AECI Ltd Ord - Water Security 2021

W0. Introduction

W0.1

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

Profile and Strategy

AECI is a diversified group. It has regional and international businesses in Africa, Europe, Asia's South Eastern region, North America, South America and Australia. Products and services are provided to a broad spectrum of customers in the mining, water treatment, plant and animal health, food and beverage, infrastructure, and general industrial sectors.

The Group's vision is to deliver sustainable solutions for a better world through innovation and excellence founded on 'good chemistry.' In line with this vision, businesses are managed in four growth pillars. AECI Mining, AECI Water, AECI Agri Health and AECI Chemicals. These pillars are AECI's key reporting segments. More information is provided on each of these pillars below:

· ***AECI Mining:*** *The businesses in this segment provide a mine-to-mineral solution for the mining sector internationally. The offering includes commercial explosives, initiating systems, blasting services and surfactants for explosives manufacture right through the value chain to chemicals for ore beneficiation and tailings treatment.*

· ***AECI Water:*** *This business provides customers on the African continent with integrated water treatment solutions, process chemicals and equipment solutions for a diverse range of applications. These include, inter alia, public, and industrial water, desalination, and utilities.*

· ***AECI Agri Health:*** *Businesses in this segment manufacture and distribute crop protection products, plant nutrients, animal premixes, specialty animal health products and fine chemicals on the African continent, in Europe and in the USA.*

· ***AECI Chemicals:*** *Businesses in this segment supply raw materials and related services to a broad spectrum of customers in the food and beverage, manufacturing, infrastructure, and general industrial sectors. Their markets are mainly in South Africa and in other Southern African countries, except for AECI SANS Fibers which is based in the USA.*

AECI also has a property division, AECI Property Services & Corporate. It is mainly involved in property leasing and management in the office, industrial and retail sectors, and corporate centre functions including the treasury.

All business activities are underpinned by the Group's BIGGER values — of being Bold, Innovative, Going Green and being Engaged and Responsible.

Please note that, although we have a presence in 22 countries, we only report in this submission on those countries in which we have manufacturing operations.

Going Green

AECI is committed to driving solutions for a sustainable future. In line with our value of Going Green, we aim to provide sustainable alternatives for our customers, work smarter and conserve resources and energy and take into account how our work and processes impact people and the environment.

The reporting year saw the development of a strategy 2025 framework direction which has zero harm and sustainability at its core. It also saw the introduction of potable water consumption reduction and effluent reduction targets to take us to 2025. More specifically, we have put in place a target to reduce our potable water consumption by 25% and our effluent to sea and sewer by 20% by 2025. Baselines were determined by analysing data over the period 2017 to 2019. We implemented projects to reduce our water withdrawals and discharges and have more planned to meet our targets.

Total water withdrawals for the 2020 financial year (1 January 2020 to 31 December 2020) were 2 313 ML. Withdrawals decreased by 33% mainly due to the impact of COVID-19 and the associated restrictions that restricted activity in certain of our businesses. Some of this reduction can be attributed to divestments and also water efficiency efforts.

In the reporting year, water continued to feature as a material matter. For example, extreme and unpredictable weather events and unstable water supply were identified as two of such matters. Accordingly, the focus on minimising and managing water-related risks, whilst maximising opportunities, remains.

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
Reporting year	January 1 2020	December 31 2020

W0.3

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

Australia
Botswana
Brazil
Burkina Faso
Chile
China
Democratic Republic of the Congo
Eswatini
Germany
Ghana
Guinea
Indonesia
Malawi
Mali
Mauritius
Namibia
Senegal
South Africa
United Republic of Tanzania
United States of America
Zambia
Zimbabwe

W0.4

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

ZAR

W0.5

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

Companies, entities or groups over which financial control is exercised

W0.6

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

No

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	Direct use - good quality fresh water is required by all manufacturing facilities in the Group. As such, we have focused on those facilities deemed 'vital.' AECI Mining Explosives' operations at Modderfontein account for the greatest portion of the Group's water consumption. Water is used in the manufacture of nitric acid and ammonium nitrate solution. An inadequate supply of fresh water could curtail production. Although it is expected that our dependence on fresh water will remain critical to our operations, this dependence could reduce as we continue to pursue greater efficiencies as we strive to meet our target of reducing potable water consumption by 25% by 2025. Baselines were determined by analysing data over the period 2017 to 2019. Indirect use – an adequate supply of fresh water is also vital for the manufacturing processes of some of our suppliers and customers. For example, some of our operations are dependent on Eskom for the supply of electricity. Eskom, in turn, is dependent on sufficient volumes of good quality fresh water for the generation of this electricity. We have selected 'important' as the rating as our suppliers and customers are not all equally reliant on fresh water. It is expected that this resource will always be important for some of our suppliers and customers.
Sufficient amounts of recycled, brackish and/or produced water available for use	Neutral	Neutral	Direct use - Group operations do not use significant volumes of recycled, brackish and/or produced water. As such, the direct use importance rating has been indicated as 'neutral.' This may change based on future water dependence especially in areas that are water scarce. Dependence on recycled water may increase in the future, with more of our businesses implementing water reuse and recycling projects. As an example, AECI Water has implemented a new effluent recycling system at AECI Mining Explosives, Modderfontein. The system has a treatment and reuse capacity of approximately 90m³/day of effluent. Indirect use – some of our suppliers and customers use recycled or brackish water. For example, coal is used to generate steam for some of our operations. Certain coal mines are dependent on recycled water. We have selected 'important' as the rating as our suppliers and customers are not all equally reliant on recycled water. Going forward, we expect their dependence on recycled and brackish water to increase as they look for alternatives to fresh water supply. AECI Water, for example, installed and secured service contracts for desalination plants at four customer sites in prior years. Since start-up in April 2018, AECI Water's desalination plants on the west coast of South Africa have produced more than 1 500 million litres of water.

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Water withdrawals are measured regularly, monitored and reported monthly to AECI Head Office by all facilities (100%). Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked regularly. Readings are also checked against municipal invoices on a monthly basis and are verified independently. Information is reported internally and to the regulatory authorities on a monthly and/or annual basis, as required.
Water withdrawals – volumes by source	100%	Water withdrawals by source are measured regularly, monitored and reported monthly to AECI Head Office by all facilities (100%). This is done for all sources. Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked regularly. Readings are also checked against municipal invoices on a monthly basis and are verified independently. Information is reported internally and to the regulatory authorities on a monthly and/or annual basis, as required.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	Water quality is measured and monitored for all facilities (100%) that draw from fresh water resources. Quality is not measured and monitored for withdrawals from municipalities. Relevant here, therefore, is AECI Property Services business which draws water from a river. The water quality is monitored by an accredited laboratory on a daily basis. This information allows adjustments to be made in water treatment, if required.
Water discharges – total volumes	100%	Discharges are measured regularly, monitored and reported monthly to AECI Head Office by all facilities (100%) where discharge occurs. Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked on a regular basis. Readings are also compared against municipal invoices on a monthly basis. Information is reported internally and to regulatory authorities on a monthly and/or annual basis, as required.
Water discharges – volumes by destination	100%	Discharges are measured regularly, monitored and reported monthly to AECI Head Office by all facilities (100%) where discharge occurs. The destination of the discharge is known and discharges are measured and monitored by destination. Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked on a regular basis. Readings are also compared against municipal invoices on a monthly basis. Information is reported internally and to regulatory authorities on a monthly and/or annual basis, as required.
Water discharges – volumes by treatment method	100%	Discharges are measured regularly, monitored and reported monthly to AECI Head Office by all facilities where discharge occurs (100%). The treatment method of the discharge is known by destination and discharges are measured and monitored by destination. Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked on a regular basis. Readings are also compared against municipal invoices on a monthly basis. Information is reported internally and to regulatory authorities on a monthly and/or annual basis, as required.
Water discharge quality – by standard effluent parameters	100%	Water discharge quality is measured and monitored for all facilities (100%) where discharge occurs. Water discharge quality is analysed by accredited laboratories on a daily or weekly basis and reported to the regulatory authorities on a monthly and/or annual basis, as required. Analyses conducted internally are compared to analyses conducted by the regulatory authorities.
Water discharge quality – temperature	Not relevant	This is not relevant to our businesses. We do not have any facilities where the temperature of discharges is of concern. We do not have any Water Use Licences (WULs) that require monitoring and reporting on water discharge temperatures.
Water consumption – total volume	100%	Given the complexity of measuring water consumption (such as evaporation, for example), it is not always measured directly. Most our operations calculate consumption from a water balance, using measured withdrawals and discharges. All water withdrawals and discharges are measured regularly, monitored and reported to AECI Head Office by each facility. Consumption is measured and monitored regularly as a result.
Water recycled/reused	76-99	This is monitored by some businesses (75%-99%), where water is reused or recycled. Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked regularly. This information is reported to and consolidated at AECI Head Office level.
The provision of fully-functioning, safely managed WASH services to all workers	100%	The provision of potable water, adequate sanitation and hygiene for all employees is a priority. All facilities ensure the availability of fully functioning WASH services for their employees and site contractors. Although not metered by any specific equipment, provision is monitored on a daily basis by all facilities to ensure that there are no interruptions in supply.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	2313.16	Much lower	Water withdrawals are measured regularly, monitored and reported monthly to AECI Head Office by all facilities. Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked regularly basis. Water withdrawals by Group operations decreased by 33.04%, from 3 454.44 ML in 2019 to 2 313.16 ML in 2020, owing mainly to the restrictions on activity imposed to mitigate the spread and effects of COVID-19. Some of the decrease can be attributed to water efficiency projects implemented in the reporting year. It is expected that withdrawals will reduce in future as we work towards achieving our target of a 25% reduction in potable water consumption by 2025. Baselines were determined by analysing data over the period 2017 to 2019. For all responses, we have used the following rating scale: • “much lower” pertains to data of decreasing trend which has a difference of 20% or more from the preceding year’s data • “lower” pertains to data of decreasing trend which has a difference of more than 1% but less than 20% from the preceding year’s data • “about the same” pertains to data which has no difference or a difference of less than 1% from the preceding year’s data • “higher” pertains to data of increasing trend which has a difference of more than 1% but less than 20% from the preceding year’s’ data • “much higher” pertains to data of increasing trend which has a difference of 20% or more from the preceding year’s data.
Total discharges	1753.72	Much lower	Discharges are monitored by all facilities where they occur. Monitoring is at facility level and is undertaken on a daily basis using equipment that is calibrated and checked regularly. Discharges by the Group’s operations decreased by 21.05%, from 2 221.36 ML in 2019 to 1 753.72 ML in 2020. This results from a decrease in water withdrawals between the two years, owing mainly to the restrictions on activity imposed to mitigate the spread and effects of COVID-19. Part of the reduction is also due to the implementation of effluent reduction projects. Further reductions in discharges are anticipated in future as we work towards achieving our target of a 20% reduction in water discharged to sea and sewer by 2025.
Total consumption	559.44	Much lower	Consumption is calculated using a water balance as it is difficult to measure it directly. It is assumed that the difference between total water withdrawals and total discharges represents total water consumption. The number year-on-year was much lower due to reduced withdrawal volumes, owing mainly to the restrictions on activity imposed to mitigate the spread and effects of COVID-19, but also as a result of the implementation of water efficiency initiatives. Going forward, we anticipate that consumption will continue to reduce in line with withdrawals as we work towards achieving our target of a 25% reduction in potable water consumption by 2025.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	11-25	About the same	WRI Aqueduct	WRI Aqueduct and internal Company knowledge are used to identify stressed areas from which we source water. In terms of WRI Aqueduct, various indicators are used to classify areas as water stressed. These include inter-annual variability, flood occurrence, drought severity and regulatory risks. We also use Company knowledge which is informed by the assessment and monitoring of the broader context in which the Group operates in terms of the political and economic landscape, industry, labour and financial market trends. To understand the context in which the Group operates, we analyse research materials and industry benchmarking studies by institutions such as the World Economic Forum, the World Bank and Control Risk.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	871.32	Lower	Water withdrawals are measured regularly, monitored and reported monthly to AECI Head Office by all facilities. Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked regularly. The volume withdrawn was 1.99% lower than in the previous year due to a decrease in water withdrawals by AECI Industrial Chemicals. In 2020, there was a number of plant shutdowns which reduced water withdrawals. It is anticipated that water withdrawals from fresh surface water will reduce going forward as we look for alternative water sources and focus on optimising water usage.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable as no Group businesses withdraw any brackish surface water or seawater for use in operations. This is not anticipated to change going forward.
Groundwater – renewable	Relevant	33.01	Lower	Water withdrawals are measured regularly, monitored and reported monthly to AECI Head Office by all facilities. Monitoring is conducted at facility level on a daily basis using equipment that is calibrated and checked regularly. Renewable groundwater is used by AECI Mining Explosives’ operations in countries outside South Africa. This resource is also used by AECI Much Asphalt and AECI Specialty Chemicals. There was a 14.92% decrease in withdrawals of renewable groundwater due to reduced withdrawals by AECI Mining Explosives’ operations in counties outside South Africa. Going forward, there may be an increase in water withdrawn from groundwater (renewable) sources as we explore options to alleviate pressure on municipal water networks and work towards achieving our target of a 25% reduction in potable water consumption by 2025.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable as no Group business withdraws water from non-renewable groundwater sources. This is not anticipated to change going forward.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable as no Group business utilises produced water. This is not anticipated to change going forward.
Third party sources	Relevant	1408.84	Much lower	This refers to water obtained from municipalities and from other third parties. Water withdrawals are measured regularly, monitored and reported monthly to AECI Head Office by all facilities. Monitoring is conducted at a facility level on a daily basis using equipment that is calibrated and checked on a regular basis. There was a decrease of 44.24% in withdrawals from third parties, owing mainly to the restrictions on activity imposed to mitigate the spread and effects of COVID-19. There were also decreases because of the sale of Crest Chemicals and the handover of management of SMSA to the joint venture partner. We anticipate that our water from third party sources will reduce further going forward as we focus on achieving our target of a 25% reduction in potable water consumption by 2025.

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	939.75	Lower	Discharges are measured regularly, monitored and reported monthly to AECI Head Office by all facilities where they occur. Monitoring is conducted at facility level daily using equipment that is calibrated and checked regularly. Readings are also compared against municipal invoices monthly. Information is reported internally and to regulatory authorities on a monthly and annual basis, as required. Water discharged to fresh surface water refers to effluent discharged to a river course under a WUL for the AECI Mining Explosives' Modderfontein facility. Discharges to fresh water decreased by 9.7% this year, from 1 040.76 ML in 2019 to 939.75 ML in 2020. This resulted from lower runoff at the site due to decreased rainfall. Going forward, we anticipate that these discharges will reduce as we continue to implement effluent treatment projects. However, the trend in discharges to fresh surface water is also dependent on rainfall levels and associated runoff at local level.
Brackish surface water/seawater	Relevant	28.84	Much higher	This refers to discharges to sea by the AECI Property Services business at the Umbogintwini Industrial Complex. Monitoring is conducted on a daily basis using equipment that is calibrated and checked regularly. Discharges increased by 24.63%, from 23.14 ML in 2019 to 28.84 ML in 2020. This increase was due to changes in the mix of tenants operating at the Complex as well as increased water withdrawals by AECI Industrial Chemicals. Our discharge volumes are dependent on those from tenants. As such, it is difficult to forecast volumes going forward as the Group has limited control over this parameter. Nonetheless a reduction is anticipated in future as tenants focus on reducing their own withdrawals and associated discharges.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	There is no discharge to groundwater. This is not anticipated to change going forward.
Third-party destinations	Relevant	785.13	Much lower	This refers to effluent discharged to a municipal sewer. Discharges are measured regularly, monitored and reported monthly to AECI Head Office by all facilities where they are generated. Monitoring is conducted at facility level daily using equipment that is calibrated and checked regularly. Readings are also compared against municipal invoices monthly. Information is reported internally and to regulatory authorities on a monthly and annual basis, as required. Discharges to municipal treatment plants decreased by 32.17% year-on-year from 1 157.46 ML in 2019 to 785.13 ML in 2020. This was mostly due to reduced withdrawals, owing mainly to the restrictions on activity imposed to mitigate the spread and effects of COVID-19. The reduction also results from efforts to reduce effluent discharge volumes. We anticipate a reduction in discharges going forward as we continue to implement effluent treatment projects and look at ways to reuse and recycle water to a greater extent.

W1.2j

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Not applicable
Secondary treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Not applicable
Primary treatment only	Relevant	1618.14	Much lower	100%	Of the 18 facilities with discharges, all of them perform primary treatment. Discharges where primary treatment is performed decreased by 22.78% year-on-year from 2 096.38 ML in 2019 to 1 618.84 ML in 2020, owing mainly to the restrictions on activity imposed to mitigate the spread and effects of COVID-19. The decrease also partly results from efforts to reduce effluent discharge volumes.
Discharge to the natural environment without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Not applicable
Discharge to a third party without treatment	Relevant	134.88	Higher	1-10	Of the 18 facilities with discharges, only one of them (6%) discharges to third parties without treatment. This is AECI Mining Explosives in Modderfontein. Discharges to third parties without treatment decreased by 7.92% year-on-year from 124.98 ML in 2019 to 134.88 ML in 2020.
Other	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Not applicable

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
Specialty inorganic chemicals

Product name
Sulphuric acid

Water intensity value (m3)
2.4

Numerator: water aspect
Total water withdrawals

Denominator
Ton

Comparison with previous reporting year
Much lower

Please explain
Sulphuric acid is manufactured by AECI Industrial Chemicals and supplied to a diverse range of customers. Water intensity is calculated by dividing the volume of water withdrawn by the tonnes of acid produced. Water intensity is monitored at business level to track costs (i.e. to identify areas of poor efficiencies and put in place measures to achieve optimal efficiencies). The water intensity associated with sulphuric acid production decreased by 21.05% between 2019 and 2020. Water withdrawals decreased due to increased plant shutdowns in 2020. It is anticipated that water intensity for sulphuric acid production will decrease going forward as AECI Industrial Chemicals works towards reducing its water withdrawals in line with the group's targets and goals.

Product type
Specialty inorganic chemicals

Product name
Nitric Acid

Water intensity value (m3)
5.71

Numerator: water aspect
Total water withdrawals

Denominator
Ton

Comparison with previous reporting year
Higher

Please explain
Nitric acid is manufactured by AECI Mining Explosives at its facility in Modderfontein. This acid is then used in the manufacture of explosives for the mining sector. Water intensity is calculated by dividing the total volume of water withdrawn by the tonnes of nitric acid produced. Water intensity is monitored to identify areas for improvement. The water intensity associated with nitric acid production increased by 5.13% between 2019 and 2020. The increase can be attributed a greater reduction in nitric acid production than in withdrawals. Although withdrawals decreased by 4%, nitric acid production decreased by 10%. As such, water intensity for nitric acid production increased. It is anticipated that water intensity for nitric acid production will decrease going forward as the Modderfontein facility implements projects to reduce its water withdrawals in line with the target of 25% reduction in potable water consumption by 2025.

Product type
Specialty inorganic chemicals

Product name
Flocculants, frothers, collectors, depressors

Water intensity value (m3)
1.75

Numerator: water aspect
Total water withdrawals

Denominator
Ton

Comparison with previous reporting year
About the same

Please explain
AECI Mining Chemicals is a manufacturer and supplier of mining chemicals used in the beneficiation of a wide range of ores such as platinum, copper, zinc and coal. It also manufactures and supplies polyacrylamide for tailings treatment. The intensity is calculated by dividing the total volume of water withdrawn by the total amount of product produced. Water intensity is monitored at AECI Mining Chemicals' facilities to identify areas of for efficiency. Water intensity increased by 0.13% year-on-year owing to pressure washing of the plant and equipment. It is anticipated that water intensity will decrease going forward as AECI Mining Chemicals puts in place initiatives to reduce its water withdrawals in line with our new target.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?
Yes, our suppliers
Yes, our customers or other value chain partners

W1.4a

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

Row 1

% of suppliers by number
26-50

% of total procurement spend
26-50

Rationale for this coverage
We have engaged with some of our suppliers. We estimate this engagement has included 50% of our total number of suppliers and represents 50% of our total procurement spend. We engage with our suppliers to understand water-related supply chain risks. This engagement takes place in the normal course of business in the form of meetings, written correspondence and calls.

Impact of the engagement and measures of success
We measure the success of our engagement by whether we understand and are able to put in place measures to manage the water-related risks in our supply chain. As an example, engagement with water utilities occurs for facilities that are supplied by them to identify and manage any risks associated with supply. It is acknowledged that certain facilities could not operate without these utilities. Accordingly, Group businesses are required to identify risks associated with water utilities and their ability to supply sufficient volumes of fresh water of the requisite quality. The businesses are also required to put in place mitigation measures. For example, AECI Water implemented a project at AECI Mining Explosives, Modderfontein to reduce the use of municipal water by up to 40%. This project reduced AECI Mining Explosives' reliance on the water utility.

Comment

W1.4b

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

Type of engagement
Innovation & collaboration

Details of engagement
Encourage/incentivize innovation to reduce water impacts in products and services

% of suppliers by number
26-50

% of total procurement spend
26-50

Rationale for the coverage of your engagement
We have engaged with some of our suppliers. We estimate this engagement has included 50% of our total number of suppliers and represents 50% of our total procurement spend. We engage with our suppliers to develop environmentally friendly products that add value to their businesses and ours. This engagement takes place in the normal course of business in the form of meetings, written correspondence and calls.

Impact of the engagement and measures of success
We measure the success of our engagement by whether our suppliers assist us in developing new products and services that reduce our customers' water withdrawals, discharges and consumption or enhance their resilience to the impact of water-related risks. As an example, during the drought in the Western Cape in South Africa in 2018, AECI Water identified an opportunity to offer desalination plants to its customers. It engaged with suppliers to source the technology to enable it to present the offering to customers. Since start-up in April 2018, AECI Water's desalination plants on the west coast of South Africa have produced more than 1 500 million litres of water.

Comment

W1.4c

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

AECI engages with a broad spectrum of stakeholders. Key stakeholders include shareholders and funders, employees, trade unions/other representative bodies, suppliers, government and regulators, customers and communities and civil society. All engagements are viewed as being significant. Our engagement with government and communities is discussed below:

· Government: Legal compliance is of utmost importance to AECI. Such engagement may range from advocacy initiatives associated with the development of legislation and standards, to cooperative work with those regulators who have the responsibility of governing the Group's activities through the application of these laws and standards. Engagement typically takes place in meetings or through the provision of written commentary on policies and regulations. We also engage with government through CAIA, the industry association for the chemicals industry. The success of engagement is measured through our understanding of the regulations, our preparedness to comply and our compliance with the regulations.

· Communities: We engage with communities neighbouring our operations on water-related issues. Engagement is typically through meetings with community members. At Modderfontein and Chloorkop, in Gauteng, several Group businesses play active roles in a Community Awareness and Emergency Response Committee. Engagement with communities is also through organised projects. One example was the project in Hammanskraal in northern Gauteng where we installed a water filtration solution and provided food gardens. Another example is the Wize Wayz Water Care project in KwaZulu-Natal where communities work together to keep the local river clean. Success is measured by whether the communities are comfortable with the actions we take to minimise our environmental impact.

All engagement is subject to the Group's Code of Ethics and Business Conduct as approved by the AECI Board.

W2. Business impacts

W2.1

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

No

W2.2

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

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?

AECI is a diverse company providing products to a broad spectrum of customers in the mining, water treatment, plant and animal health, food and beverage, infrastructure and general industrial sectors. Most manufacturing sites are ISO14001 certified and those in South Africa are signatories to Responsible Care®. A differentiated approach to the management of potential water pollution is in place, depending on the risks posed to water ecosystems or human health in the region or country of operation.

We classify products according to the Globally Harmonised System and we classify waste according to the SANS 10234 standard. All products have safety data sheets which categorise substances according to severe toxic and ecotoxic effects, high persistence in the natural environment and potential to bio-accumulate. It is from these safety data sheets that potential water pollutants are identified.

Water-related impact on ecosystems and human health was considered for our operations which discharge effluent to sea and to river:

As already indicated, our Property business discharges effluent to sea. For this operation, annual independent Ecological and Physico-chemical Marine Monitoring surveys are conducted to assess the status of the seabed communities and the extent of any detectable effects arising from the effluent discharges to the offshore receiving environment.

We have one operation that discharges into a river course. This operation is bound by a WUL and we adhere to its conditions. The effluent arising from the process is nitrogen-based. The higher nitrogen load is of concern due to the increased risk of eutrophication of the Jukskei River catchment. Eutrophication is characterised by excessive plant and algal growth as a consequence of the availability of one or more limiting growth factors needed for photosynthesis. This can have adverse consequences for drinking water sources, fisheries and recreational water bodies. Compliance is monitored and enforced by the National Department of Water and Sanitation. In addition, the WUL requires the operation to conduct:

· Annual biomonitoring assessments;

· Quarterly and bi-annual groundwater monitoring, where there is a risk (risk determined based on historical activities); and

· Surface water monitoring where effluent is discharged to a fresh water resource.

Where effluent is discharged to a municipal sewer, operations are bound by local municipal requirements which stipulate limits for effluent discharged in terms of quantity and quality.

Water-related impact in our value chain, particularly that to which our customers are exposed, are considered. AECI Water provides water treatment solutions in the public and private sectors where customers' processes result in the release of pollutants to stressed water resources. The impact varies across the two sectors.

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
Nitrogen	Direct operations	AECI Mining Explosives manufactures explosives for the mining sector. The process-related effluent is nitrogen-based. The increased nitrogen load is of concern due to the increased risk of eutrophication of the Jukskei River catchment.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Other, please specify (Implementation of reduction projects)	The operation monitors compliance with effluent quality standards on a daily, weekly and monthly basis. Immediate action is taken to rectify any non-compliances by, for example, containing spillages, identifying process safety risks and mitigating them, and ensuring the integrity of fail-safe equipment. Measures to prevent spillage, leaching, and leakage are in place. High risk operations are ISO 14 001 certified and have continuous incident management systems to prevent and manage environmental incidents. Success of management interventions is measured by monitoring the surface water and boreholes at the site on a daily, weekly, quarterly and annual basis and conducting independent assessments of surface water and groundwater. One such assessment is the biomonitoring study conducted in the receiving environment to assess the biotic integrity of the Modderfontein Spruit and Jukskei River.
Anionic surfactants	Direct operations	AECI Industrial Chemicals manufactures surfactants for the homecare industry. These products contain sodium. If they find their way into a fresh water stream, high levels could impact aquatic life.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Other, please specify (Environmental and waste water procedures)	High anionic surfactants could find their way into a freshwater stream when there is loss of containment from the process. The following initiatives have been implemented on site to minimise loss of containment: • The integrity of equipment is inspected regularly to confirm its suitability for use. Associated equipment such as pumps is repaired immediately in the event of a leak • All areas have effluent sumps and trenches which contain and control the flow of effluent to the treatment plant • The treatment plant treats effluent before discharge to the municipal sewer • All storage areas are bunded, thereby containing leaks. Success is defined as having zero incidences of loss of containment.
Sulphuric acid	Distribution network	AECI Industrial Chemicals manufactures sulphuric acid. This product may represent a danger to aquatic organisms at certain concentrations based on ecotoxicological testing performed on fish and fresh water invertebrates. It is also dangerous to human health: can cause severe skin burns and eye damage. When released into the upper atmosphere, sulphuric acid presents as particles or droplets. The particles dissolve in clouds, fog, rain or snow, resulting in very diluted acid solutions. This may impact the environment as wet acid deposition ('acid rain').	Other, please specify (Training, monitoring and risk assessment)	AECI has developed a strategy to track, manage and mitigate transportation incidents in the Group. Engagement with transporters is key and focuses on aspects such as training, audits, tracking systems, route risk assessments and the prevention of driver fatigue. Currently, AECI businesses track all transportation incidents involving their products. If there is an accident and product spills, the SHE specialist or manager ensures that clean-up is conducted effectively with minimal impact on the receiving environment. Success is defined as having zero product transportation incidents.
Ammonium Nitrate	Distribution network	AECI Mining Explosives manufactures explosives for the mining sector which are transported by contractors to mining sites. In the event of a transportation incident and spillage of product, the risk of eutrophication increases if the spilt product enters a river course. This can have adverse effects on drinking water sources, fisheries and recreational water bodies.	Management procedure under development Other, please specify (Training, monitoring and risk assessment)	AECI has developed a strategy to track, manage and mitigate transportation incidents in the Group. Engagement with transporters is key and focuses on aspects such as training, audits, tracking systems, route risk assessments and the prevention of driver fatigue. Currently, AECI businesses track all transportation incidents involving their products. If there is an accident and product spills, the SHE specialist or manager ensures that clean-up is conducted effectively with minimal impact on the receiving environment. Success is defined as having zero product transportation incidents.

W3.3

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

Yes, water-related risks are assessed

W3.3a

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

Direct operations

Coverage
Full

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

Frequency of assessment
More than once a year

How far into the future are risks considered?
More than 6 years

Type of tools and methods used
Tools on the market
Enterprise Risk Management
International methodologies

Tools and methods used
WRI Aqueduct
ISO 31000 Risk Management Standard
Other, please specify (Analysis of research materials and industry benchmarking studies by institutions such as the World Economic Forum, the World Bank and Control Risk)

Comment
We identify risks to our direct operations. This risk assessment process covers all businesses and all geographies in which we operate. We assess risks on a bi-annual basis. Risks are evaluated up to 10 years into the future. We use a combination of tools and methodologies. The risk assessment process is underpinned by the Group Risk Management Policy and the Group Enterprise Risk Management Framework which are based on the principles of ISO 31000 and King IV in South Africa. We also use WRI Aqueduct to identify water-stressed areas. The identification of risks at Group level is also informed by the assessment and monitoring of the broader context in which we operate in terms of the political and economic landscape, industry, labour and financial market trends. Work includes the analysis of research materials and industry benchmarking studies by institutions such as the World Economic Forum, the World Bank and Control Risk. These serve as an early warning system or a mechanism for the identification of future risks and opportunities.

Supply chain

Coverage
Partial

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

Frequency of assessment
More than once a year

How far into the future are risks considered?
More than 6 years

Type of tools and methods used
Tools on the market
Enterprise Risk Management
International methodologies

Tools and methods used
WRI Aqueduct
ISO 31000 Risk Management Standard
Other, please specify (Analysis of research materials and industry benchmarking studies by institutions such as the World Economic Forum, the World Bank and Control Risk)

Comment
All our businesses are required to identify risks in their supply chain. We assess risks on bi-annually. Risks are evaluated up to 10 years into the future. We use a combination of tools and methodologies. The risk assessment process is underpinned by the Group Risk Management Policy and the Group Enterprise Risk Management Framework which are based on the principles of ISO 31000 and King IV in South Africa. We also use WRI Aqueduct to identify water-stressed areas. The identification of risks at Group-level is also informed by the assessment and monitoring of the broader context in which we operate in terms of the political and economic landscape, industry, labour and financial market trends. Work includes the analysis of research materials and industry benchmarking studies by institutions such as the World Economic Forum, the World Bank and Control Risk. These serve as an early warning system or a mechanism for the identification of future risks and opportunities.

Other stages of the value chain

Coverage
Full

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

Frequency of assessment
More than once a year

How far into the future are risks considered?
More than 6 years

Type of tools and methods used
Tools on the market
Enterprise Risk Management
International methodologies

Tools and methods used
WRI Aqueduct
ISO 31000 Risk Management Standard
Other, please specify (Analysis of research materials and industry benchmarking studies by institutions such as the World Economic Forum, the World Bank and Control Risk)

Comment
All our businesses are required to identify risks to which their customers are exposed. They are also required to identify risks relating to their other stakeholders (local communities, government etc.). We assess risks bi-annually. Risks are evaluated up to 10 years into the future. We use a combination of tools and methodologies. The risk assessment process is underpinned by the Group Risk Management Policy and the Group Enterprise Risk Management Framework which are based on the principles of ISO 31 000 and King IV in South Africa. We also use WRI Aqueduct to identify water-stressed areas. Further, the identification of risks at Group-level is informed by the assessment and monitoring of the broader context in which we operate in terms of the political and economic landscape, industry, labour and financial market trends. Work includes the analysis of research materials and industry benchmarking studies by institutions such as the World Economic Forum, the World Bank and Control Risk. These serve as an early warning system or a mechanism for the identification of future risks and opportunities.

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Water availability at river basin level is always included in our risk assessments. Our operations are reliant on sufficient volumes of good quality fresh water. It is acknowledged that an inadequate supply of this resource would compromise our ability to operate optimally. Group businesses are required to identify water-related risks to their operations, suppliers and customers. In this process they consider both current and emerging risks presented by water availability. One example is the AECI Property Services business at Umbogintwini which withdraws water from the river basin, treats it and distributes it to tenants at the Umbogintwini Industrial Complex. The business has a Water Services Agreement with the Department of Water and Sanitation and assesses water availability regularly. Availability and the associated risks are assessed in through WRI Aqueduct and internal Company knowledge. The latter includes information gathered from engagement with stakeholders such as the Department of Water and Sanitation and the local catchment authorities.
Water quality at a basin/catchment level	Relevant, always included	Changing water quality could have a negative impact on the supply of our products and services, especially in those businesses where water is a product input. Group businesses are required to identify water-related risks to their operations, suppliers and customers. In this process they consider both current and emerging risks presented by water quality for both withdrawals and discharges. One example is AECI Mining Explosives Modderfontein where water is abstracted from fresh surface water. This abstraction is governed by a WUL that requires that water quality be assessed regularly. Water quality and the associated risks are assessed through WRI Aqueduct and internal Company knowledge. The latter includes information gathered from engagement with stakeholders such as the Department of Water and Sanitation and local catchment authorities.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Stakeholder conflicts are always factored into our water-related risk assessments. Major conflicts could result in supply interruptions, impacting our ability to operate optimally. We acknowledge that our own water use impacts stakeholders at a basin/catchment level. Our businesses are required to identify water-related risks to their operations, suppliers and customers. In this process they consider both current and emerging risks presented by existing or potential stakeholder conflicts. They do this using internal Company knowledge gathered from ongoing engagement with stakeholders. For example, local communities neighbouring our facility in Modderfontein attend Community Awareness and Emergency Response Committee meetings where material water issues are discussed, among other matters. At Umbogintwini, issue-specific stakeholder and community liaison forums under the auspices of the Umbogintwini Industrial Association deal with water quality, air emissions and other matters of interest/concern to stakeholders.
Implications of water on your key commodities/raw materials	Relevant, always included	Risks associated with water quantity and quality, and the associated impact on our key commodities and raw materials, are relevant and always included in risk assessments. An example is our fruit concentrates beverage business which, in 2017, was required to purchase strategic consignments of raw materials owing to the effects of the drought in the Western Cape and severe flooding in Argentina (two key supply areas). Although a correction occurred in 2018, the supply chain remains exposed to water-related risks. As such, all our businesses are asked to identify risks to direct operations, suppliers and customers. In this process they consider both current and emerging risks in the value chain. They do this through WRI Aqueduct and internal company knowledge. The latter includes information gathered through engagement with stakeholders in the value chain.
Water-related regulatory frameworks	Relevant, always included	Water-related regulatory frameworks are always considered in risk assessments. We acknowledge that non-compliance could impact on our ability to operate optimally. We consider risks associated with current and emerging regulations relevant to our own operations, suppliers and customers at individual business level and at Group level. This requires engagement with relevant regulatory authorities. Such engagement ranges from advocacy initiatives associated with the development of legislation and standards to cooperative work with those regulators who have the responsibility of governing the Group's activities through the application of these laws and standards. For example, AECI Mining Explosives, Modderfontein must comply with stringent requirements set by Department of Water and Sanitation on water quality (groundwater and surface water). This is factored into the water-related risk assessment. We engage regularly with the Department to ensure that expectations are communicated and managed. We also engage with government through CAIA, the industry association for chemical producers in South Africa.
Status of ecosystems and habitats	Relevant, always included	The impact that our water withdrawals and discharges have on ecosystems and habitats is relevant and always included in risk assessments. As a responsible corporate citizen, we are committed to protecting the ecosystems and habitats in which we operate. Group businesses are required to identify water-related risks to their operations, suppliers and customers. In this process, they consider both current and emerging risks that could impact the status of ecosystems and habitats using internal Company knowledge which is often informed by monitoring. For example, AECI Mining Explosives, Modderfontein conducts biomonitoring assessments of the Jukskei River catchment, the results of which inform our identification and assessment of associated risks. We also identify these risks through engagement with stakeholders such as local communities and local authorities. Risks associated with ecosystems and habitats, if any, are managed by individual Group facilities in collaboration with government, other local water users and local communities.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Providing potable water, adequate sanitation and hygiene for all employees is of utmost importance to AECI and is always included in risk assessments. All Group businesses ensure the availability of fully functioning WASH services for all employees and contractors. This access is integrated into the day-to-day operation of facilities and monitored by them. We acknowledge that a shortage of clean water due to drought effects or infrastructure challenges would present a risk to our people's wellbeing and could hamper operations. Both current and emerging risks to the provision of WASH services are considered in several ways, including WRI Aqueduct and internal Company knowledge. The latter includes information gathered through engagement with employees and their representative bodies, where they exist, other local water users, communities, and others.
Other contextual issues, please specify	Not relevant, explanation provided	Not applicable

W3.3c

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

	Relevance & inclusion	Please explain
Customers	Relevant, always included	Our customers are potentially exposed to water-related risks. These risks could impact demand for our products and services and, consequently, we always include customers in our water-related risk assessments. Nowhere was the impact of water-related risks more evident than in the Western Cape in 2018. Owing to drought effects in the province, demand and output from the agricultural sector declined and AECI Plant Health reported lower profits as a consequence. AECI Water also reported lower earnings as a consequence of depressed trading conditions in the water treatment market. The drought resulted in diminished water flow rates and hence lower turbidity which meant lower sales of purification chemicals. We consider all current and emerging risks to customers. Group businesses engage with their customers on an ongoing basis and as a matter of course to identify mutual risks and opportunities The management of this risk is well demonstrated by our new products and services that assist customers to reduce their water withdrawals and manage their water-related risks. An example is our collaboration with SupPlant. The technology uses artificial intelligence to improve crop health through, inter alia, efficient irrigation while increasing yields. Precision sensors placed on individual plants reflect exact moisture requirements and feed the data to a control centre for irrigation. To date, 13 installations have been placed on customer farms totalling 435 hectares. The objective is to expand the offering to 7 000 hectares by 2025.
Employees	Relevant, always included	Employees require fully functioning WASH services. Group businesses ensure these are provided to all employees and contractors. These services are factored into the risk assessment process. It is also accepted that the behaviour of our employees can impact our water usage. As such, employee behaviour is also factored into water-related risk assessments. The AECI Group engages with its employees as a matter of course. This engagement between leadership at all levels and the employee complement as a whole is effected through, inter alia, electronic and printed communication and formal structures such as trade unions, wage bargaining councils, and committees and forums mandated to deal with matters that affect employees and/or are of interest to them. Engagement on water-related issues is also through the Going Green programme, with employees being encouraged to identify ways in which the Group's environmental impact can be minimised, and the BIGGER Idea online platform and mobile app. This platform is the medium whereby employees are able, and encouraged, to submit their innovative ideas for improving all aspects of the current business and propose opportunities in new areas. This has proved extremely useful not only for water-related matters but also for suggestions on improvements in safety, health and environmental performance as a whole.
Investors	Relevant, always included	AECI is reliant on the continued support of its investors and funding providers to realise its growth aspirations in a sustainable manner. Interest in the responsible management of water-related risks and opportunities is increasing among this stakeholder group. AECI communicates with these stakeholders by way of several processes, including announcements released on the JSE's Stock Exchange News Service (SENS), the dissemination of financial results and other reports electronically and in print, business-specific presentations, site visits and one-on-one or small group meetings. The Company's Chief Executive, Chief Financial Officer and the other Executives conduct timely presentations on the Group's performance and strategy to institutional investors, funders, financial analysts and the media in South Africa. The Executive Directors also undertake international roadshows, in person or on virtual platforms, in Europe and the USA, aimed mostly at potential investors. Further, there are regular one-on-one meetings with this group of stakeholders. Presentations, corporate actions and financial results, as well as any other information deemed relevant, are published on the Company's website. Stakeholders are advised of such newly published items via SENS. Additional information on the Company, such as inter alia its management and governance policies and structures, is also available at www.aeciworld.com. We also communicate information on water-related issues through our Integrated Annual and Sustainability Reports and our response to the Water Security CDP.
Local communities	Relevant, always included	Communities living within the footprint of influence of manufacturing and storage sites could be impacted by our operations. As such we engage with local communities regarding the impact of our facilities on, inter alia, water availability and quality. This engagement is facilitated by formal structures in place. At Modderfontein, for example, AECI Mining Explosives oversees the functioning of a Community Awareness and Emergency Response Committee. At the Umbogintwini Industrial Complex, issue-specific stakeholder and community liaison forums under the auspices of the Umbogintwini Industrial Association deal with water quality, air emissions etc. Engagement with communities is also through organised projects and programmes.
NGOs	Relevant, always included	Although no NGOs and special interest groups have expressed concerns regarding our management of water-related matters, they are relevant and always included in risk assessments. If an NGO were to express a concern, we would engage with them to fully understand and address the concern to the extent possible, directly or through CAIA. We work closely with NGOs on specific environmental protection initiatives. An example of this was a project in Hammanskraal, northern Gauteng which we undertook in the prior reporting year. A report released by the South African Human Rights Commission in August 2019 confirmed that water in that area was not fit for human consumption and did not comply with South Africa's drinking water standards. The AECI Community Education and Development Trust (CEDT), AECI Water and AECI Plant Health stepped in. We worked with Gift of the Givers and the Wildlife and Environment Society of South Africa, among other partners. AECI Water contributed a world-class water filtration solution that is benefiting five schools, a clinic and the wider community in the area. AECI Plant Health established food gardens at each school and also provided plant and soil health products and training in their application for optimal results. The CEDT contributed to boreholes and water education programmes at each location. Approximately 5 000 beneficiaries were impacted directly.
Other water users at a basin/catchment level	Relevant, always included	Other water users at catchment level are relevant and always factored into risk assessments. It is acknowledged that these users can impact water availability and quality, both of which are critical to our optimal operation. As such, Group businesses are required to identify risks associated with these users. Current and future risks are identified. Engagement is through direct meetings, meetings of industry associations and interactions with neighbouring communities.
Regulators	Relevant, always included	Legal compliance is of utmost importance to AECI and, as such, engagement with relevant authorities is a business imperative. Regulators are always considered in water-related risk assessment to confirm compliance with existing requirements and to be prepared for any amended or new regulations. Non-compliance could compromise the sustainability of the Group's operations. Engagement ranges from advocacy initiatives associated with the development of legislation and standards to cooperative work with those regulators who have the responsibility of governing the Group's activities through the application of relevant laws and standards. To facilitate engagement, AECI and/or its businesses may choose to develop relationships with relevant government and regulatory entities in a proactive manner. This engagement typically takes place in meetings or through written commentary on policies and regulations. We also engage with government through CAIA.
River basin management authorities	Relevant, always included	It is acknowledged that these authorities influence water sourcing and water management in specific catchments. We engage with them to understand risks and determine options for mitigating them. For example, the Department of Water and Sanitation is engaged regularly on the material issue of compliance with the WUL at Modderfontein. River basin management authorities are engaged as and when required. Engagement takes place through direct meetings, industry associations and written correspondence.
Statutory special interest groups at a local level	Relevant, always included	No statutory special interest groups have expressed concern regarding AECI's water usage and management practices. However, these stakeholders are relevant and are always included in our water-related risk assessments because water is a shared resource. In some cases, these stakeholders are aligned with communities in which we operate. Although their engagement requirements often overlap with those of communities, their needs are recognised separately. Wherever possible, they are encouraged to participate in the Group's affairs via existing structures (liaison forums and the like). Where this is not possible separate arrangements are made to meet their needs. Arrangements include meetings, site/business visits and participation in/support of interest group initiatives. Examples of interest groups in South Africa include the Modderfontein Conservation Society, the Wildlife and Environment Society of South Africa and residents' associations.
Suppliers	Relevant, always included	We acknowledge that if our suppliers were to be impacted by water-related risks, their ability to deliver the products and services the Group requires could be compromised. In mitigation, Group businesses engage with their suppliers on an ongoing basis. Terms of engagement with both suppliers and customers are clearly defined and, where appropriate, Group-wide policies and procedures guide the businesses to ensure that related risks are properly understood and managed in line with AECI's risk appetite.
Water utilities at a local level	Relevant, always included	Engagement with water utilities occurs for facilities that are supplied by them to identify and manage any risks associated with supply. It is acknowledged that certain Group facilities could not operate without these utilities. Accordingly, Group businesses are required to identify risks associated with water utilities and their ability to supply sufficient volumes of fresh water of the requisite quality. Engagement is through meetings, industry associations and written correspondence.
Other stakeholder, please specify	Not relevant, explanation provided	Not applicable

W3.3d

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

The Group follows a risk management methodology comprising both bottom-up and top-down processes. The methodology adopts a holistic approach in identifying, analysing, evaluating, treating, monitoring, and reviewing risks. This risk assessment process covers all businesses and their value chains, in all geographies where they operate.

Site-level risks are identified, assessed in a bottom-up process. Management teams of individual businesses are required to identify risks and quantify the likelihood, timeline, and magnitude of each. The teams are also required to formulate risk management plans. The AECI Head Office provides support in the risk identification and prioritisation process through workshops and other forums. The WRI Aqueduct is often used to identify water-related risks at operational level and to identify water-stressed areas by using various indicators. These indicators include inter-annual variability, flood occurrence, drought severity and regulatory risks.

The top-down process involves management at Head Office level. Risks identified at site level are reviewed and rolled up to Group level, as appropriate. Risk identification at Group level is also informed by the assessment and monitoring of the broader context in which the Group operates in terms of the political and economic landscape, industry, labour, and financial market trends. Work includes the analysis of research materials and industry benchmarking studies by institutions such as the World Economic Forum, the World Bank and Control Risk. These serve as an early warning system or a mechanism for the identification of future risks and opportunities.

Risks, including water-related risks, are prioritised on a 5 x 5 rating scale that sets out potential impact (magnitude of impact) and estimated probabilities (likelihood of occurrence). The potential impact is classified as minor, moderate, serious, major, or severe and is linked to both a qualitative and quantitative residual risk value. The estimated probability is classified as almost certain (monthly basis), likely (once in one year), possible (once in three years), unlikely (once in five years) or rare (once in more than five years). Opportunities are also prioritised using a similar approach based on impact and likelihood.

The risk assessment process and terminology are underpinned by the Group Risk Management Policy and the Group Enterprise Risk Management Framework which are based on the principles of ISO 31000 and King IV in South Africa.

Outcomes of the risk assessment process inform decision-making. Water-related risks inform our business strategy and financial planning. Nowhere is this more evident than the inclusion of Going Green as one of our corporate values. This value underpins all our business activities. More specifically, we commit to:

· Providing sustainable alternatives for our customers;

· Conserving energy and other natural resources; and

· Developing and embracing smart, green technologies that deliver a better world.

It is also seen in the introduction of targets to reduce our potable water consumption and effluent by 2025.

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?

Substantive financial impact is defined in the consequence scales. A rating ranging from minor to severe is included in the consequence table with an associated financial amount. The table below outlines the ratings and associated financial impact -

Severe: >R120 million (loss or gain)

Major: >R80 – R120 million (loss or gain)

Serious: >R40 – R80 million (loss or gain)

Moderate: >R5 – R40 million (loss or gain)

Minor: R0 – R5 million (loss or gain)

A substantive financial impact is considered as a rating higher than moderate (i.e. serious, major or severe). The loss or gain must be above R40 million for the risk or opportunity to be considered to have a substantive financial impact on the business.

For example, in the reporting year, extreme and unpredictable weather events (failure of climate change mitigation and adaptation, leading to drought, water shortages and reduced

agricultural output (affecting the mining, water treatment and agricultural sectors in particular) was identified as one of our most material matters. It is acknowledged that this risk could result in a loss or gain above R40 million. Nowhere was this more clearly seen than during the drought in the Western Cape in 2018. AECI Plant Health sells products for the agricultural sector, the success of which is heavily reliant on weather and associated rainfall patterns. The drought thus had a negative effect on the profits of the business, with profit from operations reducing from R133 million in 2017 to R119 million. In addition, diminished water flow rates result in lower turbidity and hence lower dosages of purification chemicals. This had a negative effect on AECI Water's revenue in the 2018 financial year (declined from R1 454 million in 2017 to R1 376 million). In total, the impact was R92 million which is considered substantive.

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	3	1-25	Three Group facilities have been identified as being exposed to water-related risks: The AECI Plant Health operation and AECI Mining Explosives Modderfontein, in Gauteng, and AECI Food & Beverage's operation in the Western Cape. The rationale for this identification is as follows: a) AECI Plant Health sells products for the agricultural sector, the success of which is heavily reliant on weather and associated rainfall patterns. The drought in the Western Cape had a negative effect on AECI Plant Health's profits in 2018. Although AECI Plant Health's performance has recovered, it is acknowledged that its dependence on the agricultural sector exposes it to water-related risks in the future. b) In 2017, AECI Food & Beverage's operation in the Western Cape was required to purchase strategic consignments of raw materials owing to extreme weather events (drought in the Western Cape and severe flooding in Argentina). This had a negative impact on trade working capital. Although this was not the case in the reporting year, it is acknowledged that the supply chain remains exposed to water-related risks. c) For AECI Mining Explosives, Modderfontein, we have identified risks associated with regulatory compliance. AECI Mining Explosives uses water from a river course and discharges water into a river course. As such, it is subject to a WUL. Compliance with this licence is of utmost importance. These facilities have been affected by water-related issues in prior years and continue to be exposed to these risks. As such, focus is placed on the management of these water-related risks.

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

South Africa	Limpopo

Number of facilities exposed to water risk
2

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
11-20

Comment
In Gauteng, AECI Plant Health and AECI Mining Explosives Modderfontein are exposed to water-related risks (see above).

Country/Area & River basin

South Africa	Berg-Olifants

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
In the Western Cape, AECI Food & Beverage's operation is exposed (see above).

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

South Africa	Other, please specify (All)

Type of risk & Primary risk driver

Physical	Severe weather events

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Amplified by the effects of climate change, water stress is a rising concern for industrial operations globally. For us, our operations on the African continent are of particular relevance here since general water scarcity is exacerbated by the El Niño-Southern Oscillation (ENSO) regional weather pattern and recent multi-year drought effects. Material risks for our operations on the African continent include production interruptions brought about by inadequate supply of water of the requisite quality, and the impact of extreme weather events on infrastructure and the activities of our customers in the agricultural and mining sectors.

Timeframe
4-6 years

Magnitude of potential impact
High

Likelihood
Virtually certain

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
241110000

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
The financial impact is estimated at 1% of total revenue.

Primary response to risk
Use risk transfer instruments

Description of response
We manage this risk through: • Diversification of our portfolio. We invest in a number of businesses that operate in different geographies and different industry sectors. • We insure against this risk. In instances where the risk cannot be eliminated by our own actions (i.e. risks beyond our control), we insure as a way to manage the risk. • We are actively engaged in making our operations and those of our customers more resilient. For example, we have targets in place to minimise our water withdrawals and reduce our effluent. We have implemented and continue to implement projects to achieve these targets.

Cost of response
105000000

Explanation of cost of response
The cost of the response is the value of insurance premiums (rounded off) for the reporting year.

Country/Area & River basin

South Africa	Limpopo

Type of risk & Primary risk driver

Regulatory	Regulation of discharge quality/volumes

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
AECI Mining Explosives Modderfontein discharges effluent into a fresh surface water course. The most critical aspect related to this is the WUL issued by the Department of Water and Sanitation. The WUL specifies very stringent compliance conditions. Non-compliance with all these conditions could result in fines or temporary closure of the operation.

Timeframe
Current up to one year

Magnitude of potential impact
High

Likelihood
Likely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
110350000

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
The financial impact is estimated at 1% of revenue from the AECI Mining Explosives which encompasses the facility in Modderfontein.

Primary response to risk
Other, please specify (Water related capital expenditure)

Description of response
This risk is managed through engagement with the Department of Water and Sanitation on the effluent discharge quality, groundwater quality parameters and target levels. It is also managed through the implementation of projects to ensure compliance with the WUL. For example, in 2020, an infrastructure upgrade at AECI Mining Explosives' Nitrates facility, undertaken by AECI Water, through the construction of a new plant reduced the use of municipal water by up to 40% (14 000m³ per month) by substituting it with purified sewage effluent. The facility's water footprint is being reduced further through a new effluent recycling system with a treatment and re-use capacity of approximately 90m³/day of effluent. With a 70% recovery rate, the system is not only reducing municipal water usage but also enabling savings on effluent disposal costs. The project is expected to deliver savings of approximately 600 000 KL of water currently drawn from Johannesburg Water.

Cost of response
10000000

Explanation of cost of response
The cost of the response is the water-related capex for AECI Mining Explosives Modderfontein.

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

South Africa	Berg-Olifants

Stage of value chain
Supply chain

Type of risk & Primary risk driver

Physical	Drought

Primary potential impact
Reduced revenues from lower sales/output

Company-specific description
This risk relates to disruptions to customers' operations because of changing weather patterns. It is acknowledged that any such disruptions could reduce demand for our products and hence a reduction in revenue. Examples include: • AECI Plant Health sells products for the agricultural sector, the success of which is heavily reliant on weather and associated rainfall patterns. The drought in the Western Cape had a negative effect on profits from AECI Plant Health in 2018. • Persistent drought effects impacted the performance of the local water treatment chemicals market in 2018. Diminished water flow rates result in lower turbidity and hence lower dosages of purification chemicals. This had a negative effect on AECI Water's revenue in the 2018.

Timeframe
Current up to one year

Magnitude of potential impact
High

Likelihood
Virtually certain

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
92000000

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
The financial impact is the reduced profit realised by AECI Plant Health and AECI Water in 2018, primarily resulting from the drought in the Western Cape.

Primary response to risk

Direct operations	Develop new products and/or markets

Description of response
This risk is managed as follows: • Ongoing engagement with customers to understand their needs and to identify how best AECI can meet these needs. • Investment in R&D which allows our businesses to diversify their product mix. Examples include: • AECI Plant Health's holistic product and service offering for sustainable agricultural practices across its customer base. Included in the offering are solutions to reduce water usage and allow crops to better withstand the effects of variable weather patterns associated with climate change. • Our investment in SupPlant. This technology is a sensor-based system that waters crops according to gathered data, while optimising water consumption and alerting farmers of the state of crops, soil, air, and irrigation in a field, vineyard, or orchard.

Cost of response
65000000

Explanation of cost of response
The cost of the response is the investment in R&D in the 2020 financial year.

Country/Area & River basin

South Africa	Berg-Olifants

Stage of value chain
Supply chain

Type of risk & Primary risk driver

Physical	Drought

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Water-related risks such as drought effects have the potential to impact our supply chain. This was experienced in the juice concentrates business. In 2017, AECI Food & Beverage's operation in the Western Cape was required to purchase strategic consignments of raw materials owing to extreme weather events (drought in the Western Cape and severe flooding in Argentina). This had a negative impact on trade working capital. Although experienced in 2017, the supply chain remains exposed to water-related risks.

Timeframe
Current up to one year

Magnitude of potential impact
High

Likelihood
Virtually certain

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
40000000

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
The financial impact is reported as the impact of the purchase of the strategic consignments on trade working capital for AECI Food & Beverage in 2017

Primary response to risk

Supplier engagement	Other, please specify (Engagement with suppliers)

Description of response
We engage with our suppliers to identify these risks and to manage them effectively. This engagement also allows us to identify and plan for disruptions. The response in the case of AECI Food & Beverage's operation in the Western Cape was to purchase strategic consignments of raw materials.

Cost of response
0

Explanation of cost of response
There is no cost to this response as our businesses engage with their value chains as a matter of course.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes, we have identified opportunities, and some/all are being realized

W4.3a

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

Type of opportunity
Products and services

Primary water-related opportunity
New R&D opportunities

Company-specific description & strategy to realize opportunity
The rising cost of water, coupled with concerns about adequate long-term availability in many geographies, is prompting companies to view water conservation as an imperative for business sustainability. The opportunity is considered strategic as it presents AECI with opportunities to develop new products and services in line with our Going Green corporate value and our Sustainability Strategy and Framework. Examples include: • AECI Water is collaborating with AECI Plant Health to explore how water treatment technologies can reduce the volume of water needed for irrigation purposes without compromising yields. • AECI Food & Beverage is targeting water conservation opportunities in the dairy industry in the Western Cape. • AECI Chemicals is involved in testing the use of enzymes and bacteria to provide a more natural solution for the treatment of effluents with high COD. Its initial trial in another sector indicates the potential to re-use 50%-60% of water treated through this method. • AECI Water designed, built, installed, commissioned and operates a number of desalination plants in the Western Cape. These desalination plants are a sustainable and cost-effective solution for water-stressed environments. Opportunities are managed as follows: • Ongoing engagement with customers to understand their changing needs and to identify how AECI can best meet these. • Investment in R&D which allows our businesses to diversify their product mix.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2411100000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact
It is estimated that 10% of total revenue may result in future from environmentally-friendly products and services.

Type of opportunity
Markets

Primary water-related opportunity
Expansion into new markets

Company-specific description & strategy to realize opportunity
The rising cost of water coupled with concerns about adequate long-term availability in many geographies is prompting companies to view water conservation as an imperative in terms of business sustainability. This opens new markets into which AECI can sell new and existing products and services. AECI Water, for example, provides water treatment chemicals and services to municipalities and water boards such as Rand Water Board. Due to the drought in the Western Cape in 2018, diminished water flow rates result in lower turbidity and hence lower dosages of purification chemicals. However, opportunities arose due to, for example, an increase in other contaminants causing a concern relating to water taste and odour and treatment of borehole water and grey water due to water restrictions. To realise this opportunity, we established AECI.GO. Its mandate covers two main areas: enhancing the delivery of the Group's current businesses ("Business of Today") and identifying disruptors and customer needs that will shape the Business of Tomorrow. It looks to invest in new businesses. Examples include: • We invested in Origin Materials, a start-up based in California, USA. This company has pioneered the development of bio-based chemicals which can be processed into many products for application in global markets. The cost to realise opportunities is the quantum of the investment made in this company. • We secured access to technology from an Israeli-based agri-tech start-up called SupPlant. The technology uses artificial intelligence to improve crop health through, inter alia, efficient irrigation while increasing yields. Precision sensors placed on individual plants reflect exact moisture requirements and feed the data to a control centre for irrigation. To date, 13 installations have been placed on customer farms totalling 435 hectares. The objective is to expand the offering to 7 000 hectares by 2025.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2411100000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact
It is estimated that 10% of total revenue may result in future from environmentally-friendly products and services.

Type of opportunity
Efficiency

Primary water-related opportunity
Improved water efficiency in operations

Company-specific description & strategy to realize opportunity
There are internal opportunities to reduce water withdrawals and discharges. Related initiatives have the potential to improve water use efficiency and reduce operating costs. To realise these opportunities, we have set targets to reduce our potable water consumption and our effluent to sea and sewer by 2025. We have implemented and will continue to implement projects to realise this target. Examples include: • An infrastructure upgrade at AECI Mining Explosives' Nitrates facility, undertaken by AECI Water, through the construction of a new plant, depicted below, has reduced the use of municipal water by up to 40% (14 000m³ per month) by substituting it with purified sewage effluent. The facility's water footprint is being reduced further through a new effluent recycling system with a treatment and re-use capacity of approximately 90m³/day of effluent. • At AECI's Bajool facility, wastewater from bunded chemical storage areas is re-used in the manufacturing process in small increments, drastically reducing the amount of water requiring collection and disposal. At the start of 2020, an additional system was installed to make wastewater addition easier and at the same time increase the volume of wastewater to be cycled into the re-use scheme. Up to 30 000ℓ of wastewater per annum is now available, delivering meaningful savings on disposal costs in 2020.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
Low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
30000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact
Monetary savings that could result from initiatives planned to achieve our target (estimated at R30 million/annum)

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)
AECI Mining Explosives Modderfontein

Country/Area & River basin

South Africa	Limpopo

Latitude
-26.111455

Longitude
28.143172

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
1388.82

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
197.93

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
1190.9

Total water discharges at this facility (megaliters/year)
1316.77

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
939.74

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
377.02

Total water consumption at this facility (megaliters/year)
72.05

Comparison of total consumption with previous reporting year

Much higher

Please explain
This refers to AECI Mining Explosives Modderfontein. Withdrawals and discharges are measured and monitored. Consumption is determined using a water balance from measured withdrawals and discharges. Water withdrawals decreased by 4.17%, from 1 449.26 ML in 2018 financial year to 1 388.82 ML in 2019. The decrease can be attributed to the following – a) decreased withdrawals from municipal supply b) decreased withdrawals from fresh surface water Discharges decreased by 8.32%, from 1 436.28 ML in the prior year to 1 316.77 ML in the reporting year. This was due to decreased effluent to municipal sewer and discharges of effluent originating from the manufacturing of nitrogen compounds and production of steam. Consumption increased due to discharges decreasing by 8.32% and withdrawals only increasing by 4.17%. Going forward, a reduction in withdrawals, discharges and consumption is anticipated as we continue to implement water efficiency and effluent reduction projects to achieve our targets by 2025.

Facility reference number
Facility 2

Facility name (optional)
AECI Plant Health Lilianton (Boksburg)

Country/Area & River basin

South Africa	Limpopo

Latitude
-26.076621

Longitude
28.186538

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
17.35

Comparison of total withdrawals with previous reporting year
Much 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
17.35

Total water discharges at this facility (megaliters/year)
4.29

Comparison of total discharges with previous reporting year
Much lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
4.29

Total water consumption at this facility (megaliters/year)
13.06

Comparison of total consumption with previous reporting year
Much higher

Please explain
AECI Plant Health, at its Lilianton site in Gauteng, measures withdrawals and discharges. Consumption is calculated as the difference between measured withdrawals and discharges. Water withdrawals increased by 29.49%, from 13.40 ML in 2019 to 17.35 ML in 2020. This increase was due to an increase in the production volumes. Water is used in the product and water is used for washing of tanks. More production means more batches which means more washing required. Discharges decreased by 27.16%,

from 5.89 ML in 2019 to 4.29 ML in 2020. This decrease is due to a stormwater separation project that was implemented during 2020. This project involved installing gutters and tanks to contain rainwater and also trenches to direct stormwater away from the effluent. Consumption increased because of an increase in withdrawals due to increased production. Going forward, a reduction in withdrawals, discharges and consumption is anticipated as we continue to implement water efficiency and effluent reduction projects to achieve our targets by 2025.

Facility reference number
Facility 3

Facility name (optional)
AECI Food & Beverage's operation in the Western Cape

Country/Area & River basin

South Africa	Berg-Olifants

Latitude
-33.912762

Longitude
18.64396

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
23.15

Comparison of total withdrawals with previous reporting year
Much lower

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
23.15

Total water discharges at this facility (megaliters/year)
19.68

Comparison of total discharges with previous reporting year
Much lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
19.68

Total water consumption at this facility (megaliters/year)
3.47

Comparison of total consumption with previous reporting year
Much lower

Please explain
This refers to AECI Food & Beverage's operation in the Western Cape. Withdrawals are measured and monitored. Consumption is determined using a water balance from withdrawals and discharges. Water withdrawals decreased by 20.42%, from 29.09 ML in 2019 financial year to 23.15 ML in the 2020 financial year. This was due to the impact of COVID-19. Discharges followed the same trend, with decreases in line with decreases in withdrawals and also attributable to the impact of COVID-19. Consumption decreased in line with withdrawals. Going forward, a reduction in withdrawals, discharges and consumption is anticipated as AECI Food & Beverage's operation in the Western Cape continues to focus on reducing withdrawals and discharges in line with our Group target.

W5.1a

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

Water withdrawals – total volumes

% verified
76-100

What standard and methodology was used?
ISAE3000

Water withdrawals – volume by source

% verified
76-100

What standard and methodology was used?
ISAE3000

Water withdrawals – quality

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharges – total volumes

% verified
76-100

What standard and methodology was used?
ISAE 3000

Water discharges – volume by destination

% verified
26-50

What standard and methodology was used?
ISAE 3000

Water discharges – volume by treatment method

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharge quality – quality by standard effluent parameters

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharge quality – temperature

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water consumption – total volume

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water recycled/reused

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

W6. Governance

W6.1

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

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	Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Other, please specify (A commitment to our Going Green Programme)	Water-related considerations are referenced in our overarching Group SHEQ Policy. We do not have multiple policies in place. Instead, one holistic Policy guides our thinking relative to all SHEQ issues and demonstrates the commitment of top management. The Policy is supported by a more focused framework which governs its implementation and speaks directly to water-related issues. The Group SHEQ Policy is publicly available. It covers all our operations in all of the geographies in which we operate. It covers the following: a) Acknowledgement of our impact on the environment; b) To ensure compliance in line with ISO 14001; c) To set, measure and report on target; d) To introduce Key Performance Indicators to drive the achievement of targets; e) To support and align with the Global Reporting Initiative; f) To drive innovative environmental solutions in current operations and the Business of Tomorrow; g) To create awareness on Going Green among internal and external stakeholders; h) To drive a culture of good environmental practice and a beyond compliance mind-set in the workplace; i) To improve market competitiveness through Green Chemistry and best available technology in AECI's products and services; j) To reduce AECI's environmental impact through measurement and target setting; and k) To improve the visibility of AECI's Going Green programme among external stakeholders.

W6.2

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

Yes

W6.2a

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

Position of individual	Please explain
Board Chair	AECI Board, in conjunction with management, is ultimately responsible for the execution of the strategy. The AECI Board is led by the Board Chair. The Group's vision is to deliver sustainable solutions for a better world through innovation and excellence founded on 'good chemistry.'. It is acknowledged that the vision cannot be achieved without effective management of risks and opportunities, including those which are water related. Accordingly, water-related risks are among our most material matters: a) Unstable water supply due to failure of local Infrastructure; and b) Extreme and unpredictable weather events (e.g. droughts and floods). The AECI Board is ultimately responsible for the identification and monitoring of activity in respect of all material matters that could influence the delivery of AECI's strategy and growth objectives both positively and negatively. Accordingly, the Board is the ultimate custodian of water-related issues. The Board met five times in the year, including a two-day session to provide input into the development of the 2025 strategy. A special meeting was convened to focus on the Group's risk management and other strategic imperatives, also for the next five years. Water-related decisions made in the reporting year included, amongst others: a) The development of a strategy 2025 framework direction which has zero harm and sustainability at its core; b) The introduction of water and effluent reduction targets to be achieved by 2025; and c) The publication of a separate sustainability report. The Board has delegated the primary responsibility to consider, recommend and monitor AECI's activities with regard to environmental matters, including water-related issues, to the Social and Ethics Committee. This Committee reports to the full Board. Where required, the Social and Ethics Committee also draws on the work of the Board-appointed Risk Committee.

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing innovation/R&D priorities Setting performance objectives Other, please specify (compliance aspects)	The Board met five times in the year, including a two-day session to provide input into the development of the 2025 strategy. A special meeting was convened to focus on the Group's risk management and other strategic imperatives, also for the next five years. The Board recieves reports from the Social and Ethics Committee to which it has delegated responsibility to consider, recommend and monitor AECI's activities with regards to environmental matters, including water-related items. The Social and Ethics Committee met quarterly in 2020. It reported to the full Board on its work as it related to water issues at all meetings of the Board. The information conveyed by the Social and Ethics Committee to the Board, in writing, typically comprises the following: a) Compliance with water-related legislation; b) Water-related risk and opportunity identification and management; c) Performance against water withdrawals and effluent reduction targets; and d) Progress made in terms of key water-related projects. The information is used by Board to ensure that all water-related material matters have been identified and are being managed effectively. This, in turn, provides the Board with reassurance that AECI will be able to realise its strategy and achieve its growth objectives. It also allows the Board to evaluate whether proper policies, procedures and controls are in place to manage water-related issues.

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

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Chief Executive is the highest management-level position with responsibility for water-related issues. The Chief Executive has the overall, primary management and leadership role in the organisation. This includes responsibility for water-related issues. The Chief Executive is ultimately responsible for assessing and monitoring of water-related issues given their significance for the successful execution of the strategy and the achievement of business objectives. The Chief Executive is responsible for mobilising resources in the organisation for this. The Chief Executive reports to the Board. The Chief Executive is supported by the Group Safety, Health and Environment Manager. The Manager is supported by the Group Environmental Specialist who provides environmental support and advice to the AECI Group as a whole. Further to the Chief Executive, the Social and Ethics Committee is also responsible for oversight and guidance on water-related issues.

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	

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	Director on board Corporate executive team Other, please specify (Environmental, health & safety manager)	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in waste water quality - direct operations	The short-term incentive is awarded in recognition of Group performance and the achievement of individuals' goals and objectives. The long-term incentive is awarded in recognition of the creation of shareholder value and long-term performance and sustainability. Water-related issues are integrated into both awards. Effective management of water-related risks and opportunities promotes growth, value creation, performance, and sustainability. Effective management of water-related risks and opportunities requires the reduction of water withdrawals and discharges and the improvement of efficiency. Commitment to the Going Green programme feeds into the Key Performance Indicators (KPIs) of leadership at this level. The implementation of projects to reduce water withdrawals and discharges and the achievement of the associated targets is included, particularly for short-term incentives
Non-monetary reward	Director on board	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in waste water quality - direct operations	An environmental award is given to the Managing Executive of the business that excels in terms of reducing water usage, GHG emissions, energy consumption and waste generation. In 2020, this award was given to AECI PlantHealth for zero environmental incidents, 100% compliance with environmental permits and licences, implementation of a new stormwater project and good progress made on air emissions abatement projects

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

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?

AECI ensures that all its direct and indirect activities that influence policy are consistent in terms of messaging through:

· Adherence to the SHEQ Policy and the Sustainability Strategy and Framework;

· Adherence to the Group's Code of Ethics and Business Conduct and associated guidelines;

· Central coordination of stakeholder engagement; and

· The introduction of programmes and targets to drive consistent messaging, such as the Going Green programme.

If any inconsistencies are identified, these inconsistencies are raised with the Risk Committee and the Social and Ethics Committee who then implement the required actions to address the inconsistencies, mitigate any impacts from these inconsistencies and put controls in place to ensure that they do not reoccur.

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)

AECI2020integratedreport.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	Long-term is defined as more than five years into the future, in line with other business practice time horizons. The following water-related issues are integrated into our long-term business objective: • Water shortages due to inadequate water infrastructure and drought effects; • Lack of access to water and sanitation in communities; and • Declining water quality. Our business objective is to deliver value for all stakeholders in line with our commitment to being purpose-led in who we are and in everything we do. To deliver value, we need to drive Better Water, providing access to clean water and improving conservation. Better Water forms part of our Sustainability Framework. Better Water focuses on: • Making clean water more available; • Making water conservation easier; and • Purifying water for re-use.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	> 30	Long-term is defined as more than five years into the future, in line with other business practice time horizons. Water-related issues are integrated into our strategy for achieving our long-term business objective. Driving Better Water is required to deliver value. To do so, the following work was completed in the reporting year: • Introduced targets to reduce our potable water consumption and effluent to sea and sewer by 2025; • Implemented projects to reduce our water withdrawals and discharges such as the project at AECI Mining Explosives' nitrates facility which reduced municipal water withdrawals by up to 40%; • Partnered with municipalities and water boards in South Africa, Mali, Ghana and Burkina Faso to supply potable water to communities; and • Developed and implemented technologies and chemicals to conserve and treat water in our customers'
Financial planning	Yes, water-related issues are integrated	> 30	Long-term is defined as more than five years into the future, in line with other business practice time horizons. Water-related issues are integrated into financial planning elements. More specifically, water-related risks and opportunities are considered in financial planning. Examples include: • Water-related risks and opportunities impact our revenue in the short, medium and long term. High quality water is a key input for AECI's production processes and for cleaning production areas and equipment. Amplified by the effects of climate change, water stress is a rising concern for industrial operations globally. We need to be cognisant of potential production interruptions in our revenue forecasts. At the same time, water-related risks present opportunities for our group companies. We drive innovation and growth to realise Better Water in line with our Sustainability Framework. Our revenue expectations for AECI Water include potential revenue from new technologies in support of Better Water. • Water-related risks and opportunities impact our operating costs in the short, medium and long term. Our operating costs need to consider rising water prices. • Mitigating water-related risks and maximising water-related opportunities requires capital investment so we consider these risks and opportunities in our capital allocation process. • Acquisitions and disposals are impacted by water-related risks and opportunities.

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)

-33

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

50

Water-related OPEX (+/- % change)

-8

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

15

Please explain

Water-related capex decreased in the financial year owing to the completion of projects in the prior year. In this year, we have focused on identifying projects to realise our water withdrawals and discharges reduction targets. We anticipate that water-related capex will increase in future as we strive towards achieving our Group targets. We anticipate increases in the region of 50%. Water-related opex decreased in the financial year due to a reduction in our withdrawals. Our water withdrawals decreased, owing mainly to the restrictions on activity imposed to mitigate the spread and effects of COVID-19. It is anticipated that water-related opex will increase going forward in spite of efforts to reduce our withdrawals in line with our target. Water-related opex is expected to increase due to increases in water withdrawals as our businesses return to normal post COVID-19 and also increases in water tariffs. We anticipate increases in the region of 15%.

W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	

W7.3a

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

Yes

W7.3b

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

	Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	2DS	In line with the Paris Agreement, AECI acknowledges the need to limit the increase in global average temperature to well below 2°C above pre-industrial levels. For this reason, we have used the 2DS qualitatively in the development of our business strategy. We plan to consider this scenario quantitatively in the next two years. The time horizons covered by our business strategy include short (0 to 2 years), medium (2 to 5 years) and long term (in excess of five years). This is in line with our other business practice time horizons. It is also in line with the periods over which we consider water-related risks and opportunities and the impact on our business. In terms of the results of the scenario analysis, limiting the rise in temperature can limit the impact of climate change. However, even if the rise in global average temperature were limited to well below 2°C above pre-industrial levels, the operating environment would still be water constrained. This is particularly true for Group businesses on the African continent where general water scarcity is exacerbated by the El Niño-Southern Oscillation (ENSO) regional weather pattern and recent multiyear drought effects. Given this, we need to ensure the resilience of our business strategy in a water constrained environment.	The impact of the consideration of 2DS in our business strategy is demonstrated by the inclusion of Going Green as one of our corporate values. This value underpins all our business activities. More specifically, we commit to: • Providing sustainable alternatives for our customers; • Conserving energy and other natural resources; and • Developing and embracing smart, green technologies that deliver a better world. Having Going Green as one of our corporate values has led to the following changes in our business: • The development of a 2025 strategy which has zero harm and sustainability at its core; and • The introduction of water-related targets to take us to 2025. It has also shaped the focus of our investments in the short, medium and long term. We continue to invest in: • Research and development of water efficient and effluent reducing goods and services; • Water efficiency and effluent reduction projects; • New products such as SupPlant; and • New businesses such as our investment in Origin Materials. We are not only focused on reducing our own water consumption and effluent. Our businesses assist customers to improve water efficiency, reduce effluent and secure alternative water supply. We understand that we need to act now to ensure the sustainability of our business and that of our customers in a water constrained environment. Given this, we have already invested in the above and plan to continue to do so going forward.

W7.4

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

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

We do not have a single internal price for water. However, we do consider the costs associated with water supply, treatment and the management of water-related risks and opportunities when compiling business plans, budgets and considering new investments. We consider the actual price associated with water. We do not believe a single internal water price would be accurate given that all our businesses are charged different rates for water and effluent, depending on location and other factors. For this reason, we use water prices as close as possible to actual prices to ensure the robustness of our business plans, budgets and investment decisions.

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 Business level specific targets and/or goals Country level targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	In the reporting year, we introduced targets to reduce potable water consumption and effluent to sea and sewer by 2025. Baselines were determined by analysing data over the period 2017 to 2019. Our approach to setting the targets involved: • Identifying for which water-related issues we should be setting targets; • Selecting a base year; • Ensuring that the data for the base year is accurate; • Obtaining third party verification of the data; • Selecting the target years and levels of ambition; and • Identifying projects that can be implemented to achieve the targets. We also had several company-wide goals in place. Our approach to setting the goals involved: • Identifying for which water-related issues we should be setting goals; • Selecting a base year; • Selecting the end years and levels of ambition; and • Identifying projects that can be implemented to achieve the goals. In identifying for which water-related issues we should be setting targets and goals and in selecting the target years/end years and levels of ambition, we considered: • The nature of our Group businesses; • The environments in which we operate; • The impact of our water-related risks and opportunities; • Our Sustainability Strategy and Framework; and • The needs of our customers.

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 withdrawals

Level
Company-wide

Primary motivation
Risk mitigation

Description of target
25% reduction in potable water consumption by 2025. Baselines were determined by analysing data over the period 2017 to 2019.

Quantitative metric
% reduction of water withdrawals from municipal supply

Baseline year
2019

Start year
2020

Target year
2025

% of target achieved
100

Please explain
We are targeting a 25% reduction in potable water consumption by 2025. Baselines were determined by analysing data over the period 2017 to 2019. Although we achieved the target in 2020, the absolute target that needs to be achieved by 2025 is still being pursued. We acknowledge that some of the reduction in water consumption in 2020 was because of the impact of COVID-19 on operational activities and not only water efficiency initiatives. As such, we will continue to implement water efficiency projects to ensure that the target is realised in 2025.

Target reference number
Target 2

Category of target
Water discharge

Level
Company-wide

Primary motivation
Reduced environmental impact

Description of target
20% reduction in effluent discharged to sea and sewer by 2025. Baselines were determined by analysing data over the period 2017 to 2019.

Quantitative metric
Other, please specify (% reduction in effluent discharged to sea and sewer)

Baseline year
2019

Start year
2020

Target year
2025

% of target achieved
100

Please explain
We are targeting a 20% reduction in effluent discharged to sea and sewer by 2025. Baselines were determined by analysing data over the period 2017 to 2019. Although we achieved the target in 2020, the absolute target that needs to be achieved by 2025 is still being pursued. We acknowledge that some of the reduction in effluent in 2020 was because of the impact of COVID-19 on operational activities and not only effluent reduction initiatives. As such, we will continue to implement effluent reduction projects to ensure that the target is realised in 2025.

W8.1b

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

Goal
Providing access to safely managed Water, Sanitation and Hygiene (WASH) in local communities

Level
Country level

Motivation
Corporate social responsibility

Description of goal
We have a goal in place to partner municipalities and water boards in Africa to supply WASH in local communities. More specifically, we are focused on the provision of potable water to communities. This goal is important to us as we understand the importance of clean water and sustainable water usage as preconditions to address a public health crisis. In the reporting year, the pressures of the global COVID-19 pandemic have further highlighted the importance of this goal. To implement this goal, AECI Water works with the public sector to identify communities in need and to implement the required solutions.

Baseline year
2019

Start year
2020

End year
2025

Progress
Success is measured by whether we have been able to provide potable water to communities in need. There is no threshold for success. Every community provided with potable water is considered a success. To date, we have provided a number of communities with access to potable water. We partnered with municipalities and water boards in South Africa, Mali, Ghana and Burkina Faso to supply potable water to communities.

Goal
Engaging with customers to help them minimize product impacts

Level
Company-wide

Motivation
Sales of new products/services

Description of goal
Although our targets are focused on reducing our own water withdrawals, the goals are broader than our own footprint. We want to assist our customers to reduce their own water withdrawals and to enhance their resilience in light of the impacts of water-related risks. This is very important to us. We acknowledge that we would not have a business without our customers. We also acknowledge that we are well placed to offer environmentally friendly products and services to them. By doing so we could increase our revenue and also ensure our sustainability into the future. To implement this goal, we invest in researching and developing new products. Some examples include: • AECI Water is collaborating with AECI Plant Health to explore how water treatment technologies can reduce the volume of water needed for irrigation purposes without compromising yields. • AECI Food & Beverage is targeting water conservation opportunities in the dairy industry in the Western Cape. • AECI Chemicals is involved in testing the use of enzymes and bacteria to provide a more natural solution for the treatment of effluents with high COD. Its initial trial in another sector indicates the potential to re-use 50%-60% of water treated through this method. • AECI Water designed, built, installed, commissioned and operates a number of desalination plants in the Western Cape. These desalination plants are a sustainable and cost-effective solution for water-stressed environments.

Baseline year
2019

Start year
2020

End year
2025

Progress
Success is measured by whether we are earning revenue from environmentally friendly products and services. It is estimated that 10% of total revenue may result in future from low carbon and/or environmentally friendly products and services. Currently, we estimate that less than 10% of our total revenue is from the sale of environmentally friendly products and services. However, our focus on researching and developing new products will hopefully grow this in subsequent years.

Goal
Promotion of sustainable agriculture practices

Level
Business

Motivation
Sales of new products/services

Description of goal
Promotion of sustainable agriculture practices Business Sales of new products / services AECI Agri Health has a goal in place to encourage its customers to adopt sustainable agriculture practices. This goal is important to us given the impact that this has on food security. According to the United Nations, one in nine people in the world do not have enough to eat. This situation is mirrored in Africa where hunger and malnutrition persist at alarming levels and diet-related diseases are among the top causes of death. These patterns have been amplified by the impact of the COVID-19 pandemic. It is with this in mind that we have set a goal to promote sustainable agriculture practices to increase yield, contributing to improved food security. We are implementing this through AECI Plant Health's NuWay® methodology which uses precision analysis, remote sensing and tailored chemistry to address long-term soil health. This enhances agricultural output and delivers healthier crops. An example of the holistic NuWay® offering is Biocult which uses mycorrhizae to enhance plant nutrition, soil biology and soil chemistry.

Baseline year
2019

Start year
2020

End year
2025

Progress
Success is measured by the number of our customers electing to adopt sustainable agriculture practices. We don't have a threshold for success. Each customer electing to use NuWay® is seen as a success. Over the years, we have seen an increase in the number of farmers adopting NuWay®.

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 withdrawals	ISAE 3000	Total water withdrawals are verified by a third party. We verify this parameter owing to its importance for the business. It provides an indication of our efficiency and is a measure of our dependence on water. Our independent assurance was undertaken by Deloitte which selected the verification standard. Verification is conducted annually basis. For more information, please see the assurance statement

W10. Sign off

W-FI

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

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	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)].

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	24111000000

SW0.2

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

No

SW1.1

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

No, CDP supply chain members do not buy goods or services from facilities listed in W5.1

SW1.2

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

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	No, not currently but we intend to provide it within the next two years	

SW2.1

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

SW2.2

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

No

SW3.1

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

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms