# Welcome to your CDP Water Security Questionnaire 2022

# W0. Introduction

## W0.1

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

Dow (NYSE: DOW) combines global breadth; asset integration and scale; focused innovation and materials science expertise; leading business positions; and environmental, social and governance (ESG) leadership to achieve profitable growth and deliver a sustainable future. The Company's ambition is to become the most innovative, customer centric, inclusive and sustainable materials science company in the world. Dow's portfolio of plastics, industrial intermediates, coatings and silicones businesses delivers a broad range of differentiated, science-based products and solutions for its customers in high-growth market segments, such as packaging, infrastructure, mobility and consumer applications. Dow operates 104 manufacturing sites in 31 countries and employs approximately 35,700 people. Dow delivered net sales of approximately $55 billion in 2021.

Dow's major manufacturing sites are located in Argentina, Brazil, Canada, China, Germany, The Netherlands, Spain, Thailand, United Kingdom, and the United States. Our portfolio includes six global businesses which are organized into the following operating segments: Packaging & Specialty Plastics (Hydrocarbons & Energy and Packaging and Specialty Plastics), Industrial Intermediates & Infrastructure (Industrial Solutions and Polyurethanes & Construction Chemicals), and Performance Materials & Coatings (Coatings & Performance Monomers and Consumer Solutions).

Building on our commitment to UN SDG 6, to the CEO Water Mandate and our pledge to the Water Resilience Coalition, Dow's current strategy as it relates to water can be summarized as follows:
· Direct Operations: Optimizing our manufacturing facilities and processes to reduce our internal water footprint
· Supply Chain: Collaborating with our supply chain to tackle additional water optimization efforts such as increasing clean energy in our purchased power mix which directly impacts our supply chain water consumption
· Watershed management: Investing in transformative next-generation solutions such as advanced water treatment technologies allowing our facilities to reuse/recycle additional water and nature-based solutions.

· Customers: Using our materials science to innovate products and processes that help improve sustainable water management across our entire value chain focusing on stressed watersheds.

Dow's 2025 Sustainability water-related goals and targets are the following:
As part of our World Leading Operation goal, Dow will reduce the freshwater intake intensity at key water stressed sites by 20 percent by 2025.
· Dow's blueprint on sustainable watershed management establishes how collaboration can be a path to addressing water scarcity.
· By 2025, Dow will deliver $1 billion in value through projects that are good for business and good for ecosystems including water filtration, water provisioning, flooding control and water quality.

Dow is a major user of water. Our main use of water is tied to our energy demand in steam production and water cooling. Looking at our supply chain, the key water intensive suppliers originate from hydrocarbons supply which also requires large volumes of steam and cooling water. As a producer of technologies that are essential to a lower-carbon future, we have a responsibility to recognise the nexus between water, energy and climate. Dow's support of the Paris Agreement and commitment to achieving its goal of keeping global temperature rise below 2°C - and to pursue efforts to limit the increase to 1.5°C - are critical. As a tangible demonstration of our commitment to climate protection, in 2020 Dow set the following targets:
· By 2030, Dow will reduce its net annual carbon emissions by 5 million metric tons vs. our 2020 baseline (15% reduction). By 2050, Dow intends to be carbon neutral (scope 1 + 2 + 3 plus product benefits).

This report is a combined report being submitted by Dow Inc. and The Dow Chemical Company and its consolidated subsidiaries ("TDCC" and together with Dow Inc., "Dow" or the "Company").

Dow recently released our 2021 Environmental, Social and Governance Report (the "2021 ESG Report"). Along with our 2021 ESG Report, Dow views the opportunity to report to CDP as a key mechanism for us to report our progress as it relates to water.
More information on Dow can be found at www.dow.com.

# W-CH0.1a

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

Bulk organic chemicals
Bulk inorganic chemicals
Specialty organic chemicals
Specialty inorganic chemicals

# W0.2

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

| | Start date | End date |
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| Reporting year | January 1, 2021 | December 31, 2021 |

# W0.3

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

Argentina
Australia
Belgium
Brazil
Canada
China
Colombia
Egypt
France
Germany
India
Indonesia
Italy
Japan
Mexico
Netherlands
Philippines
Portugal
Republic of Korea
Russian Federation
Singapore
South Africa
Spain
Sweden
Taiwan, China
Thailand
Turkey
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
Viet Nam

# W0.4

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

USD

# W0.5

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

Companies, entities or groups over which operational control is exercised

## W0.6

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

No

## 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 |
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| Yes, an ISIN code | US2605571031 |
| Yes, a CUSIP number | 260557 103 |
| Yes, a Ticker symbol | DOW |
| | |

# 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 |
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| Sufficient amounts of good quality freshwater available for use | Vital | Important | Primary use in direct operations: The majority of freshwater use is for cooling operations and steam production (>85% from a global perspective) with a small proportion being consumed in production of products. Level of importance: In 2021, 63% of water withdrawals were freshwater. Water quality and quantity are both vital to our direct use in operations. Poor water quality can impact the level of water treatment required to meet strict water quality requirements for product quality and also lead to enhanced corrosion in the facilities.<br><br>Future use: We expect no significant changes in importance of direct use, As Dow operates mature, capital-intensive assets, water consumption and effluents are evaluated and managed on long-term |

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| | | | timelines (10+ years) involving multi-decade assessments. Future shifts in product portfolio or future process technology innovations ) could alter this status.<br><br>Primary use for Indirect operations: Many of our raw material suppliers that process hydrocarbons use water as a coolant. Other products are less dependent on freshwater.<br>Therefore, the availability is important, but not in all cases vital for operations in our supply chain.<br>Future use: We also expect no significant changes of dependency in our supply chain. Shifts in product portfolio or future process technology innovations could alter this status. |
| Sufficient amounts of recycled, brackish and/or produced water available for use | Vital | Important | Primary use in direct operations: Brackish water is for cooling purposes.<br>Why Vital was chosen for level of importance: In 2021, 37% of Dow's total water withdrawal was associated with seawater/brackish water. In locations where it is economical, we recycle/reuse various water sources both internally (ex. Cascading of cooling waters; harvesting of rainwater) and externally (ex. Treated municipal wastewater).<br>Future use: Currently, we expect no significant changes, as use of brackish water depends on availability/local conditions. Dow is involved in several pilots with various stakeholders of novel technology to increase the ability of water reuse and recycling (ex. Advance treatment of cooling tower blowdown). We are also involved in nature-based solutions at a watershed level to improve both water quantity and water quality at a watershed level (ex. Loch Leven Restoration of wetlands in the Mississippi River)<br><br>Primary use in Indirect operations: Our main suppliers include other chemical industry, power providers and hydrocarbons which also use brackish/seawater when the process, availability and local conditions allow for cooling purposes.<br>Therefore, important was chosen as the indirect use importance rating. The use of recycled water is also encouraged.<br>Future use: Currently, we expect no significant |

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| | | | changes of dependency on seawater/brackish in our supply chain. Therefore, this aspect is important, but not in all cases vital for operations. |

# 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 |
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| Water withdrawals – total volumes | 100% | Method: Dow accounts for water related volumes at a facility and site level within an internal global database entitled Waste and Emissions Reporting System following the Global Emissions Inventory (GEI) standard. Each facility/site is required to develop a water accounting methodology that complies with GEI reporting requirements outlined in the GEI standard Training protocols for data entry is done via internal training modules at the global level and by in-person training at the site/facility. Water withdrawal data by volume varies in precision. It is metered, calculated (ex. Pump flow*running hours) or estimated (ex. cooling tower make-up water based on original engineering design). For certain locations, the data is supplied by a third party. 100% of Dow's production sites are monitored for total volumes of water withdrawals.<br>Frequency: Per GEI standard, water data is collected annually for non-key sites, monthly for key sites. Key site data is verified quarterly. |
| Water withdrawals – volumes by source | 100% | Method of measurement and monitoring: We account for water related volumes at Dow facilities/sites using an internal global database entitled Waste and Emissions Reporting System following the Global Emissions Inventory (GEI) standard. Each facility and site are required to develop a water accounting methodology that complies with GEI. 100% of Dow's production sites are monitored for total volumes of water withdrawals by source at varying levels of precision. Volumes are metered, calculated (ex. Pump flow* running hours), estimated (ex. cooling tower make-up water based on original engineering design), or supplied by a third party. |

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| | | Frequency: As per the GEI standard, water data is collected annually for all sites except the six key water stressed sites where the data is collected monthly and internally verified on a quarterly basis. |
| Water withdrawals quality | 100% | Method: Dow collects water quality data on a local site level. Measurements are carried out according to site-specific processes and equipment requirements and guidelines. Approved lab methods are defined by the site with oversight by Dow's Global Environmental Technology Center. Methods, equipment, and maintenance follow a rigorous quality and auditing process. The parameters monitored are dependent on the requirements for each site and environmental conditions present within the watershed, which may impact water quality. Typical withdrawals water quality parameters include chlorine content, turbidity, temperature, and pH.<br>The frequency of monitoring varies according to local requirements for the production process, context of the water body and water withdrawal permit and is decided by the site. It will vary from continuous analysers to daily or weekly grab samples. Key water stressed sites collect freshwater withdrawal and transfer to 3rd party data monthly. |
| Water discharges – total volumes | 76-99 | Dow accounts for water volumes at a facility & site level within an internal Waste and Emissions Reporting System following the Global Emissions Inventory (GEI) standard. Each facility & site develops a water accounting methodology that complies with GEI and incorporates planned preventative maintenance program of associated instrumentation. Water discharges by volume varies in precision. Volumes are metered, calculated (ex. Pump flow* running hours), estimated (ex. cooling tower make-up water based on original engineering design), or supplied by a third party. 100% of water discharges are monitored for quality. For CDP, the total water discharge volume is calculated as the sum of treated wastewater discharges from Dow, third party and seawater withdrawal. This methodology |

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| | | assumes losses associated with seawater used for non-contact cooling are not significant. Thus, we qualify our submittal as being 76-99%. Frequency: As per the GEI standard, water data is collected annually. |
| Water discharges – volumes by destination | 76-99 | Method: Dow accounts for water related volumes by destination (surface water; seawater; third-party water; groundwater) at a facility & site level within an internal Waste and Emissions Reporting System (WERS) following the Global Emissions Inventory (GEI) standard. Each facility and site are required to use a water accounting methodology that complies with GEI. Water discharges by volume and destination varies in precision. It is metered, calculated (ex. Pump flow* running hours), or estimated (ex. cooling tower make-up water based on original engineering design). Dow's ESG report includes, for ALL production sites, the total water discharges volumes by destination that originate from Dow's or third-party wastewater treatment assets. This is important to control flow and quality of the discharged water. For CDP reporting, water discharge is the sum of treated wastewater discharges from Dow and third-party and seawater withdrawal. As per GEI standard, Water data is collected annually. |
| Water discharges – volumes by treatment method | 76-99 | Water related volumes by treatment method are collected and managed at a facility and site level. The treatment method is established by the site with oversight from the Global Environmental Technology Center. Primary treatment removes solid substances that settle or float on the water surface and includes screening, grinding, grit removal, primary clarifier, dissolved air flotation, phase oil skimmer, pH neutralization, and equalization tank. Water discharges volumes by treatment method can be based on meters, calculations (ex. Pump flow* running hours), engineering estimates (ex. Based on engineering design flows) or invoices provided by third party suppliers. 100% of Dow's production sites are monitored for total water discharges quality parameters that are |

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| | | associated with compliance permits (such as pH, TSS, TOC, heavy metals)<br>Data is collected on an annual basis at a minimum as specified within Dow's water discharge permits. |
| Water discharge quality – by standard effluent parameters | 76-99 | Dow accounts for water discharge quality by standard effluent parameters at a facility and site level. The discharges from wastewater treatment assets are recorded within a global database, Waste and Emissions Reporting System (WERS) following the Global Emissions Inventory (GEI) standard. Each facility is required to develop a water reporting methodology that complies with GEI Standard. Dow has developed a Priority Compound list including chemicals with persistent, bio-accumulative, toxic hazards, and chemicals with carcinogenic, mutagenic, and reproductive hazards. 100% of Dow's production sites are monitored for water discharge quality (such as nitrogen, heavy metals, and phosphate)<br>Frequency: Water discharge quality is collected at a site level to comply with the discharge water permit. At a minimum, the data is collected globally as per the GEI standard on an annual basis for all sites. |
| Water discharge quality – temperature | 76-99 | Dow collects discharge temperature data on a local site level in compliance with water permits. It is not part of the Waste and Emissions Reporting System (WERS) but carried out according to site specific processes and requirements.<br>Frequency: Time intervals vary depending on site specific water discharge permit requirements. It varies from continuous temperature monitoring to daily grab samples. We assure coverage of 100% of relevant sites (i.e., all sites with discharges of cooling water), or slightly lesser coverage if all sites are considered. |
| Water consumption – total volume | 76-99 | Dow accounts for water consumption – total volume at a facility & site level - by using total freshwater withdrawal data for each facility which is determined via meters, calculated (ex. Pump flow* running hours), or estimated (ex. |

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| | | cooling tower make-up water based on original engineering design). It is then captured within an internal Waste and Emissions Reporting System (WERS) following the Global Emissions Inventory (GEI) standard. Total consumption is calculated annually after data validation procedures have been performed. Each facility & site are required to develop a water reporting methodology that complies with GEI. Total consumption is calculated by using total freshwater withdrawal data for the overall company and captured within WERS for each facility and site. Total consumption is calculated by total freshwater withdrawal *15% = total water consumption. This methodology reflects granularity in accordance with CDP's reporting of each water stressed site. |
| Water recycled/reused | 100% | Method of measurement and monitoring:<br>Dow accounts for water recycled/reused related flows at a facility and site level within an internal global database entitled Waste and Emissions Reporting System (WERS) following the Global Emissions Inventory (GEI) standard. Each facility/site is required to develop a water accounting methodology that complies with GEI. Water recycled/reused is reported using metered, calculated (ex. Pump flow* running hours), engineering estimates (ex. Based on engineering design flows) or invoices provided by third-party suppliers. Data entry and maintenance of associated devices have precise reporting requirements. We publicly report the information for the entire company in the annual ESG report. 100% of Dow's production sites are monitored for water recycled/reused.<br>Frequency: As per GEI standard, water data is collected annually for all sites. |
| The provision of fully-functioning, safely managed WASH services to all workers | 100% | Method of measurement - Dow has standards to ensure access to fully functioning, safely managed Water, Sanitation and Hygiene (WASH) services to all workers for all employees globally. Dow's Global EHS&S function is responsible for the management of occupational health and of Dow employees, as well as the coordination and auditing of occupational medicine. Dow's programs include |

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| | | a robust Occupational Health system that supports company sites, and businesses globally with health information and resources on health-related issues such as WASH.<br>We require self-assessments, regular inspections and independent internal audits to monitor compliance and identify gaps. Audit results are reviewed quarterly by Dow's Executive Sustainability Team, which is accountable to Dow's Executive Leadership Team<br>Frequency: The audit frequency is set by the EHS&S department with a maximum interval between EHS&S integrated audits of five years. |

# 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 |
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| Total withdrawals | 2,951,786 | About the same | Total withdrawals volume of water was relatively consistent in 2021 compared to 2020 as a result of the net impact of process efficiencies, even though there have been changes in business portfolios and growth at some sites. An example of efficiencies is the work we are doing to increase water circularity at our Terneuzen site. We are working with farmers and the regional water board to store fresh water underground – collecting it in the winter and using it in the summer, so farmers can benefit in periods of drought. Additionally, to help stem the loss of critical wetlands in the Mississippi River Delta, we are working with multiple partners to restore habitats and build water resilience in and around our sites.<br>Future trends: We expect our requirements for water withdrawal to remain similar in the short-term however we have several projects identified to deliver increased water efficiency including water conservation and recycle efforts. Required capital investment will be assessed. However, |

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| | | | growth projects or a future change in product mix could alter this status. |
| Total discharges | 2,808,995 | About the same | Upon usage water is treated at a wastewater treatment plant and discharged. Exceptions: Direct discharge occurs for freshwater or seawater used for non-contact cooling and when rainwater is collected (post quality verification). All production sites monitor water discharge originating from wastewater treatment assets or sent for 3rd party treatment. An estimated 85% of the freshwater used primarily in cooling activities, is discharged - not accounting for freshwater flow loss associated from open channel evaporation or rainwater. It is estimated that non-contact cooling seawater discharged without any significant loss. Globally, 2021 water discharge was flat compared to 2020. Since most of the water withdrawn is for cooling, the water discharge remained flat based on the water demands associated with our operation. Water withdrawal was also flat when compared to 2020.<br>Future trends:<br>Water discharge is expected to remain flat short-term due to consistent production plans. Longer-term we have water conservation, water recycle & reuse projects to positively impact discharge. |
| Total consumption | 442,768 | About the same | The reported water consumption quantity does not correspond to W-D=consumption. The discharge flows associated with cooling activities and rainwater are estimated and represent roughly 95% of our total discharge. The discharge values contain a high level of inaccuracy. The reported number is a conservative approach as reported in Dow's ESG report. It is calculated by using the total water withdrawal *15%, This approach accounts for potential water losses associated with unmetered flows such as evaporation, rainwater, non-contact cooling waters and open water conveyance systems. Surface withdrawals are 68% freshwater and 32% seawater/brackish. Dow uses water for cooling in locations where seawater/brackish water is readily available. Freshwater intake is primarily used for cooling and much of this water is evaporated in cooling |

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| | | | towers. Rainwater is recovered in multiple sites and used as firewater and for other purposes. Its volume compared to other intakes is relatively small. Only a small proportion of water intake ends up in product (i.e., direct consumption).<br>The total volume of water intake globally was relatively consistent in 2021 compared to 2020 as a result of the combined impact of process efficiency improvements, business portfolio changes, production volume changes.<br>Future trends:<br>Water intake is expected to remain flat short-term due to consistent production plans. Longer-term we have water conservation, water recycle & reuse projects to positively impact intake. |

## 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 | 26-50 | About the same | WRI Aqueduct | In 2021, Dow's total water withdrawals from the six key water stressed sites (KWSS) totalled approximately 43% of the Company's total water withdrawals. The freshwater withdrawal in KWSS totalled approximately 8% of the Company's total freshwater withdrawal. Roughly 15% of the freshwater withdrawals is consumptive and associated mainly with evaporation losses from cooling activities. The Company has identified six of our manufacturing sites as key water stressed sites. These sites are designated based on several factors: their location in a water-stressed watershed; water quality; competition |

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| | | | | | among users of the same watershed; local knowledge of watershed challenges at the site; and long-term projections. The location in a water stressed site factor is first assessed using the baseline water stress indicator from Aqueduct 3.0 (WRI 2019). This tool aligns with UN's definition of water stress – "a territory withdraws 25% or more of its renewable freshwater resources" Scarcity \| UN-Water (unwater.org). Baseline water stress level is then confirmed with site level data and site level knowledge from our local water experts. Water supply issues are evolving and not isolated to water-stressed sites. Dow also keeps track of sites that are under a watch list where water challenges may occur. The following criteria establish when a water stress evaluation will be performed:<br>1. A global water risk screening using the most up to date World Resource Institute Aqueduct tool is completed every 5 years.<br>2. A site has experienced water stress (quality and/or quantity) or anticipates growth at site which will demand significantly more freshwater or a change in water quality needs<br>3. Sites that are tagged as Key Water Stressed Sites (KWSS) will monitor water stress level on annually with monthly basis being preferred and will be considered as being part of the 2025 KWSS freshwater intake reduction goal. |

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| | | | | | The evaluation is conducted by the Global Environmental Technology Center subject matter expert(s) in conjunction with each site's leadership team and Environmental Operations Leader. Explanation of change: In 2021 total water withdrawal by the KWSS was about the same as in 2020 (43% in 2019) of Dow's total withdrawal. |

# W1.2h

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

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
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| Fresh surface water, including rainwater, water from wetlands, rivers, and lakes | Relevant | 1,699,905 | Lower | Fresh surface water is the majority withdrawal type for Dow (58%). Primarily used for cooling or steam. In 2021, we lowered consumption with efficiency projects (e.g increasing water circularity In Dow Terneuzen with farmers & the regional water board storing water underground – collecting in winter and using in summer, allowing farmers to benefit during droughts). Significant rainfall at major sites and the winter storm Uri unplanned production shutdown also contributed to decreased water withdrawals. Future trends: Since most of Dow's water demand is associated with cooling activities, Dow is investing in developing advanced technologies to allow higher level of recycling of blowdown water and higher level of |

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| | | | | controls on the chemistry associated with cooling tower management as is being done in both Böhlen and Terneuzen site in partnership with the EU. An example from 2021 occurred in Freeport where cooling water is used in a cascading system conserving 1050 gallons per minute. |
| Brackish surface water/Seawater | Relevant | 1,092,075 | About the same | Seawater is used for one pass cooling. Therefore, the volume of seawater withdrawn is the same as the volume discharged and critical to our ability to operate.<br>Year to year change: Demand from operations using this source in 2021 was consistent with demand for the past several years. Demand for seawater will typically be very consistent year to year as it relates to one pass cooling pumps running at capacity 24/7 365 days per year. Future trends: Seawater is withdrawn for cooling purposes at facilities located along the coast. In certain locations where freshwater is scarce, withdrawal may increase tied to production increases. Future process innovation tied to decreasing the amount of cooling tied to our manufacturing processes could be beneficial. |
| Groundwater – renewable | Relevant | 34,440 | About the same | Rational for relevance: Groundwater is used at very few Dow sites. Dow locations using groundwater use it as a back up to potable water or |

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| | | | | treated surface water, therefore, a relevant source for our operations and employees. Year to year change: The groundwater volume for 2021 and 2020 was about the same - accounting for 1% of Dow's total volume. As demand didn't change for these locations, usage remained flat year over year. Future trends: At this time, we expect no significant changes in groundwater water withdrawal in our operations. However, future shifts in the product portfolio or manufacturing process could impact this metric. |
| Groundwater – non-renewable | Not relevant | | | No Dow sites use non-renewable groundwater sources. |
| Produced/Entrained water | Not relevant | | | Dow does not use produced/entrained water at any of its sites. |
| Third party sources | Relevant | 125,192 | About the same | Rational for relevance: Several Dow sites purchase water from third-party sources in two forms - raw or treated surface water and as treated effluent wastewater. The latter source is from regional municipalities. Year to year change: The quantity of third-party water withdrawn in 2021 was about the same as in 2020 based on supply availability of these sources of purchased water and production demands at those locations. Future trends: Third-party water is used for potable water, freshwater withdrawal and recycled |

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| | | | | water from external parties. At this time, we expect no significant changes in withdrawal from third-party sources associated with potable water. The amount of water associated with recycled activities may increase. For example, the Terneuzen site is actively pursuing water recycling activities with Evides to be able to achieve 100% circular water withdrawal by 2025 (currently at roughly 75%). |

# 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 | 1,618,793 | About the same | Rational for relevance: All Dow sites are required to report on an annual basis the total volume of water discharged from a wastewater treatment facility to a known water discharge point (referred to as outfall). This is the most material component of water discharged because of the priority of ensuring it meets or surpasses our strict quality guidance and compliance parameters. We have developed a methodology to calculate the water discharge for the overall company. Year to year change: Globally water discharge was relatively consistent in 2021 compared to 2020 because of the combined impact of process efficiency improvements, business portfolio changes, production volume changes. Future trends: Water discharge volume will follow |

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| | | | | the same trends as water withdrawals since our main use is for cooling purposes, Water conservation efforts, growth in production and change in product mix may impact future water volumes. |
| Brackish surface water/seawater | Relevant | 1,175,003 | About the same | Rational for relevance: Sites located near the coast can use brackish or seawater for cooling purposes. Since seawater is used in one-pass cooling, the volume of seawater withdrawn is equal to the volume of water discharged. By volume, brackish water and sea water are the second most important destinations of discharge. It is also therefore critical to our operations. Year to year change: Due to demand from operations being consistent for the use of brackish surface water/seawater, the total discharge volume in 2021 was about the same as 2020. Future trends: Water discharge volume will follow the same trends as seawater water withdrawals since our main use is for cooling purposes. Growth in production and change in product mix may impact future water volumes. |
| Groundwater | Not relevant | | | Rationale for relevance: Dow does not make any material discharges to groundwater. |
| Third-party destinations | Relevant | 15,199 | About the same | Rational for relevance: This includes mainly water treated in a wastewater treatment plant (WWTP) which is not operated by Dow.<br>In 2021, Dow sent 12% of its wastewater to third parties for treatment making this a relevant discharge for Dow and other stakeholders. Year to year |

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| | | | | change: Third-party destinations for 2021 were about the same as in 2020 based consistent production demands. Future Trends: At this time, we expect no significant changes in discharges to third party sources. |

## W1.2j

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

| | Relevance of treatment level to discharge | Volume (megaliters/year) | Comparison of treated volume with previous reporting year | % of your sites/facilities/operations this volume applies to | Please explain |
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| Tertiary treatment | Relevant | 41,225 | Higher | 1-10 | All Dow wastewater is treated to meet effluent standards required by permit. Those requirements can require tertiary or secondary levels of treatment and the appropriate treatment requirements are applied to meet those standards. Roughly 31% of Dow's treated water undergoes tertiary treatment. For example, Midland's waste |

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| | | | | | water is treated with dissolved air floatation system; Terneuzen effluent is treated using sandfilters; Seadrift site is treated within a tertiary treatment wetland; Map Ta Phut applies a reverse osmosis system allowing the wastewater to be recycled; Böhlen treats a portion of their wastewater with ozone. The volume of tertiary treatment increased when compared to 2020 mainly due to higher production levels. |
| Secondary treatment | Relevant | 115,662 | Higher | 61-70 | All Dow wastewater is treated to meet effluent standards required by permit. Those requirements can require tertiary or secondary levels of treatment and the appropriate |

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| | | | | | treatment requirements are applied to meet those standards. The vast majority (>87%) of Dow operated wastewater treatment plants (WWTPs) involved secondary treatment(s) Predominantly it involves a biological treatment to remove the organic load. The steps consist of aerobic and/or anaerobic biological basins that are followed by a secondary clarifier to settle out the biological solids. The volume of tertiary treatment increased when compared to 2020 mainly due to higher production levels. |
| Primary treatment only | Not relevant | | | | Based on applicable legislative framework, |

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| | | | | | Dow does not operate any site with only primary wastewater treatment. |
| Discharge to the natural environment without treatment | Relevant | 2,676,659 | Lower | 100% | Water is not discharged to the environment unless it meets relevant discharge permit requirements. Waters discharged to the natural environment without treatment are limited to one pass cooling waters and rainwater volumes. Please note that the use of water as cooling water in one-pass systems is not connected with any type of contamination. It does not come into contact with any other flows and no chemicals are added to the water intake. The volume of water discharged to |

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| | | | | | the environment is estimated. We are using the following methodology. Discharge to the natural environment without treatment = Total seawater + (total freshwater withdrawn*0.85 ). This volume excludes rainwater which greatly impacts Dow's Freeport site. With this methodology, we are covering an estimate for all sites. Freeport's water system varies greatly with environmental conditions. The volume in 2021 was lower mainly due to unplanned shutdowns from weather events affecting large sites in the Gulf area. Future trends will be tied to production volumes and environmental conditions |

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|---|---|---|---|---|---|
| | | | | | impacting cooling activities. |
| Discharge to a third party without treatment | Relevant | 15,199 | Higher | 41-50 | Waters discharged to a third-party treatment without treatment is done so under a contract with a Dow approved wastewater treatment facility. The contract includes a wastewater quality service agreements that defines the characteristics of the water and compliance limits such that Dow abides by those limits and the receiving party can be knowledgeable of the water quality and their ability to treat the water sufficiently to meet eventual the discharge requirements. |
| Other | Not relevant | | | | |

# 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 | 54,968 | 2,951,786 | 0.0186219462 | We continue to take actions to improve our water efficiency, management and measurement approaches to drive sustainable progress. |

## 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.**

**Product type**

Bulk organic chemicals

**Product name**

Ethylene

**Water intensity value (m3)**

2.7

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

**Comparison with previous reporting year**

This is our first year of measurement

**Please explain**

Choice of numerator and denominator:
Dow chose a numerator and denominator that aligns with the Life Cycle Assessment (LCA) methodology ReCiPe2016 to determine water consumed in cubic meters per ton of product. Life Cycle Assessments (LCA) are useful method for examining the total environmental water use impact of a process, product, or service. Key inputs and boundaries for the gate- to- gate water footprint include water associated with steam consumption, cooling activities, fire water, cleaning and other miscellaneous uses.

Boundary and explanation: Dow's Terneuzen site was chosen to represent the water

intensity for Dow's top 5 products because it is our largest European site, manufactures a product mix that is representative of Dow's top global products, and is a KWSS that has one of Dow's most accurate water balances.

How the metrics are used internally: Accountability of water management begins at the site level where the operating permits exist and elevates to the board level providing oversight of water-related issues. Additionally, each employee also has a vested interest in continued progress, linking sustainability performance to each individual Dow employee's performance award.

Explanation as to why or why not the volume has changed from the previous reporting year: This is our first year of calculating a product water intensity value and therefore do not have an indication of year-to-year intensity change.

Anticipated Future trends: As part of our WLO goal, Dow will reduce the freshwater intake intensity at key water-stressed sites by 20% by 2025.

Strategy in place to reduce water intensity: Dow Terneuzen intends to cease importing any freshwater by 2025, instead using only locally sourced water where every liter of water is used three times (by the local community, Dow's manufacturing plants, then cooling towers). Dow continues to look for additional ways to preserve water in its local watersheds. This includes exploring methods to capture and process local water sources such as rainwater or other industrial streams currently discharged to the river, as well as expanding its usage of Terneuzen municipal wastewater. Not only would the usage of these additional sources eliminate the need for water from remote sources for Dow's industrial usage, but it could secure an additional 6-8 million m3/year of water for use by various sectors such as agriculture or industry. Dow's goal is for Terneuzen reach 100% water circularity by 2025.

