

Welcome to your CDP Water Security Questionnaire 2021

W0. Introduction

W_{0.1}

(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 a broad range of post-patent, branded medicines and domestic brands spanning many therapeutic areas to 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 overall 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 parts of South Africa. We use water extensively in the manufacture of our products in order to maintain the required manufacturing environmental conditions, for manufacture of our products, especially liquids and injectables, in the cleaning of our equipment and facilities, for employee hygiene and in steam generation. As at 30 June 2020, the Group had 24 manufacturing facilities across 14 sites. The manufacturing sites contribute to the bulk of Aspen's greenhouse gas (GHG) emissions and water usage and therefore, our environmental reporting is focused at a manufacturing site level.

W_{0.2}

(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, 2019	June 30, 2020

W_{0.3}

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

Australia

Brazil

France



Germany

Ghana

India

Kenya

Mexico

Netherlands

South Africa

United Republic of Tanzania

United States of America

W_{0.4}

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

ZAR

W_{0.5}

(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
Aspen owned corporate	Water withdrawn for corporate and commercial offices is negligible in
and commercial offices	comparison to our manufacturing operations and is therefore excluded.
are excluded in our	The Aspen-owned corporate office in South Africa is the largest owned
footprint calculations.	commercial office and contributes to less than 0.4% of our annual water
	withdrawal within the Group. This is, per our internal substantiality
	threshold, considered negligible and therefore all Aspen owned corporate
	and commercial offices are excluded from our reporting boundary.



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: 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 for manufacturing processes and to maintain 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. This reliance on freshwater will thus make freshwater usage vital to our continued operations. Indirect: Our suppliers are also vulnerable to the impacts of water supply and quality risks, which will impact our supply chain costs, quality of raw materials and security of supply. 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. Security and quality of raw materials will be impacted by water-related risks. Thus, we have identified freshwater usage and availability for our value chain continuity as important to our business considerations. Future: Aspen's operations, in particular in South Africa, are anticipated to experience increased water stress as a result of climate change impacts. With



			operating costs is expected and investment in water treatment will be required to meet water demands for production purposes.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	Direct: Treated groundwater (brackish) is utilised for direct applications within some of our production process, and also serves as a potential alternative water source in water scarce regions like South Africa (SA). Additionally, a number of Aspen's operations are situated in water management regions which are reliant on the treatment and recycling of return flows to maintain a positive water balance. Since some of our facilities are situated in water-scarce regions, including SA, recycled water and treatment of brackish water is a current and future source of water for our operational continuity. Thus, we identify this water source as important to our direct operations. Indirect: Our manufacturing sites 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, cooling towers, garden irrigation and general cleaning activities. In addition, groundwater is also utilised in closed cooling water systems. We therefore identify this water source as important to our indirect operations. Future: Aspen's operations, in particular in South Africa, are anticipated to experience increased water stress as a result of climate change impacts. With decreased water availability, reliance on groundwater within these catchment areas could be crucial to meet or supplement water demands for production purposes. The use of groundwater as a primary source of water in our production processes will require active participation in water stewardship to facilitate collective action in
			preserving aquifers for responsible consumption.



W1.2

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

	% of	Please explain
	sites/facilities/operations	
Water withdrawals – total volumes	100%	Water withdrawals are monitored at 100% of our manufacturing facilities using a combination of municipal and internal meters. Water withdrawals are monitored monthly 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 our manufacturing facilities; however, the facilities in France and India make use of groundwater as their main source of water. All sites monitor water withdrawal by source monthly.
Water withdrawals quality	100%	The quality of the water withdrawn is monitored daily at all manufacturing facilities (100%) as the nature of our products requires that the water used meets Aspen's internal quality standards.
Water discharges – total volumes	76-99	The majority of the facilities monitor water discharge monthly as it represents a significant cost to the operations. Wastewater volumes are monitored from municipal accounts where volumes are either measured or calculated in accordance with discharge factors as per permit conditions. The Kama (Ghana) facility which contributes 0.04% (< 1 Ml) of the total volume of water withdrawn for the Group is currently not able to measure water discharge. The Vallejo (Mexico) facility which contributes 3% of the total volume of water withdrawn for the Group utilises a ratio to estimate its portion of discharges at a shared manufacturing facility.
Water discharges – volumes by destination	76-99	All manufacturing facilities discharge wastewater into the municipal sewer system; some sites do treat the water onsite before discharge. Water discharge is monitored monthly at the majority of the facilities from municipal accounts where volumes are either



		measured or calculated. The Kama (Ghana) facility which contributes 0.04% (< 1 Ml) of the total volume of water withdrawn for the Group is currently not able to measure water discharge. The Vallejo (Mexico) facility which contributes 3% of the total volume of water withdrawn for the Group utilises a ratio to estimate its portion of discharges at a shared manufacturing facility.
Water discharges – volumes by treatment method	100%	Several of our manufacturing sites treat wastewater before discharge to the municipal sewer. Waste water quality is tested and the volume treated is measured before each discharge to the municipal sewer in accordance with discharge requirements as per permit conditions. Where waste water is not treated on site, discharge quality is tested and the volume calculated monthly, in accordance with discharge requirements as per permit conditions.
Water discharge quality – by standard effluent parameters	100%	All manufacturing facilities monitor and measure standard effluent parameters in accordance with their municipal discharge permit conditions. Pretreatment of wastewater is conducted and monitored daily at several sites to meet the necessary legal requirements prior to discharge into the municipal sewer. Where waste water is not treated on site, water quality is monitored monthly in accordance with discharge requirements as per permit conditions.
Water discharge quality – temperature	100%	All manufacturing facilities discharge wastewater into the municipal sewer system and have to comply with the municipal temperature standards. Although temperature is not an effluent parameter of concern for Aspen, it is monitored daily where pre-treatment is conducted on-site, and monthly for facilities who do not undertake waste water pre-treatment.
Water consumption – total volume	100%	Water consumption is monitored quarterly for all manufacturing facilities through calculation of the total water withdrawn less the total water discharge volumes.



Water recycled/reused	Not monitored	We recycle/reuse water at several of our manufacturing facilities but it is not mandatory for facilities to report on this data as metering is not always present on water reuse/recycling processes.
The provision of fully- functioning, safely managed WASH services to all workers	100%	Ablution facilities are provided at all facilities; however, due to the small volume of water utilized in these ablution facilities, it is not monitored separately from other water sources/discharge points, but included in the total water accounting for the facilities.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	1,204	Lower	Water withdrawal for the Group was 29% (489 Ml) lower in comparison to the prior year. We recognise decreases in the range of 10-29% as being 'lower' in the determination of variances to the previous reporting period. The use of efficient closed water-based cooling systems and the decommissioning of a chemical plant at Moleneind (Oss) together with the disposal of Corellistraat (Oss) in the Netherlands largely contributed to this decrease. The disposal of the Nutritionals business (2019: 166 Megalitres) in the prior year also contributed to this decrease. In addition, the NDB (France) site also realised a water reduction due to successful implementation of water conservation projects. Future: A further water reduction (~10%) is expected by the end of the following reporting period. This is mostly attributable to the decommissioning of cooling towers at Moleneind, Oss, the implementation of a closed loop circulation system for chilled water at Shelys (Tanzania) and continual improvement projects being implemented at NDB, France.



Total discharges	857	Much lower	Discharge volumes are monitored from municipal accounts where volumes are either measured or calculated in accordance with discharge factors as per permit conditions for the majority of the facilities. The Kama (Ghana) facility which contributes 0.04% of the total volume of water withdrawn for the Group is currently not able to measure water discharge. The Vallejo (Mexico) facility utilises a ratio to estimate its portion of discharges at a shared manufacturing facility. The reduction (29%) in total water withdrawn due to plant decommissioning, site disposals and water conservation initiatives resulted in a 34% decrease in the total volume of water discharged, which is much lower than the prior year since the change is >29%. Future: Although water withdrawn is expected to be 'lower' (~10%) for the following reporting period, it is anticipated that the total volume of water discharged remains the same for the following reporting period due to the planned product mix (solid vs liquid dose forms) and reduction in campaign batch manufacturing which would result in more stringent cleaning regimes.
Total consumption	347	Lower	The total volume of water consumed is determined through calculation of the total water withdrawn less the total water discharged which have both decreased. The total water consumption for the reporting period is therefore reported as 'lower' (10%) in the determination of variances to the previous reporting period (385 ML). Future: A 'much lower' (>30%) volume of water is expected to be reported as consumed for the following reporting period due to the planned product mix (solid vs liquid dose forms).

W1.2d

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

Withdrawals	%	Comparison	Identification	Please explain
are from	withdrawn	with previous	tool	



	areas with water stress	from areas with water stress	reporting year		
Row 1	Yes	26-50	Higher	WRI Aqueduct	The WRI Aqueduct indicated that three facilities in South Africa (Port Elizabeth, East London and Cape Town) and Vallejo in Mexico were located in high to extremely high water stressed locations. These areas represented 30% of the total water withdrawn. A 50% increase (118 ML) was noted in the volume withdrawn from areas with water stress in comparison to the prior year. This is primarily due to the rating of the Port Elizabeth and East London facilities, which contribute 21% of the total water withdrawn for the Group, being changed to water stressed locations in the current year.

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 to Aspen Manufacturing sites. We do not make use of any fresh surface water for our manufacturing sites, but rather rely on withdrawal from third party and groundwater sources.
Brackish surface water/Seawater	Not relevant			Not applicable to Aspen Manufacturing sites. We do not make use of any brackish surface water or seawater for



				our manufacturing sites, but rather rely on withdrawal from third party and groundwater sources.
Groundwater – renewable	Not relevant			Not applicable to Aspen Manufacturing sites. We do not make use of any renewable groundwater for our manufacturing sites because the return to the aquifer would require a special permit and treatment of waste water to potable water quality levels. Our on- site waste water treatment plants are not designed to meet this level of treatment.
Groundwater – non-renewable	Relevant	162	Much lower	Non-renewable groundwater is considered relevant as this water source is used by our NDB (France), Alphamed (India), Shelys (Tanzania) and Oss (Netherlands) facilities. A significant (71%) decrease (397 ML) in groundwater was withdrawn in comparison to the prior year. This was mainly due to the change from single-use cooling water to recirculated systems for cooling at the Oss facility.
Produced/Entrained water	Not relevant			Not applicable to Aspen manufacturing. We do not make use of produced / entrained water for our manufacturing sites, but rather rely on withdrawal from third party and groundwater sources. The use of produced water would place a higher demand on pre-treatment of incoming water as it contains oil and suspended solids.



Third party sources	Relevant	1,042	Lower	Third party sources are
				considered relevant as
				Aspen obtains most of its
				withdrawn water from
				municipal sources. Water
				withdrawn from municipalities
				decreased by 8% (92 ML)
				mainly due to plant
				decommissioning (Oss,
				Netherlands) and the
				disposal of the Nutritional
				business and Corellistraat
				(Oss, Netherlands).

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 to Aspen Manufacturing sites. We do not discharge our waste water to fresh surface water as service level agreements or trade effluent permits are maintained by all facilities for discharge through the municipal sewer.
Brackish surface water/seawater	Not relevant			Not applicable to Aspen Manufacturing sites. We do not discharge our waste water to brackish surface water / seawater as service level agreements or trade effluent permits are maintained by all facilities for discharge through the municipal sewer.
Groundwater	Not relevant			Not applicable to Aspen Manufacturing sites. We do not discharge our waste water to groundwater as service level agreements or trade effluent permits are maintained by all



				facilities for discharge through the municipal sewer. Return to groundwater would require a special permit and treatment of waste water to potable water quality levels. Our on-site waste water treatment plants are not designed to meet this level of treatment.
Third-party destinations	Relevant	857	Much lower	All our wastewater is sent to third party (municipal and private) wastewater treatment plants; this destination is thus considered relevant. The 29% (489 ML) reduction in total water withdrawn due to plant decommissioning, site disposals and water conservation initiatives resulted in the 34% decrease (451 ML) in the total volume of water discharged to third parties.

W1.2j

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

	Relevanc e of treatment level to discharg e	Volume (megaliters/yea r)	Compariso n of treated volume with previous reporting year		Please explain
Tertiary treatment	Relevant	417	Much lower	31-40	Five manufacturing sites operate tertiary on-site waste water treatment facilities, prior to discharge to a third party destination (municipalities). Tertiary



		treatment is
		applied in order
		to meet the
		permit
		conditions for
		discharge into
		the municipal
		sewer, as
		stipulated by the
		local authorities
		and therefore
		relevant. The
		level of
		treatment
		applied at all
		municipal waste
		water treatment
		sites has not yet
		been assessed
		but is expected
		to meet national
		legal
		requirements for
		waste water
		treatment. A
		significant
		reduction of
		46% (much
		lower) in the
		tertiary
		treatment of
		waste water
		was reported in
		comparison to
		the prior year.
		We recognise
		decreases of ≥
		30% as being
		'much lower' in
		the
		determination of
		variances to the
		previous
		reporting period.
		This was mainly
		due to the use



					of efficient
					closed water-
					based cooling
					systems and the
					decommissionin
					g of a chemical
					plant at
					Moleneind
					(Oss), together
					with the
					disposal of
					Corellistraat
					(Oss).The
					disposal of the
					Nutritionals
					business in the
					prior year also
					contributed to
					this decrease.
Secondary	Not				Aspen
treatment	relevant				manufacturing
					sites which
					operate waste
					water treatment
					plants conduct
					primary or
					tertiary
					treatment only,
					making this
					irrelevant.
Primary	Relevant	147	Lower	21-30	Three
treatment					manufacturing
only					sites provide
					primary on-site
					waste water
					treatment prior
					to discharge to
					third parties.
					Primary treatment of
					aqueous waste is applied at the
					FCC (South
					Africa) site to
					meet the
					meet ale



		specifications
		for re-use in the
		brick
		manufacturing
		industry, making
		this relevant.
		Primary
		treatment of
		waste water is
		conducted to
		meet permit
		conditions for
		discharge to a
		private and
		municipal waste
		treatment facility
		for the NDB
		(France) and
		Dandenong
		(Australia) sites,
		respectively.
		The level of
		treatment
		applied at third
		party water
		treatment sites
		has not yet
		been assessed
		but is expected
		to meet national
		legal
		requirements for
		waste water
		treatment.
		A 16% reduction
		(lower) in the
		primary
		treatment of
		waste water
		was reported in
		comparison to
		the prior year.
		We recognise
		decreases
		between 10-
		29% as being



					'lower' in the determination of variances to the previous reporting period. The reduction was mainly due to the successful implementation of water conservation projects at the NDB, France site.
Discharge to the natural environmen t without treatment	Not relevant				Aspen manufacturing sites do not discharge untreated wastewater to the natural environment, making this destination irrelevant.
Discharge to a third party without treatment	Relevant	293	About the same	41-50	Six manufacturing sites discharge waste water directly to the municipal sewer without any on- site pre- treatment. Internal effluent sampling is carried out to ensure compliance with the permit conditions as stipulated by the local authorities. Any non-



	I		
			conformities are
			formally
			managed
			through our
			sustainability
			and/or ISO
			14001
			environmental
			management
			system. The
			level of
			treatment
			applied at all
			municipal waste
			water treatment
			sites has not yet
			been assessed
			but is expected
			to meet national
			legal
			requirements for
			waste water
			treatment.
			A small volume
			of waste water
			(first rinse from
			high potency
			products and
			oral liquids)
			from the ABO
			(Germany) is
			however
			incinerated. The
			Kama (Ghana)
			facility is in the
			process of
			commissioning
			an on-site waste
			water treatment
			plant. The
			volume of waste
			water
			discharged to
			third parties for
			the reporting
			period remains



			unchanged in comparison to the prior year.
Other	Not relevant		No specific unique waste water treatment methods or other destination points are applied at any Aspen manufacturing sites.

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	We are	Aspen is at the initial stages of establishing the best way to collect
1	planning to do	environmental information from key suppliers. We are in the process of
	so within the	developing a group-wide Responsible Supply Chain Programme to formally
	next two years	assess and effectively manage sustainability risk exposure within our supply chain and govern the engagement process. Application of a globally
		consistent risk-based approach, using defined criteria, to categorise all
		Aspen suppliers is intended to focus our efforts on those where significant risk exists.

W2. Business impacts

W2.1

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



W2.1a

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

Country/Area & River basin

Kenya Galana

Type of impact driver & Primary impact driver

Physical Flooding

Primary impact

Disruption to workforce management and planning

Description of impact

Heavy rains in the Aberdares region caused landslides which washed away water pipelines supplying Nairobi with water. This resulted in a shortage of water in Nairobi which negatively affected the production plan of our Beta facility for a period of one month. Adequate water quality and supply is crucial for our manufacturing process and to maintain compliance to quality standards. Due to adequate stock build up, the facility was fortunate to record no financial loss in revenue due to production stoppage.

Primary response

Adopt water efficiency, water reuse, recycling and conservation practices

Total financial impact

3,627

Description of response

The built up inventory allowed us to meet our production order for the month and the consumed stock was replaced in the following month, as per our business continuity procedures. Recycled water from the back wash operation of the purified water pretreatment plant was used for gardening and general cleaning, while water supplied in tankers at a negligible cost was used for other non-production activities and sanitary facilities. The facility is also in the process of obtaining regulatory approval for the installation of a borehole to avoid reliance on municipal water supply.

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

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?

1 to 3 years

Type of tools and methods used

Tools on the market International methodologies

Tools and methods used

WRI Aqueduct

WWF Water Risk Filter

Other, please specify

SHE Risk Assessments in compliance with the requirements of ISO 45001 and ISO 14001

Comment

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

Supply chain

Coverage

None

Comment

Supply chain risks are not currently included in the water risk assessment.



Other stages of the value chain

Coverage

None

Comment

No other stages in the value chain are included in the water risk assessment at this point.

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. It is thus considered relevant and is always included. This risk is informed by internal monitoring, company knowledge and engagement with the water service providers. We assess the risk in light of the ability of the basin to provide for our water demand and requirements for compliance to Good Manufacturing Practise (GMP). Any disruptions in water supply are monitored for trend analysis and input into the water risk assessments.
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. It is thus considered relevant and is always included. We assess the risk by monitoring the quality of incoming water daily and monitoring trends. 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. However, this issue is considered relevant and is always included in risk assessments.



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. Thus, these issues are relevant and always included in our risk assessment processes. Formal 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 provided by recognised tools, such as the WWF Risk Filter, not direct engagement with Aspen suppliers.
Water-related regulatory frameworks	Relevant, always included	Water and wastewater tariffs represent a growing cost to operations. Thus, these considerations are relevant and always included in our risk assessment processes. 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. We assess the risk by considering the level of enforcement imposed by Authorities and each facility's level of compliance. We currently make use of statutory interest special groups and consulting services to ensure that our current regulatory requirements are constantly met.
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 to these areas, so as to have a significant impact on such habitats. Thus, these considerations are not relevant to our operations. Furthermore, Aspen undertakes direct abstraction of water at facilities located in France, Netherlands, Tanzania and India. 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	The scope of the water risk assessments includes the sanitation, hygiene, waste management and environmental cleaning required to ensure dignity and respect for good employee morale, performance, and health and safety. Aspen provides ablution facilities for employees at all sites. Risks associated with water supply to the ablution facilities are included in the overall operational water supply risk evaluation. Thus, these risks are considered relevant and always included. Similar to basin/ catchment level considerations, this risk is informed by internal monitoring, company knowledge and engagement with the water service providers. We assess the risks in light of the ability of the basin to provide for our water demand in terms of supply and quality.
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, sometimes included	Water related issues that impact Aspen's operations have the potential to negatively affect customers in terms of product delivery and cost. Product delivery to customers is not a key consideration in the WWF Risk Filter tool utilised. Access to medication is however a priority sustainability topic for the Group and needs of customers affected by water related issues will be more formally assessed as part of the Group's strategic risk assessment process.
Employees	Relevant, always included	Ensuring the highest quality in hygiene standards at Aspen's facilities is imperative in terms of Good Manufacturing Practise (GMP) and human dignity. WASH Risks with the potential to impact employee hygiene and wellbeing are included in our internal SHE risk assessment processes and regulatory hygiene surveys to ensure the provision of water and sanitation is adequate for our employee population. Inputs from employees on water-related matters are considered through the engagement with Safety, Health & Environmental Representatives during the risk assessment which is a consultative process involving all concerned parties. Further employee engagement in water related matters is conducted



		through training and awareness programmes and water conservation campaigns and SHE culture surveys.
Investors	Relevant, always included	Engagement with investors is ongoing. Methods of engagement include responding to investor surveys which include climate and water related considerations. Investors are thus taken into consideration as material water 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 demands are considered. Aspen's water risk assessment as conducted through the WWF Water Risk Filter includes impacts on local water supplies and on other users in the catchment areas. The assessment also considers the water quality and quantity for discharge, level of regulation, impact on the river basin and company reputation. Engagement with the local community, especially in non-water stressed areas, is not pro-active in terms of the current risks and expectations. The need for collective action with civil society to advance water sustainability, particularly within the water stressed areas within which we operate, has been identified through the building of water stewardship capacity going forward.
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 mainly through keeping abreast of changes in datasets incorporated in their risk assessment tool. Periodic attendance to the National Business Initiative (NBI) presentations and workshops in South Africa also provides us with the opportunity for sharing of developments in water related risks, opportunities and new technology which would be taken into consideration during the 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 within the affected basin/catchment is therefore important; and (ii) these water users have the potential to negatively impact the quality of the water resource. Where there are specific water risks identified within a region, for example water stressed areas in South Africa, the affected



		facilities would participate in regional forums and community action groups established for this particular purpose.
Regulators	Relevant, always included	Changes in regulations and tariffs implemented by regulators with the objective of managing water resources more responsibly will directly impact Aspen's operations, and consequently regulators are an important stakeholder group in the risk assessment process. We currently make use of statutory interest special groups and consulting services to ensure that any changes in regulatory requirements are considered in our water risk assessment. The level of regulatory enforcement in each region within which we operate and the facility's history of water related fines or penalties are included 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 accessible to Aspen's operations. Opportunities for engagement on draft bills relating to water pricing and rationing are available. We anticipate more formal engagement with catchment management, particularly within the water stressed areas within which we operate, through the building of water stewardship capacity going forward.
Statutory special interest groups at a local level	Relevant, always included	Statutory special interest groups are factored into the risk assessment process under the regulatory risk component in the WWF water risk filter. Statutory special interest groups are however currently not very active in the regions within which we operate although it is anticipated that this will change, especially in our water stressed regions. Engagement with statutory interest groups is thus expected to become more formally established, particularly for our operations in South Africa.
Suppliers	Relevant, always included	An uninterrupted supply of raw materials is imperative in maintaining production. Consequently, suppliers are factored into risk assessments. Engagement with suppliers on water-related matters is currently conducted informally through our procurement teams. Aspen is at the initial stages of establishing the best way to collect environmental information from key suppliers. We are in the process of developing a group-wide Responsible Supply Chain Programme to formally assess and effectively manage sustainability risk exposure within our supply chain and govern the engagement process.
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. Engagement with local authorities is co-ordinated through our engineering functions who in turn provides



		valuable input into advising on local water supply impacts during the risk assessment process.
please specify	Not relevant, explanation provided	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 WRI Aqueduct tool is used to determine current and future drought and flood risks. This tool has been utilised to assist in identifying areas of operation that are subject/ prone to water stress and other water-related risks.

The risk assessment methodology requires the assessment of the identified risks, as identified through the various tools utilised, 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 models 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 of 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 risks. Parameters such as severity, occurrence and exposure are used to calculate the inherent and residual risks, 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 financial impact is defined as any material loss in the ability to operate and manufacture products, including loss of revenue in any of the regions. A substantive strategic impact is defined as any material issue that has the potential to significantly 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. The financial impact is measured by the 'Earnings before interest, taxes and amortization' (EBITA) or loss in operating profit. With reference to the 4-point scale, a Catastrophic/ Exceptional and Critical/Substantial rating will present a substantive financial or strategic impact on our business. The risk assessment methodology and any need for changes in the threshold indicators for the 4-point scale is reviewed annually.

The metrics / indicators defining the different levels of the 4-point scale for our direct operations are:

1. Catastrophic/Exceptional

EBITA or operating profit 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.

2. Critical/ Substantial

EBITA or operating profit 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.

- 3. Moderate (not considered a substantial financial/ strategic impact)
 EBITA or operating profit 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.
- 4. Minor (not considered a substantial financial/ strategic impact)
 EBITA or operating profit 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.

Our FCC facility in Cape Town, South Africa was very close to experiencing a substantive financial impact due to a lack of good rains resulting in a critical water shortage in 2018. Stringent water restrictions as part of the "Day Zero" campaign were enforced in Cape Town during this period. The FCC facility however identified that the low rainfall levels experienced during 2015 and 2016 had significantly increased the risk to operational sustainability and began to prioritise projects relating to water conservation. Investment in the installation of a borehole and water treatment plant to provide an alternative source of water therefore avoided a substantive water security risk rating score for the FCC facility.

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	% company-	Comment
facilities	wide facilities	
exposed to	this represents	
water risk		
mater from		



Row	3	1-25	FCC in Cape Town and the Aspen Port Elizabeth and
1			East London sites are situated in drought-stricken areas.
			Resource conservation initiatives are ongoing and the
			installation of alternative sources of water supply are
			being concluded.

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

% company's total global revenue that could be affected

Unknown

Comment

Water scarcity is a global risk and one that Aspen's operations in South Africa are 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 have 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 are regarded as a top priority for the site. Water conservation initiatives implemented to date, 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 water source. The borehole project was successfully implemented and the site will be using groundwater as a back up to municipal water. Additionally, a waste water treatment plant is expected to be operational from late 2021. This system will treat all hazardous aqueous waste generated onsite and the recovered non-potable water will be used for utilities applications.



Country/Area & River basin

South Africa Mzimvubu-Tsitsikamma

Number of facilities exposed to water risk

2

% company-wide facilities this represents

1_25

% company's total global revenue that could be affected

Unknown

Comment

Water scarcity is a global risk and one that we are increasingly been exposed to due to the severe drought condition experienced, especially in the Western and Eastern Cape of South Africa. 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 being imposed. To mitigate the risk of water scarcity, 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, a borehole, able to provide the required quantity of water for the current and anticipated future requirements, was installed and a water use license has been granted. Construction of the water treatment plant and reticulation system is at the final stage of completion with treated water expected to be available for use in production before the end of 2021.

A desktop borehole feasibility study to assess the potential to extract water of the required quality was conducted at the East London site, also situated in the Eastern Cape. The study concluded that there was very poor potential water availability in the region and the finding was supported by a penetrating radar study in which no viable ground water could be located. A programme to harvest rainwater is currently being implemented.

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 Increased water stress

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 have 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 are regarded as a top priority for the site. Water conservation initiatives implemented to date, 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 water scarcity, the site installed and commissioned a borehole which will provide an alternative water source should municipal supply be insufficient. In addition, a wastewater treatment plant is currently under construction and scheduled for operation by the end of 2021. This will treat all hazardous aqueous waste generated onsite and the recovered non-potable water used to supply utilities.

Timeframe

1-3 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

769,323

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact



The financial impact figure represents the expected average loss in one day of sales for the FCC facility should operations cease due to water scarcity. Water scarcity has a direct impact on the manufacturing process and compliance to quality standards.

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

Water conservation initiatives implemented to date, 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. The borehole project was successfully implemented and the site will be using groundwater as a back up to Municipal water. Additionally, a waste water treatment plant is expected to be operational late 2021. This system will treat all hazardous aqueous waste generated onsite and the treated waste water re-used in utilities (non-potable water applications) to reduce the demand for freshwater withdrawn to supply utilities.

Cost of response

13,200,000

Explanation of cost of response

The cost to date for the implementation of the borehole water treatment system and aqueous waste treatment plant was R13,200,000. This includes all consulting, investigation, plant and equipment, construction, installation, testing and license fees.

Country/Area & River basin

South Africa Mzimvubu-Tsitsikamma

Type of risk & Primary risk driver

Physical Increased water stress

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 being imposed. To mitigate the risk of water scarcity, the sites in the Eastern Cape have made significant progress in assessing long-term alternative water sources particularly groundwater i.e. borehole water.

Water scarcity will directly impact our operations leading to a material potential financial loss in production output with special reference to liquid dosage forms, and increased



production costs. An example of this is the cost of water, and possible transport and pretreatment of water, as well as maintenance of on-site water treatment systems.

For the Port Elizabeth site, a borehole which is able to provide the required quantity of water for the current and anticipated future requirements was installed, and a water use license has been granted. Construction of the borehole water treatment plant and reticulation system is at the final stage of completion with treated water expected to be available for use in production before the end of 2021.

A desktop borehole feasibility study to assess the potential to extract water of the required quality was conducted at the East London site, also situated in the Eastern Cape. The study concluded that there was very poor potential water availability in the region and the finding was supported by a penetrating radar study in which no viable ground water could be located. A programme to harvest rainwater is currently being implemented.

Timeframe

1-3 years

Magnitude of potential impact

Medium-high

Likelihood

Very likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

18,933,501

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

The financial impact figure represents the expected average loss in one day of sales for the Port Elizabeth and East London facilities in the Eastern Cape, should operations cease due to water scarcity. Water scarcity has a direct impact on the manufacturing process and compliance to quality standards.

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

For the Port Elizabeth site, a borehole which is able to provide the required quantity of water for the current and anticipated future requirements was installed, and a water use



license has been granted. Construction of the borehole water treatment plant and reticulation system is at the final stage of completion with treated water expected to be available for use in production before the end of 2021.

A desktop borehole study was conducted at the East London site, also situated in the Eastern Cape, and it was concluded that there is very poor potential water availability in this region. A further surface penetrating radar study was commissioned, but no viable groundwater could be located. A programme to harvest rainwater is currently being implemented.

Cost of response

50,000,000

Explanation of cost of response

R50,000,000 has been spent to address this risk. This includes consulting, investigation, plant and equipment, construction, installation, testing and license fees.

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 formally assessed at this stage. Aspen is at the initial stages of establishing the best way to collect environmental information from key suppliers. We are in the process of developing a group-wide Responsible Supply Chain Programme to formally assess and effectively manage sustainability risk exposure within our supply chain and govern the engagement process. Application of a globally consistent risk-based approach, using defined criteria, to categorise all Aspen suppliers is intended to focus our efforts on those where significant risk exists. The company is therefore considering implementing supplier assessments in the next 2 years in order to identify sustainability risks with a substantive financial or strategic impact.

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

The most significant water saving for the Group (20%) was realised at the Oss (Netherlands) facility as a result of a reduction in groundwater withdrawal with the change from single use cooling water to a recirculating closed system for cooling. The NDB (France) site also realised a water reduction due to successful implementation of water conservation projects through the plant modification and optimization. Increased reticulation of system water and water use efficiency are methods through which Aspen can increase water efficiency. This opportunity is therefore considered strategic for the company as it assists in reducing operating costs with significant impact.

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?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,636,800

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The financial impact was established by calculating the most significant saving made on the reduced volume of groundwater withdrawn at the Oss facility through calculation of the expected discharge costs per kilolitre. A reduction of 341 Megalitres resulted in a saving of R1,636,800.



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

Total water withdrawals at this facility (megaliters/year)

189

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

189

Total water discharges at this facility (megaliters/year)

161

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

161

Total water consumption at this facility (megaliters/year)

28

Comparison of total consumption with previous reporting year

Lower

Please explain

Water withdrawal was 15% higher for the Port Elizabeth facility in comparison to the prior year. This was due to fewer campaign manufacturing batches resulting in more clean downs. We recognise increases in the range of 10-29% as being 'higher' in the determination of variances to the previous reporting period.

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

Total water withdrawals at this facility (megaliters/year)

60

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

60

Total water discharges at this facility (megaliters/year)

43

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

43

Total water consumption at this facility (megaliters/year)

17

Comparison of total consumption with previous reporting year

Much lower



Please explain

Water withdrawal was 28% higher for the East London facility in comparison to the prior year. This was due to new processes, in accordance with Good Manufacturing Practise (GMP) requirements, coming into operation. We recognise increases in the range of 10-29% as being 'higher' in the determination of variances to the previous reporting period.

Facility reference number

Facility 3

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

Total water withdrawals at this facility (megaliters/year)

65

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

65



Total water discharges at this facility (megaliters/year)

33

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

33

Total water consumption at this facility (megaliters/year)

32

Comparison of total consumption with previous reporting year

About the same

Please explain

Water withdrawn at the FCC facility remained consistent (no change) in financial year 2020 in comparison to the prior year. We recognise changes in the range of 0-9% as being immaterial ('About the same') in the determination of variances to the previous reporting period.

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

Water discharges - total volumes

% verified

Not verified

Water discharges - volume by destination

% verified

Not verified

Water discharges - volume by treatment method

% verified

Not verified

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

Water discharge quality - temperature

% verified

Not verified

Water consumption – total volume

% verified

Not verified

Water recycled/reused

% verified

Not verified

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? $_{\mbox{\scriptsize Yes}}$

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. With reference to the objective "To practice good corporate citizenship," the Board is responsible for the approval and oversight of performance against this strategic objective by considering both the financial aspects of the business and impact that the business operations have on the economic, physical and social environments in which Aspen operates. 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). Aligned to the Group's strategic objectives, the Board ratifies the Group's KPIs relating to carbon emissions and water withdrawal annually. Aspen's Social and Ethics Committee is responsible for the governance of the Group's social, environmental, human rights and ethics responsibilities. The realisation of the Group's strategic objectives is monitored on the basis of these approved KPIs. The Group Chief Executive and the Deputy Group Chief Executive 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. 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. A sustainability materiality assessment survey was conducted to engage with Board Members, Business Leaders and Functional Executives and the outcome confirmed that both climate change and water security are considered priority sustainability topics. Progress on developing the ESG strategy is reported to the Board, through its committees, on a quarterly basis.

W6.2b

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

Frequency that	Governance	Please explain
water-related	mechanisms into	
issues are a	which water-related	
scheduled	issues are	
agenda item	integrated	



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 strategic objectives and related KPIs are ratified by the Board on an annual basis. The Deputy Group CEO presents the Group's performance against these objectives and KPIs 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 Strategic Development Officer) presents the top enterprisewide 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 units. Any major capital expenditure needed to implement the proposed mitigation would be included in the review and approval processes, as needed. The Group SHE function (which falls under the Group Corporate Services Officer reporting line) presents key environmental compliance and performance data to the Social & Ethics Committee on a quarterly basis.
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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 Group CEO and the Deputy Group CEO 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 KPIs. 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 reported on a quarterly basis, water risks will only be included in the CEO's quarterly reports to the Board should it remain material. The Board would in turn review how the proposed risk mitigation has been considered in the business plan of the impacted business unit/s and approve any major capital expenditure needed to implement the proposed mitigation. An example of a decision made by the Group CEO and Deputy Group CEO for 2021 was defining a roadmap for water security.

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

Quarterly

Please explain

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 Executive Head of Site

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The responsibility for climate and water-related issues 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.

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, not currently but we plan to introduce them in the next two years	Individual KPI short term incentives for the Group CEO and Deputy Group CEO have been allocated for 2021. This incentive includes defining a roadmap for water scarcity with specific reference to the water scarce regions within which we operate.

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

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 policy makers 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. Where there are specific water risks identified within a region, for example water stressed areas in South Africa, the affected facilities would participate in regional forums (direct activities) and community action groups (indirect activities) established for this particular purpose.

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 2020.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. This has been mandated through the requirement for the Group CEO and Deputy Group CEO's to define a roadmap for water security by 2021, with specific reference to the water scarce regions in South Africa. The outcome of the sustainability materiality assessment also confirms water security as a sustainability priority for the business. It is therefore envisaged that development of a formal water strategy for incorporation in current business objectives and monitoring of performance will be implemented over the short to medium term.
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 needed 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 which is situated in a water stressed area.



Financial	Yes, water-	5-10	While the Group's formal financial planning does not
planning	related issues		generally extend beyond 5 years, the required
	are integrated		investment to support manufacturing capacity and
			business growth (some of which will be related to
			sustainability of required water supply) are considered
			and will influence capital allocations. Motivations for
			capex investments for the installation of boreholes and
			related water treatment plants were approved with
			reference to the outcome of the water stress
			assessments (WRI Aqueduct) which identified the
			facilities in South Africa as located in water stressed
			regions.

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

The data is not readily available as Aspen currently does not have the mechanism in place to monitor the spend specifically related to water. As a result, there has been no change from last year's response.

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 water withdrawn and discharged from the site. This creates a practical base for setting effective SMART (Specific, Measurable, Achievable, Relevant and Time bound) objectives and targets to reduce water usage. Targets for water conservation are established and managed through the sites' ISO 14001 Management System to demonstrate continual improvement. As per our current short to medium term sustainability goals, we are in the process of establishing a Group wide position and target to reduce our water footprint.

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

Reduced environmental impact

Description of target

The water use efficiency target is based on the implementation of initiatives such as the modification and optimisation of equipment at the NDB (France) facility. This target is based on the decrease in the water withdrawn for use within the facility.

Quantitative metric

% reduction in total water withdrawals

Baseline year

2019

Start year

2019

Target year

2020

% of target achieved

100

Please explain

Projects completed in 2020.

Target reference number

Target 2

Category of target

Water recycling/reuse

Level

Site/facility

Primary motivation



Reduced environmental impact

Description of target

To achieve this facility-level target, an increase in water recycling and reuse has been implemented for the single pass cooling water at the Sioux City (USA) facility. This target is based on the increase in water recycled or reused at this facility.

Quantitative metric

% increase in water use met through recycling/reuse

Baseline year

2019

Start year

2019

Target year

2020

% of target achieved

100

Please explain

Project complete in 2020.

W9. Verification

W9.1

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

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

W10. 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	Chief Operations Officer	Chief Operating Officer (COO)

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	38,647,323,214

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	E000066692

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	Comment
provide geolocation	



	data for your facilities?	
Row 1	Yes, for some facilities	Walmart Mexico is the only requesting CDP supply chain member. The Vallejo facility in Mexico is the only Aspen facility that supplies Walmart Mexico but this facility is not exposed to water risks with substantive financial or strategic impact. This facility was thus not listed in W5.1.

SW1.2a

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

Identifier	Latitude	Longitude	Comment
Aspen Vallejo	19.5018	-99.1674	The Vallejo facility in Mexico is the only Aspen facility that
(Mexico)			supplies Walmart 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

Promote river basin collective action

Type of project

Invite customer to collaborate with other users in their river basins to reduce impact

Motivation

To build water stewardship capacity.

Estimated timeframe for achieving project

4 to 5 years

Details of project

- 1. Increase value chain understanding on contribution to stewardship.
- 2. Promote effective multi-stakeholder projects in water stressed regions including disclosure of project outcomes.

Projected outcome

To increase the uptake of water stewardship best practise within the river basin.



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

Please confirm below

I have read and accept the applicable Terms