

Welcome to your CDP Water Security Questionnaire 2022

W0. Introduction

W0.1

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

Celanese Corporation is a global technology leader in the production of differentiated chemistry solutions and specialty materials used in most major industries and consumer applications. Our two complementary business cores, Acetyl Chain and Materials Solutions, use the full breadth of Celanese's global chemistry, technology and business expertise to create value for our customers and the corporation. As we partner with our customers to solve their most critical business needs, we strive to make a positive impact on our communities and the world through The Celanese Foundation. Based in Dallas, Celanese employs approximately 8,500 employees worldwide and had 2021 net sales of \$8.5 billion. For more information about Celanese and our product offerings, visit www.celanese.com or our blog at www.celaneseblog.com.

W-CH0.1a

(W-CH0.1a) Which activities in the chemical sector does your organization engage in?

- Bulk organic chemicals
- Specialty organic chemicals

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, 2021	December 31, 2021

W0.3

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

- Belgium
- Brazil
- Canada
- China
- Germany

- India
- Italy
- Mexico
- Netherlands
- Singapore
- Sweden
- Switzerland
- United Kingdom of Great Britain and Northern Ireland
- 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?

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Offices	Celanese is focusing on manufacturing facilities that are known to utilize large quantities of water. At this time offices and other non-production facilities have been excluded. Domestic water withdrawal from offices and non-production facilities is estimated to be 0.04% of global withdrawals.

W0.7

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

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	1508701034

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	Vital	In 2021 freshwater withdrawal volumes were estimated at 81% of total water withdrawn. Water is needed for Celanese direct manufacturing operations. Water is used in many ways including, for steam generation, cooling, washing, as a solvent and as a product ingredient. There is also a need for potable water for on-site employees and contractors. Indirect water availability and quality is vitally important within the value chain as many raw materials Celanese processes are water dependent.
Sufficient amounts of recycled, brackish and/or produced water available for use	Not very important	Not very important	In 2021, recycled water was approximately 0.85% of total water withdrawals. Recycled water volumes include water used more than once, including treated wastewater effluent and condensate reused from the generation of steam.

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%	Celanese collects data on water withdrawals for each facility in a global database system. Data entry has specific standardized reporting requirements and facilities receive training on this system. Facility water withdrawals are measured and monitored based on meters, instrumentation and/or monthly utility bills. Each facility works to ensure that sufficient quantities

		of water are available for reliable operations.
Water withdrawals – volumes by source	100%	Celanese collects utility bills on a facility basis each month to determine water withdrawals. Facility water withdrawals are measured and monitored based on meters, instrumentation and/or monthly utility bills. The withdrawal quantities are uploaded to a global database.
Water withdrawals quality	100%	Celanese facilities may perform testing of incoming water as determined by specific operating plans and procedures. Treatment to demineralize water may occur at some facilities to operate and maintain cooling, heating and steam systems. Celanese collects utility bills on a facility basis each month to determine water withdrawals. Facility water withdrawals are measured and monitored based on meters, instrumentation and/or monthly utility bills. The withdrawal quantities are uploaded to a global database.
Water discharges – total volumes	100%	Celanese collects data on water discharges for each facility in a global database system. Data entry has specific standardized reporting requirements and facilities receive training on this system. Facility water discharges are measured and monitored based on meters, instrumentation and/or monthly utility bills.
Water discharges – volumes by destination	100%	Celanese collects data on water discharges for each facility in a global database system. Data entry has specific standardized reporting requirements and facilities receive training on this system. Facility water discharges are measured and monitored based on meters, instrumentation and/or monthly utility bills.
Water discharges – volumes by treatment method	Not monitored	This is Celanese first year compiling data based on treatment method. While we are unable to fully complete it for this year, we are working to be able to in future years.
Water discharge quality – by standard effluent parameters	1-25	Celanese facilities that treat wastewater and directly discharge treated effluent to the environment are included in this reporting element. These facilities treat and monitor

		effluent discharges under government-issued discharge permits and regulatory authorities.
Water discharge quality – temperature	1-25	Celanese facilities that treat wastewater and directly discharge treated effluent to the environment are included in this reporting element. These facilities treat and monitor effluent discharges under government-issued discharge permits and regulatory authorities.
Water consumption – total volume	100%	Celanese collects data on water discharges for each facility in a global database system. Data entry has specific standardized reporting requirements and facilities receive training on this system. Facility discharges are measured and monitored based on meters, instrumentation and/or monthly utility bills. Celanese follows the calculation method to derive consumption volumes (water withdrawals minus water discharges). As our water program continues to evolve, we intend to refine our facility-level understanding of water consumption and usage activities
Water recycled/reused	100%	Celanese facilities recycled/reused approximately 0.85% of total water withdrawals. Recycled water volumes include water used more than once, including treated wastewater effluent and condensate reused from the generation of steam.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Celanese facilities provide permanent or temporary access to clean water (bottled water and/or potable water), sanitation facilities, and hygiene facilities for protective measures (e.g., hand washing stations, eye washes, and safety showers). Additionally, we provide temporary services to workers during large capital projects or turnarounds where temporary workforces will be working at our facilities.

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	165,635	Higher	Production volumes have increased by approximately 7% leading to a 9.4% increase in withdrawals. A projected increase in business, may lead to an increase in overall withdrawal.
Total discharges	147,409	Higher	Production volumes have increased by approximately 7% leading to an increase in discharges. A projected increase in business, may lead to an increase in discharge.
Total consumption	18,226	Higher	Production volumes have increased by approximately 7% leading to an increase in production. A projected increase in business, may lead to an increase in consumption. Water consumption is defined as water intake minus discharge in alignment with SASB methodology. SASB methodology specifically defines water consumption as water that evaporates during withdrawal, usage, and discharge which is directly or indirectly incorporated into our production activities, and water that does not otherwise return to the same catchment area from which it was withdrawn. We use the measured values and water bills as sources for our reporting. Some of our facilities may report negative or zero water consumption which is a result of water being returned to the source at a higher or equal value than from water withdrawn. Production processes at some of our sites produce water as part of the stoichiometric reaction, which is then combined with other discharged waters. Additionally, some sites capture a portion of stormwater in their discharge figures since the water is treated and discharged with other process waters.

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	About the same	WRI Aqueduct	The WRI tool was selected to satisfy the disclosure requirements for SASB. The tool was applied following SASB RT-CH-140a.1 which evaluates (1) Total water withdrawn, (2) total water consumed, percentage of each in regions with high or extremely high baseline water stress. Updated every 5 years.

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	122,271	Higher	Two new facilities were acquired during the reporting period. Annual production increased approximately 7% year-over-year which may lead to an increase in overall withdrawal.
Brackish surface water/Seawater	Not relevant			No withdrawals from source
Groundwater – renewable	Relevant	11,381	Higher	Annual production increased approximately 7% year-over-year which may lead to an increase in overall withdrawal.
Groundwater – non-renewable	Not relevant			No withdrawals from source

Produced/Entrained water	Relevant	9	This is our first year of measurement	Annual production increased approximately 7% year-over-year which may lead to an increase in overall produced water.
Third party sources	Relevant	31,973	Higher	Annual production increased approximately 7% year-over-year which may lead to an increase in overall water sourced from third-parties.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	130,977	Higher	Annual production increased approximately 7% year-over-year which may lead to an increase in overall discharge. Water discharge is metered.
Brackish surface water/seawater	Relevant	631	About the same	Similar specific process related to discharge. Discharge to this specific source is metered.
Groundwater	Relevant	529	About the same	Similar specific process related to discharge. Discharges to groundwater are metered.
Third-party destinations	Relevant	15,271	Higher	Annual production increased approximately 7% year-over-year which may lead to an increase in overall discharge. Water discharge is metered.

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	8,537,000,000	165,607.1	51,549.7222039393	Celanese has set a target to reduce water consumption intensity by 10% by 2030. Achieving this goal would likely increase the withdrawal efficiency.

W-CH1.3

(W-CH1.3) Do you calculate water intensity for your activities in the chemical sector?

Yes

W-CH1.3a

(W-CH1.3a) For your top five products by production weight/volume, provide the following water intensity information associated with your activities in the chemical sector.

W1.4

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

No, we do not engage on water with our value chain

W1.4d

(W1.4d) Why do you not engage with any stages of your value chain on water-related issues and what are your plans?

	Primary reason	Please explain
Row 1	Other, please specify Alignment with ESG goals	Celanese is currently evaluating future engagement with the value chain.

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

1

Total value of fines

7,000

% of total facilities/operations associated

2.8

Number of fines compared to previous reporting year

Lower

Comment

At the corporate level we monitor compliance of our local operating facilities and ensure prompt resolution of non-compliance incidents and any related fines.

W3. Procedures

W-CH3.1

(W-CH3.1) How does your organization identify and classify potential water pollutants associated with its activities in the chemical sector that could have a detrimental impact on water ecosystems or human health?

As an international chemical manufacturer, we operate within the rules and regulations of each local regulatory body as it relates to the treatment and discharge of water. Each facility responsible for accurately assessing, treating, permitting, and mitigating potential pollutants from operating effluent. Wastewater treatment techniques that are used by our facilities include, anaerobic digesters, aerobic reactors, color abatement, skimmers, sedimentation tanks and pH neutralization.

Each facility strives to follow the local regulatory standards as well as any state and federal standard to demonstrate compliance. Based on the location of the facility and the waterbody

which is being discharged to, the local authorities have established limits for specific pollutants entering certain waterbodies.

In addition to regular monitoring for pollutants in the discharge, facilities complying with ISO-14001 go through annual internal reviews and external reviews by certified ISO 14001 auditors of the management system, to ensure the proper plans and procedures are in place to establish and maintain compliance with rules and regulations applicable to water pollutants.

W-CH3.1a

(W-CH3.1a) Describe how your organization minimizes adverse impacts of potential water pollutants on water ecosystems or human health. Report up to ten potential pollutants associated with your activities in the chemical sector.

Potential water pollutant	Value chain stage	Description of water pollutant and potential impacts	Management procedures	Please explain
Organic Pollution measured as BOD or COD	Direct operations	Organic materials present in water are decomposed by bacteria using dissolved oxygen which is also present in the water body. Dissolved oxygen is also critical for fish and other aquatics inhabiting the water body. Industrial waste water that has significant BOD or COD concentration can contribute to a lack of available dissolved oxygen in the local water body or potentially downstream of the discharge point. BOD and COD are both indicator measurements of the amount oxygen required to oxidize the organic material in the sample to carbon dioxide and water.	Compliance with effluent quality standards	Based on the location of the facility and the waterbody which is being discharged to, the local authorities have established limits for specific pollutants entering certain waterbodies. Each facility is responsible for accurately assessing, treating, permitting, and monitoring water discharges. Wastewater treatment techniques that are used by our facilities may include, anaerobic and aerobic reactors and sedimentation tanks. Demonstrating ongoing compliance with the local limits is the primary method that success is measured.

<p>Total Suspended Solids (TSS)</p>	<p>Direct operations</p>	<p>Total suspended solids in a water body decrease dissolved oxygen and increase water temperature. Dissolved oxygen in a water body is critical for fish and other aquatic organisms. Suspended solids can also affect the temperature of the water which can have detrimental effect on aquatic life. Depending on the cause of the TSS, the material may have an adverse effect on human health in drinking water.</p>	<p>Compliance with effluent quality standards</p>	<p>Based on the location of the facility and the waterbody which is being discharged to, the local authorities have established limits for specific pollutants entering certain waterbodies. Each facility is responsible for accurately assessing, treating, permitting, and monitoring water discharges.</p> <p>Wastewater treatment techniques that are used by our facilities may include, anaerobic and aerobic reactors and sedimentation tanks.</p> <p>Demonstrating ongoing compliance with the local limits is the primary method that success is measured.</p>
<p>Stormwater</p>	<p>Direct operations</p>	<p>Industrial storm water from manufacturing processes</p>	<p>Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages</p>	<p>Many facilities are required to create and implement stormwater pollution prevention plan (SWPPP) as part of permit designed to minimize discharge of pollutants during rainfall events. Additional programs include implementation of programs similar to the Spill Prevention Control and Countermeasure plan (SPCC) designed to prevent oil from impacting the environment and Operation Clean Sweep (OCS) that help reduce the accidental loss of pellets, flakes and powders from the processing facility into the environment.</p>

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 a standalone issue

Frequency of assessment

Every three years or more

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Tools on the market

Tools and methods used

WRI Aqueduct

Contextual issues considered

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholders considered

Customers

Employees

Investors

Local communities

NGOs

Regulators

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.