**Product type**

Bulk organic chemicals

**Product name**

Propylene

**Water intensity value (m3)**

2.7

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

**Comparison with previous reporting year**

This is our first year of measurement

### Please explain

Choice of numerator and denominator:
Dow chose a numerator and denominator that aligns with the Life Cycle Assessment (LCA) methodology ReCiPe2016 to determine water consumed in cubic meters per ton of product. Life Cycle Assessments (LCA) are useful method for examining the total environmental water use impact of a process, product, or service. Key inputs and boundaries for the gate- to- gate water footprint include water associated with steam consumption, cooling activities, fire water, cleaning and other miscellaneous uses.

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Explanation as to why or why not the volume has changed from the previous reporting year: This is our first year of calculating a product water intensity value and therefore do not have an indication of year-to-year intensity change.

Anticipated Future trends: As part of our WLO goal, Dow will reduce the freshwater intake intensity at key water-stressed sites by 20% by 2025.

Strategy in place to reduce water intensity: Dow Terneuzen intends to cease importing any freshwater by 2025, instead using only locally sourced water where every liter of water is used three times (by the local community, Dow's manufacturing plants, then cooling towers). Dow continues to look for additional ways to preserve water in its local watersheds. This includes exploring methods to capture and process local water sources such as rainwater or other industrial streams currently discharged to the river, as well as expanding its usage of Terneuzen municipal wastewater. Not only would the usage of these additional sources eliminate the need for water from remote sources for Dow's industrial usage, but it could secure an additional 6-8 million m3/year of water for use by various sectors such as agriculture or industry. Dow's goal is for Terneuzen reach 100% water circularity by 2025.

### Product type

Bulk organic chemicals

### Product name

LDPE

### Water intensity value (m3)

2.8

### Numerator: water aspect

Total water consumption

### Denominator

Ton

### Comparison with previous reporting year

This is our first year of measurement

### Please explain

Choice of numerator and denominator:
Dow chose a numerator and denominator that aligns with the Life Cycle Assessment (LCA) methodology ReCiPe2016 to determine water consumed in cubic meters per ton of product. Life Cycle Assessments (LCA) are useful method for examining the total environmental water use impact of a process, product, or service. Key inputs and boundaries for the gate- to- gate water footprint include water associated with steam consumption, cooling activities, fire water, cleaning and other miscellaneous uses.

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How the metrics are used internally: Accountability of water management begins at the site level where the operating permits exist and elevates to the board level providing oversight of water-related issues. Additionally, each employee also has a vested interest in continued progress, linking sustainability performance to each individual Dow employee's performance award.

Explanation as to why or why not the volume has changed from the previous reporting year: This is our first year of calculating a product water intensity value and therefore do not have an indication of year-to-year intensity change.

Anticipated Future trends: As part of our WLO goal, Dow will reduce the freshwater intake intensity at key water-stressed sites by 20% by 2025.

Strategy in place to reduce water intensity: Dow Terneuzen intends to cease importing any freshwater by 2025, instead using only locally sourced water where every liter of water is used three times (by the local community, Dow's manufacturing plants, then cooling towers). Dow continues to look for additional ways to preserve water in its local watersheds. This includes exploring methods to capture and process local water sources such as rainwater or other industrial streams currently discharged to the river, as well as expanding its usage of Terneuzen municipal wastewater. Not only would the usage of these additional sources eliminate the need for water from remote sources for Dow's industrial usage, but it could secure an additional 6-8 million m3/year of water for

use by various sectors such as agriculture or industry. Dow's goal is for Terneuzen reach 100% water circularity by 2025.

**Product type**

Bulk organic chemicals

**Product name**

LLDPE

**Water intensity value (m3)**

2.9

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

**Comparison with previous reporting year**

This is our first year of measurement

**Please explain**

Choice of numerator and denominator:
Dow chose a numerator and denominator that aligns with the Life Cycle Assessment (LCA) methodology ReCiPe2016 to determine water consumed in cubic meters per ton of product. Life Cycle Assessments (LCA) are useful method for examining the total environmental water use impact of a process, product, or service. Key inputs and boundaries for the gate- to- gate water footprint include water associated with steam consumption, cooling activities, fire water, cleaning and other miscellaneous uses.

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Explanation as to why or why not the volume has changed from the previous reporting year: This is our first year of calculating a product water intensity value and therefore do not have an indication of year-to-year intensity change.

Anticipated Future trends: As part of our WLO goal, Dow will reduce the freshwater intake intensity at key water-stressed sites by 20% by 2025.

Strategy in place to reduce water intensity: Dow Terneuzen intends to cease importing any freshwater by 2025, instead using only locally sourced water where every liter of water is used three times (by the local community, Dow's manufacturing plants, then cooling towers). Dow continues to look for additional ways to preserve water in its local watersheds. This includes exploring methods to capture and process local water sources such as rainwater or other industrial streams currently discharged to the river, as well as expanding its usage of Terneuzen municipal wastewater. Not only would the usage of these additional sources eliminate the need for water from remote sources for Dow's industrial usage, but it could secure an additional 6-8 million m3/year of water for use by various sectors such as agriculture or industry. Dow's goal is for Terneuzen reach 100% water circularity by 2025.

**Product type**

Bulk organic chemicals

**Product name**

Benzene

**Water intensity value (m3)**

3.1

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

**Comparison with previous reporting year**

This is our first year of measurement

**Please explain**

Choice of numerator and denominator:
Dow chose a numerator and denominator that aligns with the Life Cycle Assessment (LCA) methodology ReCiPe2016 to determine water consumed in cubic meters per ton of product. Life Cycle Assessments (LCA) are useful method for examining the total environmental water use impact of a process, product, or service. Key inputs and boundaries for the gate- to- gate water footprint include water associated with steam consumption, cooling activities, fire water, cleaning and other miscellaneous uses.

Boundary and explanation: Dow's Terneuzen site was chosen to represent the water intensity for Dow's top 5 products because it is our largest European site, manufactures a product mix that is representative of Dow's top global products, and is a KWSS that has one of Dow's most accurate water balances.

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oversight of water-related issues. Additionally, each employee also has a vested interest in continued progress, linking sustainability performance to each individual Dow employee's performance award.

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Anticipated Future trends: As part of our WLO goal, Dow will reduce the freshwater intake intensity at key water-stressed sites by 20% by 2025.

Strategy in place to reduce water intensity: Dow Terneuzen intends to cease importing any freshwater by 2025, instead using only locally sourced water where every liter of water is used three times (by the local community, Dow's manufacturing plants, then cooling towers). Dow continues to look for additional ways to preserve water in its local watersheds. This includes exploring methods to capture and process local water sources such as rainwater or other industrial streams currently discharged to the river, as well as expanding its usage of Terneuzen municipal wastewater. Not only would the usage of these additional sources eliminate the need for water from remote sources for Dow's industrial usage, but it could secure an additional 6-8 million m3/year of water for use by various sectors such as agriculture or industry. Dow's goal is for Terneuzen reach 100% water circularity by 2025.

# W1.4

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

Yes, our customers or other value chain partners

# W1.4c

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

During the second half of 2021, we have used our quarterly customer relationship survey to also engage selected customers and assess their interest and willingness to collaborate with Dow on sustainability. The Dow Customer Experience and Sustainability teams designed a process to survey these customers and understand their needs in areas like carbon and climate change, circular economy, water efficiency and impacts. The process allowed Dow to identify customers that have unmet needs and/or are willing to explore opportunities in any of those sustainability-related areas, so that an individualized follow-up process could be arranged with customers that expressed interest to engage.

The rationale for selecting a specific subset of Dow customers was to make sure we prioritize efforts and resources towards the most strategic customers and the ones that have reciprocal interest and commitment to the topic. We expect demand for collaboration around sustainability to exceed capacity and therefore we used our customer distinction framework and our customer survey process to help with prioritization. It is important to note that engagement with customers around sustainability was not limited to the channel and approach described on this section. During the second half of 2021 we surveyed ~50% of Dow direct customers (~19,000

contacts across ~3,000 customers), as part of our ongoing customer relationship survey process. Out of the customers surveyed, we selected ~700 customers for the targeted sustainability engagement questions. These customers were selected among our two top customer tiers as explained above.
Out of the ~2800 survey responses we received during this period, about 900 indicated willingness/interest to engage on at least one of the sustainability topics. This was a clear demonstration that the topic is of extreme interest to customers we serve and a confirmation of the need for us to prioritize efforts and resources in this space.

# W2. Business impacts

## W2.1

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

Yes

## W2.1a

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

**Country/Area & River basin**

France
Rhine

**Type of impact driver & Primary impact driver**

Chronic physical
Other, please specify
Drought; extreme heat

**Primary impact**

Increased operating costs

**Description of impact**

Dow's Lauterbourg, France site manufactures products associated with the Dow Coatings Materials and Dow Plastic Additives businesses. The site depends on the adjacent river Rhine for receiving raw materials via barges. Barges are the preferred mode of transportation from a cost and carbon footprint perspective. Climatic conditions are causing events of both high and low water levels in the river Rhine making parts of it unnavigable during certain times. Max water levels prevent us from sailing on the river, low water levels either reduce the capacity of shipments or prevents sailing. The level and intensity of these events is increasing. In such cases, products are shipped by truck. In recent years, this has occurred for 10-15 weeks per year where truck mode is required. Shipments by truck are in general 5 times more expensive than barge (i.e. 150$/MT vs. 35$/MT). The primary response and mitigation measures by the site have limited the overall impacts (financial, E,H&S, reliability of operation) to the site. A switch

in raw material supply chain has also lowered the overall financial impact. Suppliers such as BASF are also implementing mitigation plans that lowers the associated risk with Dow's raw material appropriation. It does not use water from the Rhine River for any other manufacturing activity. It is important to note that the site has not suffered from any other water related impacts.

**Primary response**

Engage with suppliers

**Total financial impact**

1,000,000

**Description of response**

The primary response includes:
Close monitoring of the water levels of the Rhine by Dow's Marine Team. They are using two sources in order to stay on top of the water levels.
o Direct communication with our barge carrier, Interstream Barging. As soon as water levels are reached that might impact our operations, they reach out to the Marine planner and advise us on options.
o Monitor daily the current level as well as the forecasted levels of the Rhine River.
Secondly, switch to truck shipment for receiving of raw materials.
The site has mitigated the risk by switching from barges to trucks when the level in the Rhine is too low. A switch in raw material supply chain has also lowered the overall financial impact. Measures have been taken in limiting this risk in the future by defining another mode of transportation by rail. The total financial impact was calculated by comparing the price difference between shipping and receiving materials by trucks compared to barges for the year of 2021. Switching to trucks is a mitigation measure that was put in place and continues to be appropriate for the associated financial cost experienced by the site. This response has been very effective and easily put in place. Dow stands by ready to move to a rail system should the financial burden justify it.

## W2.2

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

No

# W3. Procedures

## 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?**

**Appropriate labelling of raw materials and waste for potential impacts on water and ecosystem**

As a Responsible Care(R) company, we continually engage in waste reduction and pollution prevention efforts in our operations, including those linked to water ecosystems. We apply the UN Globally Harmonized System for the classification and labelling of chemicals (GHS). GHS classification and labelling includes physical, health and environmental hazards such as acute & chronic aquatic toxicity. These labels are applied where raw materials are purchased or stored; where waste is stored or handled (unless superseded by other country specific waste rules); and on all products manufactured.

**Abiding by permitted discharged standards**

There is no common global legal standard for wastewater pollutants. Every Dow site discharging water has a specific permit defined by local standards. Authorities set standards based on national or supranational regulation, e.g., European Industrial Emission Directive (IED) and Best Available Techniques (BAT) reference documents (BREFs), US Clean Water Act and The National Pollutant Discharge Elimination System (NPDES) Permits. Effluent standards are set based on pollutant properties and current capacity of the receiving water body to avoid detrimental impacts on water ecosystems or human health. Dow assesses impacts of wastewater discharge based on applicable laws and regulations. When applying for a permit, Dow considers limits on the technology available to control the pollutants (i.e., technology-based effluent limits) and limits that are protective of the water quality standards of the receiving water (i.e., water quality-based effluent limits). Dow has developed a global priority compound list that is comprised of chemicals with persistent, bioaccumulative, and toxic hazards, and chemicals with carcinogenic, mutagenic, and reproductive hazards. This list comprises chemicals regulated by multiple agencies such as the U.S. Environmental Protection Agency (EPA) and the European Commission. Dow discloses to the applicable regulatory authorities emissions of chemicals, including regulated emissions to water. Responsible local authorities regularly review our analyses and precautions in accordance with the relevant local requirements to prevent contaminants from entering water bodies.

**Policies on Incidental Spills, Leaks**

The corporate EHS&S function is responsible for defining Dow’s Global requirements and standards for handling and monitoring pollutants.

Dow’s Global policies require that all production facilities abide by its water protection standard which establishes the identification, assessment and control mechanism to minimize water pollutants associated with Dow’s manufacturing activities. Each facility is audited by Dow’s internal EHS&S team. Local authorities also regularly review our policies to prevent any loss of containment in accordance with the relevant local requirements to prevent contaminants from entering water bodies.

**From Gate to Customer**

Dow’s responsibility to water extends beyond our gates. Dow's transportation safety and security requirements are communicated to help businesses and functions minimize the risk of harm posed by chemicals in the supply chain to the public, workers, and the environment. Dow routinely evaluates the potential hazard of its chemicals to the environment. Tools for these evaluations include aquatic toxicity and fate testing, in silico predictions, and aquatic risk assessment. Businesses establish a Product Stewardship Program to ensure that health, safety, and environmental protection is an integral part of designing, manufacturing, marketing, distributing, using, recycling, and disposing of Dow products.

In summary, as part of Dow’s 2025 World leading Operation goal, the following milestones have been defined to drive minimal impacts to water ecosystems and human health:

Over the next decade, we will drive to continuously improve chemical process safety.

· Chemical process safety protects the lives of our workers, our neighbors, our environment and the economic livelihood of our communities.
· We're striving to eliminate severe transportation incidents that impact people, property and the environment in the communities through which our products, raw materials and intermediates flow.
· As part of our 2025 Goal, Dow will strive to eliminate all process safety events that impact our people, our communities and the environment.
· Dow will grow, but offset emissions of Priority Compounds, Volatile Organic Compounds (VOCs) and nitrogen oxides (NOx).
Wastewater quality is strictly governed by local regulations and governed by the respective environmental agency for each watershed. Dow abides by these local regulations and authorizations. Audits and/or risk assessments are performed at each site on a regular basis.

## 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 |
|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD)/Total Organic Carbon (TOC) | Direct operations | BOD/TOC can come from a variety of sources, such as the industrial process itself and/or the biomass that is used in the wastewater treatment plant (WWTP). The energy/food source that the microbes use is monitored to assess the amount of TOC being released to the environment. TOC can be a limiting factor in algae and/or bacterial growth. An excess of TOC can lead to algae and/or bacterial growth resulting in the usage of oxygen from the waterway. Therefore, an excess of TOC is a contributing factor in the loss of oxygen for other aquatic species. BOD is also monitored to understand the oxygen | Compliance with effluent quality standards<br>Measures to prevent spillage, leaching, and leakages | TOC is monitored analytically via sampling and TOC instrumentation. This can either be a lab procedure and/or depending on the site, the system may be on-line (meaning taking a slip stream from the process and analyzing at a certain frequency). BOD testing is very specific and takes numerous days to complete. Therefore, most plants monitor oxygen levels using dissolved oxygen probes in an on-line fashion. Some sites will complete respirometry analysis to gain an understanding of oxygen demand along with the microbe's growth. TOC and dissolved oxygen (DO) are monitored at various parts |

| | | | | |
|---|---|---|---|---|
| | | consumption caused by the excess TOC. | | of the process. BOD is mostly monitored as a compliance parameter. Each operating site is accountable for meeting effluent requirements and for having monitoring capabilities in place to meet these limits. Measurement of results & success: Dow measures total emission of BOD/TOC at a facility level. We define success by meeting our permitted levels while striving to continuously reduce quantities of TOC/BOD. From a global perspective, Dow tracks total chemical emissions. Chemical emissions are any release or discharge to the air or water of any pollutant from a facility. The chemical emissions category is largely driven by emissions from our wastewater treatment operations at our large integrated sites. This data excludes NOx, SOx, carbon monoxide, CO2, particulates, methane, hydrogen, nitrogen, oxygen, water, aluminum and certain salts.<br><br>These emissions also include the posttreatment chemical emissions from our industrial park tenant companies.<br><br>In 2021 Chemical Emissions to Air and Water increased (15,256 metric tons) vs. 2020 (13,910 |

| | | | | |
|---|---|---|---|---|
| | | | | metric tons) due to higher volumes of effluent sent for treatment and unanticipated weather events causing process issues in 2021. |
| Total Suspended Solids (TSS) | Direct operations | TSS can come from run-off or microbial growth. Depending on the nature of the TSS it can be biotic or abiotic. There can be a variety of issues with high levels of TSS such as increased water temperature through sunlight adsorption, decreased sunlight for aquatic plant activity through turbidity or the TSS can serve as a carbon source for microbial growth which then leads to lower oxygen levels for aquatic life. | Compliance with effluent quality standards<br>Measures to prevent spillage, leaching, and leakages | Specific limits associated with TSS as a water pollutant are set for each facility. The impacts associated with that water pollutants are considered in discussions with the regulating body in adopting specific permitted discharge limits. The limits are then prescribed by the regulatory body and incorporated as part of the discharge permit for that facility. As part of receiving a permit limit, Dow defines the required water treatment technologies to abide by that limit, the procedures to operate within the limits and the analytical methods associated with tracking of that water pollutant parameter. Any excursion is reviewed and appropriate changes to asset and or procedures are executed TSS is measured either directly as a lab analysis or indirectly as a turbidity measurement. These parameters are measured throughout the WWTP process and monitored via dashboards. Each operating site is accountable for meeting permit discharge limits and have monitoring capability in place to meet these limits. Measurement |

| | | | | |
|---|---|---|---|---|
| | | | | of results & success: Dow measures TSS at a facility level. We define success by meeting our permitted levels while striving to continuously reduce TSS. Dow does not track TSS at a global level. |
| pH | Direct operations | Chemical processes use strong acids and bases as part of the production process. The waste streams from these processes need to be neutralized. Most aquatic life require the pH between the range of 6.5 to 8.5 to function. | Compliance with effluent quality standards<br>Measures to prevent spillage, leaching, and leakages | Specific limits associated with pH as a water pollutant are set for each facility. The impacts associated with that water pollutant are considered in discussions with the regulating body in adopting specific permitted discharge limits. The limits are then prescribed by the regulatory body and incorporated as part of the discharge permit for that facility. As part of receiving a permit limit, Dow defines the required water treatment technologies to abide by that limit, the procedures to operate within the limits and the analytical methods associated with tracking of that water pollutant parameter. Any excursion is reviewed and appropriate changes to asset and or procedures are executed pH is typically monitored via grab are in-flow pH probes accompanied by defined maintenance and calibration procedures. If required, the pH is adjusted to neutrality through the addition of acids and bases. Each operating site is accountable for meeting permit discharge limits and |

| | | | | |
|---|---|---|---|---|
| | | | | have monitoring capability in place to meet these limits. Measurement of results & success: Dow measures pH at a facility level. We define success by operating within the pH range (typically 5-9). Last year, Dow reported one incident related to pH exceedances. |
| Heavy metals | Direct operations | The source of heavy metals in effluent are production processes using heavy metals as catalysts or raw materials (e.g. for the manufacture of battery materials, catalytic converters) and the production equipment itself. Small amounts of these metals are released into the effluent through direct contact with process equipment, e.g. piping, pumps, distillation columns etc. The concern is the discharge of these elements above certain levels which will have negative effects on aquatic life. | Compliance with effluent quality standards<br>Measures to prevent spillage, leaching, and leakages | Specific limits associated with heavy metals as a water pollutant are set for each facility. The impacts associated with that water pollutant are considered in discussions with the regulating body in adopting specific permitted discharge limits. The limits are then prescribed by the regulatory body and incorporated as part of the discharge permit for that facility. As part of receiving a permit limit, Dow defines the required water treatment technologies to abide by that limit, the procedures to operate within the limits and the analytical methods associated with tracking of that water pollutant parameter. Any excursion is reviewed and appropriate changes to asset and or procedures are executed Metals are measured in a laboratory setting compared to on-line capability. These amounts are monitored throughout the process and compared to established and regulated toxic levels. Finally, for the NPDES |

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|---|---|---|---|---|
| | | | | permits acute and chronic tests are performed that gives indication if metal levels will have adverse effects to the aquatic life.<br>Measurement of results & success: Dow measures heavy metals at a facility level. We define success by meeting our permitted guidelines for each specific metals while striving to continuously reduce quantities.<br>From a global perspective, Dow tracks total chemical emissions. Chemical emissions are any release or discharge to the air or water of any pollutant from a facility. The chemical emissions category is largely driven by emissions from our wastewater treatment operations at our large integrated sites and does include specific heavy metals such as mercury. This data excludes NOx, SOx, carbon monoxide, CO2, particulates, methane, hydrogen, nitrogen, oxygen, water, aluminum and certain salts.<br><br>These emissions also include the posttreatment chemical emissions from our industrial park tenant companies.<br><br>In 2021 Chemical Emissions to Air and Water increased (15,256 metric tons) vs. 2020 (13,910 metric tons) due to higher |

| | | | | |
|---|---|---|---|---|
| | | | | volumes of effluent sent for treatment and unanticipated weather events causing process issues in 2021. |
| Organic pollutants | Direct operations | Organic pollutants can be created directly as part of the production process or as an impurity. While there are processes to limit the amount sent to the Waste Water Treatment Plant (WWTP), there will be some sent as part of the polishing and product purification processes and associated cleaning procedures. In most instances the organic molecule is a food source for the aerobic or anaerobic part of the WWTP; however, it is not 100 percent consumed. The toxicological effect of these components to aquatic life varies and is particular to the molecule itself. | Compliance with effluent quality standards<br>Measures to prevent spillage, leaching, and leakages | Specific limits associated with organic compounds as a water pollutant are set for each facility by discussing with regulatory bodies who then issue the permit. As part of receiving a permit limit, Dow defines the required water treatment technologies to abide by that limit, the procedures to operate within the limits and the analytical methods associated with tracking of that water pollutant parameter. Any excursion is reviewed and appropriate changes to asset and or procedures are executed Organic pollutants are monitored specifically using EPA approved methodologies. Compliance with effluent quality standards is ensured. Measures to prevent spillage, leaching, and leakages are governed and audited by Dow's Operating Discipline Management System (ODMS). Dow's ODMS includes policies, requirements, processes, best practices and procedures associated with Environment, Health and Safety, and is integrated with Quality, Operations and related external standards. Within this system, we lay the foundational expectations of |

| | | | | |
|---|---|---|---|---|
| | | | | hazard assessment and risk mitigation, aligned to Responsible Care® and in compliance with OSHA 18001 or ISO 45001 standards. We require each organization within Dow to implement and use Health and Safety Programs to:<br>*Identify, assess, and eliminate or mitigate hazards<br>*Prevent unsafe acts and conditions<br>*Maintain and improve the health of personnel<br>*Foster communication on health and safety issues<br>Measurement of results & success: Dow measures organic pollutants at a facility level. We define success by meeting our permitted levels while striving to continuously reduce quantities. Lost organic molecules are an opportunity to increase production efficiency.<br>From a global perspective, Dow tracks organic pollutants as part of total chemical emissions. Chemical emissions are any release or discharge to the air or water of any pollutant from a facility. The chemical emissions category is largely driven by emissions from our wastewater treatment operations at our large integrated sites.<br><br>These emissions also include the posttreatment chemical emissions from |

| | | | | |
|---|---|---|---|---|
| | | | | our industrial park tenant companies.<br><br>In 2021 Overall Chemical Emissions to Air and Water increased (15,256 metric tons) vs. 2020 (13,910 metric tons) due to higher volumes of effluent sent for treatment and unanticipated weather events causing process issues in 2021. |
| Nitrogen and phosphorus | Direct operations | Nitrogen and Phosphorus are common chemical elements found in many molecules used in the chemical industry, e.g. ammonia, a building block of many chemical products (e.g. plastics, fertilizer). Nitrogen and Phosphorus are macronutrients and depending on the system can be limiting factors in the growth of microbial communities. Nitrogen and phosphorus are not harmful in normal amounts to aquatic species, it is the excess microbial growth they can cause when they are limiting nutrients which leads to oxygen depletion and/or sunlight blockage to other aquatic species. Nitrogen and phosphorus are unique in that biological systems of WWTP need these nutrients in certain amounts for the biomass to break down the other carbon components; however, at the same time one needs to ensure you do not use excess that | Compliance with effluent quality standards | Specific limits associated with nitrogen and phosphorus as a water pollutant are set for each facility. The impacts associated with that water pollutants are considered in discussions with the regulating body in adopting specific discharge limits. The limits are then prescribed by the regulatory body and incorporated as part of the discharge permit for that facility. As part of receiving a permit limit, Dow defines the required water treatment technologies to abide by that limit, the procedures to operate within the limits and the analytical methods associated with tracking of that water pollutant parameter. Any excursion is reviewed and appropriate changes to asset and or procedures are executed Phosphorus is measured normally as either total phosphorus or as ortho-phosphorus (the dissolved portion that is more bioavailable). Nitrogen is |

| | | | | |
|---|---|---|---|---|
| | | causes problems for the receiving body of water. | | monitored in a variety of forms such as ammonia, nitrate, total nitrogen, and Total Kjeldahl Nitrogen (TKN) which is the sum of organic nitrogen and ammonia. These are monitored throughout the process with data visualization techniques, e.g. dashboards. Each operating site is accountable for meeting permit discharge limits and has monitoring capability in place to meet these limits.<br><br>. Measurement of results & success: Dow measures nitrogen and phosphorous at a facility level. We define success by meeting our permitted levels while striving to continuously reduce quantities.<br>From a global perspective, Dow tracks nitrogen and phosphorus as part of total chemical emissions. Chemical emissions are any release or discharge to the air or water of any pollutant from a facility. The chemical emissions category is largely driven by emissions from our wastewater treatment operations at our large integrated sites. .<br><br>These emissions also include the posttreatment chemical emissions from our industrial park tenant companies.<br><br>In 2021 Chemical |

| | | | | |
|---|---|---|---|---|
| | | | | Emissions to Air and Water increased (15,256 metric tons) vs. 2020 (13,910 metric tons) due to higher volumes of effluent sent for treatment and unanticipated weather events causing process issues in 2021. |

# 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 an established enterprise risk management framework

**Frequency of assessment**

Every two years

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

More than 6 years

**Type of tools and methods used**

Other

**Tools and methods used**

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
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
Other water users at the basin/catchment level

**Comment**

As one of the largest manufacturing companies in the world, we depend on a steady supply of water to create the products we manufacture. Both water availability and water quality are critical to Dow's operation. The global challenge of protecting this supply is addressed through a broad range of activities by the company – from understanding the specific watershed stressors to recognizing the needs of other water users which includes securing environmental flows. We have made significant progress in quantifying the risk and translating this into a financial risk to our operation and embedding it in business decisions.

Dow's Corporate Water Strategy defines best practices and technology advances while aligning business strategies and operation needs to meet water demands in concert with an understanding of each local water basin and key stakeholders. The Corporate Water Strategy is built to help drive the current programs and water-based goals within Dow's 2025 Sustainability Goals with four goals directly connected to water: World Leading Operations, Advancing a Circular Economy, Leading the Blueprint and Valuing Nature. At Dow's six key water-stressed sites, recycling and reuse have been emphasized to reduce the water footprint, and the freshwater intake intensity with a clearly defined goal of 20% reduction based on a 2015 base year.

# 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.**

In 2019, Dow performed a Water Risk Assessment of all sites. The methodology was developed in concert with The Nature Conservancy (TNC). It included the use of external tools (WRI's Aqueduct 3.0 and WWF water risk analyser). The external tools results were supplemented with additional site-specific contextual knowledge which included local water availability challenges at a basin or catchment level, water quality challenges such as salt intrusion or elevated TSS, reported stakeholder (local communities, regulatory bodies, employees, customers) conflicts or concerns including WASH (access to water for drinking and sanitation services), global perspective of upcoming changes to water regulatory frameworks developed by Dow's EHS&S Technology Center and long-term projections. The selected contextual factors which included the definition of key stakeholders were developed in conjunction with Dow's water subject matter experts representing a global perspective and TNC

as being the most relevant factors based on local knowledge. The financial risk to Dow was then put into context by using an index of the global water stress results, the total production level for each site, and the total freshwater withdrawn for each site. The study confirmed the past analysis results performed in 2015 that six of our manufacturing sites need to be designated as key water-stressed sites (KWSS). Because water supply issues are evolving and not isolated to water-stressed sites, Dow also keeps track of sites that are under a “watch list” where water challenges may occur. In 2021, Dow also used the services of S&P Global Trucost to assess Dow’s risks relating to climate change. The assessment confirmed that water was a top climate related risk for Dow.

The outcome of the risk assessment is used to prioritize water conservation and reuse investments based on site-specific water risks. These actions are required to define the path and costs associated with meeting our 2025 Sustainability Goals target of reducing freshwater intake at key water-stressed sites by 20%. This list of projects is reviewed quarterly by the World Leading Operation leadership team and communicated back to Dow’s highest level of leadership. The Water Risk Assessment has led for example at defining a contingent water sourcing plan for our site in Aratu; providing additional water monitoring flow in Freeport; moving to monthly water tracking/reporting at all six KWSS with oversight from Dow’s WLO leadership team; developing water availability modelling of the Brazos watershed which includes long term trends for the Freeport site to support additional investment in water resilience.

# W4. Risks and opportunities

## W4.1

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

Yes, both in direct operations and the rest of our value chain

## W4.1a

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

Definition of substantive impact:
When assessing whether or not a water related risk or opportunity is substantive, Dow evaluates impacts related to elements such as the cost of water appropriation, impact on operating cost (e.g. raw water treatment costs, costs of complying with regulation), cost of investment in new technology to reduce water discharges, impact to the price at which products can be sold, impact as a result of potential lost sales, or in the case of opportunities, market share gained, etc. In addition, there could be impacts that need to be considered that are not yet able to be quantified but could still be important for discussion due to a variety of factors. Whether or not a risk or opportunity is determined to be substantive is also dependent on other factors such as where in the value chain the impact may be felt and the duration of impact.

Description of the quantifiable indicators used to define substantive impact:

Dow defines a substantive financial or strategic impact when identifying or assessing water-related risk or opportunity as one that has the potential to impact Dow at a level of $50 million USD or more. Probability of occurrence/likelihood is often incorporated to determine substantiveness. For example, a risk with the potential to impact Dow at a level of $200 million USD with a probability of occurrence of 25% would meet the threshold of a substantive impact ($200 million USD * 25% = $50 million USD).
An example of a substantive water impact on our business that has been the availability of sufficient water. Several of Dow's production facilities are located in water-scarce areas and water shortages could impact normal production. Changes in average precipitation could have an impact on the availability and price of water. The Company has also put in place contingency plans and investment in infrastructure assets, particularly on the U.S. Gulf Coast, to better withstand severe weather and rising sea levels, and continues to study the long-term implications of changing climate parameters on water availability, plant siting issues and other impacts.

# W4.1b

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

| | Total number of facilities exposed to water risk | % company-wide facilities this represents | Comment |
|---|---|---|---|
| Row 1 | 6 | 1-25 | The Company has identified six of our manufacturing sites as key water-stressed sites.<br>These sites are designated based on a number of factors: their location in a water-stressed watershed; water quality; competition among users of the same watershed; local experience at the site; and long-term projections. |

# W4.1c

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

**Country/Area & River basin**

United States of America
Brazos River

**Number of facilities exposed to water risk**

1

### % company-wide facilities this represents

1-25

### % company's total global revenue that could be affected

1-10

### Comment

The site in Freeport is associated with seasonal water stress related risks that have a potential substantive financial impact. Financial impact studies on the impact of Freeport operations on global revenue have been completed and put the margin risk in the 1-5% range.

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### Country/Area & River basin

United States of America

Other, please specify

Guadalupe River

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

The site in Seadrift is associated with water stress related risks mainly from salt intrusion during low river flows that have a potential substantive financial impact.

---

### Country/Area & River basin

Argentina

Other, please specify

Sauce River

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

The site in Bahia Blanca is associated with water stress related risks. The Sauce Chico River basin is located in the southwestern region of the Buenos Aires province in

Argentina. The river originates in the Ventania Mountain system and it runs through a huge plain without any permanent tributary. This river constitutes one of the major surface water resources which supplies to the agricultural livestock and human activities and industry in the region. The basin displays a large variability in its climatic conditions. Impacts in the past have been associated with low water quality from droughts.

### Country/Area & River basin

Germany

Other, please specify

River Weisee Elster

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

The site is located in Böhlen, Germany. It is associated with water stress related risks. The site's water supply from the "Weiße Elster" river is limited due to high sulfate concentrations especially in the summer months, The water in the "Witznitz" storage basin has a high biological load. The wastewater from the Böhlen site is discharged into a small river called "Faule Pfütze", where it represents the main water source. The legal requirements and thresholds for the discharge of wastewater have become increasingly strict over the years and are currently defined within the framework of the new water law permit. The targets and thus the implementation of the European Water Framework Directive will further tighten these specific water management condition.

### Country/Area & River basin

Spain

Ebro

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

The site is located in Tarragona, Spain. Roughly 25% of the freshwater withdrawal for the site originates from reclaimed water from two urban WWTP (Vila-Seca and

Tarragona). The remaining freshwater demand originates from the Ebro River delta which suffers at times from salt intrusion.

### Country/Area & River basin

Netherlands

Other, please specify

Rivers Rhine and Meuse

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

The site is located in Terneuzen, Netherlands. Roughly 75% of the freshwater requirement from the site originates from reused/recycled water. The remaining 25% originates from the Biesboch River an important wetlands area identified as a water stress basin. The site aims to reach 100% circularity on freshwater withdrawal by 2025 which means that it would no longer withdraw any water from the Biesboch.

## W4.2

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

### Country/Area & River basin

United States of America

Brazos River

### Type of risk & Primary risk driver

Acute physical

Drought

### Primary potential impact

Impact on company assets

### Company-specific description

Dow's Freeport site in the Brazos River basin is the largest site the company operates globally. It accounts for roughly 17% of Dow's total production. The Brazos River is subject to seasonal droughts on occasion. Dow's Freeport site, which sources its freshwater supply from the Brazos River, is at risk of experiencing production

curtailments as a result of potential limitations in freshwater supply. The site uses contract water purchases from storage reserves upstream but with additional water demand in the basin those contract reserves are becoming strained, in some years unavailable. To mitigate the financial risk, Dow has been and continues to: 1) assess the current and future water demand versus availability in the Brazos River. 2) Investigate other additional water sources and intensive internal and external re-use 3) Conducting pilot projects of advanced water treatment options 4) Economic assessment of alternative water supply options.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

Medium-high

**Likelihood**

About as likely as not

**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)**

315,000,000

**Potential financial impact figure - maximum (currency)**

1,800,000,000

**Explanation of financial impact**

The calculation takes into consideration the loss revenue for the Freeport site due to restrictions of water supply for the average duration of the drought. There is a production “load shedding” as the duration of the drought impact continues.

**Primary response to risk**

Secure alternative water supply

**Description of response**

The first level of response to low flows in the river are to request releases from purchased storage reserves. Through agreements as part of the purchased contract reserves the site tactically releases those contract reserves during low flow conditions to keep the site water supply secure. To date this approach has been successful in preventing any drought impact events. Long term, Dow is actively investigating other alternatives to secure additional water (ex. Desalination, reservoir capacity etc.).

**Cost of response**

5,000,000

**Explanation of cost of response**

Storage reserves are purchased at the system rate price of the Brazos River Authority who is the owner of the storage reserves.

## W4.2a

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

### Country/Area & River basin

Germany
Rhine

### Stage of value chain

Supply chain

### Type of risk & Primary risk driver

Acute physical
Drought

### Primary potential impact

Increased production costs due to changing input prices from supplier

### Company-specific description

Dow's Lauterbourg, France (France S.A.S Port du Rhin - BP 30026) site manufactures products associated with the Dow Coatings Materials and Dow Plastic Additives businesses. The site depends on the adjacent river Rhine for receiving raw materials via barges. Barges are the preferred mode of transportation from a cost and carbon footprint perspective. Climatic conditions are causing events of both high and low water levels in the river Rhine making parts of it unnavigable during certain times. Max water levels prevent us from sailing on the river, low water levels either reduce the capacity of shipments or prevents sailing. The level and intensity of these events is increasing. In such cases, products are shipped by truck. In recent years, this has occurred for 10-15 weeks per year where truck mode is required. Shipments by truck are in general 5 times more expensive than barge (ie. 150$/MT vs. 35$/MT). The primary response and mitigation measures by the site have limited the overall impacts (financial, E, H&S, reliability of operation) to the site. A switch in raw material supply chain has also lowered the overall financial impact. Dow continues to monitor the situation closely. The site is also evaluating rail transportation. It is important to note that the site has not suffered from any other water related impacts. It does not use water from the Rhine River for any other manufacturing activity.

Suppliers such as BASF are also implementing mitigation plans that lowers the associated risk with Dow's raw material appropriation. The existing mitigation measures are therefore appropriate.

### Timeframe

1-3 years

### Magnitude of potential impact

Low

### Likelihood

Likely

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

870,000

### Potential financial impact figure - minimum (currency)

### Potential financial impact figure - maximum (currency)

### Explanation of financial impact

The potential financial impact is increased costs due to transporting via trucks versus barges. The potential financial impact was calculated using the difference in shipping from truck to barges per metric ton for a given year. (Roughly 115$/MT delta) for the worst year on record to date (2020). This is potential so there may be years without drought or floods and all raw materials is received via barges and the financial impact would be $0. The potential financial impact value was derived by increasing the worst case to date by 20%.

### Primary response to risk

Supplier engagement

Other, please specify

Selecting alternative more of transport for product and raw material

### Description of response

The primary response includes:
Close monitoring of the water levels of the Rhine by Dow's Marine Team. They are using two sources in order to stay on top of the water levels.
o Direct communication with our barge carrier, Interstream Barging. As soon as water levels are reached that might impact our operations, they reach out to the Marine planner and advise us on options.
o Monitor daily the current level as well as the forecasted levels of the Rhine River.
Secondly, switch to truck shipment during those situations

The site has mitigated the risk by switching from barges to trucks when the level in the Rhine is too low. A switch in raw material supply chain has also lowered the overall financial impact. Measures have been taken in limiting this risk in the future by defining another mode of transportation by rail. The total financial impact was calculated by comparing the price difference between shipping and receiving materials by trucks compared to barges. The response and measures in place continue to be appropriate

for the associated impacts to date. This response has been very effective and easily put in place. Dow stands by ready to move to a rail system should the financial burden justify it. The capital investment associated with the system is roughly $3 Million.

### Cost of response

725,000

### Explanation of cost of response

The figure of $725,000 represents the additional costs paid for the year associated with receiving raw materials by truck as opposed to barges.

## 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

Resilience

### Primary water-related opportunity

Other, please specify

Preserving shared resources through circular water

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

At our Terneuzen site in The Netherlands, progress continues in achieving 100% water circularity by 2024. This would eliminate withdrawals of fresh river water from the Biesbosch area near the confluence of the Rhine and Meuse Rivers, which is also the location of a Ramsar wetland. By eliminating the dependency on virgin freshwater from the Biesboch, Dow secures a more reliable source of water (reduced physical risk) and also reduces reputational risk associated with the sensitivity of that habitat and community to freshwater. As part of this long-term plan, Dow is piloting a project initiated in partnership with Evides and the regional water board, owners of Terneuzen's wastewater treatment facility ("WWTF"), to process various sources of water. These sources include Dow's private wastewater treatment plant and Terneuzen's municipal WWTF. The pilot is running through August 2022 Full-scale implementation is planned for the end of 2024.

In June 2020, Dow, Evides, U Gent and HZ University of Applied Sciences (Vlissingen, The Netherlands) launched a new EU Horizon 2020 project entitled AquaSPICE. This project involves 29 partners throughout Europe who aim to materialize circular water use in European process industries, foster awareness in resource efficiency and deliver

solutions for industrial applications. Two of Dow's sites will be participating: Dow Terneuzen and Böhlen (Germany). Böhlen and Terneuzen are striving to reduce their freshwater intake intensity by enhancing the internal recycle of various process streams, including cooling tower blowdown and dilution steam blowdown streams and treating a next level of site water management by using smart monitoring algorithms and control on raw water, discharge and recycle streams.

**Estimated timeframe for realization**

4 to 6 years

**Magnitude of potential financial impact**

Medium-high

**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)**

6,000,000

**Potential financial impact figure – maximum (currency)**

8,000,000

**Explanation of financial impact**

The $6-8 Million refers to Dow's portion of the capital investment which will be in place by 2025. This is defined within Dow's contract with a third party (Evides). The new water treatment facilities which make use of alternative sources of water will get us close (~ 95%) to the goal of 100% circularity on water withdrawal. Dow will also pay an annual fee and have long term lease of assets. The investment and annual fees result in a positive Net present value as it achieves a higher water quality to Dow enabling significant savings.

# W5. Facility-level water accounting

## W5.1

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

**Facility reference number**

Facility 1

**Facility name (optional)**

Freeport Texas

**Country/Area & River basin**

United States of America
Brazos River

**Latitude**
28.95372

**Longitude**
-95.358498

**Located in area with water stress**
Yes

**Total water withdrawals at this facility (megaliters/year)**
837,238

**Comparison of total withdrawals with previous reporting year**
Lower

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**
101,801

**Withdrawals from brackish surface water/seawater**
733,641

**Withdrawals from groundwater - renewable**
614

**Withdrawals from groundwater - non-renewable**
0

**Withdrawals from produced/entrained water**
0

**Withdrawals from third party sources**
1,183

**Total water discharges at this facility (megaliters/year)**
855,398

**Comparison of total discharges with previous reporting year**
Lower

**Discharges to fresh surface water**
0

**Discharges to brackish surface water/seawater**
855,383

**Discharges to groundwater**
0

### Discharges to third party destinations

15

### Total water consumption at this facility (megaliters/year)

125,586

### Comparison of total consumption with previous reporting year

Lower

### Please explain

The reported water consumption quantity does not correspond to W-D=consumption. It is calculated by using the total water withdrawal *15%. This approach that accounts for accounts for potential water losses that are associated with unmetered losses and flows such as evaporation, rainwater, non-contact cooling waters and, open water conveyance systems. The discharge flows associated with cooling activities and rainwater are estimated to represent roughly 95% of our total discharge.

Freeport's water consumption is mainly tied to cooling activities. It uses both seawater and freshwater to perform cooling activities. It uses one-pass cooling and cooling towers. There is inherent large variability within this sites water accounting due to the large volume of water held within water reservoirs and conveyance systems. It also supplies water to third-party tenants. The site has implemented significant water recycling back in 2012-2013 due to a major drought such has recycling treated wastewater from a nearby municipal water treatment. It has continued to implement water conservation projects. This year the site implemented two projects saving an equivalent of 2% of Dow's water consumption. One project consisted of cascading cooling water and the other was installing an on-line analyser on the cooling tower water which allowed to reduce the required freshwater make up water. The site also benefited this year from heavy rains which lowered the water withdrawal requirement.

### Facility reference number

Facility 2

### Facility name (optional)

Terneuzen, Netherlands

### Country/Area & River basin

Netherlands

Other, please specify

Biesboch River

### Latitude

51.3323

### Longitude

3.8324

### Located in area with water stress

Yes

**Total water withdrawals at this facility (megaliters/year)**

364,293

**Comparison of total withdrawals with previous reporting year**

Higher

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

41

**Withdrawals from brackish surface water/seawater**

352,471

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

11,781

**Total water discharges at this facility (megaliters/year)**

364,114

**Comparison of total discharges with previous reporting year**

Higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

364,114

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

54,644

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

The reported water consumption quantity does not correspond to W-D=consumption. It is calculated by using the total water withdrawal *15%. This approach that accounts for accounts for potential water losses that are associated with unmetered losses and flows such as evaporation, rainwater, non-contact cooling waters and, open water conveyance systems. The discharge flows associated with cooling activities and rainwater are estimated to represent roughly 95% of our total discharge.

Dow's Terneuzen site has the lowest freshwater intake intensity of all the six key water stressed sites. It covers roughly 75% of its water demand with reuse/recycled water from both internal and external sources. The goal is to reach 100% water circularity by 2025. The site is currently piloting a project working with farmers and the regional water board to store freshwater underground – collecting it in the winter and using it in the summer as a water stress mitigation measure. In 2021, the estimated water consumption is higher due to higher production.

### Facility reference number

Facility 3

### Facility name (optional)

Bahia Blanca

### Country/Area & River basin

Argentina

Other, please specify

Municipality supplied water from Sauce River

### Latitude

-38.7183

### Longitude

-62.2663

### Located in area with water stress

Yes

### Total water withdrawals at this facility (megaliters/year)

25,972

### Comparison of total withdrawals with previous reporting year

About the same

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

0

### Withdrawals from brackish surface water/seawater

0

### Withdrawals from groundwater - renewable

0

### Withdrawals from groundwater - non-renewable

0

### Withdrawals from produced/entrained water

0

### Withdrawals from third party sources

25,972

### Total water discharges at this facility (megaliters/year)

25,235

### Comparison of total discharges with previous reporting year

About the same

### Discharges to fresh surface water

0

### Discharges to brackish surface water/seawater

25,231

### Discharges to groundwater

0

### Discharges to third party destinations

4

### Total water consumption at this facility (megaliters/year)

3,896

### Comparison of total consumption with previous reporting year

About the same

### Please explain

The reported water consumption quantity does not correspond to W-D=consumption. It is calculated by using the total water withdrawal *15%. This approach that accounts for accounts for potential water losses that are associated with unmetered losses and flows such as evaporation, rainwater, non-contact cooling waters and, open water conveyance systems. The discharge flows associated with cooling activities and rainwater are estimated to represent roughly 95% of our total discharge.

Bahia Blanca’s water consumption for 2021 was stable. The majority of Bahia Blanca’s water is seawater (77% in 2021) associated with one-pass cooling. This means that all the water withdrawal is discharged back to the same watershed (with a slight increase in temperature from the cooling function). The site’s seawater volume is a calculated value using the pump curves and run hours. The site operates the sweater pumps at full capacity 24/7 365 days per year. Therefore, the seawater withdrawal on an annual basis does not change. The plant has not modified this operation for 2021. The freshwater did increase slightly (2%) which is not a significant change.

**Facility reference number**

Facility 4

**Facility name (optional)**

Dow Böhlen Germany

**Country/Area & River basin**

Germany

Other, please specify

River Weisse Elster and Lake Witznitz

**Latitude**

51.18862

**Longitude**

12.35431

**Located in area with water stress**

Yes

**Total water withdrawals at this facility (megaliters/year)**

7,231

**Comparison of total withdrawals with previous reporting year**

Lower

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

2,037

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

5,194

**Total water discharges at this facility (megaliters/year)**

7,112

**Comparison of total discharges with previous reporting year**

Lower

### Discharges to fresh surface water

7,112

### Discharges to brackish surface water/seawater

0

### Discharges to groundwater

0

### Discharges to third party destinations

0

### Total water consumption at this facility (megaliters/year)

1,085

### Comparison of total consumption with previous reporting year

Lower

### Please explain

The reported water consumption quantity does not correspond to W-D=consumption. It is calculated by using the total water withdrawal *15%. This approach that accounts for accounts for potential water losses that are associated with unmetered losses and flows such as evaporation, rainwater, non-contact cooling waters and, open water conveyance systems. The discharge flows associated with cooling activities and rainwater are estimated to represent roughly 95% of our total discharge.

Böhlen facility uses freshwater mainly for cooling activities. In 2021, Böhlen water withdrawals were less, mainly due to planned turn around activities and corresponding lower production. This resulted in an estimated lower consumption.

### Facility reference number

Facility 5

### Facility name (optional)

Dow Seadrift Texas

### Country/Area & River basin

United States of America

Other, please specify

Guadalupe River

### Latitude

51.18862

### Longitude

12.35431

### Located in area with water stress

Yes

**Total water withdrawals at this facility (megaliters/year)**

16,088

**Comparison of total withdrawals with previous reporting year**

Lower

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

16,088

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

22,737

**Comparison of total discharges with previous reporting year**

Lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

22,737

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

2,413

**Comparison of total consumption with previous reporting year**

Lower

**Please explain**

The reported water consumption quantity does not correspond to W-D=consumption. It is calculated by using the total water withdrawal *15%. This approach that accounts for

accounts for potential water losses that are associated with unmetered losses and flows such as evaporation, rainwater, non-contact cooling waters and, open water conveyance systems. The discharge flows associated with cooling activities and rainwater are estimated to represent roughly 95% of our total discharge.

The Seadrift site uses freshwater for cooling activities using cooling ponds. Most of the freshwater is therefore returned to the environment via cooling blowdowns or evaporation. The site benefited from a wet year in 2021 which presents an advantage for the site with large cooling ponds. The site also did produce 5% less product in 2021 mainly due to unplanned shutdowns associated with winter storm Uri explaining the estimated lower consumption.

**Facility reference number**

Facility 6

**Facility name (optional)**

Dow Tarragona Spain

**Country/Area & River basin**

Spain

Ebro

**Latitude**

41.1189

**Longitude**

1.2445

**Located in area with water stress**

Yes

**Total water withdrawals at this facility (megaliters/year)**

10,007

**Comparison of total withdrawals with previous reporting year**

Higher

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

10,007

**Total water discharges at this facility (megaliters/year)**

10,767

**Comparison of total discharges with previous reporting year**

Lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

9,326

**Discharges to groundwater**

0

**Discharges to third party destinations**

1,441

**Total water consumption at this facility (megaliters/year)**

1,501

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

The reported water consumption quantity does not correspond to W-D=consumption. It is calculated by using the total water withdrawal *15%. This approach that accounts for accounts for potential water losses that are associated with unmetered losses and flows such as evaporation, rainwater, non-contact cooling waters and, open water conveyance systems. The discharge flows associated with cooling activities and rainwater are estimated to represent roughly 95% of our total discharge.

Tarragona uses water mainly for cooling purposes. It uses both seawater and freshwater. In 2021, Tarragona's freshwater consumption was lower corresponding to lower production. The site did consume a higher amount of seawater associated with Dow's terminal activities that are not related to actual production activities but rather raw material storage. Resulting in an overall increase in estimated water consumption.

# W5.1a

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

### Water withdrawals – total volumes

### % verified

76-100

### Verification standard used

We engaged Deloitte & Touche LLP (Deloitte) to perform a review relating to the ESG disclosures referenced or included in the Global Reporting Initiative ("GRI") Content Index (the "ESG disclosures") included within the accompanying Dow 2021 Environmental, Social and Governance Report (the "2021 ESG Report") in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) in AT-C section 105, Concepts Common to All Attestation Engagements and AT-C section 210, Review Engagements. See Deloitte's review report within our 2021 ESG Report for a description of procedures performed relating to the ESG disclosures.

The 76-100% selected herein reflects that 100% of the water data was subject to the review. The CDP Water Security 2022 Reporting Guidance provides the following instructions for the % verified "However, if only a sample of your facilities are verified, then you will need to check with your verifier on how many of the facilities at risk were included and then calculate the proportion of all facilities reported in W5.1 that this represents." Note that we have indicated 100% was subject to assurance; however, this does not reflect the actual % of water data tested.

## Water withdrawals – volume by source

### % verified

76-100

### Verification standard used

We engaged Deloitte & Touche LLP (Deloitte) to perform a review relating to the ESG disclosures referenced or included in the Global Reporting Initiative ("GRI") Content Index (the "ESG disclosures") included within the accompanying Dow 2021 Environmental, Social and Governance Report (the "2021 ESG Report") in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) in AT-C section 105, Concepts Common to All Attestation Engagements and AT-C section 210, Review Engagements. See Deloitte's review report within our 2021 ESG Report for a description of procedures performed relating to the ESG disclosures.

The 76-100% selected herein reflects that 100% of the water data was subject to the review. The CDP Water Security 2022 Reporting Guidance provides the following instructions for the % verified "However, if only a sample of your facilities are verified, then you will need to check with your verifier on how many of the facilities at risk were included and then calculate the proportion of all facilities reported in W5.1 that this represents." Note that we have indicated 100% was subject to assurance; however, this does not reflect the actual % of water data tested.

## Water withdrawals – quality by standard water quality parameters

### % verified

Not verified

### Please explain

Water quality standards was not assured by Deloitte.

## Water discharges – total volumes

### % verified

76-100

### Verification standard used

We engaged Deloitte & Touche LLP (Deloitte) to perform a review relating to the ESG disclosures referenced or included in the Global Reporting Initiative (“GRI”) Content Index (the “ESG disclosures”) included within the accompanying Dow 2021 Environmental, Social and Governance Report (the “2021 ESG Report”) in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) in AT-C section 105, Concepts Common to All Attestation Engagements and AT-C section 210, Review Engagements. See Deloitte’s review report within our 2021 ESG Report for a description of procedures performed relating to the ESG disclosures.

The 76-100% selected herein reflects that 100% of the water data was subject to the review. The CDP Water Security 2022 Reporting Guidance provides the following instructions for the % verified “However, if only a sample of your facilities are verified, then you will need to check with your verifier on how many of the facilities at risk were included and then calculate the proportion of all facilities reported in W5.1 that this represents.” Note that we have indicated 100% was subject to assurance; however, this does not reflect the actual % of water data tested.

## Water discharges – volume by destination

### % verified

76-100

### Verification standard used

We engaged Deloitte & Touche LLP (Deloitte) to perform a review relating to the ESG disclosures referenced or included in the Global Reporting Initiative (“GRI”) Content Index (the “ESG disclosures”) included within the accompanying Dow 2021 Environmental, Social and Governance Report (the “2021 ESG Report”) in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) in AT-C section 105, Concepts Common to All Attestation Engagements and AT-C section 210, Review Engagements. See Deloitte’s review report within our 2021 ESG Report for a description of procedures performed relating to the ESG disclosures.

The 76-100% selected herein reflects that 100% of the water data was subject to the review. The CDP Water Security 2022 Reporting Guidance provides the following instructions for the % verified “However, if only a sample of your facilities are verified, then you will need to check with your verifier on how many of the facilities at risk were included and then calculate the proportion of all facilities reported in W5.1 that this represents.” Note that we have indicated 100% was subject to assurance; however, this does not reflect the actual % of water data tested.

## Water discharges – volume by final treatment level

### % verified

Not verified

### Please explain

Discharge by final treatment level was not tested by Deloitte.

## Water discharges – quality by standard water quality parameters

### % verified

Not verified

### Please explain

Discharge by water quality parameters was not tested by Deloitte.

## Water consumption – total volume

### % verified

76-100

### Verification standard used

We engaged Deloitte & Touche LLP (Deloitte) to perform a review relating to the ESG disclosures referenced or included in the Global Reporting Initiative (“GRI”) Content Index (the “ESG disclosures”) included within the accompanying Dow 2021 Environmental, Social and Governance Report (the “2021 ESG Report”) in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) in AT-C section 105, Concepts Common to All Attestation Engagements and AT-C section 210, Review Engagements. See Deloitte’s review report within our 2021 ESG Report for a description of procedures performed relating to the ESG disclosures.

The 76-100% selected herein reflects that 100% of the water data was subject to the review. The CDP Water Security 2022 Reporting Guidance provides the following instructions for the % verified “However, if only a sample of your facilities are verified, then you will need to check with your verifier on how many of the facilities at risk were included and then calculate the proportion of all facilities reported in W5.1 that this

represents." Note that we have indicated 100% was subject to assurance; however, this does not reflect the actual % of water data tested.

# 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<br>Description of business impact on water<br>Description of water-related performance standards for direct operations<br>Company water targets and goals | As one of the largest manufacturing companies in the world, we depend on a steady supply of water to create products. We impact water across the life cycle of our value chain – from raw materials, manufacturing, product use phase and end of life- with regards to the consumption of water and energy and the chemical compounds that are discharged within the watershed.<br>Dow has four global environmental policies addressing Dow's responsible water stewardship practices. Responsible Care® Initiative, a voluntary initiative of the global chemical industry to make continual progress towards our goal of no accidents, injuries or harm to human health and the environment from our products and operations and openly report our health, safety, environmental and security performance. Chemical Management Policy, defining efforts and practices ensuring the safe and environmentally sound manufacturing, distribution, handling, and disposal of chemical products.<br>Sustainability Policy, which addresses our continued effort to apply our material sciences focusing on big challenges such as energy, climate change, water, food, housing, and health to sustainability. Environmental Health and Safety Policy, which defines the responsibility that each employee has in ensuring that our products and operations meet applicable government or Dow standards.<br><br>The water policies are translated into water-related performance standards for direct operations.<br>They include the following topics:<br>• Identify water use and impacts |

| | | | |
|---|---|---|---|
| | | | • Mitigate operational impacts<br>• Ensure responsible water procedures are in place<br>• Monitor impacts and achievements<br>• Build relationships with local watershed stakeholders<br>• Address challenges within watershed<br><br>Goals and Targets: Water goals and targets are reflected in three 2025 Sustainability Goals.:<br>• World Leading Operations goal to reduce the freshwater intake intensity at key water-stressed sites by 20% by 2025 from 2015 baseline<br>• Dow's blueprint on sustainable watershed management establishes how collaboration can be a path to addressing water scarcity.<br>• By 2025, deliver $1 billion in value through projects that are good for business and better for ecosystems including water<br><br>Progress: In 2021, we reduced our freshwater intake intensity by implementing water conservation projects. We continue to take actions to improve our water efficiency, management and measurement approaches to drive sustainable progress. |

# W6.2

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

Yes

# W6.2a

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

| Position of individual | Please explain |
|---|---|
| Chief Executive Officer (CEO) | The highest level of responsibility for water-related issues lies with the CEO. The CEO is responsible for discussing Company strategy, plans, results, and issues with the Board and Board Committees. As Chairman of the Board and in consultation with the Lead Director, the CEO ensures that topics related to sustainability, including water-related issues, are given appropriate time on meeting agendas, and that decisions made related to the Company's strategy around sustainability and climate change are brought to consensus. An example action is the decision to continue our engagement on water stewardship through our commitment to the "CEO Water Mandate". |
| Board-level committee | The Board actively oversees and engages with management in stewardship of the Company's strategy, ESG leadership, risk management and overall performance, of |

| | |
|---|---|
| | water-related issues. All Board Committees are composed of independent Directors and have clearly defined oversight responsibilities. Each Committee reports to the full Board on topics discussed and actions taken in connection with regular Committee meetings. The Board currently has four Committees: Audit Committee; Compensation and Leadership Development Committee; Corporate Governance Committee; and Environment, Health, Safety & Technology (EHS&T) Committee.<br><br>The Environment, Health, Safety & Technology (EHS&T) Committee oversees the following: environmental performance, health, safety, community, corporate citizenship, social responsibility, public policy, sustainability, climate, and science and technology.<br><br>The Audit Committee oversees the following: external reporting, risk management, internal controls, compliance with legal and regulatory requirements and ESG reporting frameworks. |

# 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<br>Overseeing acquisitions and divestiture<br>Overseeing major capital expenditures<br>Providing employee incentives<br>Reviewing and guiding business plans<br>Reviewing and guiding major plans of action<br>Reviewing and guiding risk management policies<br>Reviewing and guiding strategy | Water-related strategic decisions are brought up in Board discussions. It includes overseeing the Company's strategy development and planning process including annual review of the corporate and business plan. The Board is also responsible for overseeing the ESG priorities of the Company, ensuring transparency and accountability, including water-related issues. Each Committee is responsible for oversight of specific strategic and ESG areas relevant to their respective Charters. The Board appoints the Company's officers, assigns to them responsibility for management of the Company's operations, and reviews their performance. Throughout the year and at every Board meeting, the Board receives information and updates from management and actively engages with senior leaders with respect to management's execution of the corporate and business plans as well as progress on ESG priorities including sustainability targets and ID&E initiatives. The Board and management review the Company's short and long-term strategic priorities throughout |

| | | | |
|---|---|---|---|
| | | Reviewing and guiding corporate responsibility strategy<br>Reviewing innovation/R&D priorities<br>Setting performance objectives | the year, and dedicate time at each Board meeting for appropriate discussion.<br><br>Dow held six Board meetings and the Committees of the Board collectively held 27 meetings for a total of 33 meetings in 2021 during which economic, environmental, and social topics were discussed.<br><br>The EHS&T Committee of the Board (which held five meetings in 2021) oversees strategy and action plans developed by Dow's Leadership Team as they relate to sustainability, carbon, and climate change, including water-related issues. The CEO is a member of the Leadership Team, along with the President and Chief Financial Officer, General Counsel and Corporate Secretary, Senior VP of Research & Development and Chief Technology Officer, Business Presidents, Senior VP of Operations, Manufacturing & Engineering, Chief Human Resources and Inclusion Officer, Senior VP of Corporate Development and Chief Information and Digital Officer. Under the advisement of the Leadership Team, sub-teams direct specific efforts related to CO2 reduction and climate, such as reporting, policy advocacy, evaluating climate risks and opportunities, technology investment, and capital planning. Although each Committee is responsible for overseeing the management of certain responsibilities and risk as described in the Committee Charters, the full Board is regularly updated by the Committees, management and senior leaders. This enables the Board and the Committees to coordinate oversight and the relationships among the various priorities of the Company. |

# 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 | In alignment with the Task Force on Climate-related Financial Disclosures (TCFD), Dow has assessed each of its Director's |

| | | |
|---|---|---|
| | | professional experience (including other board memberships which result in the command of the relevant subject matter) and education, board-level accountability, frequency and structure of review of the relevant subject matter, and substantive information provided from internal and external subject matter experts.<br><br>Based on the 2021 assessment of Director nominees for the 2022 Proxy Statement. Dow determined that five out of Dow's twelve Directors, or 42%, possess relevant experience to address Dow's water-related risks and opportunities. |

# W6.3

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

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

Chief Executive Officer (CEO)

### Responsibility

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities

### Frequency of reporting to the board on water-related issues

Quarterly

### Please explain

The highest level of responsibility for water-related issues lies with the CEO. The CEO is responsible for discussing Company strategy, plans, results, and issues with the Board and Board Committees. As Chairman of the Board and in consultation with the Lead Director, the CEO ensures that topics related to sustainability, including water-related issues, are given appropriate time on meeting agendas, and that decisions made related to the Company's strategy around sustainability and climate change are brought to consensus. An example action is the decision to continue our engagement on water stewardship through our commitment to the "CEO Water Mandate".

# 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 | Yes | Incentives are provided to all Dow employees through the Annual Performance Award. Payouts are determined by measuring actual performance against each metric goal, including progress towards our 2025 Sustainability Goals via an Environmental Stewardship index, which includes our freshwater intake intensity target and is part of our World Leading Operations Index metric. |

# W6.4a

**(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?**

| | Role(s) entitled to incentive | Performance indicator | Please explain |
|---|---|---|---|
| Monetary reward | Chief Executive Officer (CEO)<br>Chief Financial Officer (CFO)<br>Chief Sustainability Officer (CSO)<br>Other, please specify<br>All employees | Improvements in efficiency - direct operations | Incentives are provided to all Dow employees through the Annual Performance Award. Payouts are determined by measuring actual performance against each metric goal, including progress towards our 2025 Sustainability Goals via an Environmental Stewardship index, which includes our freshwater intake intensity target and is part of our World Leading Operations Index metric. |
| Non-monetary reward | Chief Executive Officer (CEO)<br>Chief Financial Officer (CFO)<br>Chief Sustainability Officer (CSO)<br>Other, please specify<br>All employees | Implementation of water-related community project | Through our pioneering valuing nature goal one of Dow's 2025 Sustainability Goals, we have demonstrated how nature can be a source of sustainable business value. Nature is defined for Dow's purpose as the Earth's collective inhabitants and non-living environments interacting as functional ecosystems and providing services such as clean water, clean air, and healthy soil.<br>In 2021, Dow realized a Net Present Value of $106 million from projects that enhance nature, bringing the total to $637 million since goal launch in 2015. Over 60% of the realized project impacted water positively. |

# 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, direct engagement with policy makers

Yes, trade associations
Yes, funding research organizations

## 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?**

Process: The Board is responsible for overseeing the Company's strategy development and planning process including annual review of the corporate business plan**.** Each Committee is responsible for oversight of specific strategic and ESG areas relevant to their respective charters. Throughout the year and at every Board meeting, the Board receives information and updates from management and actively engages with senior leaders with respect to management's execution of the corporate and business plans as well as progress. The full Board is regularly updated by the Committees, management and senior leaders. Dow's Leadership Team (LT) a diverse, cross-functional team representing each of Dow's businesses, functions and geographic regions and the Environment, Health, Safety & Technology Committee regularly review all aspects of water policies and processes used to assess, monitor and control water aspects. Specific risks are also reviewed.
Additionally, Dow meets on a regular basis with Dow's Sustainability External Advisory Council (SEAC) to review critical issues regarding our sustainability objectives. The SEAC brings external insights such as views on biodiversity, environmental justice or changes in the sustainability landscape. Any known inconsistency is managed by the required critical experts to ensure a consistent approach for all direct and indirect engagement activities, consistent with our policies on sustainable water management across all functions and geographies.

## W6.6

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

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

Dow-2021-Annual-Report.pdf

# W7. Business strategy

## W7.1

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

| | Are water-related issues integrated? | Long-term time horizon (years) | Please explain |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Long-term business objectives | Yes, water-related issues are integrated | > 30 | As Dow operates mature, capital-intensive assets, water consumption and effluents are evaluated and managed on long-term timelines (10+ years) involving multi-decade assessments within individual businesses and overall corporation. These assessments include water withdrawals, consumption and availability, costs associated with water withdrawal and treatment, regulatory drivers, and technology trends. In the short- to medium-term timeframe (<10 years), water withdrawals and effluents are managed through a combination of technological, commercial, and operational activities.<br>As an example, all high capital investments (greater than $10 Million) are required to account for any impacts on water as part of the capital approval process. This ensures that our capital investments in assets with a typical lifetime of greater than 30 years take into account evolving water demands and availability while targeting special concerns in water stress basins. For that reason, the selected time-horizon of > 30 years. |
| Strategy for achieving long-term objectives | Yes, water-related issues are integrated | > 30 | Dow will reduce the freshwater intake intensity at water stressed sites by 20% by 2025. Dow conducts water stress analysis reviewing baseline water stress, production volumes and freshwater dependency identifying risk areas. Key water stress sites maintain water management plans to achieve goals. We believe that collaboration is a path to address scarcity. Via the CEO Water Mandate's Water Resilience Coalition, Dow worked with The Nature Conservancy, National Fish and Wildlife Foundation, and others to restore more than 4.5K wetland acres in the Mississippi Alluvial Valley.<br>By 2025, Dow will deliver $1B USD in value through projects that are good for business and the ecosystems including water filtration, provisioning, flooding control and quality. In Terneuzen we are working with farmers and the regional water board to store freshwater underground, collecting in winter and using in summer, so farmers can benefit during droughts. Dow's is investing into assets and sites which have >30-year life. |
| Financial planning | Yes, water-related issues are integrated | 11-15 | Water related issues are integrated in financial planning process for growth strategy, capital allocation process and achieving on Dow's publicly disclosed strategies and targets driving water resilience improvements projects planning. 100% of capital projects greater than |

| | | | |
|---|---|---|---|
| | | | $10 Million were screened in 2021 for water use with special attention to key water stressed sites .<br><br>Explanation of chosen time horizon: Horizon of 11-15 years since. As Dow operates mature, capital-intensive assets, water consumption and effluents are evaluated and managed on long-term timelines (10+ years) involving multi-decade assessments. |

# 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)**

97

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

78

**Water-related OPEX (+/- % change)**

12

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

0

**Please explain**

The reported CAPEX trends for water originate from looking at the CAPEX associated with our overall capital management system which reports on impacts to water. In the reporting year, the CAPEX increased by 97%. The projects associated with the increase in CAPEX: cooling tower replacement of wood members to fiberglass at several of Dow's large facilities to improve cooling tower reliability; replacement of a unit of production in the gulf area which lowers the water intensity ration for that product; Flare gas recovery projects in the US that improve emissions but consume water; installation of advanced wastewater treatment improvement in Dow's coating facility in China.
In the reporting year, the OPEX increased by 12%. The projects associated with the increase are turnarounds for Dow's largest facilities directly tied to water withdrawal, water conveyance and wastewater treatment. For the next reporting year, we are not anticipating any significant increase.

# W7.3

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

| | Use of scenario analysis | Comment |
|---|---|---|
| Row 1 | Yes | Dow partnered with S&P Global Trucost to obtain an independent water risk assessment of the company's exposure to physical risks associated with our manufacturing sites. Baselined in 2020, the assessment included water stress, heat waves, cold waves, droughts, hurricanes, wildfires and flooding. Dow was assessed at moderate exposure in 2050 under all scenarios, with a weighted average that is lower than the average of the materials industry. Dow's water team will review the assessment as part of the current action plans associated with our six key water stress sites with a defined target of 20% reduction of freshwater intake intensity by 2025 using 2015 baseline. Dow has and continues to engage with TNC, S&P Global Trucost, WBCSD, CEO Water Mandate WRC & other public/private organizations in developing robust standard for water and defining Dow's plans for 2030 and 2050. |

# 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 | Water-related<br>Climate-related | Dow partnered with S&P Global Trucost to obtain an independent water risk assessment of the company's exposure to physical risks associated with our manufacturing sites. Baselined in 2020, the assessment included water stress, heat waves, cold waves, droughts, hurricanes, wildfires and flooding. Dow was assessed at moderate exposure in 2050 under all scenarios, with a weighted average that is lower than the average of the materials industry. Dow's water team will review the assessment as part of the | At several sites the potential impact of long-term changes has been studied along with the alternative sourcing of water and novel technologies. The scenario analyses have been conducted by both internal and external experts. Projects such as at our Terneuzen site working with external partners to define areas allowing collection and storage of excess rain and surface water to abstract for use during drought periods. Dow partners with organizations such as WBCSD and WRI to | Dow sites implement a water quality and quantity tracking program from a current and long-term perspective in response to their level of risk and specific water source. Dow facilities operate and maintain water intake infrastructures that treat the source water to meet the water quality standards required by each manufacturing site. Changes in water quality can also be the lead indicator of changes in water availability. For example, in Freeport, Texas, engineers monitor the flow and trends in flow |

| | | | | |
|---|---|---|---|---|
| | | current action plans associated with our six key water stress sites with a defined target of 20% reduction of freshwater intake intensity by 2025 using 2015 baseline. Dow has and continues to engage with TNC, S&P Global Trucost, WBCSD, CEO Water Mandate WRC & other public/private organizations in developing robust standard for water and defining Dow's plans for 2030 and 2050. | advance water scarcity modelling capabilities. Dow signed the CEO Water Mandate and is a member of the water resilience coalition (WRC), aims to elevate global water stress and preserve the world's freshwater resources. Dow recognizes that water availability can change. The complexity and consequences of the water cycle are closely monitored to ensure the ability to operate safely and efficiently. Several sites scenarios have been formulated examining the long- & mid-term changes in water quality and quantity. Dow Aratu Site was strongly impacted by a drought back in 2017 with 30% reduction of water supply. Temporarily, Aratu site used alternative water source (external artificial lagoon water pumping and drilling wells in partnership with EMBASA). The site conducted a water reliability study aimed at developing design concepts with cost estimates for viable water supply scenarios to define a contingency plan. | of the river daily along with water quality data such as chloride concentration that can indicate water availability issues. The key water stressed sites also have in place water sourcing contingency plans that can go into effect should a shortage or water quality issue arise. Another example includes Dow's site in Chennai, India suffering from a drought in 2017 and 2019. The site has implemented a robust water conservation program – which includes recycling treated wastewater treatment from the city, rainwater capture and water intake reduction measures. |

# W7.4

## (W7.4) Does your company use an internal price on water?

### Row 1

### Does your company use an internal price on water?

Yes

### Please explain

Each location has a water pricing strategy that is specific to that site that incorporates raw water cost, treatment cost and capital requirements for water treatment facilities. For water stressed facilities such as Freeport, Texas, the projected future price of water has been used to justify water conservation projects.

## 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 | Dow's Corporate Water Strategy defines best practices and technology advancing while aligning business strategies and operation needs to meet water demands in concert with an understanding of each local water basin and key stakeholders. The Corporate Water Strategy is built to help drive the current programs and water-based goals within Dow's 2025 Sustainability Goals with four goals directly connected to water: World Leading Operations, Advancing a Circular Economy, Leading the Blueprint, and Valuing Nature. Under the valuing nature goal, the definition used for low impact water products uses the following basis:<br>- The product owner defines the significance of the water related positive contribution. It may relate to water volumes at any stage of the product cycle – from raw materials having a lower water profile to manufacturing to product use stage or final disposal. It can also include lower water quality impacts or improve access to quality water to water users within a specific watershed.<br>- The total water footprint of a product is | Examples of such low impact water products are:<br>-Dow's ECOFAST™ Pure Sustainable Textile Treatment technology, which is a chemistry that enables existing textile mills to retrofit their process and dye cotton using up to half the amount of water and 40% less energy, resulting in ~60% lower carbon emissions.<br>- Dow's silicone antifoams used in household detergents have been a key enabler for the reduction of water usage during the washing cycle with formulas in the market for powder and liquid detergents of all concentrations, as well as for single-unit-dose applications like pods. |

| | | | |
|---|---|---|---|
| | | compared using a lifecycle basis to the best incumbent existing product(s) providing the same functionality. | |

# 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<br>Goals are monitored at the corporate level | Approach of targets setting and monitoring: Company-wide goals and targets are researched and elaborated by an interdisciplinary working group led by Dow's environmental leadership team. This team uses best-in class science-based approaches that originate both internally and externally from Dow's on-going participation in engagement with key leaders in the water space such as CEO Water Mandate, World Business Council for Sustainable Development (WBCSD), American Chemistry Council (ACC), Water Resilience Coalition. Dow also uses an external benchmarking process to ensure Dow positions itself as a leader towards the company peers. Recognizing water as a critical raw material for Dow and subject to climate impacts, Water goals and targets are informed by risk assessments which include hazard identification, hazard characterization, exposure assessment and, from these, an overall risk assessment. Dow's past water related incidents, global trends in compliance and regulations, contextual information from other water users in basin where Dow operates are key elements to inform the goal setting process under the leadership of Dow's The EHS&S Technology Center . Our risk analysis and goal setting process are also informed and validated by external third parties such as The Nature Conservancy. Additionally, proposed water targets and goals are reviewed with Dow's Sustainability External Advisory Council (SEAC). The SEAC brings external insights such as views on synergies between water and climate, water and biodiversity, environmental justice. Our ELT will use this information to inform our water strategy. Final goals and targets are decided upon by Dow's Environment, Health, Safety & Technology (EHS&T) board level committee. Monitoring of water-related goals and targets is owned by the World Leading Operation Leadership Team |

| | | | |
|---|---|---|---|
| | | | and reviewed on a quarterly basis. The progress for all company-wide targets and goals is reported in Dow's annual ESG report. Monitoring results are reported to the respective corporate functions and escalated up to the executive or board level, if required. Product level targets and goals related to water (for example product performance or product characteristics) are defined by the business units. Dow actively participates in helping our customers with their respective water efforts. They are monitored via business-level reporting and important achievements are reported publicly within Dow's ESG report. For example, Dow's ECOFAST™ Pure Sustainable Textile Treatment technology, which is a chemistry that enables existing textile mills to retrofit their process and dye cotton using up to half the amount of water and 40% less energy, resulting in ~60% lower carbon emissions. Our R&D portfolio is screened for benefits and impacts to sustainability including water. |

# 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 use efficiency

### Level

Company-wide

### Primary motivation

Water stewardship

### Description of target

Reduction of freshwater withdrawal by 20% by 2025 at key water stressed sites using a baseline of 2015. This metric was adopted in recognition of the criticality of virgin freshwater as a shared resource in water stressed basins and to ensure that water does not become a constraint on community prosperity. As part of our pledge to the Water Resilience Coalition (WRC) under the U.N. Global Compact CEO Water Mandate, we are committed to advancing water stewardship within our own operations and to working collaboratively to enhance water management at the watershed level.
Dow's six KWSS, are: Freeport, Texas (Brazos River); Seadrift, Texas (Guadalupe River); Bahia Blanca, Argentina (Purchased freshwater); Terneuzen, The Netherlands (Rivers Rhine and Meuse); Böhlen, Germany (River Weisse Elster and Lake Witznitz); and Tarragona, Spain (Purchased freshwater supply source from Ebro River diversion).

### Quantitative metric

Other, please specify

percentage reduction in water intensity

### Baseline year

2015

### Start year

2015

### Target year

2025

### % of target achieved

100

### Please explain

In 2021, Dow updated its freshwater intensity metric to only account for freshwater intake associated with Dow production and improved the calculation of large variations associated with water reservoirs. The production volume used in this metric uses total valued production which includes products produced by the company, by-products and co-products generated from the production. Intensity is provided in lbs of freshwater intake/lbs of production.

Baseline Value: 6.6
2021: 4.5
2020: 6.1
Target Value: 5.3

The freshwater intake intensity shows a reduction in 2021. Water conservation projects implemented to date would indicate that we have achieved 10% of the 20% reduction target. The installation of higher efficiency assets in Freeport account for an additional 4% of the 20% reduction. Increase in rainfall at major sites and weather freeze events, impacting both water withdrawal and production, account for the remaining decrease which are beyond Dow's control.

### Target reference number

Target 2

### Category of target

Other, please specify

R&D Portfolio alignment to sustainability

### Level

Company-wide

### Primary motivation

Other, please specify

Alignment of innovation portfolio to our climate and Global watershed resiliency objective

### Description of target

Dow's products and services are a key component of Dow's climate and water resilient strategy as they provide an opportunity to enable the transition to a sustainable economy. Dow has two metrics to track progress that assess our innovation and product portfolios. These are evolving metrics and we will continue to advance our approach to ensure progress and transparency.
Our innovation portfolio and its alignment to our sustainability, climate and water priorities is critical for achieving our sustainability goals. We have developed and implemented an approach that documents the primary alignment of each innovation project to Dow's sustainability priorities including water. The approach uses a rigorous and well-defined process that includes training, review and approval of the data, as well as an annual evaluation to drive improvement

### Quantitative metric

Other, please specify

% R&D portfolio alignment to sustainability

### Baseline year

2020

### Start year

2020

### Target year

2025

### % of target achieved

85

### Please explain

2021 was the second year for the evaluation approach and we will continue to evolve to ensure innovation alignment with our sustainability priorities.

% R&D portfolio alignment to sustainability
*2021 >85%
*2020 >80%

One example – Dow is collaborating with customers to drive innovation around water-saving technologies such as our ECOFAST™ Pure Sustainable Textile Treatment, which enables up to 60% lower carbon footprint, up to 50% less water

### Target reference number

Target 3

### Category of target

Other, please specify

NPV achieved on projects that are better for nature

### Level

Company-wide

### Primary motivation

Corporate social responsibility

### Description of target

Dow will identify and implement business-driven project alternatives that will best enhance nature and deliver $1 billion in net present value. Too frequently taken for granted, nature provides a variety of valuable services – such as clean air, clean water, and healthy soil – to individuals, communities and businesses. These benefits, however, are complex and can be difficult to quantify. At Dow, we're committed to making business decisions in a way that appreciates and incorporates the value of nature's services. When companies understand and value the benefits nature provides to their bottom line, they will be more likely to plan, manage and invest in these resources in smarter, more productive and mutually beneficial ways. That's why Dow applies a business decision process that values nature. The Nature Goal will create new value for Dow and society by considering nature in decision-making across a global business.

### Quantitative metric

Other, please specify

$ NPV through business-driven projects that enhance nature.

### Baseline year

2015

### Start year

2015

### Target year

2025

### % of target achieved

64

### Please explain

In 2021, Dow realized a Net Present Value of $106 million from projects that enhance nature, bringing the total to $637 million since goal launch in 2015.

Dow derives enormous value from the ecosystems in which it operates. We rely on and impact freshwater, climate regulation, flood control, water purification, wastewater treatment and other ecosystem services.

Dow and other companies need to secure long-term access to ecosystem services that support our operations and reduce our exposure to risks.

Valuing natural capital is a "win-win" way of business thinking that Dow is leading today. Natural capital decision-making across our global business is  screened for impacts to water.

**Target reference number**

Target 4

**Category of target**

Other, please specify

Waste discharge to water

**Level**

Company-wide

**Primary motivation**

Water stewardship

**Description of target**

Dow is committed to efficient operations that drive environmental benefits for our communities and the world. Dow is committed to efficient operations that drive environmental benefits for our communities and the world. Dow will grow, but offset emissions to water or air of Priority Compounds, Volatile Organic Compounds (VOCs) and nitrogen oxides (NOx).

**Quantitative metric**

Other, please specify

Absolute quantity (MT per year) of Priority compounds emitted to air and water. Priority compounds are a subset of VOCs that contain carcinogenic, mutagenic and reproductive hazards and/or are persistent and bioaccumulative in the environment.

**Baseline year**

2015

**Start year**

2015

**Target year**

2025

**% of target achieved**

100

**Please explain**

In 2015, Dow emitted 268 metric tons of priority compounds. In 2021, we emitted 225 metric tons. This means we have achieved our goal.

## W8.1b

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

### Goal

Other, please specify

Reduce risk associated with water in water stress basins

### Level

Company-wide

### Motivation

Risk mitigation

### Description of goal

Building on our commitment to U.N. Sustainable Development Goal 6 (SDG 6), Dow supports the CEO Water Mandate mobilizing businesses to advance water stewardship within our own operations and by collaboratively working to enhance water management at the watershed level. We are committed to progress against three elements: direct operations, supply chain and watershed management. Critical to this commitment is our goal is to reduce Dow's dependency on freshwater within our direct operations. Our implementation of this goal includes

• Conducting a comprehensive water-use assessment within Dow's direct production to discern the nature of the water problem(s) (volume reliability, quality, or both), validate key problem/root cause and identify key water stress sites for Dow
• Working with each site to develop a water action plan related to water conservation and option to avoid, reduce, reuse, recycle water
Tracking water impacts (+ve and -ve) within our global management project process driving capital expenditures in alignment with our goal on water at key water stress sites
• Seeking to invest in and use new technologies to achieve our goal
• Raising awareness of water sustainability within corporate culture
• Including water sustainability considerations in business decision making – e.g., facility-siting, due diligence, and production processes. evaluate water stress and translate into a business risk for Dow.

### Baseline year

2015

### Start year

2015

### End year

2025

### Progress

Indicator to assess progress/threshold for success:
We actively promote "every drop counts" within Dow. In 2021, 100% of the >$10 Million projects presented to the capital committee had to report on water impacts. All sites including Dow' six key water stressed sites, have a dashboard reporting on their freshwater intake intensity.

Among our actions, we are:

· Implementing projects to increase water circularity. At our site in Terneuzen, we are working with farmers and the regional water board to store freshwater underground
· Collaborating with customers to drive innovation around water-saving technologies such as our ECOFAST™ Pure Sustainable Textile Treatment, which enables up to 60% lower carbon footprint, up to 50% less water
· Partnering with others to focus on addressing community freshwater needs. Our Dow Böhlen site is participating in a European Union-funded project to help implement technologies that will alleviate competition for freshwater resources.
· Investing in projects that are good for business and better for ecosystems. We are working with multiple partners to restore habitats and build water resilience in and around our sites.
· Introducing water recycling: These projects seek to collect rainwater, treat it through a natural process, then reuse it. For example, this additional water source can reduce the annual withdrawal of freshwater by approximately 800,000 m3 from the river Weibe Elster and the reservoir Witznitz, in Germany.

# 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 withdrawal (W1.2b), Fresh surface water withdrawal, including rainwater, water from wetlands, rivers, and lakes (W1.2h), | Other, please specify<br>attestation standards established by the American Institute of Certified Public Accountants (AICPA) in AT-C section 105, Concepts Common to All | Dow engaged Deloitte & Touche LLP to perform a review relating to the ESG disclosures referenced or included in the Global Reporting Initiative (“GRI”) Content Index (the “ESG disclosures”) included within the accompanying Dow 2021 Environmental, Social and Governance Report (the “2021 ESG Report”) in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) in AT-C section 105, Concepts Common to All Attestation Engagements and AT-C section 210, Review Engagements. See Deloitte’s review report within our 2021 ESG Report for a description of procedures performed relating to the ESG disclosures.<br><br>The data verified (as converted) relates to the GRI Standard |

| | | | |
|---|---|---|---|
| | Groundwater - renewable (W1.2h), Third party sources (W1.2h), Fresh surface water discharge (W1.2i) | Attestation Engagements, and AT-C section 210, Review Engagements. | disclosures that were subject to Deloitte & Touche LLP's review are related to GRI standard 303: Water and Effluents 2018. The disclosures are presented on pages 128-134 of the 2021 Environmental, Social and Governance Report. https://corporate.dow.com/content/dam/corp/documents/about/066-00397-01-2021-esg-report.pdf |

# 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.**

Dow appreciates the opportunity to report to CDP on our water-related initiatives. Dow has a long history of leadership in reporting transparency and sustainability disclosures, and we see CDP as a critical report driving transparency on water-related issues.

**Cautionary Statement about Forward-Looking Statements**

Certain statements in this report are "forward-looking statements" within the meaning of the federal securities laws, including Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Such statements often address expected future business and financial performance, financial condition, and other matters, and often contain words or phrases such as "anticipate," "believe," "estimate," "expect," "intend," "may," "opportunity," "outlook," "plan," "project," "seek," "should," "strategy," "target," "will," "will be," "will continue," "will likely result," "would" and similar expressions, and variations or negatives of these words or phrases.

Forward-looking statements are based on current assumptions and expectations of future events that are subject to risks, uncertainties and other factors that are beyond Dow's control, which may cause actual results to differ materially from those projected, anticipated or implied in the forward-looking statements and speak only as of the date the statements were made. These factors include, but are not limited to: sales of Dow's products; Dow's expenses, future revenues and profitability; the continuing global and regional economic impacts of the coronavirus disease 2019 ("COVID-19") pandemic and other public health-related risks and events on Dow's business; any sanction, export restrictions, supply chain disruptions or increased economic uncertainty related to the ongoing conflict between Russia and Ukraine; capital requirements and need for and availability of financing; unexpected barriers in the development of technology, including with respect to Dow's contemplated capital and operating projects; Dow's ability to realize its commitment to carbon neutrality on the contemplated timeframe; size of the markets for Dow's products and services and ability to compete in such

markets; failure to develop and market new products and optimally manage product life cycles; the rate and degree of market acceptance of Dow's products; significant litigation and environmental matters and related contingencies and unexpected expenses; the success of competing technologies that are or may become available; the ability to protect Dow's intellectual property in the United States and abroad; developments related to contemplated restructuring activities and proposed divestitures or acquisitions such as workforce reduction, manufacturing facility and/or asset closure and related exit and disposal activities, and the benefits and costs associated with each of the foregoing; fluctuations in energy and raw material prices; management of process safety and product stewardship; changes in relationships with Dow's significant customers and suppliers; changes in consumer preferences and demand; changes in laws and regulations,
political conditions or industry development; global economic and capital markets conditions, such as inflation, market uncertainty, interest and currency exchange rates, and equity and commodity prices; business or supply disruptions; security threats, such as acts of sabotage, terrorism or war including the ongoing conflict between Russia and Ukraine; weather events and natural disasters; disruptions in Dow's information technology networks and systems; and risks related to Dow's separation from DowDuPont Inc. such as Dow's obligation to indemnify DuPont de Nemours, Inc. and/or Corteva, Inc. for certain liabilities.
Where, in any forward-looking statement, an expectation or belief as to future results or events is expressed, such expectation or belief is based on the current plans and expectations of management and expressed in good faith and believed to have a reasonable basis, but there can be no assurance that the expectation or belief will result or be achieved or accomplished. A detailed discussion of principal risks and uncertainties which may cause actual results and events to differ materially from such forward-looking statements is included in the section titled "Risk Factors" contained in the company's Annual Report on Form 10-K for the year ended December 31, 2021 and its subsequent reports on Form 10-Q and Form 8-K. These are not the only risks and uncertainties that Dow faces. There may be other risks and uncertainties that Dow is unable to identify at this time or that Dow does not currently expect to have a material impact on its business. If any of those risks or uncertainties develops into an actual event, it could have a material adverse effect on Dow's business. Dow assumes no obligation to update or revise publicly any forward-looking statements whether because of new information, future events, or otherwise, except as required by securities and other applicable laws.

# 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 | Chairman and Chief Executive Officer | Chief Executive Officer (CEO) |

# W10.2

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

Yes