Aspen Pharmacare Holdings Ltd. - Water Security 2020

W0. Introduction

W0.1

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

Aspen is a pharmaceutical company listed on the Johannesburg Stock Exchange Limited (“JSE”). Aspen employs approximately 10 000 employees and its heritage dates back more than 160 years in South Africa. Aspen supplies branded and generic pharmaceutical products, and consumer healthcare products in selected territories and into more than 150 countries worldwide. The Aspen brand has become synonymous with high quality and affordable products. Aspen recognises that climate change has potential direct and indirect implications on its operations and is therefore relevant to Aspen’s sustainability objectives. In addition to climate change related risks, sustainable water supply is further exacerbated by increased urbanisation and the ageing municipal infrastructure in certain areas We use water extensively in our manufacturing processes, in the cleaning of our equipment and facilities, for employee hygiene, in steam generation and to maintain the required manufacturing environmental conditions. As at 30 June 2019, the Group had 23 manufacturing facilities across 15 sites. The manufacturing sites contribute to the bulk of Aspen’s carbon emissions and water usage and therefore our environmental reporting is focused at a manufacturing site level.

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	July 1 2018	June 30 2019

W0.3

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

Australia
Brazil
France
Germany
Ghana
Kenya
Mexico
Netherlands
South Africa
United Republic of Tanzania
United States of America

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 operational control is exercised

W0.6

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Alphamed, India.	New facility - will report in CDP 2021.

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	Water quality and supply have the potential to impact both Aspen's direct operations and supply chain. Aspen relies on a constant water supply of adequate quality, to maintain manufacturing processes and compliance to quality standards. Disruptions to water supply present a risk to production, and declining water quality will impact the Group's operating costs as additional processing would be required to ensure product quality. The cost, quality and security of the supply chain are also vulnerable to water supply and quality risks. Aspen sources raw materials from various geographic locations. Intermediates and raw materials sourced from the agricultural sector are specifically vulnerable to changes in climate (changing precipitation regimes and increased frequency and intensity of extreme weather events) and overall water supply and quality.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	The facilities in South Africa continue to benefit from reuse and recycling initiatives that were implemented in prior years, including the reuse of rejected Reverse Osmosis (RO) water in the ablution facilities and cooling towers. The site in Vallejo Mexico makes use of recycled water to irrigate the gardens, and donates clean recycled water from the water treatment plant to other industries. These initiatives were aimed at reducing Aspen's exposure to increasing water tariffs and supply risk. Additionally, a number of Aspen's direct and indirect operations are situated in water management areas which are reliant on the treatment and recycling of return flows to maintain a positive water balance.

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 monitored at 100% of the facilities using a combination of municipal and internal meters. Water withdrawals are monitored as the water supply is extremely important in maintaining operations, and represents a growing operational expense.
Water withdrawals – volumes by source	100%	Municipal supply is the main source of water for the majority of the facilities; however, the French facility's main source of water is groundwater. All sites monitor water withdrawal by source.
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%	The quality of the water withdrawn is monitored as the nature of our products requires that the water used meets Aspen's internal quality standards.
Water discharges – total volumes	100%	100% of the facilities monitor water discharge based on information provided from municipal accounts and calculations, as wastewater discharge represents a significant cost to the operations.
Water discharges – volumes by destination	100%	All the facilities discharge wastewater into the municipal sewer system; some sites do treat the water onsite before discharge. Water discharge at 100% of the facilities is monitored from municipal accounts. Volumes are either measured or calculated.
Water discharges – volumes by treatment method	100%	Some sites such as Vallejo in Mexico and Oss in the Netherlands treat wastewater before discharge to the municipal sewer. All water quality and volumes generated are measured or calculated.
Water discharge quality – by standard effluent parameters	100%	All the facilities discharge wastewater into the municipal sewer system; some sites treat the water onsite before discharge. Water discharge at 100% of the facilities is monitored from municipal accounts. All the facilities discharge wastewater into the municipal sewer system and have to comply with the municipal quality standards.
Water discharge quality – temperature	100%	All the facilities discharge wastewater into the municipal sewer system and have to comply with the municipal temperature standards.
Water consumption – total volume	100%	Water consumption can be calculated from the total withdrawal and water discharge volumes which Aspen measures and reports on a quarterly basis.
Water recycled/reused	Not monitored	Water recycling and water conservation are promoted at all sites. The exact quantities are not monitored at this stage.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Ablution facilities are provided at 100% of the operations; however, due to the small volume of water utilized, it is not monitored separately.

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	1693	Higher	Increased production requirements as well as various infrastructure projects under way have resulted in an increase in the volume of water withdrawn.
Total discharges	1308	Lower	Discharge quantity is based on available information at the various facilities within the Group and is not monitored through the use of meters at present.
Total consumption	385	Higher	Increased production requirements as well as various infrastructure projects under way have resulted in an increase in the volume of water withdrawn.

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	Using the World Resource Institute's Aqueduct Water Risk Atlas, which uses 13 water risk indicators – including quantity, quality and reputational risks – to determine a composite overall water risk score by location, our sites in Vallejo, Mexico and FCC, Cape Town are situated in extremely high water stressed areas while our Dandenong, Australia site is in a high risk-rated region. The water withdrawn from these sites represents 14% of total water withdrawn.