We use the WRI Aqueduct tool to identify operations that may occur in areas that are subject to water related risk. Using the output from the tool, we are able to understand which of our facilities may experience water risks, such as floods, droughts and stress more significantly in the future. We overlay that information with the total withdrawals and discharges from facilities in those areas to identify the potential exposure to this water risk. This process is completed following guidance in SASB RT-CH-140a.1 which evaluates (1) Total water withdrawn, (2) total water consumed, percentage of each in regions with high or extremely high baseline water stress.

The stakeholders considered consist of the audience which we intend to provide the outcomes of the risk assessment via our SASB report, including investors, customers, employees and NGOs. Stakeholders inherent to the tool are local communities and NGOs where criteria within the tool are evaluated to those stakeholders in some areas.

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?

Celanese primarily consider “materiality” under relevant securities laws (meaning generally that the magnitude or nature of the item is such that it is probable that the judgment, buy/sell or voting decision of a reasonable investor would have been changed or influenced by the information). For reasonably financially quantifiable items, as a general guideline, but not a definitive threshold, we typically consider a risk to be material if it represents 5% or more of pre-tax income. However, this is a general guideline only, and not all information that exceeds this threshold will be material and some information that does not cross this threshold may be material due to qualitative or other factors.

In addition to this financial threshold, Celanese considers risks and opportunities through reputational, operational and regulatory criteria. Many of these risks which are not possible to quantify with precision or at all. Celanese uses various tools to identify these risks and opportunities, including a sustainability priority assessment, stakeholder engagement outreach, and our enterprise risk management process. This process evaluates potential exposure, likelihood and financial or reputational magnitude of risk exposure. Refer to our annual 10-K report, available at investors.celanese.com, for a discussion of these risk factors that are considered to be the most substantive.

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	Evaluation in progress	<p>To better understand the water risks and impacts at our sites, we use the World Resources Institute (WRI) Aqueduct tool to identify site locations facing “high” to “extremely high” baseline water stress. Based on operational data from 2021, less than 3% of the water consumption globally occurred at sites located in high-stress or extremely high stress areas.</p> <p>In 2021 we continued to evaluate other water tools with expanded risk factors that include water quantity, quality, regulatory and reputational risks. Over the next year, we are preparing to evaluate these local water risk factors prioritizing sites located in high water stress areas.</p>

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	<p>We actively manage our business continuity plans to minimize risk within our control that could lead to business disruptions, and devote resources to enhance the Company’s control environment, processes, practices and other protective measures. Risk factors evaluated are identified in our 10K and include supply chain disruptions, plant and/or power outages, labor disputes and/or strikes, information technology system and/or network disruptions, whether caused by acts of sabotage, employee error, malfeasance or other actions, geo-political activity, weather events and natural disasters, including hurricanes or flooding that impact coastal regions, and global health risks or pandemics could seriously harm the Company’s operations as well as the operations of the Company’s customers and suppliers. As of submission of this questionnaire, we have not identified inherent water-specific risks in our value chain that pose an immediate significant risk.</p>

W4.3

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

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

W4.3a

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

Type of opportunity

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

Celanese produces a variety of materials that support responsible water practices. Solutions range from GUR(R) ultra-high molecular weight polyethylene used as the binder with activated carbon to produce carbon block water filters. Other products including POM, PPS and PBT are used to produce an assortment of fluid management devices that go into the valves, fittings and other components that make up faucet and irrigation systems, both in consumer and industrial applications. Celanese supports our customers in helping to ensure access to clean water along with responsible water usage practices.

Currently Celanese sells >15,000 tons per year of materials into this space. Celanese seeks to continually develop solutions with our customers in these segments to help meet their current and future needs and looks to grow our business further in these markets.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

5,000,000

Potential financial impact figure – maximum (currency)

10,000,000

Explanation of financial impact

Expect to continue to grow our business in these market segments with high value-products.

Type of opportunity

Markets

Primary water-related opportunity

Improved community relations

Company-specific description & strategy to realize opportunity

Celanese recently joined Operation Clean Sweep® (OCS), a global organization, to help industry implement good housekeeping and pellet containment practices to prevent plastics from entering the environment through streams, waterways or oceans. Celanese engineered materials manufacturing facilities strive to implement good practices to prevent plastic pellets from entering storm water that flows into waterways.

The benefits of the opportunity include the recognition of Celanese as a partner on the OCS website, our adoption of the OCS principles to prevent plastic resin loss into the environment, and the ability to use the OCS set of tools and resources which our manufacturing facilities may utilize to move toward achieving zero plastic resin loss.

Estimated timeframe for realization

Current - up to 1 year

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)

0

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The impact is expected to be minimal as the OCS good practices closely align with our existing facility material handling objectives and corporate stewardship policy. The guidance and best management practices are often applicable without significant capital expenditures.

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
Board-level committee	The Nominating and Corporate Governance Committee (“NCG Committee”) oversees reporting on ESG metrics which includes reporting on water and progress against our water target. The NCG Committee meets and reports to the full Board at least quarterly.

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding strategy Setting performance objectives	The Nominating and Corporate Governance Committee of the Board (NCG) oversees reporting on ESG metrics including our 10% water consumption intensity reduction target. The Environmental, Health, Safety, Quality, and Public Policy (EHSQPP) Committee of the Board oversees sustainability in manufacturing of which water is a component. Both committees report to the full Board quarterly on significant issues related to the environment and metrics. The ESG Executive Sponsor shares progress with the Executive Management relating to ESG targets and goals.

			Executive Management (ELT) reports to the Board of Directors.
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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	Experience with complex environmental regulation and sustainability-focused strategy.

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)

Sustainability committee

Responsibility

Assessing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

The Environmental, Social and Governance (ESG) Council was established by the Celanese CEO in 2019, and the ESG Council reports regularly to the CEO. At least quarterly an update is provided to the board. The ESG Council is led by our SVP and General Counsel and is made up of senior leaders from key ESG-related functional and business areas with special representation from our regional leadership. The purpose of the ESG Council is to develop strategy, reporting frameworks, monitor progress, and to make recommendations to executive leadership on key ESG topics important to the company's long-term success.

ESG recommendations are reviewed for approval by the Executive Leadership Team (ELT) prior to going to the Board for review where appropriate. The ELT is led by the CEO and consists of a small group of the company's most senior executive leaders.

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

Other, please specify

Water Stewardship Committee

Responsibility

- Assessing water-related risks and opportunities
- Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

- Not reported to board

Please explain

In 2021 Celanese formed a water stewardship committee to guide the water risk assessment process, provide water management guidance and support integration of water risk into the ERM process.

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?

- Yes, trade associations

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Our global environmental team is actively involved in stakeholder outreach with member trade associations (e.g., ACC, TCC, CEFIC, VCI). Through these activities we develop and provide input on chemical industry specific water sustainability initiatives, as well as keeping current on emerging, government policies and regulations. Our corporate commitments to water include developing a written water policy within the next two years, with specific objectives that are expected to include, compliance with water rules and regulations and implementing efficiency practices to reduce our water consumption intensity. Our corporate commitments are reflected in our level of participation in trade member association activities.

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	<p>Long-term Celanese recognizes that water is a vital raw material for our business and shared natural resource. Integrating water issues at the product development and operational levels is an ongoing and continuous process.</p> <p>Celanese recognizes that products that have circular economy attributes may have a strategic business advantage in the near term and 5-10 year range. Products which require less raw materials due to recycled content or product composition may be more cost effective to produce and may have a positive response from consumers looking to purchase less resource intensive products.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	<p>We have started considering water impacts with the development of our circular economy products that respond to demand for recycled materials (see Section W4.3a). Additionally, at an operational level we recently established a corporate water consumption intensity reduction target to drive more efficient use and reuse of water by 2030. Also, we are moving forward to integrate ESG issues, including water-related into our annual ERM and existing financial planning processes.</p>
Financial planning	Yes, water-related issues are integrated	5-10	<p>Our business and financial planning processes consider the resources necessary to achieve our long-term water-related objectives in the four areas outlined below.</p> <p>Direct and Indirect Cost: Utilities costs are based on usage and efficiency and are planned and managed as part of the business and site Annual Operating Plan (AOP) process, productivity program, and targets. Using tools such as water balances, we plan to more effectively evaluate projects that could enable more efficient utilization of energy and water.</p>

			<p>Capital Allocation / Capital Expenditures: When allocating or spending capital for new technology, process efficiency or growth, energy efficiency, waste and water are factors considered as part of the decision process. This is now incorporated into our productivity database to track not only cost savings, but also other environmental impacts/benefits for air emissions, energy, waste, water, and GHG emissions.</p> <p>Acquisitions and Divestment: Sustainability factors are included as part of our initial data requests for any future due diligence which include energy, efficiency, GHG emissions, waste, water, and air emissions.</p> <p>Revenues: Celanese is a company that partners with its customers to develop and deliver sustainable and sustainability-enabling product offerings, at the lowest possible costs to create and deliver value for our shareholders, customers and employees through profitable performance.</p>
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W7.2

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

Row 1

Water-related CAPEX (+/- % change)

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

Water-related OPEX (+/- % change)

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

Please explain

Celanese is developing a long-term plan business plan related to water usage and treatment. The objectives of the plan will be to evaluate and plan where upgrades to equipment and new technologies should be made in response regulatory changes and

to increase efficiency of operations. Once the plan is developed, we will have mechanisms in place to track water related CAPEX and OPEX trends.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	We have leveraged industry recognized carbon abatement strategies and other climate related scenarios to guide us in project selection, specifically related to climate change.

W7.3a

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

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Climate-related	We have leveraged industry recognized carbon abatement strategies and other climate related scenarios to guide us in evaluations CO2 reduction strategy and selection of key projects (e.g., Project Green, Lanaken Cogen, Clear Lake Solar PPA). Furthermore, we have engaged with the American Chemistry Council (ACC) on benchmarking sharing related to carbon abatement strategies. Next steps include, assessing Celanese baseline emissions against scenarios while layering in commercially available abatement technologies. Especially important is linking our LCA impacts for	As scenario analysis process matures it will be important to incorporate water stress information into the Life Cycle Analysis (LCA) impacts for top products. Additionally, for many of our utility systems, there is a nexus between energy efficiency and water consumption. Overlaying energy efficiency programs and water management (e.g., more efficient operations usually result in lower cooling water demand and steam requirements both affecting water management) will enable more effective use of capital expenditures.	Business decisions and strategies are being influenced by scenarios. Our 2023 Methanol Expansion is a great example of applying scenario planning for current and future needs. In this case, we needed additional methanol production, where options included increasing natural gas usage for heat and raw material, procuring methanol requirements, or implementing a CO2 reduction project to produce methanol. In this scenario, we analyzed the impact of 45Q US Federal Tax Credits as well as natural gas pricing on overall project economics.

		top tiered products to better understand impacts associated with Scope 3 emissions.		We layered this into the 5-year capital plans and the expected life expectancy of the project. We ultimately concluded that capturing and utilizing CO2 was the preferred option to produce the incremental methanol requirement. Importantly, this was a cross-functional effort that included operations, finance, procurement, business, technology, stewardship, ESG Council, and external stakeholders.
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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

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	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	No, but we plan to address this within the next two years	Important but not an immediate business priority	As our Life Cycle Analysis (LCA) program continues to develop and expand, it will be important to analyze the water stress information being captured to better understand the water impacts for top products. Additionally, for many of our

			utility systems, there is a nexus between energy efficiency and water consumption. Overlaying energy efficiency programs and water management (e.g., more efficient operations usually result in lower cooling water demand and steam requirements both affecting water management) will enable more effective use of capital expenditures
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W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals	Targets are monitored at the corporate level	Celanese has established a corporate water consumption intensity target (m3/MT) of 10% reduction by 2030 by increasing water reuse, recycling and conservation. Production used for intensity purposes includes all intercompany trade equaling a mass balance of all gross production whether internal or externally sold for all operated and owned assets. The baseline year for measuring water performance against this target is 2021. Performance will be monitored at the corporate level and disclosed in our annual Sustainability Report and other relevant disclosures. We continue to be committed to publicly disclosing our water-related performance by following the standards established by the Sustainability Accounting Standards Board Standards for the Chemical Industry. The Water Committee reports periodically into the ESG Council and the Nominating and Corporate Governance Committee (NCG) of our Board of Directors oversees reporting on ESG metrics of which our water reporting is included. The NCG Committee quarterly reports back to the full Board. Additionally, our Environmental, Health, Safety, Quality, and Public Policy Committee (EHSQPP) of the Board oversee sustainability in manufacturing of which water is a considered component. The EHSQPP committee quarterly reports up to the full Board as well.

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 consumption

Level

Company-wide

Primary motivation

Water stewardship

Description of target

10% reduction in water consumption intensity (m³/MT) by 2030 starting in 2021

Quantitative metric

% reduction per unit of production

Baseline year

2021

Start year

2021

Target year

2030

% of target achieved

0

Please explain

Our baseline year for measuring performance with our consumption intensity target is 2021. Percent completion in meeting the water target will be assessed by evaluating facilities progress in implementing water efficiency practices intended to result in a reduction of water consumption volumes.

W9. Verification

W9.1

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

Yes

W9.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Total water consumption	ISAE 3000	Our assurance has been undertaken in accordance with International Standard for Assurance Engagements ISAE 3000. This is an external annual assurance, with 2021 being the first year completed.

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.

In 2021 our Water Committee under the guidance of the ESG Council created a Water Policy. The policy however was not approved by Executive Leadership and made public until early 2022, therefore it we had to answer “No” in W6.1. Our policy outlines how the corporate level focuses on managing the global water data collection system, setting targets, tracking, and publicly disclosing our global water performance. The manufacturing facility level focuses on providing reliable water supplies, accurately measuring, and reporting water usage and using water efficiently by implementing best industry practice including reuse and recycling of water. Water Policy Link: <https://sustainability.celanese.com/Sustainability/pdf/CE-Water-Policy.pdf>

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	SVP General Counsel, ESG Executive Sponsor	Chief Sustainability Officer (CSO)

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)].

No

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	8,537,000,000

SW1.1

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

No facilities were reported in W5.1

SW1.2

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

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	No, we do not have this data and have no plans to collect it	N/A

SW2.1

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

Requesting member

Altria Group, Inc.

Category of project

Relationship water assessment

Type of project

Aligning goals to feed into customers targets and ambitions

Motivation

As sustainability goals become increasingly important to both parties, an early step in the process is to align on our individual goals and seek common areas of interest to work on together. Goal alignment on Water Security will allow us to understand the importance and priorities of customer goals with respect to water security and water related

risks to confirm the importance and help prioritize our own goals that would feed into the downstream value chain.

Estimated timeframe for achieving project

2 to 3 years

Details of project

Celanese is interested in learning customer's targets and ambitions in order to discover potential projects of mutual benefit.

Projected outcome

Regular alignment on water security and water risk goals will allow both parties to prioritize and optimize projects that bring the highest value.

Requesting member

British American Tobacco

Category of project

Relationship water assessment

Type of project

Aligning goals to feed into customers targets and ambitions

Motivation

As sustainability goals become increasingly important to both parties, an early step in the process is to align on our individual goals and seek common areas of interest to work on together. Goal alignment on Water Security will allow us to understand the importance and priorities of customer goals with respect to water security and water related risks to confirm the importance and help prioritize our own goals that would feed into the downstream value chain.

Estimated timeframe for achieving project

2 to 3 years

Details of project

Unknown at this point. Celanese is interested in learning customer's targets and ambitions in order to discover potential projects of mutual benefit.

Projected outcome

Regular alignment on water security and water risk goals will allow both parties to prioritize and optimize projects that bring the highest value.

Requesting member

Imperial Brands

Category of project

Relationship water assessment

Type of project

Aligning goals to feed into customers targets and ambitions

Motivation

As sustainability goals become increasingly important to both parties, an early step in the process is to align on our individual goals and seek common areas of interest to work on together. Goal alignment on Water Security will allow us to understand the importance and priorities of customer goals with respect to water security and water related risks to confirm the importance and help prioritize our own goals that would feed into the downstream value chain.

Estimated timeframe for achieving project

Other, please specify

1-3 years, depending on customer interest and project details

Details of project

Unknown at this point. Celanese is interested in learning customer's targets and ambitions in order to discover potential projects of mutual benefit.

Projected outcome

Regular alignment on water security and water risk goals will allow both parties to prioritize and optimize projects that bring the highest value.

Requesting member

JT International SA

Category of project

Relationship water assessment

Type of project

Aligning goals to feed into customers targets and ambitions

Motivation

As sustainability goals become increasingly important to both parties, an early step in the process is to align on our individual goals and seek common areas of interest to work on together. Goal alignment on Water Security will allow us to understand the importance and priorities of customer goals with respect to water security and water related risks to confirm the importance and help prioritize our own goals that would feed into the downstream value chain.

Estimated timeframe for achieving project

Other, please specify

Other, please specify (1 - 3 years, depending on customer interest and project details)

Details of project

Unknown at this point. Celanese is interested in learning customer's targets and ambitions in order to discover potential projects of mutual benefit.

Projected outcome

Regular alignment on water security and water risk goals will allow both parties to prioritize and optimize projects that bring the highest value.

Requesting member

Prysmian SpA

Category of project

Relationship water assessment

Type of project

Aligning goals to feed into customers targets and ambitions

Motivation

As sustainability goals become increasingly important to both parties, an early step in the process is to align on our individual goals and seek common areas of interest to work on together. Goal alignment on Water Security will allow us to understand the importance and priorities of customer goals with respect to water security and water related

risks to confirm the importance and help prioritize our own goals that would feed into the downstream value chain.

Estimated timeframe for achieving project

Other, please specify

Other, please specify (1 - 3 years, depending on customer interest and project details)

Details of project

Unknown at this point. Celanese is interested in learning customer's targets and ambitions in order to discover potential projects of mutual benefit.

Projected outcome

Regular alignment on water security and water risk goals will allow both parties to prioritize and optimize projects that bring the highest value.

Requesting member

Symrise AG

Category of project

Relationship water assessment

Type of project

Aligning goals to feed into customers targets and ambitions

Motivation

As sustainability goals become increasingly important to both parties, an early step in the process is to align on our individual goals and seek common areas of interest to work on together. Goal alignment on Water Security will allow us to understand the importance and priorities of customer goals with respect to water security and water related

risks to confirm the importance and help prioritize our own goals that would feed into the downstream value chain.

Estimated timeframe for achieving project

Other, please specify

Other, please specify (1 - 3 years, depending on customer interest and project details)

Details of project

Unknown at this point. Celanese is interested in learning customer's targets and ambitions in order to discover potential projects of mutual benefit.

Projected outcome

Regular alignment on water security and water risk goals will allow both parties to prioritize and optimize projects that bring the highest value.

Requesting member

The LEGO Group

Category of project

Relationship water assessment

Type of project

Aligning goals to feed into customers targets and ambitions

Motivation

As sustainability goals become increasingly important to both parties, an early step in the process is to align on our individual goals and seek common areas of interest to work on together. Goal alignment on Water Security will allow us to understand the importance and priorities of customer goals with respect to water security and water related

risks to confirm the importance and help prioritize our own goals that would feed into the downstream value chain.

Estimated timeframe for achieving project

Other, please specify

Other, please specify (1 - 3 years, depending on customer interest and project details)

Details of project

Unknown at this point. Celanese is interested in learning customer's targets and ambitions in order to discover potential projects of mutual benefit.

Projected outcome

Regular alignment on water security and water risk goals will allow both parties to prioritize and optimize projects that bring the highest value.

SW2.2

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

No

SW3.1

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

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms