conduct comparative assessments of tools and processes, benchmark against peers and share best practices. We also track actual water usage at each site as well as projects that were completed to reduce consumption. Site managers review results and compare them to their site's specific water-reduction goals.

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	Risks exist, but no substantive impact anticipated	We continue to assess the need for more specific engagement on water-related issues with our value chain. We encourage our suppliers to consider all relevant environmental issues as part of their responsible management processes through our supplier agreements and additional information provided via our various supplier engagement programs (including our commitments to the RBA). To date, we have determined that no supplier exposes us to such an impact. We also work proactively with suppliers to source products and tools that help reduce our environmental impact. In addition, as member of the RBA, we request our top major suppliers to provide us with a self-assessment questionnaire (SAQ), which highlights any high-risk areas including risk indicators around water use and wastewater.

W4.3

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

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

W4.3a

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

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

In 2022 we completed 69 water conservation projects resulting in a combined savings of 174.19 million gallons/year or 659 megaliters. Since 2011, we have consistently reduced our water withdrawn per unit of production due to significant water reduction efforts at TI, such as using reclaimed water, reusing water in other processes, improving technology for our deionized water plants, reducing manufacturing tool idle flows and other efforts to identify and reduce water leaks.

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, a single figure estimate

Potential financial impact figure (currency)

1,839,000

Explanation of financial impact

Our water-saving initiatives implemented so far have reduced our costs, where water-related savings for 2022 was $1.839M. The water Process System Team (PST) collaborate and share ideas on optimizing systems and reducing water consumption. Overall, the initiatives have achieved significant water savings.

Type of opportunity

Products and services

Primary water-related opportunity

Sales of new products/services

Company-specific description & strategy to realize opportunity

Some of our technology solutions may enable water efficiency and conservation – in utilities distribution and monitoring or home appliances. For example, new metering technology using TI's advanced flow metering chip helps make every drop of water count by significantly improving accuracy while reducing overall cost and power consumption. However, we have not quantified this information.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Explanation of financial impact

We recognize that sound water management is increasingly important. This creates opportunity for our more energy efficient product lines as well as our more innovative analog and embedded processing products designed to help management of water use.

W6. Governance

W6.1

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

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

W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water	Our ESH policy and principles guide our efforts to operate sustainably: https://www.ti.com/lit/ml/sszo051/sszo051.pdf TI's water-related targets and goals are found in our annual Corporate Citizenship Report, found at this link: https://www.ti.com/about-ti/citizenship-community/overview.html Our Supplier Code of Conduct includes expectations of suppliers around key issues such as water conservation and stewardship: https://www.ti.com/lit/SZZO021 These documents are found in our Corporate Citizenship page, found at this link: https://www.ti.com/about-ti/citizenship-community/overview.html

W6.2

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

Yes

W6.2a

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

Position of individual or committee	Responsibilities for water-related issues
Chief Executive Officer (CEO)	Management, under the direction of the Board, sets policies and practices regarding the risks, challenges and opportunities facing the company, including water-related issues. The CEO, CFO and General Counsel/Chief Compliance Officer review the company's risk management process and assess the risks most relevant to the company. The CFO reviews the company's risk management process and relevant risks with the Audit Committee.
Chief Financial Officer (CFO)	Management, under the direction of the Board, sets policies and practices regarding the risks, challenges and opportunities facing the company, including water-related issues. The CEO, CFO and General Counsel/Chief Compliance Officer review the company's risk management process and assess the risks most relevant to the company. The CFO reviews the company's risk management process and relevant risks with the Audit Committee.
Other C-Suite Officer	Management, under the direction of the Board, sets policies and practices regarding the risks, challenges and opportunities facing the company, including water-related issues. The CEO, CFO and General Counsel/Chief Compliance Officer review the company's risk management process and assess the risks most relevant to the company. The CFO reviews the company's risk management process and relevant risks with the Audit Committee.

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	Reviewing and guiding strategy	Board oversight of ESG matters, including climate and sustainability issues, includes (1) establishing broad policies for guidance of the organization, (2) implementing those policies by delegation of authority and assigning responsibilities to Board committees, the CEO and other officers or employees as appropriate, and (3) monitoring and evaluating performance to assure that the stated policies are being followed. The Board's Audit Committee reviews the company's practices with respect to risk assessment and risk management, specifically including environmental-related risk. In addition, the Vice President responsible for Worldwide Facilities has specific responsibility for climate-related issues and provides risk assessments (inclusive of climate change) to the Audit Committee.

W6.2d

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

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	As noted in the company's 2023 proxy statement, ten of the company's directors have sustainability experience.

W6.3

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

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

Chief Executive Officer (CEO)

Water-related responsibilities of this position

Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Annually

Please explain

Board oversight of ESG matters, including water and sustainability issues, includes (1) establishing broad policies for guidance of the organization, (2) implementing those policies by delegation of authority and assigning responsibilities to Board committees, the CEO and other officers or employees as appropriate, and (3) monitoring and evaluating performance to assure that the stated policies are being followed.

The Board's Audit Committee reviews the company's practices with respect to risk assessment and risk management, specifically including environmental-related risk. In addition, the Vice President responsible for Worldwide Facilities has specific responsibility for climate-related issues and provides risk assessments (inclusive of water issues) to the Audit Committee.

W6.4

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

	Provide incentives for management of water-related issues	Comment
Row 1	No, and we do not plan to introduce them in the next two years	

W6.5

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

No

W6.6

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

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	Water is an essential part of manufacturing semiconductors. We use it to create deionized water – a critical component in our production process. Because water is so important to our operations – and to the communities where we operate, we take great care to use it responsibly and efficiently. Conserving water also enables us to reduce costs, ensure long-term availability and preserve this natural resource. In 2022 our biggest projects involved a) continued optimization of the deionized rinse process at Lehi, UT, resulting in a saving of 17 million gallons annually; b) continued optimization of the reclaim system at our Richardson wafer fabrication plant, saving 15 million gallons annually; and c) a micro-filtration replacement and optimization project at our assembly/test facility at Clark, Philippines, resulting in 24.7 million gallons saved annually.

Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	We focus on reducing overall consumption and then on reusing and recycling water. Our manufacturing and assembly sites around the world set specific goals each year to lower costs and reduce water consumption. We share these combined results in our Corporate Citizenship Report.
Financial planning	Yes, water-related issues are integrated	5-10	Water-related issues are integrated into financial planning because water is important to our operations and our communities. We continuously invest in projects to reduce, recycle and reuse water.

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)

132

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

0

Water-related OPEX (+/- % change)

13

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

15

Please explain

Capital project spending was up 132% from 2021. Operating costs were up 9% year on year. Capital project costs vary year on year depending on the type of projects funded and the overall amount of utility capital available. Operating expenses will be primarily driven by cost of water and usage. Water costs have increased in several markets where we have production facilities.

W7.3

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

	Use of scenario analysis	Comment
Row 1	No, and we do not plan to do so within the next two years	TI engaged with a third-party to conduct a climate change scenario analysis to better understand risks and opportunities associated with operations, future markets and reputation. The climate change scenario analysis included some water aspects, and reinforced our existing long-term water strategy program.

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

TI has a long-term robust water program and understands the importance to business. The rates we pay for water vary widely from site to site, so setting an internal price on water would not add any practical value to our water strategy.

W7.5

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

	Products and/or services classified as low water impact	Definition used to classify low water impact	Please explain

Row 1	Yes	Semiconductors are often used in end products that do not consumer water. In addition, many of our products, such as leak sensors, water meters and other technology, are designed for our customers to incorporate into their detection technology to minimize water use in homes, businesses and cities.	Semiconductors are often used in end products that do not consumer water. In addition, many of our products, such as leak sensors, water meters and other technology, are designed for our customers to incorporate into their detection technology to minimize water use in homes, businesses and cities.

W8. Targets

W8.1

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

Yes

W8.1a

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

	Target set in this category	Please explain
Water pollution	No, and we do not plan to within the next two years	TI monitors pollutants that are included in facility wastewater permits. Many pollutant concentrations in wastewater discharges from TI are below the analytical method limit of detection. At most TI locations, wastewater is discharged to a POTW for further treatment and removal of constituents in effluent. TI's Environmental, Safety and Health Policy prioritizes compliance with regulatory requirements and protection of the environment.
Water withdrawals	Yes	
Water, Sanitation, and Hygiene (WASH) services	No, and we do not plan to within the next two years	Fully-functioning WASH services that meet local guidelines are a requirement at all of our facilities as outlined in TI's environment, safety and health (ESH) Standards. These standards include or reference other standards

		and codes including the World Health Organization's “Prevention of Foodborne Disease” and the Responsible Business Alliance's (RBA) Validated Audit Process Protocol.
Other	No, and we do not plan to within the next two years	

W8.1b

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

Target reference number

Target 1

Category of target

Water withdrawals

Target coverage

Company-wide (direct operations only)

Quantitative metric

Other, please specify

Implementation of water projects to reduce water use

Year target was set

2022

Base year

Base year figure

Target year

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

Achieved

Please explain

Our water goals are set annually, with the aim to reduce water use, resulting in long term year-on-year reductions. In 2022 we set a goal to implement projects which would reduce water use by 350 gallons per minute (gpm) in 2022. We achieved reductions of 331.4 gpm.

W9. Verification

W9.1

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

No, we do not currently verify any other water information reported in our CDP disclosure

W10. Plastics

W10.1

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

	Plastics mapping	Please explain
Row 1	Not mapped – and we do not plan to within the next two years	TI uses packaging materials when shipping our products to customers. Several of these packaging materials are comprised of Polypropylene and other polymers incorporated in packaging items such as tapes, reels, magazines, chip trays, etc. Electrostatic Discharge (ESD) integrity in the packaging materials used is critical to maintain the integrity of the product. TI works closely with our suppliers who are committed to using environmentally-friendly substances in their products, however we are currently not aware of any alternatives that could fully replace our current packaging.

W10.2

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

	Impact assessment	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	We are not currently aware of any environmental impacts of our products. TI uses packaging materials when shipping our products to customers. Several of these packaging materials are comprised of Polypropylene and other polymers incorporated in packaging items such as tapes, reels, magazines, chip trays, etc. Electrostatic Discharge (ESD) integrity in the packaging materials used is critical to maintain the integrity of the product.

W10.3

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

	Risk exposure	Please explain

Row 1	Not assessed – and we do not plan to within the next two years	We are not currently aware of any environmental impacts of our products. TI uses packaging materials when shipping our products to customers. Several of these packaging materials are comprised of Polypropylene and other polymers incorporated in packaging items such as tapes, reels, magazines, chip trays, etc. Electrostatic Discharge (ESD) integrity in the packaging materials used is critical to maintain the integrity of the product.

W10.4

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

	Targets in place	Please explain
Row 1	No – and we do not plan to within the next two years	TI uses packaging materials when shipping our products to customers. Several of these packaging materials are comprised of Polypropylene and other polymers incorporated in packaging items such as tapes, reels, magazines, chip trays, etc. Electrostatic Discharge (ESD) integrity in these packaging materials used is critical to maintain the integrity of the product. TI works closely with our suppliers who are committed to using environmentally-friendly substances in their products, however we are currently not aware of any alternatives that could fully replace our current packaging.

W10.5

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

	Activity applies	Comment
Production of plastic polymers	No	N/A
Production of durable plastic components	No	N/A
Production / commercialization of durable plastic goods (including mixed materials)	No	N/A

Production / commercialization of plastic packaging	No	N/A
Production of goods packaged in plastics	Yes	TI uses packaging materials when shipping our products to customers. Several of these packaging materials are comprised of Polypropylene and other polymers incorporated in packaging items such as tapes, reels, magazines, chip trays, etc. Electrostatic Discharge (ESD) integrity in these packaging materials used is critical to maintain the integrity of the product. TI works closely with our suppliers who are committed to using environmentally-friendly substances in their products, however we are currently not aware of any alternatives that could fully replace our current packaging.
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	N/A

W10.8

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

	Total weight of plastic packaging sold / used during the reporting year (Metric tonnes)	Raw material content percentages available to report	Please explain
Plastic packaging used			TI uses packaging materials when shipping our products to customers. Several of these packaging materials are comprised of Polypropylene and other polymers incorporated in packaging items such as tapes, reels, magazines, chip trays, etc. Electrostatic Discharge (ESD) integrity in these packaging materials used is critical to maintain the integrity of the product. TI works closely with our suppliers who are committed to using environmentally-friendly substances in their products, however we are currently not aware of any alternatives that could fully replace our current packaging.

W10.8a

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

	Percentages available to report for circularity potential	Please explain
Plastic packaging used		TI uses packaging materials when shipping our products to customers. Several of these packaging materials are comprised of Polypropylene and other polymers incorporated in packaging items such as tapes, reels, magazines, chip trays, etc. Electrostatic Discharge (ESD) integrity in these packaging materials used is critical to maintain the integrity of the product. TI works closely with our suppliers who are committed to using environmentally-friendly substances in their products, however we are currently not aware of any alternatives that could fully replace our current packaging.

W11. Sign off

W11.1

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

	Job title	Corresponding job category
Row 1	Vice President, Worldwide Environment, Safety & Health	Environment/Sustainability manager

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