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	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable to Aspen Manufacturing sites.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable to Aspen Manufacturing sites.
Groundwater – renewable	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable to Aspen Manufacturing sites.
Groundwater – non-renewable	Relevant	559	Much higher	Our facility in the Netherlands made use of more ground water than the prior year. Facilities making use of groundwater within our organisation are: France, Tanzania, Netherlands and Kenya.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable to Aspen Manufacturing sites.
Third party sources	Relevant	1134	Higher	Water withdrawn decreased slightly by 6% due to increased ground water usage at the Netherlands facility.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable for our operations
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable for our operations
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable for our operations
Third-party destinations	Relevant	1308	Lower	Discharge quantity is based on available information at the various facilities within the Group and is not monitored through the use of meters at present.

W1.4

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

No, not currently but we intend to within two years

W1.4d

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

	Primary reason	Please explain
Row 1	We are planning to do so within the next two years	Aspen is at the initial stages of establishing the best way to collect information from key suppliers.

W2. Business impacts

W2.1

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

No

W2.2

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

Yes, fines

W2.2a

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

Row 1

Total number of fines

1

Total value of fines

12890

% of total facilities/operations associated

5

Number of fines compared to previous reporting year

Much lower

Comment

Ad hoc minor non-conformance at our Nutritionals Johannesburg, which was now been divested.

W2.2b

(W2.2b) Provide details for all significant fines, enforcement orders and/or other penalties for water-related regulatory violations in the reporting year, and your plans for resolving them.

Type of penalty

Fine

Financial impact

12890

Country/Area & River basin

South Africa	Limpopo

Type of incident

Effluent limit exceedances

Description of penalty, incident, regulatory violation, significance, and resolution

This an additional tariff that the Municipality added after one of the parameters exceed standard limits.

W3. Procedures

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?
Yes, water-related risks are assessed

W3.3a

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

Direct operations

Coverage
Full

Risk assessment procedure
Water risks are assessed in an environmental risk assessment

Frequency of assessment
Annually

How far into the future are risks considered?
Up to 1 year

Type of tools and methods used
Tools on the market

Tools and methods used
WRI Aqueduct
WWF Water Risk Filter

Comment
The WWF Water Risk tool was used to assess risks at all Aspen manufacturing sites and WRI Aquaduct is used to assess water stress .

Supply chain

Coverage
None

Risk assessment procedure
<Not Applicable>

Frequency of assessment
<Not Applicable>

How far into the future are risks considered?
<Not Applicable>

Type of tools and methods used
<Not Applicable>

Tools and methods used
<Not Applicable>

Comment
Supply chain risks not currently included in the assessment.

Other stages of the value chain

Coverage
None

Risk assessment procedure
<Not Applicable>

Frequency of assessment
<Not Applicable>

How far into the future are risks considered?
<Not Applicable>

Type of tools and methods used
<Not Applicable>

Tools and methods used
<Not Applicable>

Comment
No other stages in the value chain are included in the assessment at this stage.

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	Disruptions to water supply present a risk to production and growth and could impact the Group's operating cost. This risk is informed by internal monitoring, company knowledge and engagement with the water service providers
Water quality at a basin/catchment level	Relevant, always included	Declining water quality could impact the Group's operating cost as additional processing steps could be required in order to ensure that the water meets the required quality standards. This risk is informed by internal monitoring, company knowledge and engagement with the water providers.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	A number of regions in which Aspen's operations are situated are characterised by a water deficit, and consequently, increasing competition between river basin stakeholders. Aspen is kept informed of any conflicts and possible consequences through engagement with the water provider, regional government databases and independent river basin studies. to date, No significant conflicts have been noted.
Implications of water on your key commodities/raw materials	Relevant, always included	Aspen has a diverse supply chain incorporating numerous raw materials, including agricultural products. Water and climate-related issues experienced in the geographic locations supplying the facilities can impact operations by impacting the sustainable supply of certain raw materials. Stakeholder engagement with Aspen's key suppliers will be implemented in the future, as practical, to further inform our exposure to water-related risks. The risk assessment made use of existing datasets not direct engagement with Aspen suppliers.
Water-related regulatory frameworks	Relevant, always included	Water and wastewater tariffs represent a growing cost to operations. Current issues are informed by municipal accounts, regional government databases, engagement with the local water utility providers, and monitoring national government policy in relation to water tariffs.
Status of ecosystems and habitats	Not relevant, explanation provided	Although Aspen appreciates the importance of ecosystem services in maintaining a sustainable water resource, and vice versa, reliance is placed on water utilities, the water services authorities and Governments to ensure that these ecosystems are appropriately managed and risks evaluated. All of Aspen's facilities are situated in highly modified and built-up areas (i.e. industrial parks); none are located in critical habitat areas or are sufficiently close so as to have a significant impact on such habitats. Furthermore, Aspen undertakes direct abstraction of water at facilities located in France, Netherlands, Tanzania and Kenya. As per our environmental management principles, Aspen is committed to resource conservation initiatives; however, Aspen relies on the water utilities and regulators to manage any ecosystem impacts.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Aspen provides ablution facilities for employees at all of the sites; risks associated with water supply to the ablution facilities are included in the overall operational water supply risk evaluation.
Other contextual issues, please specify	Not considered	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, not included	Water related issues that impact Aspen's operations have the potential to negatively affect customers. Aspen will consider including the impact on customers into the risk assessment process.
Employees	Relevant, not included	Ensuring the highest quality in hygiene standards at Aspen's facilities is imperative. Consequently, water issues with the potential to impact employee hygiene will be considered within the risk assessment process.
Investors	Relevant, not included	Risks to Aspen's production have the potential to impact the organisation's current and future investor portfolio.
Local communities	Relevant, always included	Climate change and water stressors have the potential to negatively impact community health. Consequently, health implications and the possible requirements placed upon Aspen's product line and production levels are considered.
NGOs	Relevant, always included	Certain NGO's, such as the WWF, play an important role in managing and assessing various countries' water resources, and, consequently, their initiatives are considered in Aspen's water risk assessment process.
Other water users at a basin/catchment level	Relevant, always included	Other water users are considered for two reasons: (i) the declining water resource will need to be shared between all water users; the characteristics and projected growth of this sector is therefore important; and (ii) these water users have the potential to negatively impact the quality of the water resource.
Regulators	Relevant, always included	Changes in regulations and tariffs implemented by regulators with the objective of managing water resources will directly impact Aspen's operations, and consequently regulators are an important stakeholder group in the risk assessment process.
River basin management authorities	Relevant, always included	The effectiveness of water basin management to adequately manage the resource will directly impact on water availability and quality.
Statutory special interest groups at a local level	Relevant, not included	Not currently included in the assessment. Statutory special interest groups will be factored into the risk assessment process, where relevant, in future submissions.
Suppliers	Relevant, always included	An uninterrupted supply of raw materials is imperative in maintaining production. Consequently, suppliers are factored into risk assessments.
Water utilities at a local level	Relevant, always included	The current and future performance of water utilities in managing water supply has a direct impact on Aspen's operations.
Other stakeholder, please specify	Not considered	No other stakeholders included.

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.

Risk management is an embedded attribute of Aspen's corporate culture and is inherent in all its business decisions, activities and transactions. An integrated approach to risk management is implemented giving due consideration to economic, environmental and social indicators impacting the Company and its stakeholders. Strategic, operational, financial and compliance risk assessments are conducted annually at a business unit level and at a company level and are updated on an ongoing basis, but at least each quarter. Company- wide risks are identified by the Group Risk & Sustainability Manager and reported to the Executive Risk Forum. The risk assessment is performed in accordance with the approved Group Risk Management policy and Group Risk Management Framework. The detailed water risk assessment feeds into the enterprise risk management process. The Water Risk Filter, developed by World Wildlife Fund for Nature (WWF) assesses both company risk and basin risk. The process involved uploading all site information into the Tool, including the facility location coordinates. Each facility then completed the facility specific questionnaire and provided information relating to water quality data, water consumption and the country's legal framework. The Tool utilized online data sets from WWF to map the basin risks. The process assisted in the identification of company and basin risks for each facility.

The risk assessment methodology requires the assessment of the identified risks in relation to the potential impact and the probability. A predefined 4-point scale categorises the impact from catastrophic to minor taking into account the potential financial impact, impact on the viability of the current and future planned business model and supporting systems; impact on compliance to regulations/legislation/ contractual agreements/internal governance procedures; and/or impact on the Group's reputation and/or its stakeholders. The application of a likelihood assessment (from "almost certain" to "unlikely") to the impact rating results in an overall inherent risk rating. The effectiveness the risk mitigations are assessed to determine the residual level of risk. These inherent and residual risk assessments are used to rank risks relative to each other. Interdependent risks and/or risk concentrations are considered by the Executive Risk Forum and included in their Group risk report, as necessary. The business unit integrated risk assessments are supported by the SHE risk assessments which are conducted using a systematic approach for the identification and assessment of all safety, health and environmental risks, including climate change and water security. Parameters such as severity, occurrence and exposure are used to calculate the inherent and residual risk, and then prioritised according to the determined risk levels. Proposed solutions and resources required for mitigating significant risks and impacts are presented to Executive Management for approval. The status of the risk mitigation plans are reported on a regular basis during the site SHE performance review meetings.

W4. Risks and opportunities

W4.1

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

Yes, only within our direct operations

W4.1a

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

A substantive change is defined as any material loss in the ability to operate and manufacture products, including loss of revenue in any of the regions. Aspen considers material issues to be those that have the potential to substantially impact Aspen's ability to create and sustain value for our stakeholders. Both quantitative and qualitative factors are taken into account in determining materiality.

The risk assessment methodology requires the assessment of the identified risks in relation to the potential impact and this provides the assessment of substantive financial or strategic impact at the business unit level and at the Group level. A predefined 4-point scale categorises the impact from catastrophic to minor taking into account the potential financial impact, impact on the viability of the current and future planned business model and supporting systems; impact on compliance to regulations/legislation/ contractual agreements/internal governance procedures; and/or impact on the Group's reputation and/or its stakeholders.

Catastrophic/Exceptional

EBITA / recovery impact of more than 30% to the business unit; and/or
Event expected to have a significant impact to the viability of the current and future planned business model and supporting systems ; and/or Major non-compliance to regulations/legislation/ contractual agreements/internal governance procedures which could lead to material penalties/ material trade restrictions; and/or Event which could have a sustained impact on the Group's reputation and/or its stakeholders if not mitigated effectively.

Critical/ Substantial

EBITA / recovery impact of more than 20% to the business unit; and/or
Event expected to have a moderate impact to the viability of the current and future planned business model and supporting systems; and/or A serious breach of regulations/legislation/ contractual agreements/internal governance procedures which could lead to material penalties and/or result in temporary trade restrictions; and/or Event which could have a significant but temporary impact on the Group's reputation and/or its stakeholders if not mitigated effectively.

Moderate

EBITA / recovery impact of more than 10% to the business unit; and/or The viability of the business model is not expected to come under scrutiny but could have some impact on the effectiveness of supporting systems; and/or A minor breach of regulations/legislation/contractual agreements/internal governance procedures and could result in minor penalties. Continuity of operations not expected to be impacted; and/or Event which is expected to have a negligible negative impact on Aspen's reputation and impact to related stakeholders.

Minor

EBITA / recovery impact of 5% to 10% to the business unit; and/or The viability of the current and future planned business model not impacted. The event could impact viability of supporting systems; and/or Event does not constitute a breach of regulation/legislation; and/or Event does not negatively impact the Group's reputation.

W4.1b

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

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	2	1-25	FCC in Cape Town and the Aspen Port Elizabeth and East London sites are situated in drought-stricken areas. Resource conservation initiatives and the identification of potential alternative sources of water supply are in progress.

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	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
Unknown

Comment
Water scarcity is a global risk and one that Aspen's South African operations have increasingly being exposed to due to the severe drought conditions in the Western and Eastern Cape. Aspen's Fine Chemical Corporation (FCC) is located in Cape Town and the city has experienced erratic intermittent rainfall in the last few years. Although there has been previous concerns that its water supply might run out, the situation has improved considerably, but the city remains vulnerable. FCC recognizes the risk to operational sustainability and therefore water conservation initiatives as well as researching on alternative water sources are a regarded as a top priority for the site. Water conservation initiatives implemented so far, include the installation of process and utility water recovery and recycling systems, and reconfiguration and optimisation of the Purified Water System operation to decrease water rejection cycles.

Country/Area & River basin

South Africa	Mzimvubu-Tsitsikamma

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
Unknown

Comment
Water scarcity is a global risk and one that we have increasingly been exposed to due to the severe drought conditions in the Western and Eastern Cape. Low dam levels in the Eastern Cape have been reported in the Nelson Mandela Bay Municipality in last few years which led to water restrictions at some stage. The situation has improved considerably recently however the river basin, Umzimvubu river basin is still water stressed. To mitigate the risk of low water supply, the sites in the Eastern Cape have made significant progress in assessing long-term alternative water sources particularly groundwater i.e. borehole water. For the Port Elizabeth site, it was confirmed that the borehole can provide the required quantity of water for the current and anticipated future requirements. An application for R30 million capex has been approved for budget 2020 for the water treatment plant and reticulation systems. The following actions have been taken so far; - A detailed design has been completed and majority of the main components have been ordered and construction has commenced. The COVID-19 outbreak is delaying the issuing of the tender documents to potential contractors but we still hope to complete construction by 2020 year end. - A water use licence has been granted. The borehole project was extended to the East London, also in Eastern Cape and the desktop study was completed and the conclusion was that there is very poor potential water availability. A further surface penetrating radar study was commissioned but has not yet commenced because of the lockdown. The probability of finding adequate ground water seems slim at present.

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	Berg-Olifants

Type of risk & Primary risk driver

Physical	Severe weather events

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Water scarcity is a global risk and one that Aspen's South African operations have increasingly being exposed to due to the severe drought conditions in the Western and Eastern Cape. Aspen's Fine Chemical Corporation (FCC) is located in Cape Town and the city has experienced erratic intermittent rainfall in the last few years. Although there has been previous concerns that its water supply might run out, the situation has improved considerably ,but the city remains vulnerable. FCC recognizes the risk to operational sustainability and therefore water conservation initiatives as well as researching on alternative water sources are a regarded as a top priority for the site. Water conservation initiatives implemented so far, include the installation of process and utility water recovery and recycling systems, and reconfiguration and optimisation of the Purified Water System operation to decrease water rejection cycles. To further mitigate the risk of low water supply, the site has identified borehole water as an alternative source of water. Borehole project was successfully implemented and the site will be using borehole water as a back up to Municipal water.

Timeframe
1-3 years

Magnitude of potential impact
Medium-high

Likelihood
Very likely

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact
Water scarcity will directly impact our operations leading to potential financial loss or increased production costs. The financial impact is mainly the implementation of water conservation projects and infrastructural developments.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
FCC recognizes the risk to operational sustainability and therefore water conservation initiatives as well as researching on alternative water sources are a regarded as a top priority for the site. Water conservation initiatives implemented so far, include the installation of process and utility water recovery and recycling systems, and reconfiguration and optimisation of the Purified Water System operation to decrease water rejection cycles.

Cost of response
0

Explanation of cost of response
This costs varies depending on projects implemented and/or infrastructural changes made.

Country/Area & River basin

South Africa	Mzimvubu-Tsitsikamma

Type of risk & Primary risk driver

Physical	Rationing of municipal water supply

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Water scarcity is a global risk and one that we have increasingly been exposed to due to the severe drought conditions in the Western and Eastern Cape. Low dam levels in the Eastern Cape have been reported in the Nelson Mandela Bay Municipality in last few years which led to water restrictions at some stage. The situation has improved considerably recently however the river basin, Umzimvubu river basin, is still water stressed. To mitigate the risk of low water supply, the sites in the Eastern Cape have made significant progress in assessing long-term alternative water sources particularly groundwater i.e. borehole water. For the Port Elizabeth site, it was confirmed that the borehole can provide the required quantity of water for the current and anticipated future requirements. An application for R30 million capex has been approved for budget 2020 for the water treatment plant and reticulation systems. The following actions have been taken so far; - A detailed design has been completed and majority of the main components have been ordered and construction has commenced. The COVID-19 outbreak is delaying the issuing of the tender documents to potential contractors but we still hope to complete construction by 2020 year end. - A water use licence has been granted. The borehole project was extended to the East London, also in Eastern Cape and the desktop study was completed and the conclusion was that there is very poor potential water availability. A further surface penetrating radar study was commissioned but has not yet commenced because of the lockdown. The probability of finding adequate ground water seems slim at present.

Timeframe
1-3 years

Magnitude of potential impact
Medium-high

Likelihood
Likely

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact
Water scarcity will directly impact our operations leading to potential financial loss or increased production costs. The financial impact is mainly the implementation of water conservation projects and infrastructural developments

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
Groundwater has been identified as a feasible alternative source of water for Port Elizabeth and Cape town sites and investigations are still underway in East London.

Cost of response
0

Explanation of cost of response
This costs varies depending on projects implemented and/or infrastructural changes made. It is anticipated that the total cost across the Port Elizabeth and Cape Town operations is anticipated to be in the region of R35 million.

W4.2c

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

	Primary reason	Please explain
Row 1	Not yet evaluated	Water risks in the value chain have not been fully assessed at this stage. The company is considering implementing this in the next 2 years.

W4.3

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

W4.3a

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

Type of opportunity
Efficiency

Primary water-related opportunity
Improved water efficiency in operations

Company-specific description & strategy to realize opportunity
Continuous improvement projects are put in place to recycle water and improve water efficiency. Water conservation projects undertaken to date include installation of HVAC condensate recovery system and installation of additional Reverse Osmosis Water Buffer Tanks at the Port Elizabeth site in South Africa, Recovery of reject water discharged during water purification through reverse osmosis at the Brazilian site, installation of boreholes at various sites. and replacement of cooling water infrastructure at the site in France.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact
The financial impact for water efficiency varies significantly but an estimated amount of R 1,200,000 was spent in the 2018 financial year.

Type of opportunity
Resilience

Primary water-related opportunity
Other, please specify (Investigating alternative sources of water)

Company-specific description & strategy to realize opportunity
We have a few sites that are in water stressed regions and this has prompted investigations to mitigate the risk of low water supply. Long-term alternative water sources including groundwater and seawater are some of the possible sources we are currently looking at.

Estimated timeframe for realization
4 to 6 years

Magnitude of potential financial impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact
This costs will be dependent on the different projects and/or infrastructural changes requirements.

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)
Port Elizabeth

Country/Area & River basin

South Africa	Mzimvubu-Tsitsikamma

Latitude
-33.9167

Longitude
25.5667

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)
165

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
165

Total water discharges at this facility (megaliters/year)
133

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
32

Comparison of total consumption with previous reporting year
About the same

Please explain
Commissioning and plant start up for new plants and also increased operational requirements.

Facility reference number
Facility 2

Facility name (optional)
East London

Country/Area & River basin

South Africa	Mzimvubu-Tsitsikamma

Latitude
-32.981

Longitude
27.8282

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)
47

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
47

Total water discharges at this facility (megaliters/year)
37

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
37

Total water consumption at this facility (megaliters/year)
10

Comparison of total consumption with previous reporting year
Higher

Please explain
Disruptions in operational requirements which resulted in increased clean ups and RO rinses.

Facility reference number
Facility 3

Facility name (optional)
Johannesburg

Country/Area & River basin

South Africa	Limpopo

Latitude
-25.9874

Longitude
28.8282

Located in area with water stress
Unknown

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)
88

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
88

Total water discharges at this facility (megaliters/year)
68

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
68

Total water consumption at this facility (megaliters/year)
20

Comparison of total consumption with previous reporting year
Lower

Please explain
Increased production at the site as well as a disruption in the water recycling projects which negatively impacted water usage resulting in higher water withdrawal.

Facility reference number
Facility 4

Facility name (optional)
Cape Town

Country/Area & River basin

South Africa	Berg-Olifants

Latitude
-33.9157

Longitude
18.577

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)
65

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
65

Total water discharges at this facility (megaliters/year)
33

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
33

Total water consumption at this facility (megaliters/year)
32

Comparison of total consumption with previous reporting year
Higher

Please explain
Increased production in specific operations at the site.

Facility reference number
Facility 5

Facility name (optional)
Bad Oldesloe

Country/Area & River basin

Germany	Other, please specify (Schlei/Trave River Basin District)

Latitude
53.8009

Longitude
10.3983

Located in area with water stress
No

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

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
41

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
41

Total water discharges at this facility (megaliters/year)
27

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
27

Total water consumption at this facility (megaliters/year)
14

Comparison of total consumption with previous reporting year
About the same

Please explain
Very insignificant differences, water management is about the same as the last reporting period.

Facility reference number
Facility 6

Facility name (optional)
Dandenong

Country/Area & River basin

Australia	Victoria River

Latitude
-37.981

Longitude
145.215

Located in area with water stress
No

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

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
53

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
53

Total water discharges at this facility (megaliters/year)
34

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
34

Total water consumption at this facility (megaliters/year)
19

Comparison of total consumption with previous reporting year
About the same

Please explain
Changes in consumption are due to various operational activities

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Facility reference number
Facility 7

Facility name (optional)
Notre Dame Bondeville

Country/Area & River basin

France	Seine

Latitude
49.4431

Longitude
1.0993

Located in area with water stress
No

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

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
115

Comparison of total withdrawals with previous reporting year
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
115

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
108

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
108

Total water consumption at this facility (megaliters/year)
7

Comparison of total consumption with previous reporting year
About the same

Please explain
The site has implemented a number of water conservation projects in order to reduce water consumption.

Facility reference number
Facility 8

Facility name (optional)
Oss

Country/Area & River basin

Netherlands	Rhine

Latitude
51.6225

Longitude
5.1

Located in area with water stress
No

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

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
824

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
353

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
471

Total water discharges at this facility (megaliters/year)
703

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
703

Total water consumption at this facility (megaliters/year)
121

Comparison of total consumption with previous reporting year
This is our first year of measurement

Please explain
Disentanglement of site infrastructures from MSD resulted in inconsistent water consumption.

Facility reference number
Facility 9

Facility name (optional)
Vitória

Country/Area & River basin

Brazil	Other, please specify (Sao Mateus)

Latitude
-20.3222

Longitude
-40.3381

Located in area with water stress
No

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

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
7

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
7

Total water discharges at this facility (megaliters/year)
1

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
1

Total water consumption at this facility (megaliters/year)
6

Comparison of total consumption with previous reporting year
Higher

Please explain
Increase is due to higher production demands.

Facility reference number
Facility 10

Facility name (optional)
Vallejo

Country/Area & River basin

Mexico	Panuco

Latitude
19.5018

Longitude
-99.1674

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)
120

Comparison of total withdrawals with previous reporting year
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
64

Withdrawals from produced/entrained water

0

Withdrawals from third party sources
56

Total water discharges at this facility (megaliters/year)
63

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
34

Total water consumption at this facility (megaliters/year)
57

Comparison of total consumption with previous reporting year
Much lower

Please explain
Nutritional site was divested in May 2019.

Facility reference number
Facility 11

Facility name (optional)
Beta

Country/Area & River basin

Kenya	Galana

Latitude
-1.2833

Longitude
36.8167

Located in area with water stress
No

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

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
22

Comparison of total withdrawals with previous reporting year
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
22

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
22

Comparison of total consumption with previous reporting year
Lower

Please explain
Various water conservation projects were implemented at the site.

Facility reference number
Facility 12

Facility name (optional)
Shelys

Country/Area & River basin

United Republic of Tanzania	Other, please specify (Msimbazi)

Latitude
-6.8235

Longitude
39.2695

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)
49

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
27

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
22

Total water discharges at this facility (megaliters/year)
5

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
5

Total water consumption at this facility (megaliters/year)
44

Comparison of total consumption with previous reporting year
Higher

Please explain
Increase in water usage due to an increase in the production of liquid products.

Facility reference number
Facility 13

Facility name (optional)
Sioux City

Country/Area & River basin

United States of America	Mississippi River

Latitude
43.5499

Longitude
-96.7003

Located in area with water stress
No

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

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
96

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
96

Total water discharges at this facility (megaliters/year)
96

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
96

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
Lower

Please explain
Additional clean up and increased site activities

Facility reference number
Facility 14

Facility name (optional)
Kama

Country/Area & River basin

Ghana	Other, please specify (Densu)

Latitude
5.556

Longitude
-0.1969

Located in area with water stress
No

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

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
1

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
1

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
1

Comparison of total consumption with previous reporting year
About the same

Please explain
Insignificant variances.

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?
AA1000AS

Water withdrawals – volume by source

% verified
76-100

What standard and methodology was used?
AA1000AS

Water withdrawals – quality

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharges – total volumes

% verified
51-75

What standard and methodology was used?
The volume of water discharged is either estimated from calculations obtained from the service providers, or some sites have water meters to measure the quantities discharged.

Water discharges – volume by destination

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharges – volume by treatment method

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharge quality – quality by standard effluent parameters

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water discharge quality – temperature

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water consumption – total volume

% verified
51-75

What standard and methodology was used?
Consumption is calculated as the amount withdrawn less amount discharged, however, discharges are not specifically measured bur calculated in most facilities.

Water recycled/reused

% verified
76-100

What standard and methodology was used?
AA1000AS

W6. Governance

W6.1

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

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

W6.2

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

Yes

W6.2a

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

Position of individual	Please explain
Board Chair	The Aspen Board of Directors is led by the Chairman and is collectively responsible for setting the strategic direction for the Group and approving the Group's strategic objectives, one of which is "To practice good corporate citizenship". The Board is responsible for the oversight of performance against this strategic objective by considering both the financial aspects of the business and impact that the business operations have on economic, physical and social environments in which Aspen operates. Aligned to the Group's strategic objectives, the Board ratifies the Group's material Key Performance Indicators (KPIs) annually, which includes, KPI's relating to carbon emissions and water usage. Achievement of the Group's strategic objectives is monitored on the basis of these approved KPIs. In January 2020, the Chair of the Board requested we revisit our broader ESG strategy, with a focus on climate change. This was endorsed by Aspen Strategic Leadership
Board-level committee	Aspen's Social and Ethics Committee (a subcommittee of the Board) is responsible the governance of the Group's social, environmental, human rights and ethics responsibilities in accordance with the relevant regulations, guidelines, recommendations. Aspen's Audit and Risk Committee is responsible for the governance of the Group's enterprise risk management (which includes climate and water-related risks).
Chief Executive Officer (CEO)	The Group Chief Executive and the Deputy Group Chief Executive are Executive Director members of the Board and have overall responsibility for performance of the Group. The Deputy Group Chief Executive is the line manager of the Group Corporate Services Officer (who has reporting oversight of the Group risk and sustainability function). The Executive approves business unit strategies, budgets and capital projects.

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies	As per W6.2a) above, the Group's sustainability objectives and related KPI's are ratified by the Board on an annual basis. The Deputy Group CEO presents the Group's performance against these objectives and KPI's to the Board at each of its scheduled quarterly meetings. The Group's Executive Risk Forum (which comprises the Deputy Group CEO, the Group Chief Operating Officer, the Group Finance Officer, the Group Corporate Services Officer and the Group Strategic Development Officer) presents the top enterprise-wide risks to the Group Audit and Risk Committee at the scheduled quarterly meetings, after which the risk profile is included in this Committee's report to the Board. This includes significant climate and water-related risks that have been identified and the Board reviews how the proposed risk mitigation has been considered in the business plan of the impacted business unit. Any major capital expenditure needed to implement the proposed mitigation would be included in the review and approval processes, as needed.

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
As important matters arise

Please explain
The Group Chief Executive and the Deputy Group Chief Executive are responsible for developing and implementing a sustainable growth strategy aligned to the strategic objectives set by the Board. They are accountable to the Board and report on a quarterly basis on the implementation of the strategy and the performance against the Board KPI's. They are also responsible for ensuring effective risk management and reporting processes are maintained across the Group. While "water withdrawn" is a Board KPI that is routinely reported on a quarterly basis, material water risks are included in Board reports as they arise. Should a significant climate or water-related risk be identified, the Board would review how the proposed risk mitigation has been considered in the business plan of the impacted business unit, and any major capital expenditure needed to implement the proposed mitigation would be included in the review and approval processes, as needed.

Name of the position(s) and/or committee(s)
Other committee, please specify (Executive Risk Forum)

Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
As important matters arise

Please explain
The responsibility for climate and water-related issues in the first instance lies with the Site Head, who is responsible for developing and executing the business unit strategy in alignment with the overall Group strategy. The Site Head is responsible for conducting a site risk assessment, including climate and water-related risks and for driving performance aligned to the Group's KPIs. Site Heads report operational aspects through the Group Executives to the Group CEO and Deputy Group CEO, who ensure strategic alignment across the Group's operations. In respect of enterprise risk management, significant and material risks are reported by the Site Heads to the Executive Risk Forum (comprised of the Deputy CEO, the GOO and the GFO, the Group Corporate Services Officer and the Group Strategic Development Officer)who then present the top enterprise-wide risks to the Group Audit&Risk Committee at the scheduled quarterly meetings, after which the risk profile is included in the Board pack.

Name of the position(s) and/or committee(s)
Other C-Suite Officer, please specify (Group Operations Officer)

Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
As important matters arise

Please explain
The Group Operating Officer provides Executive Oversight of the Group's key manufacturing sites and provides strategic direction in respect of the management of risks and opportunities at the sites. This Executive reports to the Group Chief Executive and is a member of the Executive Risk Forum.

Name of the position(s) and/or committee(s)
Other C-Suite Officer, please specify (Group Corporate Services Officer)

Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
As important matters arise

Please explain
The Group Corporate Services Officer is the Executive under which the Group Risk Management, the Group SHE and the Group Sustainability functions fall. These functions develop the Group sustainability strategies, provide technical input in respect of the environmental KPIs, coordinate the Group's risk management processes and the collation of corporate reporting on all sustainability data. This Executive reports to the Group Deputy Chief Executive and is a member of the Executive Risk Forum.

W6.4

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

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

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, other

W6.5a

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

Our engagement with policymakers is mostly through our involvement in business associations and forums i.e. through giving input on draft bills, regulations etc,who in turn engage with policy makers. In some instances and where necessary the company engages with the policy makers and law enforcement bodies directly to seek guidance.

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)

aspen-ir-2019-final.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	5-10	Aligned to the Group's strategic objective "To practice good corporate citizenship" one of our key sustainability commitments is in respect of the environment: "We are committed to practice responsible environmental stewardship, seeking to minimise any negative impact our operations have on the environment and to comply with applicable laws, regulations and other environmental management requirements." Water and water related risks are an integral part of these stated business objectives and commitments.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	The sustainability of our manufacturing plants to support the Group's business objectives are considered in the longer-term capacity planning and the related capital investment planning which is required to achieve the required capacity. For example, the availability of water to support the planned expansion of manufacturing operations at our Port Elizabeth site is an important factor integrated into the longer-term capacity planning for this site.
Financial planning	Yes, water-related issues are integrated	5-10	While the Group's formal financial planning tends not to extend beyond 5 years, the required investment to support manufacturing capacity (some of which will be related to sustainability of required water supply) are considered and will influence capital allocations.

W7.2

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

Row 1

Water-related CAPEX (+/- % change)

0

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

0

Water-related OPEX (+/- % change)

0

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

0

Please explain

Note: The data is not readily available as Aspen currently does not have the mechanism in place to record spend related specifically to water.

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	No, but we anticipate doing so within the next two years	We are still exploring the most relevant approach for our business.

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
Not in place at this stage.

W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Site/facility specific targets and/or goals	Targets are monitored at the corporate level	Water is a vital resource in our manufacturing processes. Water scarcity is a global risk and one that we have increasingly being exposed to. As a scarce resource, and in line with our Environmental Management Principles, we are committed to using water responsibly by implementing feasible water conservation and recycling projects. All Aspen sites are responsible for measuring and reporting all the water consumed and water discharged from the site. This creates a practical base for setting effective SMART (Specific, Measureable, Achievable, Relevant and Time bound) projects to reduce water consumption.

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number
Target 1

Category of target
Water use efficiency

Level
Site/facility

Primary motivation
Cost savings

Description of target
Projects on efficiency include: Recovery of reject water discharged during water purification through reverse osmosis at our Brazilian facility, Replacement of cooling towers and optimization of wastewater equipment at our site in France, Optimization of washroom equipment in Ghana

Quantitative metric
% reduction of water withdrawals from municipal supply

Baseline year
2018

Start year
2018

Target year
2019

% of target achieved
100

Please explain
Projects completed in July 2019

Target reference number
Target 2

Category of target
Water recycling/reuse

Level
Site/facility

Primary motivation
Reduced environmental impact

Description of target
Recycling and reuse of water in site utilities. This included projects such as Collection and reuse of condensate water at the Port Elizabeth site and water reuse at our site in the Sioux City, USA.

Quantitative metric

% increase in water use met through recycling/reuse

Baseline year
2018

Start year
2018

Target year
2019

% of target achieved
100

Please explain
Projects completed in July 2019

Target reference number
Target 3

Category of target
Water discharge

Level
Site/facility

Primary motivation
Reduced environmental impact

Description of target
Modification or optimization of equipment used for water discharge operation at the facility in France.

Quantitative metric
Other, please specify (Reduction of water discharge)

Baseline year
2018

Start year
2018

Target year
2019

% of target achieved
100

Please explain
Project implementation completed.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?
No, we do not currently verify any other water information reported in our CDP disclosure
ERM-Assurance-Statement FY19.pdf

W10. Sign off

W-FI

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

No additional information.

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	Jeanette Englund Group Risk and Sustainability Manager	Environment/Sustainability manager

W10.2

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

Yes

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	38313829825

SW0.2

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

Yes

SW0.2a

(SW0.2a) Please share your ISIN in the table below.

	ISIN country code	ISIN numeric identifier (including single check digit)
Row 1	ZA	ZAE0000666

SW1.1

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

We do not have this data but we intend to collect it within two years

SW1.2

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

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	Yes, for some facilities	Facility is Aspen Vallejo in Mexico.

SW1.2a

(SW1.2a) Please provide all available geolocation data for your facilities.

Identifier	Latitude	Longitude	Comment
Facility 10	19.5018	-99.1674	Facility is Aspen Vallejo in Mexico.

SW2.1

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

Requesting member
Wal Mart de Mexico

Category of project
Relationship water assessment

Type of project
Assessing products or services' water-related impacts to identify efficiencies

Motivation
Acquire knowledge, learnings and windows of opportunity

Estimated timeframe for achieving project
Other, please specify (Unknown at this stage)

Details of project
No details at this stage

Projected outcome
Unknown a at this stage

Requesting member
Johnson & Johnson

Category of project
Relationship water assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Motivation
Acquire knowledge, learnings and windows of opportunity

Estimated timeframe for achieving project
Other, please specify (Unknown at this stage)

Details of project
Details unknown at this stage

Projected outcome
Unknown at this stage

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.

Product name
Not available for disclosure at this stage

Water intensity value
0

Numerator: Water aspect
Water withdrawn

Denominator
Not available for disclosure at this stage

Comment
Not available for disclosure at this stage.

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, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms