

# Welcome to your CDP Water Security Questionnaire 2020

## W0. Introduction

### W0.1

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

Kumba Iron Ore Limited (hereafter, Kumba), a member of the Anglo American plc. Group, is a leading value adding supplier of high quality iron ore to the global steel industry. The company exported just about 40.0 million tonnes of iron ore in 2019 to steelmakers in Europe, the Middle-East and Asia, as well as over 2.2 million tonnes to the local, South African market. The revenue generated from these sales is used to grow and sustain the business, which shares its success with various stakeholders in many ways.

Kumba's main activities include exploration and open cast mining; beneficiation; blending; outbound logistics; shipping, marketing and selling; rehabilitation; environmental management and corporate social investment.

Kumba operates primarily in South Africa, with mining operations in the Northern Cape, a head office in Centurion, Gauteng, and a port operation in Saldanha Bay, Western Cape. Sishen and Kolomela mines are long-life operations with current life of mine estimates of 13 years for each mine. Thabazimbi mine has reached the end of its economic life and a decision to close the operations was made in July 2015, with a conditional agreement reached to transfer ownership of the mine. On 1 November 2018, the employees, assets and liabilities as well as the mining rights and the assumed liabilities of Thabazimbi were transferred at a nominal purchase consideration from Sishen Iron Ore Company(SIOC) to ArcelorMittal SA. All mining operations, including mining, processing and dispatching, at Thabazimbi mine ceased on 1 September 2016.

Kumba has a 76.3% interest in Sishen Iron Ore Company (Pty) Ltd (SIOC), an entity which Kumba manages. SIOC, in turn, owns the operating assets of the company. The remaining 23.7% interest in SIOC is held by black economic empowerment (BEE) partners Exxaro Resources Limited, a leading BEE company listed on the JSE (20.6%), and the SIOC Community Development Trust, a trust that funds projects in local communities (3.1%).

In the context of a challenging operating environment, characterised by the bottoming out of the iron ore price, a further flattening of the global cost curve, continuing regulatory and policy pressures, and elevated levels of political and market uncertainty, Kumba has introduced a refined operating model to significantly reset the Company's cost base. Over the past two years, Kumba has implemented several interventions to mitigate the impact of the continued volatile market conditions. This entailed moving from a volume to a value-based strategy by reconfiguring the mines to reduce the amount of waste mined and to reduce costs in all

operational areas. Kumba reviewed the Company’s progress in closing its operations at Thabazimbi, restructuring the Sishen pit to a lower cost shell, and increasing production at the successful Kolomela operation.

Kumba made good progress on environmental performance in 2019. We have continued to make good progress in reducing our water demands. Our water-saving projects have continued in 2019 and we exceeded our water savings target. Ensuring that the company takes all reasonable steps to safeguard its water quality while not compromising the access rights of others is a mandate of Kumba’s water licences. This is increasing in significance as the company’s mining operations are in water-stressed areas.

Anglo American supports the ‘Aiming for A’ Initiative of the Investor Platform for Climate Actions. Kumba has been participating in the CDP since 2008 and completed its first WDP response in 2014. Kumba has appeared regularly in the Carbon Disclosure Leadership Index since 2009 and had scored in the A-List for the water disclosure response in both 2016 and 2017.

## W-MM0.1a

**(W-MM0.1a) Which activities in the metals and mining sector does your organization engage in?**

Activity	Details of activity
Mining	Iron ore

## W0.2

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

	Start date	End date
Reporting year	January 1, 2019	December 31, 2019

## W0.3

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

South Africa

## 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
Head Office in Centurion, Pretoria.	Water is supplied by the municipality and the buildings are leased. In addition, water consumption volumes at the head office compared to the mining operations are considered insignificant.
Thabazimbi mine	Thabazimbi mine has been excluded from the current response as the mining operations ceased on 1 September 2016.
Saldanha Bay port operation	The water consumption volumes at the port are considered insignificant compared to the consumption at the mining operations.

## 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	Important	Important	<p>Direct: Sufficient amounts of good quality freshwater is key for our operations. Mining iron ore requires continuous supply of good quality freshwater to ensure product quality and integrity. Water is used at our operations for ore processing and dust suppression. A shortage of freshwater would result in reduced production output and profitability.</p> <p>Indirect: Sufficient good quality freshwater is important to our value chain. To maintain the license to operate, we take all reasonable steps to ensure that water quality for other users is not degraded. Communities require continuous supply</p>

			<p>of good quality fresh water to ensure their health and wellbeing. The communities use freshwater for consumption, sanitation and irrigation. Our suppliers are also water intensive. Many of the goods procured for operations rely on good quality water in their production (e.g. production of steel, cement, timber and diesel).</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	<p>Direct: Our operations are in water-stressed areas, with freshwater becoming increasingly threatened and environmental regulations more stringent, emphasizing the need for recycling, reuse and the use of makeup water from the municipal sewage plant in our operations. Through such initiatives we can increase water security and decrease freshwater reliance. With sufficient amounts of recycled and produced water available at operations, the impact of water shortages on production is reduced. This was seen in 2016, 2017, 2018 as well as in 2019 when we had no production interruptions, with sufficient water available through recycling.</p> <p>Indirect: Use of recycled, brackish or produced water as a key resource is not common within our value chain. Thus, sufficient amounts of recycled, brackish and produced water for indirect use is not currently deemed important for us.</p>

## 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%	We measure and monitor total water withdrawal volumes throughout the year at all our operations (100% of facilities). This measurement on total withdrawal volumes is performed to track performance indicators in terms of both production and environmental areas. The data is used to track performance against water reduction targets and forms an

		integral part of operational water balances. Tracking of water use is carried out monthly.
Water withdrawals – volumes by source	100%	We record the volume of water abstracted from various sources (ground water and municipal water) at 100% of our facilities. Groundwater is our primary water source, accessed through dewatering boreholes. The deeper we mine; the more groundwater has to be pumped through the ingress from the mine pit to ensure safe working conditions. As mentioned above, Kumba also makes use of municipal water for domestic purposes. In addition to making sure that the groundwater in and around Sishen and Kolomela is properly managed and understood, we implement a pipeline system that pumps excess clean groundwater from dewatering into the Vaal Gamagara pipeline to support the Sedibeng regional water supply, returning a total of 12,825 Mℓ for the year.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	100%	Our operations report in line with the ICMM definitions for water withdrawal, consumption and discharge, tracking performance against targets on a monthly basis. Anglo American records consumption of produced water withdrawn for all (100% of facilities) of its operations. Produced water on this refers to water entrained in ore. This is recorded monthly and is calculated on the volume of ore produced.
Water withdrawals quality	100%	We monitor the quality of water withdrawal from borehole at both the Kolomela and Sishen mines (100% operation). The water quality is compared against the SANS 241-1:2015 Drinking Water Standard (SABS, 2015). We make use of a third party to monitor the standards on the quality of water we draw from the borehole. Some of the water contaminant from blasting, we monitor include the compounds such as nitrates and hydrocarbons.
Water discharges – total volumes	100%	The volume and quality of the water that is allowed to be discharged by our operations is

		predetermined through regulatory processes. Any unplanned discharges that breach legal agreements and/or licence conditions are reportable as environmental incidents and addressed.
Water discharges – volumes by destination	100%	The discharged volume per destination is measured and monitored at all our operations (100%). Sishen and Kolomela mines discharge clean water to both the local water service provider (municipal treatment facility) and a renewable groundwater destination through the aquifer recharge project.
Water discharges – volumes by treatment method	100%	We actively measure the quantities of water discharged per treatment method and monitors the quality per treatment method to ensure that the composition of the water is within the treatment method’s specified limits per the regulations. This is carried out at all our operations (100%). Sishen uses treated sewerage effluent (grey water) from the Kathu wastewater treatment works, to increase the export of groundwater to the Sedibeng reservoir. We continue to sell (recover operational costs) the excess water to the Sedibeng water authority, in line with WUL conditions, to supply bulk water to farmers, to compensated for potential losses from private boreholes.
Water discharge quality – by standard effluent parameters	100%	The quality of the water discharged at all of our operations is closely monitored due to treatment of the discharged water being done by local water utilities. The data measurements are recorded frequently to ensure compliance with water quality standards. The water quality data is monitored monthly and sent to the Department of Water and Sanitation on a quarterly basis. Quality is assured through an ISO 14001 accredited laboratory. We measure this water aspect for all our operations (100%). Sishen uses treated sewerage effluent (grey water) from the Kathu wastewater treatment works, to increase the export of groundwater to the Sedibeng reservoir. A sales agreement has

		been in place with the water authority since 2014 to supply bulk water to farmers, to compensate for their potential losses from private boreholes.
Water discharge quality – temperature	Not monitored	Other quality parameters of water discharged at all of our operations are monitored but not the temperature. We do not discharge water to fresh water sources such as a river since we do not have authorisation to discharge water. However, we only discharge due to emergency situation wherein Sedibeng water is not able to take excess water.
Water consumption – total volume	100%	We record total volumes of consumption of water from all our operations on a monthly basis (100% of facilities). We implement efficiency improvement projects at our operations to drive reduction in water consumption where possible. The water consumption at our operations is measured and monitored throughout the year to ascertain whether quarterly water reduction targets are met.
Water recycled/reused	100%	We are on track to achieve our targeted 75% water reuse rate by the end of 2030. In striving towards operating waterless mines (a mine that uses no external freshwater beyond ramp-up), we aim to achieve an 85% recycle/reused rate by 2030. We also aim to ensure sustainable water availability to meet our sustainable mine plan. As Kumba, we uphold commitments to apply strong and transparent corporate water governance, manage water at operations effectively and efficiently, and collaborate with our partners and our communities to achieve responsible and sustainable water use. The mines effectively recycle mine-affected water for use in the process plant. We monitor and record total volumes of recycled water from all our operations on a monthly basis (100% of facilities).

<p>The provision of fully-functioning, safely managed WASH services to all workers</p>	<p>100%</p>	<p>Access to safe water, adequate sanitation and proper hygiene is a non-negotiable aspect for us. Workers at all (100%) of our operations are provided with fully functioning WASH services (clean drinking, cooking and cleaning water; solid waste management and drainage; and hygiene information and education). All water, sanitation and hygiene (WASH) services provided adhere to safety and health regulations and are inspected regularly to ensure that water consumed by employees is always suitable for consumption.</p>
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## 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
<p>Total withdrawals</p>	<p>30,475.08</p>	<p>About the same</p>	<p>The total water withdrawals at our operations have decreased from 30 813 ML in FY2018 to 30 475 ML in FY2019, which is a 1% decrease. The decrease is attributed to lower rainfall compared to the previous years. Normally rain water is abstracted for safe mining purposes in order to keep the pit dry and this is linked to our dewatering strategy. Less rain, less infiltration less groundwater recharge and less water available for dewatering. The recharge capacity is below the dewatering rate hence the extended cone of depression affecting our neighbouring farmers. A trend threshold of “about the same” is applied consistently throughout this report to denote data of pertains to data which has less than 10% difference (greater or lesser) from the preceding financial years’ data.</p>
<p>Total discharges</p>	<p>14,315.6</p>	<p>Lower</p>	<p>The overall total water discharged has decreased by 10% from FY2018 to FY2019. Water is discharged to the local municipality and the water authority (Sedibeng). The lower</p>



			discharges can be linked to the lower withdrawals and also more water being used because of construction of a new road, which means more water needed for dust suppression and commissioning of new modular Jig plant at Sishen.
Total consumption	34,060	About the same	The total water consumption decreased by 3.4% from FY2018 to FY2019. We used the CDP approach to calculate water consumption by subtracting the total water discharged from the total water withdrawal. This methodology differs from how Kumba defines water consumption thus the calculated values are different from those reported in the sustainability report. One of the activities that consumes a lot of water is dust suppression. Over the years Kumba has increased its dust suppression efforts and therefore increase in water consumption.

## 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	76-99	About the same	WRI Aqueduct	In FY2019, our operations withdrew 93% of the water from a water stressed area as compared to 94% in FY2018. This percentage has decreased slightly by 1% from FY2018. A trend threshold of “about the same” is applied consistently throughout this report to denote data which has less than 10% difference (greater or lesser) compared to the preceding financial year’s data. The percentage of water withdrawn from water stressed areas was calculated as the volume of

				<p>water withdrawn in the stressed area divided by the total company wide withdrawals volume. For this calculation, we considered the withdrawal volume from stressed area as the water withdrawal from the groundwater. Although the WRI Aqueduct tool is unable to determine ground water stress, we understand that ground water stress is a function of annual abstraction, recharge rate, and the groundwater contribution to environmental stream flow, and we have therefore made a conservative assumption by classifying ground water as a stressed source. Although there are uncertainties regarding the recharge rate of the aquifer and the groundwater contribution to stream flow, we are aware of our dewatering activities that have resulted in depleted ground water in surrounding areas (e.g. for farmers). We are aware of this and we are currently compensating all affected farmers with water and grazing subsidies. The deeper we mine, the more groundwater has to be pumped through the ingress from the mine pit to ensure safe working conditions. In addition to making sure that the groundwater in and around Sishen and Kolomela is properly managed and understood, we have invested in a pipeline system that pumps excess clean groundwater from dewatering into the Vaal Gamagara pipeline to support regional water supply. When there is too much water</p>
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					for this pipeline we divert it to a pump station which feeds water into boreholes outside the dewatering zone at a predetermined rate suitable to each specific borehole, thereby recharging the aquifer.
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## 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			Kumba does not withdraw fresh water from wetlands, rivers, lakes at any of the mines. We do not make use of rainwater at our operations. We minimise water losses by using a closed-loop water system and capture rainwater for use in dust suppression. Clean and dirty water separation at our mines ensures that there is proper management of storm water to avoid surface water pollution. Our operations do not have formal structures for rainwater harvesting for use at our processes however, plans are being investigated for reusing the affected storm water back at our processing plants. No rainwater was withdrawn in FY2019. This was due to the storm-water harvesting dam project which is currently underway at Sishen although there were no

				measurement for rain withdrawal in FY2019. A trend threshold of “about the same” is applied consistently throughout this report and it pertains to data which has less than 10% difference (greater or lesser) from the preceding financial years’ data.
Brackish surface water/Seawater	Not relevant			Our operations do not withdraw water from brackish surface water or sea water and we do not anticipate to do so in the future.
Groundwater – renewable	Not relevant			Previously, we reported our groundwater withdrawals as renewable groundwater. As a result, we are reporting our groundwater withdrawals under non-renewable groundwater source. We do not anticipate to report the water withdrawal from the renewable groundwater source in the future.
Groundwater – non-renewable	Relevant	28,521.07	About the same	The quantity reported as non-renewable groundwater refers to the water extracted from the boreholes at both our Sishen and Kolomela operations. Our non-renewable groundwater withdrawals have decreased by 2% in FY2019 as compared to FY2018. This could possibly be linked to the fact that there was little rain compared to the previous years (we normally abstract for safe mining purposes in order to keep

				<p>the pit dry and this is linked to our dewatering strategy) Less rain, less infiltration less groundwater recharge and less water available for dewatering. The recharge capacity is way below the dewatering rate hence the extended cone of depression affecting our neighbouring farmers A trend threshold of “about the same” is applied consistently throughout this report and it pertains to data which has less than 10% difference (greater or lesser) from the preceding financial years’ data.</p>
Produced/Entrained water	Not relevant			<p>None of our operations make use of produced or process water nor have we done so previously. We do not anticipate to make use of the produced water in the future.</p>
Third party sources	Relevant	1,954.01	Higher	<p>The quantity reported as water withdrawals from the third party sources refers to the waste water and potable water from other organisations. This quantity has increased by 13,5% from 1 721.73ML in FY2018 to 1 954.01 in FY2019. We anticipate an increase in the waste water withdrawal due to a population increase from town planning activities at the Kathu area.</p>

## W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	1,625.1	Much higher	This water discharge quantity refers to the amount of water released to the environment. This quantity has increased by 127.59% from 714ML FY2018. The increase is attributed to the decrease in withdrawal volumes for 2019. A trend threshold of “much higher” is applied consistently throughout this report and it pertains to data of increasing trend which has a difference of more than 10% and less than 30% from the preceding financial years’ data. We anticipate a decrease in the unplanned discharges to the environment since we have commissioned the Sishen groundwater export pipeline which will allow Sedibeng to take in more water than previously.
Brackish surface water/seawater	Not relevant			Discharging water to brackish surface water sources or seawater is not carried out at our operations and we do not anticipate to do so in the future, thus this destination is not applicable. As such no discharge was made to this source in the current or previous reporting periods.
Groundwater	Relevant	336.5	Much higher	This water discharge quantity refers to the amount of water re-injected into an aquifer in the mine premises. In 2019 Sishen returned

				<p>about 12,825Mℓ of excess clean groundwater from dewatering to the Sedibeng regional water supply each year. Kolomela artificially recharges about 36,000m3 of clean mine water each month to the underground aquifers that its operations traverse. . This decrease can be attributed to the fact that the system was under construction and it has been commissioned fully in June 2019. The amount of water used for aquifer recharge is expected to increase in future. A trend threshold of “much lower” pertains to data of decreasing trend which has a difference in 30% or more from the preceding financial years’ data.</p>
Third-party destinations	Relevant	1,253.96	Lower	<p>This water discharge quantity refers to the water sent to Sedibeng Vaal Gamagara water scheme and Lategan ground dam, a local municipality. The water sent to these third party destinations has decreased by. A trend threshold of “lower” is applied consistently throughout this report pertains to data of decreasing trend which has a difference of more than10% and less than 30% from the preceding financial years’ data . We anticipate an increase in the water we sent to third parties owing to the increase in the dewatering activities for safe mining operations due to an increase in the planned production at both the mines.</p>

### W-MM1.3

**(W-MM1.3) Do you calculate water intensity information for your metals and mining activities?**

Yes

### W-MM1.3a

**(W-MM1.3a) For your top 5 products by revenue, provide the following intensity information associated with your metals and mining activities.**

Product	Numerator: Water aspect	Denominator	Comparison with previous reporting year	Please explain
High grade ore	Freshwater consumption	Ton of final product	About the same	We calculate the water intensity associated with the ferrous metals we process at our operations. The water intensity is represented as the relationship between a volumetric aspect of freshwater consumption and production of processed iron ore (as described in the CDP, which is different to how Kumba calculated this). The water aspect refers to the primary and secondary clean water make-up while the unit of production refers to the final product processed. In FY2019, total water withdrawal intensity deteriorated from 151ℓ/tonne to 152ℓ/tonne due to increased mining tonnes. The water intensity for both mines fluctuated over the reporting period which can be attributed to the decrease in water supply and decrease in production. A trend threshold of “about the same” is applied consistently throughout this report and it pertains to data which has less than 10% difference from the preceding financial years’ data.

### W1.4

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

Yes, our suppliers



## W1.4a

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

### Row 1

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**% of suppliers by number**

Less than 1%

**% of total procurement spend**

Unknown

**Rationale for this coverage**

Our approach to procurement is aligned to the Anglo American plc approach which is guided by The Responsible Sourcing Standard for Suppliers, which details performance expectations across 6 Pillars of value. Based on a risk ranking, suppliers are requested to complete a self- assessment questionnaire. Based on the level of risk identified, select suppliers are requested to either provide evidence of a recently conducted 3rd party verification audit or undertake a new audit. In previous years, excluding FY2017, the audit process has been conducted with over 290 suppliers prioritised by risk. However, in 2019, we engaged with suppliers by issuing our self-assessment questionnaire to help our suppliers understand water related issues. Our audit process and self-assessment questionnaire ensure that the engaged suppliers (target is 80% of procurement spend coverage by 2020) can demonstrate compliance with legal requirements and alignment with our values and ethics.

**Impact of the engagement and measures of success**

The Anglo American Responsible Sourcing Standard for Suppliers addresses supplier compliance with local and applicable international regulations and with Anglo American requirements. Our supplier engagement focuses on building awareness of risk as well as, our corporate expectations, and agreeing corrective action plans between suppliers and our procurement teams to better manage risks. We hold our local supplier to the same standards as our larger suppliers, and work with them to ensure they achieve acceptable governance standards. We also ensure that we offer opportunities to local suppliers throughout our process, from exploration to rehabilitation. Local businesses allow us to have a resilient supply chain and, by doing business with these entities, we help the communities they're based in to grow. Some of the benefits include job creation and skills development, local and social development as well as creating sustainable small businesses.

**Comment**

The Anglo American (AA) Responsible Sourcing Standard for Suppliers addresses compliance with local and applicable international regulations and with Anglo American requirements. Supplier engagement focus on awareness of risk and corporate expectations, agreeing corrective action plans between suppliers and procurement

teams. Same standards for local and larger suppliers work with them to ensure they achieve acceptable governance standards.

## W1.4b

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

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### Type of engagement

No other supplier engagements

### Details of engagement

### % of suppliers by number

### % of total procurement spend

### Rationale for the coverage of your engagement

Our supplier engagement focuses on building awareness of risk, a better understanding of our corporate expectations, and agreeing corrective action plans between suppliers and our procurement teams to better manage risks. We expect all of our suppliers to meet the same ethical and moral standards by operating safely, responsibly and sustainably in accordance with our supplier policies, codes and standards. At a minimum, we expect suppliers to demonstrate compliance with all local laws and regulations, as well as good practices, in all areas, including water-related issues. Our approach is guided by the Anglo American Responsible Sourcing Standards for Suppliers and various supporting policies.

In FY2019, Kumba sent out the supplier questionnaire, but got no responses.

### Impact of the engagement and measures of success

### Comment

## 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.**

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### Country/Area & River basin

South Africa  
Vaal

### Type of impact driver & Primary impact driver

Physical  
Drought

### Primary impact

Increased operating costs

### Description of impact

One of our most significant challenges is excessive dust generation. Despite our extensive dust exposure monitoring and control programmes, our mines are experiencing ongoing challenges with PM10 dust emissions. The allowable limit is 75 µg/m<sup>3</sup> and operations are allowed four exceedances per year per monitoring site. Over the past three years there has been a steady decrease on the PM10 exceedances at Sishen even though the challenges still remain due to high winds and dry conditions. In 2019, PM10 dust emission levels remained within the legally allowable limits at Kolomela; however, dust emission levels, specifically PM10 emissions, continue to pose a challenge at Sishen. Sishen has 3 monitoring stations and have consistently exceeded the allowable dust limits at 2 stations which has been reported to the Department of Environmental Affairs (DEA) - renamed the Department of Environment, Forestry and Fisheries (DEFF) in June 2019. Managing our dust emissions remains an important challenge. The major impacts include increased water management and dust suppression costs needed to ensure full compliance with the new legal limits amidst drought conditions.

### Primary response

Other, please specify  
Pollution abatement and control measures

### Total financial impact

251,656,731

### Description of response

FY2019 Sishen spent a total of R227 million on Dust suppression for I-CAT; E-CAT, DAS and Moreka. In FY2019, dust suppression cost at Kolomela was R75 million for 'dust-a-side'. Ongoing dust suppression measures implemented at our operations include the usage of 'dust-a-side' and Afrigroup solutions on our primary and secondary roads, the installation of dust extraction systems in the plant, and water cannons and

mist foggers on our stockpiles and conveyor belts. We implement a Trigger Action Response Plan (TARP) to manage daily dust events. We continue to engage with the regulator and are committed to the regional initiatives on air quality management plan development. We also continue to invest in researching new technologies to mitigate dust generation

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### **Country/Area & River basin**

South Africa  
Vaal

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

Physical  
Increased water scarcity

### **Primary impact**

Other, please specify  
unsatisfied neighbouring farmers

### **Description of impact**

Groundwater is our primary water source, accessed through dewatering boreholes. The deeper we mine, the more groundwater must be pumped through the ingress from the mine pit. Depletion of groundwater resources due to dewatering is one of our primary operational unwanted environmental events. The potential impacts may involve an increase in operational costs and long-term reduction in shareholder value. Kolomela and Sishen mines are located in water stressed areas with challenging socio-economic circumstances including high poverty levels and poor infrastructure. This means that access to secure water and community opposition is a risk. Most water-related complaints at Sishen and Kolomela relate to receding ground water levels on neighbouring farms.

### **Primary response**

Increase capital expenditure

### **Total financial impact**

69,050,788

### **Description of response**

The Kolomela aquifer recharge project was implemented to artificially recharge mine water to the underground aquifers in 2014. The associated capital investment for this project was an estimated R20 million. There is no operational cost of pumping water into the Kolomela Aquifer Recharge Project, as it is powered by solar energy and the water gravitates back into the ground. In 2016, Kumba initiated priority water infrastructure projects at storm water sumps and recovery water pipes at the Sishen mine. The project was completed in 2017 at a total cost of R69 050 788.

**Country/Area & River basin**

South Africa  
Vaal

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

Regulatory  
Increased difficulty in obtaining withdrawals/operations permit

**Primary impact**

Other, please specify  
Delays in permitting

**Description of impact**

The regulatory environment for water is developing in South Africa and poses potential risks to us. Three important draft regulations include: 1. The draft regulations requiring the lining of pollution control infrastructure and mine residue dumps has a potential cost impact on the business. 2. New draft legislation incorporating water liability in closure costs may result in significant increases in closure liabilities as water was previously not requested/required to be included by the Department of Mineral Resources (DMR) in the closure provision submitted to the regulator. 3. The Waste Discharge Charge System (WDCS) will require polluters to internalise costs associated with waste and encourage the reduction in waste. There is a risk of a change in discharge regulations. Failure to comply will result in fines. In addition, the frequently changing regulatory environment makes it difficult to always obtain licenses on time. This can delay projects and can result in significant negative financial impacts. Permitting setbacks have not resulted in detrimental impacts on production. However, the delays relate to ensuring legal compliance as per license conditions.

**Primary response**

Engage with regulators/policymakers

**Total financial impact**

40,000

**Description of response**

The cost of engaging with the Department of Water and Sanitation was carried in house, in normal operating costs of the company.

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**Country/Area & River basin**

South Africa  
Vaal

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

Physical  
Flooding

**Primary impact**

Other, please specify

Flooding of pollution control dams

### Description of impact

In FY2017, we experienced heavy rainfall which led to the flooding of the pollution control dams at both the Sishen and Kolomela mine. These were level 2 incidences which were reported at the Department of Water and Sanitation (DWS). In 2019, we did not experience any significant rainfall.

### Primary response

Comply with local regulatory requirements

### Total financial impact

0

### Description of response

We reported the flooding of the dams to the Department of Water and Sanitation (DWS) and there were no costs or fines implicated.

## W2.2

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

No

## W3. Procedures

### W-MM3.2

**(W-MM3.2) By river basin, what number of active and inactive tailings dams are within your control?**

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#### Country/Area & River basin

South Africa

Vaal

#### Number of tailings dams in operation

3

#### Number of inactive tailings dams

2

#### Comment

Kumba has 4 tailings facilities. One active facility at Kolomela Mine which was constructed as a Water Retaining structure, and three dams at Sishen Mine of which only one is active. The dams were constructed in the Upstream Method of Construction

in 1976 and are currently 19m high with a final life of mine height of 33m versus the dam in Brazil's height of over 90m. Due to their location in the Northern Cape, and based on our analysis, there will be no impact on the public or public property in the unlikely event of failure of a Sishen tailings dam. The area is hot and dry. The average rainfall is sparse, only 50 to 400mm per annum and temperatures often top 40°C in summer. The topography is flat and the Northern Cape is a non-seismic area. Due to compartmental rotation, steady state phreatic surface do not occur on our dams. As a result, there is no seepage and therefore higher stability of the dam walls. Water levels (freeboard) and wall movement are monitored daily. We have implemented various critical controls; Monitoring and inspection – water levels, water pressure and stability, liquefaction potential – we do not have a risk of liquefaction at Sishen and zone of influence modeling – determine the area impacted by a potential failure and design appropriate TARP and emergency response plans. Trigger action and emergency response – proactive measures based on leading indicators to manage any potential instability.

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**Country/Area & River basin**

South Africa  
Vaal

**Number of tailings dams in operation**

1

**Number of inactive tailings dams**

0

**Comment**

Kumba has 4 tailings facilities. One active slime dam facility at Kolomela Mine which was constructed as a Water Retaining structure, and three dams at Sishen Mine of which only one is active. The dams were constructed in the Upstream Method of Construction in 1976 and are currently 19m high with a final life of mine height of 33m versus the dam in Brazil's height of over 90m. Due to their location in the Northern Cape, and based on our analysis, there will be no impact on the public or public property in the unlikely event of failure of a Sishen tailings dam. The area is hot and dry. The average rainfall is sparse, only 50 to 400mm per annum and temperatures often top 40°C in summer. The topography is flat and the Northern Cape is a non-seismic area. Due to compartmental rotation, steady state phreatic surface do not occur on our dams. As a result, there is no seepage and therefore higher stability of the dam walls. Water levels (freeboard) and wall movement are monitored daily. We have implemented various critical controls; Monitoring and inspection – water levels, water pressure and stability, liquefaction potential – we do not have a risk of liquefaction at Sishen and zone of influence modeling – determine the area impacted by a potential failure and design appropriate TARP and emergency response plans. Trigger action and emergency response – proactive measures based on leading indicators to manage any potential instability.

## W-MM3.2a

**(W-MM3.2a) Do you evaluate and classify the tailings dams under your control according to the consequences of their failure to human health and ecosystems?**

### Row 1

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#### **Evaluation of the consequences of tailings dam failure**

Yes, we evaluate the consequences of tailings dam failure

#### **Evaluation/Classification guideline(s)**

South Africa (SANS) 10286

Company-specific guidelines

#### **Tailings dams have been classified as 'hazardous' or 'highly hazardous'**

Yes, tailings dams have been classified as 'hazardous' or 'highly hazardous' (or equivalent)

#### **Please explain**

During 2019, a delegation of the Kumba Board visited Sishen and Kolomela to inspect the tailings dams and to ensure that we comply with tailings dam management requirements. A strong sector-based commitment to eliminate fatalities, including a specific recent focus on tailings dam safety. Inspections and regular audits by Manager technical services and the Operational Risk Assurance process Automated warning system emergency response plans and emergency preparedness plans. Kumba follows the Anglo American Technical Standard (AA TS 602 001)

Anglo American's TSFs are subject to our mandatory Group Technical Standard, in place since 2014 and which exceeds current ICMM (International Council on Mining and Metals) and regulatory requirements in all host jurisdictions. This best-in-class standard sets minimum requirements for design criteria, monitoring, inspection and surveillance, and was peer-reviewed by international specialists.

## W-MM3.2b

**(W-MM3.2b) Provide details for all dams classified as 'hazardous' or 'highly hazardous'.**

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#### **Tailings dam name/identifier**

Sishen Mine - Sishen Mine DMS Dams and Infill Legs

#### **Country/Area & River basin**

South Africa

Vaal

#### **Latitude**

-27.72627



**Longitude**

23.000872

**Hazard classification**

Major

**Guideline(s) used**

South Africa SANS 10286  
Company-specific guidelines

**Tailings dam's activity**

Active

**Current tailings storage impoundment volume (Mm3)**

38

**Planned tailings storage impoundment volume in 5 years (Mm3)**

46.5

**Please explain**

The active tailings dam at Sishen mine is categorized as 'major' based on consequence of failure. Due to their location in the Northern Cape, and based on our analysis, there will be no impact on the public or public property in the unlikely event of failure of a Sishen tailings dam. The area is hot and dry. The average rainfall is sparse, only 50 to 400mm per annum and temperatures often top 40°C in summer. The topography is flat and the Northern Cape is a non-seismic area. Due to compartmental rotation, steady state phreatic surface do not occur on our dams. As a result, there is no seepage and therefore higher stability of the dam walls. Water levels (freeboard) and wall movement (cracking, bulging, settlement) are monitored daily.

**W-MM3.2c**

**(W-MM3.2c) To manage the potential impacts to human health or water ecosystems associated with the tailings dams in your control, what procedures are in place for all of your dams?**

Procedure	Detail of the procedure	Please explain
Life of facility plan	<p>A life of facility plan that identifies minimum specifications and performance objectives for the operating and closure phases</p> <p>A life of facility plan that includes an identification of potential chemical and physical risks from the design and construction phases</p> <p>Other, please specify</p>	<p>Our tailings dams are managed as per the Anglo American Mineral Residue Facilities and Water Management Structures Standard. The Standard covers the phases of the life-cycle of the facilities from design, construction, operation, to closure of facilities. We are progressively integrating mine closure planning within our operational strategies. Zone of Influence simulations have been modelled to determine the extent of the</p>

	<p>A life of facility plan that considers closure and decommissioning phases</p>	<p>slimes impact from our operation in the unlikely event of an incident. The current simulations have shown that no community will be affected in the event of a dam failure. Our operations are completing self-assessments against the standard to identify and prioritise gaps in compliance. Action plans are then developed and implemented to address gaps. We are looking into rolling out the standard for our waste rock piles and develop surface-flooding risk-management plans.</p>
<p>Operating plan</p>	<p>An operating plan that includes the operating constraints of the dam and its construction method</p>	<p>Our tailings dams are managed using Anglo’s Mineral Residue Facilities and Water Management Structures Standard, AA TS 602 001. According to the standards each structure has its own set of assessments and reports, as per the requirements set in AA TS 602 103; exceptions include where several small size structures are replicated across the property, having the same Consequence Classification of Structure (CCS) ratings, design criteria and operational processes.</p> <p>Performance monitoring of quality Standard implementation has been completed through set governance processes and has included, as a minimum, the following evaluations:</p> <ul style="list-style-type: none"> <li>• Quality of design, construction, operation and closure of facilities;</li> <li>• Quality of required technical documentation, including sign-off, as outlined in AA TS 602 103</li> <li>• Quality of design, implementation, reporting and verification of critical controls, as applicable and relevant to each structure;</li> <li>• Quality of monitoring, surveillance and governance processes</li> <li>• Appointment of the Competent Person;</li> <li>• Appointment and proper engagement of EoR; and</li> <li>• Appointment and proper engagement of TRP</li> <li>• Availability of quality documentation updated annually and implementation of SFRMP, including semi-annual structural inspections,</li> </ul>

		<p>review of annual training material and training workshop participation.</p> <p>Anglo American plc's new mineral residue management technical standard for tailings dams and water retaining dams has been rolled out at Sishen and Kolomela mines and implemented for tailings dams and water retaining dams. The new standard raises the bar in the level of care for our mineral residue facilities as we seek to move beyond compliance and towards best practice. In implementing our internal technical standard we will align with the ICMM position statement on preventing catastrophic failure of tailings storage facilities, which all ICMM member companies are committed to implementing by November 2018.</p>
Acceptable risk levels	<p>Establishment of site-level guidance and standards for acceptable risk levels for third party safety in consultation with potentially affected communities, employees and relevant government bodies</p> <p>Establishment of company-wide standards for acceptable risk levels that follow a company policy to eliminate or minimize water-related risks associated with tailings dams</p> <p>Other, please specify</p> <p>Establishment of site-level guidance and standards for acceptable risk levels for occupational health and safety</p>	<p>Anglo American Technical Standards define the mandatory minimum requirements we set for managing a wide range of specific issues, for example, the management of tailings storage facilities. Tailings storage facilities are classified as a major risk and are subject to a rigorous risk management programme. We make use of the Trigger Response Plan (TARP) to cover various risk events. We classify facilities based on potential consequences of a catastrophic event. Classification criteria include: public and employee safety; employee health; and environmental, infrastructure, financial, social and reputational consequences of incidents. In turn, the classifications determine: design criteria; the frequency of monitoring and inspection; assignment of appropriately skilled and resourced people; and governance structures to manage, monitor, audit and review facilities.</p>
Approval	<p>Other, please specify</p> <p>Approval of operation plan by plant manager</p>	<p>The standards and any legal documentation including drawings must be approved by the tailings facility Competent Person, the Engineer of Record and the Technical Review Committee (TRP). The ultimate responsibility for the tailings dam management lies with the Plant Manager.</p>

Assurance program	An assurance program for each phase of the facilities' life that includes the scope of the various levels of inspections, audits and reviews	We have various internal and external review and assurance programmes that ensure that priority unwanted risks are identified and that adequate controls are in place to manage them. The assurance program is part of our risk assessment plans. The Anglo's Mineral Residue Facilities and Water Management Structures Standard, AA TS 602 001 detail the level of the inspections. During the operational phase, inspections and regular audits on the tailing storage facilities are undertaken by the T&S expert and Operational Risk Assurance process.
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### 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**

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**Coverage**

Full

**Risk assessment procedure**

Water risks are assessed as part of other company-wide risk assessment system

**Frequency of assessment**

More than once a year

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

More than 6 years

**Type of tools and methods used**

Tools on the market  
Enterprise Risk Management  
International methodologies

**Tools and methods used**

WRI Aqueduct  
ISO 31000 Risk Management Standard  
IPCC Climate Change Projections

**Comment**

Our water strategy is aligned with Anglo American strategy which includes a group risk management standard supported by an integrated framework. We also have our own comprehensive company-wide risk assessment approach. We utilise internationally recognised ISO14001 management system at its mines to link into the risk management process. At a departmental level, we make use of a bow-tie risk assessment where each site has its own specific water action plans and resources to deal with water issues. We also make use of IPCC climate change projections.

## Supply chain

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### Coverage

Full

### Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

### Frequency of assessment

More than once a year

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

More than 6 years

### Type of tools and methods used

Tools on the market  
Enterprise Risk Management  
International methodologies

### Tools and methods used

WRI Aqueduct  
ISO 31000 Risk Management Standard  
IPCC Climate Change Projections

### Comment

We manage supply chain water risks through our responsible sourcing standard which addresses supplier compliance with local regulations and with Anglo American plc requirements. We engage with our suppliers in awareness sessions, self-assessment and audit processes, thus gaining and enhancing internal company knowledge to incorporate issues into the risk assessment processes. Corrective action plans between suppliers and procurement teams can be agreed, to better manage risks. . We also make use of IPCC climate change projections.

## Other stages of the value chain

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### Coverage

Partial

### Risk assessment procedure

Water risks are assessed in an environmental risk assessment

### Frequency of assessment

More than once a year

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

More than 6 years

**Type of tools and methods used**

- Tools on the market
- Enterprise Risk Management
- International methodologies

**Tools and methods used**

- WRI Aqueduct
- ISO 31000 Risk Management Standard
- IPCC Climate Change Projections

**Comment**

The water risks at other stages of the value chains are partially assessed.

**W3.3b**

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

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Water availability and quality are vital to our operations and therefore impact our growth potential. They also form key components of our operating licences, especially with regards to our impacts on neighbouring communities. As a result, these are factored into our risk assessments at both group and operations levels. We conduct extensive water availability and water quality monitoring at all our operations to assess security of supply and risk. We use this data and our internal company knowledge to feed into the risk assessments we conduct on site regularly. For example Kumba pumps groundwater that is in excess of operational needs to Sedibeng Water. The water authority subsequently supplies bulk water to farmers, to compensate for their potential losses from private boreholes. Kolomela’s innovative pilot initiative to artificially recharge mine water to the underground aquifers that its operations traverse is another such example. The initiative has been in operation for three years, recharging an average of 42,000 m <sup>3</sup> a month, approximately 10 to 15% of the excess water from the mine. Sishen has applied for a water use licence to implement a similar project. Future water scarcity has potentially significant implications for our activities. We use key water performance indicators and track water use and

		<p>progress using the Anglo American WETT. This builds up our internal knowledge base to deal with future projection of water availability and work this into the risk assessment processes. All our operations have plans in place to reduce their exposure to climate risks. For example, Thabazimbi, Sishen and Kolomela, with the help of external consultants, have conducted climate and risk adaptation studies to understand the future changes in climate, including the impact on water availability. We incorporate the estimates of future changes in water availability into our water risk assessment by using internal company knowledge on this issue.</p>
Water quality at a basin/catchment level	Relevant, always included	<p>Water availability and quality are vital to our operations and therefore impact the company's growth potential. They also form key components of our operating licences, especially with regards to the company's impacts on neighbouring communities. Water availability and quality therefore impact the company's growth potential on physical and regulatory levels and are factored into the company's risk assessments at both group and operations levels. We conduct extensive water availability and water quality monitoring at all our operations to assess security of supply and risk. We use this data and our internal company knowledge to feed into the risk assessments we conduct on site regularly. Water quantity and quality scenarios are modelled in our Water Efficiency and Target Tool (WETT). The model provides an understanding of the sensitivity to water changes up to 2020. This forms part of our water risk assessment action plan. We also undertake climate and risk adaptation studies, which rely on data availability and sophisticated climate modelling capabilities to develop substantiated climate scenario projections. This is complimented by the internal knowledge of our water specialists and these contextual issues are integrated into our water risk assessment and planning.</p>
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	<p>Stakeholder conflict over water resources is a significant risk for Kumba. Water is a communal resource and we thus aim to maintain good relationships with surrounding communities. Most water-related complaints at Sishen and Kolomela relate to receding ground water levels on neighbouring farms. All complaints are investigated and appropriate remedial action is taken. Our reporting and stakeholder management processes are aligned with the AA1000 stakeholder engagement standard, the sustainable development principles and reporting framework of the</p>

		<p>International Council on Mining and Metals (ICMM), and the principles of the United Nations Global Compact. We review our stakeholder map and issues (including water related issues) annually. This is to account for new stakeholders, shifting interests and concerns, and to set new performance indicators. Stakeholder interests are collated from a variety of regular interactions with stakeholders. Internal company knowledge, derived from stakeholder engagements, is used to factor these issues into the company's risk assessment. Regular engagement with key stakeholders is central to our efforts to identify and address issues and impacts timeously. We engage with our stakeholders on a regular basis and use this to determine potential concerns that the stakeholder has. Steps are taken to remediate any negative impacts and investigations are carried out to prevent repeat incidents. In this way we are able to foresee and assess any future potential stakeholder conflicts that may arise. We incorporate these potential future stakeholder conflicts into our water risk assessment using internal company knowledge. Emerging risks are captured and included in the integrated risk assessment system. When the likelihood factor increases to a determined level, these risks are addressed by a mitigation plan.</p>
<p>Implications of water on your key commodities/raw materials</p>	<p>Relevant, always included</p>	<p>Water impacts on our key commodities/raw materials could increase costs of the company, in the case where additional water treatment is required. Our key commodities are diesel, electricity, tyres and explosives. Although these are impacted by water availability they are geographically remote from our operations. The issue surrounding water implications on these key commodities/raw materials are factored into our risk assessment process. We can manage supply chain risks through our responsible sourcing standard which addresses supplier compliance with local regulations and with Anglo American plc requirements which include water. We engage our suppliers in awareness sessions, self-assessment and audit processes, thus gaining and enhancing internal company knowledge to incorporate issues into the risk assessment processes. Corrective action plans between suppliers and procurement teams can be agreed, to better manage risks. Issues or concerns relating to the impacts of water on the relevant commodity can be identified and addressed through this process and assessed through internal company knowledge during risk assessment processes. Delays caused by water issues that affect the production of these commodities will</p>



		<p>reduce production levels and profit margins. We are able to manage future supply chain risks through our responsible sourcing standard and supplier engagement processes. Although we do engage with our suppliers around water issues, we do not consider it necessary to include scenario analyses of water implications on our key commodities in our water risk assessment process. This is because the risk is not material enough to warrant scenario analyses and we are able to assess the issues more actively through current, up-to-date engagements.</p>
Water-related regulatory frameworks		<p>The water management standard requires sites to manage their water issues in compliance with applicable laws, regulations and other obligations or requirements. The volume and quality of the water that is allowed to be discharged by the operations are predetermined through regulatory processes. Non-compliance with regulatory requirements could result in fines or suspension of mining licences. These contextual issues are therefore included as critical concern into the organization's water risk assessments. We use both internal knowledge and external legal compliance audits to ensure we stay up to date with current regulatory information and tariffs. Regulatory and tariff information is integrated into our on-site water risk assessment processes that are on-going. Where issues arise, our employees have an extensive process of constructive discussion with regulators to ensure compliance and remain updated on any changes in the regulatory framework. Future potential regulatory changes at a local level can pose significant risks to us. For example, there is future regulation on the inclusion of water costs in closure cost estimates in South Africa that may lead to increased costs. We engage regularly with regulators and water supply entities on potential local-level regulations anticipated in the future. The Anglo American Legal department, the Environmental Policy Committee of the Chamber of Mines and other working groups also inform the business risks related to future regulation. Through internal company knowledge and direct engagement with regulators, We are able to factor potential regulatory changes into our water risk assessment process.</p>
Status of ecosystems and habitats	Relevant, always included	<p>We have implemented environmental improvement plans that are designed to address material issues. These plans are reviewed twice a year at management review forums. In addition, the Sishen and Kolomela mines have implemented biodiversity action plans which assess future potential</p>

		<p>issues within the ecosystems. The plans, which are developed using internal company knowledge, assist us to stay abreast of any potential risks to ensure that future changes are integrated into the relevant risk management process. This is in addition to the basic biodiversity management activities that are a requirement within all our operational management systems. The biodiversity action plans seek to balance ecological considerations and community needs. We actively monitor the impact that it could be having on ecosystems where we operate. We engage with research organisations to ensure that habitats remain undisturbed by mining activities. We use internal company knowledge to manage these issues on a continuous basis and feed relevant information into the water risk processes on site. The current data sets indicate that the risk is not so material and there will be no considerable changes in the status of surrounding ecosystems. Scenario analyses of potential changes to ecosystems or habitats are therefore not incorporated into our current water risk assessment process.</p>
<p>Access to fully-functioning, safely managed WASH services for all employees</p>	<p>Relevant, always included</p>	<p>Access to safe water, adequate sanitation and proper hygiene is of paramount importance to Kumba. For this reason, these are included in our water risk assessment. Without fully functioning WASH services our employees' health and safety will be negatively affected resulting in disruptions to the work force. Internal company knowledge is used to integrate the contextual issues of WASH services into the risk assessment process. We have been optimising water consumption through recycling and efficiencies.</p>
<p>Other contextual issues, please specify</p>	<p>Relevant, always included</p>	<p>Other contextual issues : Current river basin management plans</p> <p>Water from river basins directly impacts water availability and water quality at our operations. We therefore incorporates these plans into our risk assessment process to evaluate if impacts to the basin will have any influence on our operations. The new Anglo American water management standard has been developed in alignment with global best practice and the ICMM water reporting guidelines. The standard is a more focused and structured approach to managing catchment-wide water risks. This will include an evaluation of river basin plans in the risk assessment process. We use internal company knowledge and engagement with stakeholders to feed this into the risk assessment process.</p>

### W3.3c

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

	Relevance & inclusion	Please explain
Customers	Not relevant, explanation provided	The vast majority of our clients are located in Asia (China in particular) and Europe. These key customers are largely steel mills. As they are not based in South Africa, these stakeholders are not factored into our water risk assessment. Managing the water risks within our own boundaries, including the communities that live alongside our operations, is far more significant and as such our customers are not engaged with regards to water risks.
Employees	Relevant, always included	Employees are an integral part of the community within which the company operates. Employees are included in water risk assessment processes where relevant. Where required and where relevant, employees that have a responsibility or activity that involves water management are included in the risk management processes that happen at an operational level. We also include assessments of risks relating to neighbouring communities’ abilities to access water and the quality of water. These risks are evaluated in the company’s water risk assessment process. We engage with our employees through emails, stakeholder workshops and in the day-to-day running of our operations.
Investors	Relevant, always included	Investor concerns related to water (and environmental issues generally) are increasingly important given the water related risks that operations are exposed to. The company’s water strategy is aligned with the Anglo American group strategy and reflects our aspirations to demonstrate leadership in water stewardship. Evidence of initiatives is presented in the annual sustainable development and integrated reports which are available to investors to assist in assessing their investment in the company. We engage with our investors through these reports as well as through our investor relations manager, the South Africa Stock Exchange News Service announcements, investor presentations, stakeholder workshops, newspapers and media. It is important that these investor views are factored into the company’s water risk assessment.
Local communities	Relevant, always included	Our operations are located in water-stressed areas. In the Northern Cape particularly, arid conditions and municipal potable water supply constraints underscore the need for responsible water management. The concerns and

		<p>perspectives of local communities are central to our water risk assessments and social impact assessments. We engage in various community-based projects, which range from water-related initiatives to healthcare services. We regularly engage with stakeholders in a structured manner as required by our reporting processes, which are aligned with the AA1000 stakeholder engagement standard, the sustainable development principles and reporting framework of the International Council on Mining and Metals, and the principles of the United Nations Global Compact. These engagements help us enhance our understanding of stakeholders' interests and needs, fostering greater stakeholder appreciation of the company's activities. For example, we participate in the Agricultural Forum, which meets quarterly with the Gamagara Farmers to discuss Dewatering boundaries and influence on farmers.</p>
NGOs	Relevant, always included	<p>We ensure that key NGOs are considered during risk assessments as they play a vital role in the development of local communities. Local NGOs are also able to facilitate stakeholder meetings as independent parties, which facilitates discussion and the development of practical solutions regarding community concerns or issues. We participate in several water-related forums with stakeholders, including the Farmers Forum with the Gamagara Farmers to discuss Dewatering boundaries and influence on farmers and the Tshiping Water Use Association, which meets quarterly with all water users in the river basin to discuss water uses and costs, initiatives and legislation. NGOs also provide a platform for communicating the expectations of stakeholders, which we may incorporate in our water risk assessments. We engage the NGOs as part of our stakeholders during stakeholder days or stakeholder road-shows.</p>
Other water users at a basin/catchment level	Relevant, always included	<p>Farmers are the other main users of water in the areas in which we operate. We engage regularly with our surrounding communities and the relevant local communities on water and environmental related issues. We are aware that other users have equal rights to the water resources, and therefore endeavours to protect and facilitate access to water supplies in our neighbouring communities. For example, the Kolomela and Sishen mines pump groundwater that is in excess of operational needs to Sedibeng Water. The water authority subsequently supplies bulk water to farmers, to compensate for their potential losses from private boreholes. Kolomela mine's innovative pilot initiative to artificially recharge mine water to the underground aquifers that its operations traverse</p>

		has been in operation for three years with an average of 42 000m <sup>3</sup> a month recharged. Regular forums are held with stakeholders, including meetings with farmers, at which concerns and grievances are raised. All environmental-related grievances and complaints from external parties are logged in a complaints register and investigated internally. Steps are taken to remediate any negative impacts and prevent repeat incidents. Feedback is provided to the complainants. In this way, we are able to engage regularly with our other water users on a local level.
Regulators	Relevant, always included	We are bound by our operating licences and various related pieces of legislation. Non-compliance with regulatory requirements could result in fines or suspension of mining licences. We therefore engage continuously with the relevant authorities via email correspondence and through stakeholder workshops, particularly the Department of Water and Sanitation with regards to water issues, to ensure that the company is compliant and up to date with all regulatory requirements. Such engagements also keep the company informed of future potential regulatory changes, providing it with opportunities to proactively mitigate risks in that regard. We therefore factor any updates on regulations or tariff changes into our water risk assessment process.
River basin management authorities	Relevant, always included	River basin management can impact on water quality and quantity. These factors have direct impacts on our operations and therefore consideration relating to the relevant authorities in our water risk assessments is critical. We engage with these stakeholders in the same fashion as regulators as they are typically responsible for setting the regulations, developing water pricing reforms and reviewing and approving water use licenses. Our engagement is done regularly throughout the year in face-to-face meetings and their concerns and perspectives are critical inputs to our water risk assessment. For example, we participate in the Tshiping Water Use Association, which meets with all water users in the river basin to discuss water uses and costs, initiatives and legislation.
Statutory special interest groups at a local level	Relevant, always included	We take a lead role to co-ordinate stakeholders into interest groups that work together with regulators, including the respective municipality, water catchment agency and governments, to manage the local water issues. The engagement with and support of local stakeholders is imperative for the maintenance of our 'social licence to operate'. The company consistently takes all reasonable steps to ensure that it does not degrade water quality or compromise the access rights of other users. We also develop and

		participate in various community based projects, particularly those that build community resilience. These projects include regular upgrades of water infrastructure to maintain water supply and allow us to engage effectively with statutory special interest groups linked to our business.
Suppliers	Relevant, always included	We have started to facilitate more insight into the risk of supply of key commodities, we have attempted to request environmental and water information from suppliers such that it is possible to determine whether the interruption of the supply of products would result in production prices increasing. This process is new, but is likely to be considered within future water risk assessments. We are able to indirectly manage water-related risks through our responsible sourcing standard. We ensure that our suppliers are credible, trustworthy organisations that are aligned with the Anglo American group business ethics and standards. Our suppliers are engaged in awareness sessions, self-assessments and audit processes. Issues or concerns relating to the impacts of water on the relevant commodity can be identified and addressed through this process. In addition, Anglo American group hosted the first FutureSmart Mining Open Forum on water in 2015. The focus was to find more efficient ways to mine but also, crucially, to reduce our impact and create a positive legacy for the surrounding environment and local communities. The first forum had representation from more than 75 different market sectors, 30 companies, 16 countries and six continents, including some of our suppliers.
Water utilities at a local level	Relevant, always included	Our operations require high volumes of water. Increasing demands for this limited natural resource highlights the business imperative of demonstrating responsible stewardship of the resource which the company shares with the communities in which it operates. We aim to play a leading role in supplying water to communities. This mitigates societal risks and contributes to our social license to operate. Our operations pump excess water from the open-cast mining pits to Sedibeng Water, the local water services. Sedibeng treats the water and supplies it to the local communities. We engage continuously with water utilities in our region to ensure that we can continue supply our excess water to the utility for dispersion to the local communities. The water utilities are factored into many of the water infrastructure projects that we carry out. These projects are carried out alongside the water utilities to ensure alignment of goals.

Other stakeholder, please specify	Not relevant, explanation provided	Not applicable
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### 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.**

Our water strategy is aligned with the Anglo American strategy which includes a group risk management standard supported by an integrated framework. The implementation of the Anglo American Operational Risk Management (ORM) process supports integrated risk management by providing operational managers with a means of identifying, prioritising and controlling the risks that threaten their ability to meet objectives. The process manages operational risk through the implementation of 4 layers. We also have our own comprehensive company-wide risk assessment approach to ensure water risks are aligned with other identified risks. We utilise internationally recognised ISO14001 management system at our mines to link into the risk management process. This aids risk identification, evaluation and prioritisation, specific to direct operations and supply chain, which are integrated into our management systems. We use a bottom-up approach to evaluate risks and the Operational Risk Management program to classify and prioritise top risks. At a company level, the board delegates responsibility for the governance of sustainability to its Social, Ethics and Transformation Committee. The Committee’s responsibilities include developing sustainable development policies and guidelines to manage the focus areas, monitoring performance against key indicators, and facilitating stakeholder participation, cooperation and consultation on key issues. At a departmental level, a bow-tie risk assessment determines water risks, root causes and mitigation controls. All operations have site-specific water action plans and dedicated resources to deal with water issues. We aim to fully anticipate water risks by ensuring allocation of the right level of resources to manage each risk, and aligns these with attainment of business objectives. In addition, our approach to realising our environmental management goals is underpinned by best practice policies, performance standards and business processes.

## W4. Risks and opportunities

### W4.1

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

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

### W4.1a

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



'Substantive change' would be anything that could materially affect our ability to meet business objectives and, or, is of material importance to stakeholders. This definition applies to Kumba's direct operations. Materiality is defined as a matter that, in the view of the Board, senior management and key stakeholder groups, is of such importance that it could in the short, medium or long term:

- have a considerable influence on, or is of material interest to our stakeholders
- Substantively influence the company's ability to meet its strategic objectives
- has a high degree of inter-connectivity with other material issues

From a financial perspective and with respect to water, a 'substantive change' would be a disruption to our operations or supply chain caused by a water incident resulting in a change in production or increase in costs. A water incident may, for example, include a community protesting around water supply and preventing usual operations.

Financially Kumba defines "substantive change" as a loss in revenue or increase in operating costs of more than R600 million. The metric and threshold to define substantive change is reviewed on a quarterly basis during Kumba's risk assessment process.

Risk assessments are conducted through facilitated workshops where multidisciplinary teams identify risks. This ensures a holistic approach to understanding the context, social, environmental & economic, in which Kumba operates. This process includes inputs from the Board, the risk committee, executive committee and various discipline and operational heads. During this risk assessment process the material issues to the company are identified and discussed. These material issues link directly to the metric for substantive change. In this way, the process for review of the metric takes place at the risk assessment workshops and depending on materiality issues, the metric is reviewed.

## 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	100	Facility 1 refers to our Sishen Mine operation. Sishen Mine accounted for 73.4% of the total tonnes mined in Financial Year 2019. This facility is within a region of water stress. Facility 2 refers to our Kolomela Mine operation. Kolomela Mine accounted for 26.6% of the total tonnes mined in Financial Year 2019. This facility is also within a region of water stress.



## 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  
Vaal

### Number of facilities exposed to water risk

2

### % company-wide facilities this represents

100%

### Production value for the metals & mining activities associated with these facilities

42,400,000

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

100%

### Comment

Our Sishen and Kolomela mines are situated in a water scarce area and are thus exposed to water risks within the river basin. These operations do however have a positive water balance from the ingress of water in the mining pits. The mines must pump the water out of the mining pits to ensure safe operating conditions, water within the pit has to be at a minimum 20 m below the bottom working level. Both the Sishen and Kolomela mines are located in the Vaal water river basin and they contribute to our overall production output of 42.4Mt. Thus 100% of our operations in this river basin contribute to production capacity.

## 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  
Vaal

### Type of risk & Primary risk driver

Physical

Flooding

**Primary potential impact**

Reduction or disruption in production capacity

**Company-specific description**

Opencast mining operations are at risk due to changes in the frequency and intensity of extreme precipitation events. Climate projections suggest that while our operations are likely to experience more time between precipitation events with the events becoming more intense.

**Timeframe**

1-3 years

**Magnitude of potential impact**

Medium-low

**Likelihood**

More likely than not

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

382,000,000

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

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

**Explanation of financial impact**

Flooding may damage mining infrastructure, destabilize tailing dams, flood mining pits, and result in damaged and unusable haul roads. This may lead to production stoppages or deduced output which will thus affect our revenue. Should this occur, the financial impact might be equivalent to revenue losses of approximately R382 million per year. This revenue loss was estimated from the company's annual revenue and assuming 3 days of heavy rainfall (i.e. >5mm) in the summer season per annum.

**Primary response to risk**

Other, please specify

Water related capital expenditure

**Description of response**

Managing these risks may require operation stoppages and increased pumping costs in order to remove water from the pits and return the mines to normal operating conditions. The current controls/mitigation measures which are put in place are as follows: - Procedure on safety conditions while working - Sumps use to pump the water out/underground - Compact material used (in the short term) to prevent slippery ramps -

All roads are tempered to improve run off - The mine has planned rain day work for February and March as part of production schedule - Flood drainage system present, although this has no specifications on flood volume levels/capacity - Mobile dewatering systems - Access water pumped into the mine pit and seeps into the ground - Wall to prevent the failure of slimes dam 4 (still to be put in place) - Administrative controls on the slimes dam including piezometer readings, integrity checking, code of practice and frequent monitoring.

**Cost of response**

33,238,996.56

**Explanation of cost of response**

The mine was not affected by flooding in FY2019. The current controls are adequate and working well, hence there are currently no additional costs related to the response strategy. These controls are covered in the day-to-day running costs of water projects at the mines. The cost for additional water pumping for dewatering purposes is R33 238 996.56.

---

**Country/Area & River basin**

South Africa  
Vaal

**Type of risk & Primary risk driver**

Physical  
Drought

**Primary potential impact**

Other, please specify  
Increased operational costs

**Company-specific description**

Droughts present a serious risk to mining operations as water is critical to many processes in mining and metals operations. Prolonged dry periods coupled with increased temperature and winds increase the amount of dust generated at our operations. Our operations are already situated in dry areas where dust generation is an issue on site and the issue will be exacerbated by droughts.

**Timeframe**

1-3 years

**Magnitude of potential impact**

Medium-high

**Likelihood**

Likely

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

115,000,000

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

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

**Explanation of financial impact**

The issue of dust on site is exacerbated by drought conditions. This result in negative employee health and this could affect our social license to operate if we breach our air quality permit conditions. Failure to comply with our quality permit conditions may lead to fines and disruptions at our mines. Should this occur, we estimate that the financial impact would be revenue losses of approximately R115 million per day. However, this cost could be lower or higher as it is difficult to isolate.

**Primary response to risk**

Other, please specify  
Pollution abatement and control measures

**Description of response**

Ongoing dust suppression measures implemented at our operations include the usage of 'dust-a-side' and ICAT solutions on our primary and secondary roads, the installation of dust extraction systems in the plant, and water cannons and mist foggers on our stockpiles and conveyor belts. We implement a Trigger Action Response Plan (TARP) to manage daily dust events.

**Cost of response**

251,656,731

**Explanation of cost of response**

In FY2019 Sishen spent a total of R227,593,885.4 on dust suppression initiatives and Kolomela spent R 75,998,697.76.

---

**Country/Area & River basin**

South Africa  
Vaal

**Type of risk & Primary risk driver**

Regulatory  
Regulation of discharge quality/volumes

**Primary potential impact**

Other, please specify  
Regulatory uncertainty

**Company-specific description**

The regulatory environment for water is developing in South Africa and poses potential risks to us. Three important draft regulations include: 1. Draft regulations requiring the lining of pollution control infrastructure and mine residue dumps has a potential cost impact. 2. New draft legislation incorporating water liability in closure costs may result in significant increases in closure liabilities as water was previously not requested/ required to be included by the Department of Mineral Resources (DMR) in the closure provision submitted to the regulator. It is however premature to speculate on the impact this may have on our operations as these gazetted documents are only setting the scene in terms of the structures, principles and objectives through which the water services will be governed. 3. The Waste Discharge Charge System (WDCS) will require polluters to internalise costs associated with waste and encourage the reduction in waste.

**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)**

115,000,000

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

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

**Explanation of financial impact**

There is a risk of a change in discharge regulations. Failure to comply will result in fines. In addition, the frequently changing regulatory environment makes it difficult to always obtain licenses on time. This can delay projects and can result in significant negative financial impacts. The associated financial impact costs are difficult to quantify and are estimated to revenue losses of approximately R115 million per day.

**Primary response to risk**

Other, please specify  
Engage with regulatory/policy makers

**Description of response**

The current controls which are put in place include: - Ongoing stakeholder engagement with government and regulator through Anglo American and development of social

compact. - Scenario planning and analysis on South Africa's direction as a country and identify actions through Anglo American.

**Cost of response**

0

**Explanation of cost of response**

There are currently no costs related to this response strategy.

---

**Country/Area & River basin**

South Africa  
Vaal

**Type of risk & Primary risk driver**

Reputation & markets  
Increased stakeholder concern or negative stakeholder feedback

**Primary potential impact**

Other, please specify  
Loss of license to operate

**Company-specific description**

Stakeholder conflict over water resources is a significant risk for Kumba. Water is a communal resource and we thus aim to maintain good relationships with surrounding communities. Most water-related complaints at Sishen and Kolomela relate to receding ground water levels on neighbouring farms. Water shortages have the potential to increase stakeholder conflicts considering that our operations are located in typically water-scarce areas where neighbouring communities and businesses have equal rights to water resources.

**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)**

115,000,000

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

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

### **Explanation of financial impact**

Failure to manage relationships with all stakeholders, including local communities, government and non- governmental organizations, may disrupt operations and adversely affect our reputation and social license to operate. Failure to manage these relationships could lead to an estimated financial impact of R115 million worth of revenue losses per day.

### **Primary response to risk**

Other, please specify  
Engage with local communities

### **Description of response**

At Kumba, we maintain good working with all our stakeholders including DWS, Sedibeng Water, Khumani & Beeshoek mines, local farmers, Gamagara and Tsantsabane municipalities.

### **Cost of response**

0

### **Explanation of cost of response**

There are currently no costs related to this response strategy.

---

### **Country/Area & River basin**

South Africa  
Vaal

### **Type of risk & Primary risk driver**

Physical  
Rupture of tailings dams and toxic spills

### **Primary potential impact**

Other, please specify  
Fines, penalties or enforcement orders

### **Company-specific description**

Tailings dam breach which leads to environmental contamination poses a risk to our operations at both the Kolomela and Sishen mines. This may be caused by overtopping, internal erosion and slope instability. Our dams are constructed to the highest safety specifications; and managed in accordance with international best practice. We are compliant with the International council of Mines and Metals (ICMM) and very stringent procedures from Anglo American. The dams undergo an external audit by the "Engineer of Record" (external legally responsible engineer) on a quarterly and annual basis

### **Timeframe**

1-3 years

**Magnitude of potential impact**

High

**Likelihood**

More likely than not

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

115,000,000

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

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

**Explanation of financial impact**

Failure of tailing dam has the potential to cause multiple fatalities & injuries, long term environmental damage. Financial costs associated with this failure – environmental clean-up costs & third party legal liability claims. Significant reputational damage - revocation of licence to operate. Associated financial impact costs -difficult to quantify, estimated-minimum of revenue losses-R115 million per day. Financial implication - higher when considering environmental clean-up costs, third party legal liability etc.

**Primary response to risk**

Other, please specify  
Inspection and regular audits

**Description of response**

The current controls which are put in place include: - Mechanically Placed Mine Residue Deposit, daily inspections, planned maintenance, housekeeping, monitoring system in place, EOR (Engineer of Record quarterly inspections), automated warning system. - Implementation and adherence to Mineral Residue Facilities and Water Management Structures Standard and associated technical specifications. Inspections and regular audits by T&S expert and Operational Risk Assurance process.

**Cost of response**

**Explanation of cost of response**

The internal inspection is done under the normal operating costs of the company. Quarterly and annual inspections are carried out by the Engineer of Record (EOR). We have spent R2.5 million on the Engineering assistance and Surveillance work conducted by the EOR.



## W4.2a

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

---

### Country/Area & River basin

South Africa  
Vaal

### Stage of value chain

### Type of risk & Primary risk driver

Physical  
Flooding

### Primary potential impact

Reduction or disruption in production capacity

### Company-specific description

Opencast mining operations are at risk due to changes in the frequency and intensity of extreme precipitation events. Climate projections suggest that while our operations are likely to experience more time between precipitation events with the events becoming more intense.

### 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)

382,000,000

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

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

### Explanation of financial impact

Flooding may damage mining infrastructure, destabilize tailing dams, flood mining pits, and result in damaged and unusable haul roads. This may lead to production stoppages or deduced output which will thus affect our revenue. Should this occur, the financial impact might be equivalent to revenue losses of approximately R382 million per year. This revenue loss was estimated from the company's annual revenue and assuming 3 days of heavy rainfall (i.e. >5mm) in the summer season per annum.

### Primary response to risk

Direct operations

Other, please specify

Water-related capital expenditure

### Description of response

Managing these risks may require operation stoppages and increased pumping costs in order to remove water from the pits and return the mines to normal operating conditions. The current controls/mitigation measures which are put in place are as follows: - Procedure on safety conditions while working - Sumps use to pump the water out/underground - Compact material used (in the short term) to prevent slippery ramps - All roads are tempered to improve run off - The mine has planned rain day work for February and March as part of production schedule - Flood drainage system present, although this has no specifications on flood volume levels/capacity - Mobile dewatering systems - Access water pumped into the mine pit and seeps into the ground - Wall to prevent the failure of slimes dam 4 (still to be put in place) - Administrative controls on the slimes dam including piezometer readings, integrity checking, code of practice and frequent monitoring.

### Cost of response

33,238,996.56

### Explanation of cost of response

The mine was not affected by flooding in FY2019. The current controls are adequate and working well, hence there are currently no additional costs related to the response strategy. These controls are covered in the day-to-day running costs of water projects at the mines. The cost for additional water pumping for dewatering purposes is R33 238 996.56

## 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**

Markets

**Primary water-related opportunity**

Strengthened social license to operate

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

Our operations are in high-water-risk regions. To maintain our license to operate, we cannot degrade water quality or compromise the access rights of other users. There is an opportunity for us to assist in building resilience and assisting in infrastructure delivery in local communities. Our strategy to deal with this opportunity is to provide the local water authority with water from operations to supply communities. To implement the strategy and maintain the social license to operate, we are investing in water infrastructure to support local communities and provide local water authorities with excess water from operations to enhance community resilience to drought. Specific projects that were implemented to take advantage of this opportunity include: Kolomela and Sishen mines pump groundwater, more than operational needs, to Sedibeng Water. A sales agreement is in place with the water authority to supply bulk water to farmers. Kolomela mine artificially recharges clean mine water to the underground aquifers, thereby improving groundwater resources for neighbouring farmers. Our initiated priority water projects at storm water sumps and recovery water pipes at the Sishen mine to recover storm water and reduce dependence on clean groundwater sources. The project was completed in 2017 at a total cost of R69 050 788, which is significant in the context of our operations.

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

Medium-high

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

115,000,000

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

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

**Explanation of financial impact**

Demonstrating responsible stewardship of shared resources is a central business imperative for us. We operate in water stressed environments and as such acknowledges the opportunity for operations to create mutual benefit for the surrounding communities through water provision. As a result of good stakeholder relationships, we

are able to continue to operate and this has a potential financial impact of R115 million per day which is estimated to be similar to our generated revenue per day. However, this revenue is also influenced by many water opportunities such as availability and other business opportunities. The stakeholder engagement and the license to operate is one of our top 10 risks.

---

**Type of opportunity**

Efficiency

**Primary water-related opportunity**

Cost savings

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

Mining operations require large quantities of water and Kumba is no exception. However, we operate in particularly water scarce environments. As Kumba, we have thus identified the opportunity to reduce our water demand through developments in operational efficiencies. The Kumba mines aim to effectively recycle mine-affected water where possible for use in the process plant. Our strategy and approach to water use efficiency is target based. We use the Water Efficiency Target Tool (WETT) developed by Anglo America to manage water use. We implement this strategy through executing water efficiency and water savings projects that will reuse or reduce water consumption. Such water efficiency projects are identified continuously and decisions are taken as to which projects should be prioritized for implementation first. We track our progress against this target through WETT. Through these projects we are able to save costs related to pumping, treatment and discharge licenses. The costs of these projects are covered internally. We have continued to make good progress in reducing our water demands. Our water-saving projects have continued in 2019. Water intensity has, however, decreased from 151 l/t to 140 l/t .

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

Low-medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

117,312

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

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

### Explanation of financial impact

Kumba recognises that there is scope for us to continue advancing our operational efficiency with regards to water use. In doing so we reduce our water demand and ensure that local communities also have access to clean, usable water. To manage our water use and resilience to water scarcity, we use the Water Efficiency Target Tool (WETT) developed by Anglo America. We estimated our potential financial impact from the water we recycle and the unit cost of the fresh water. This is an estimate on how much we would be paying for fresh water if we were not using recycled water.

## 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)

Sishen mine

#### Country/Area & River basin

South Africa

Vaal

#### Latitude

-27.72627

#### Longitude

23.008728

#### Located in area with water stress

Yes

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

16,499.78

#### 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**

14,454.77

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

669.01

**Withdrawals from third party sources**

270.25

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

12,825

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

Much higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

336.5

**Discharges to third party destinations**

1,253.96

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

16,499.78

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

Higher

**Please explain**

This year the operation completed an expansion study which has enabled the mine to increase the monthly average it recharges from 36,000m<sup>3</sup> to 42,000m<sup>3</sup>, accounting for approximately 17% of the excess water from the mine. Local farmers continue to respond positively. Sishen has been granted permission from the authorities to implement a similar project, as part of the amended IWUL issued in 2019.

---

**Facility reference number**

Facility 2

**Facility name (optional)**

Kolomela mine

**Country/Area & River basin**

South Africa

Vaal

**Latitude**

-28.381872

**Longitude**

22.964944

**Located in area with water stress**

Yes

**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**

13,975.3

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

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

0

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

Much 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)**

13,975.3

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

About the same

**Please explain**

Kolomela does not make use of fresh water, brackish surface water or seawater, produced water and waste water in its operation. The groundwater withdrawal refers to the water extracted from boreholes. We recharge about 36,000 m3 of clean mine water each month into underground aquifers neighbouring Kolomela. We also continue to increase the water reuse rate at our operations with the aim of achieving an 85% reuse rate by 2030.

## 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**

Not verified

**Water withdrawals – volume by source**

---

**% verified**

Not verified

**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?**

Yes, we have a documented water policy that is publicly available

### W6.1a

**(W6.1a) Select the options that best describe the scope and content of your water policy.**

	Scope	Content	Please explain
Row 1	Company-wide	Description of water-related performance standards for direct operations Commitment to water-related innovation	We follow the Anglo American Group's water policy as a member company. Our water policy is company-wide & publicly available. The public policy raises awareness, educating internal/external stakeholders (customers & suppliers) on water related issues. Through a public policy we demonstrate commitment to water stewardship in the context of safe & sustainable mining. The policy pushes for development. & investment in technology, optimising efficiency & prevention of

	<p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>environmental degradation in our operations. This demonstrates commitment to monitoring performance standards. The water policy includes commitment to customer education (which is achieved through engagement with suppliers, regulators and partnerships with water utilities. One of the 5 principles in the policy is that-water is an environmental. &amp; human right. We recognise that there is a clear link between water impacts and climate change and hence the policy commits to understanding water implications of climate change.</p>
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## W6.2

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

Yes

### W6.2a

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

Position of individual	Please explain
Chief Executive Officer (CEO)	<p>The highest level of direct responsibility for water issues lies with the CEO. The Executive Head: SHE and the Social, Ethics and Transformation Committee (Setco) have the second level of responsibility. The chair of the Setco is also a member of the board of directors. The committee is responsible for the governance of sustainability in Kumba, which includes water issues. Its duties include formulating sustainable development policies and guidelines to manage social, economic, safety, health and environmental matters (including climate change, energy and water usage). The committee monitors performance against key indicators and facilitates participation, cooperation and consultation on key issues such as water security. The Social, Ethics and Transformation Committee reports directly to the Kumba Board and is one of five standing committees through which the board executes its duties. In FY2018, the committee met 4 times.</p>

### W6.2b

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

Frequency that water-related issues are a	Governance mechanisms into which water-related	Please explain

	<b>scheduled agenda item</b>	<b>issues are integrated</b>	
Row 1	Scheduled - all meetings	<p>Monitoring implementation and performance</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding strategy</p> <p>Reviewing and guiding corporate responsibility strategy</p>	<p>The role of the Kumba Board of directors is to promote the long-term success of the business with integrity, ethically, with fairness and transparency, while taking into account the interests of its various stakeholders. The directors steer the Company in the right direction through a combination of strategy, effective leadership and sound corporate governance. The Board also provides continuous oversight of material matters, acting as an independent check and balance to the executive management team, whose main responsibility remains to manage the business. The Board charter regulates the parameters within which the Board operates and ensures the application of the principles of good corporate governance in all its dealings. Furthermore, the Board charter sets out the roles and responsibilities of the Board and individual directors, including the composition and relevant procedures of the Board. The board consists of 12 directors. There are 10 non-executive directors and seven (7) out of the 10 non-executive are considered independent. Three (3) of the 12 directors are representatives of our majority shareholders and two (2) represent executive management. The Board delegates responsibility for the governance of sustainability including water to its Social, Ethics and Transformation Committee (SETCO).</p>

### 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)**

Risk committee

**Responsibility**

Both assessing and managing water-related risks and opportunities

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

Quarterly

**Please explain**

Our Risk & Opportunity Committee oversees risk management on behalf of the Board, through regular feedback by management on risk management activities. Risk assessments are done at company level, through a structured risk management framework. We use a 10-year time frame for risk identification, to align with long term targets. The Committee continually assesses all risk governance structures and lines of defence in conjunction with the Audit Committee to ensure that roles, responsibilities and accountabilities for identifying, managing, mitigating, reporting and escalating risks and opportunities within the Company are defined. The Risk and Opportunities Committee and management team promote a culture of risk governance and awareness throughout the organisation and continually defines and reviews the risk appetite and tolerance levels to determine internal boundaries for prudent decision making, risk taking and highly efficient governance. The committee met four times in FY2018.

**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**

More frequently than quarterly

**Please explain**

The chief executive together with the executive committee are responsible for water strategic issues and objectives approved by the Board. They are accountable for day-to-day sustainability management and performance, as well as aspects related to the overall strategy. This includes understanding the impacts of, and developing a proactive approach, to water across all our operations. The Chief Executive and the Executive Committee (members of the Board) represent the highest levels of authority in Kumba. The committee meets on a regular basis.

**W6.4**

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

	<b>Provide incentives for management of water-related issues</b>	<b>Comment</b>
Row 1	Yes	Employees who have water related issues as part of their performance contract are compensated based on performance against the contract. At Board level the SETCO committee is responsible for water-related issues. Their performance bonuses are based the company's water targets. Our CEO has a scorecard that is aligned with what is in the Group CEO scorecard. These include water targets and include

		performance on water. In 2017, the Board approved the inclusion of our 2020 and 2030 water targets within the executive. These targets are focussed around ensuring water security for our operations and ultimately driving towards our goal of a waterless mine. Our short-term target is to reduce absolute freshwater intake by 20% by 2020 using 2015 as the baseline year. The indicators for incentivising performance are thus directly linked to these long-term water targets. A scaled weighting is applied to the
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## W6.4a

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

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Corporate executive team Chief Sustainability Officer (CSO) Other C-suite Officer Board of individuals	Reduction in consumption volumes  Other, please specify  Reduction of product water intensity Efficiency project or target – direct operations	Employees who have water related issues as part of their performance contract are compensated based on performance against the contract. At Board level the SETCO committee is responsible for water-related issues. Their performance bonuses are based the company's water targets. Our CEO has a scorecard that is aligned with what is in the Group CEO scorecard. These include water targets and include performance on water. In 2017, the Board approved the inclusion of our 2020 and 2030 water targets within the executive. These targets are focussed around ensuring water security for our operations and ultimately driving towards our goal of a waterless mine. Our short-term target is to reduce absolute freshwater intake by 20% by 2020 using 2015 as the baseline year. The indicators for incentivising performance are thus directly linked to these long-term water targets. A scaled weighting is applied to the achievement of these indicators, which influences the quantum of the monetary reward that each individual receives during that year.
Non-monetary reward	Other, please specify Operational Staff	Reduction of water withdrawals  Other, please specify	The SHE executive head has water related KPI's that are measured and would result in nonmonetary recognition. The Anglo American water standard requires that we appoint water

		Behavior change related indicator	champions for each site who are also recognised for water related behaviours.
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## 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 engagements activities on water related issues is an integral part of our water journey. In 2017, Anglo American started implementing and embedding a new water-management standard and associated reporting requirements. The standard guides a risk-based, regional approach to water management, in line with global best practice and the ICMM water reporting guidelines. Sishen and Kolomela have completed detailed self-assessments and gap analysis against the water standard and have been addressing identified gaps. Progress with meeting the requirements of the standard is included in our Chief Executive scorecard. The water management standard is championed by Setco who is responsible for the governance of sustainability at Kumba, including water issues. Setco also oversees all direct and indirect activities that aim to influence water-related policy. This ensures that there is further consistency and alignment between external and internal water-related activities. If inconsistency is discovered, this will be addressed by the members of the Setco. As an integral part our strategy, the new 2020 targets will support enhanced business performance through cost reduction and aligns with the environmental value pillar objectives of water management. Should any inconsistency in policy engagement be observed this will be raised at the Setco meetings. Appropriate actions will be recommended and implemented depending on the level of inconsistency.

## 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)

 sustainability-report-2019.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	No, water-related issues not yet reviewed, but there are plans to do so in the next two years		AA have developed a Sustainability Strategy, integral to FutureSmart Mining™, AA's innovation-led approach to sustainable mining, to innovate and deliver step change results across the mining value chain. The strategy is built around 3 Global Sustainability Pillars, where water features in the Healthy Environment pillar Strategy achieved through commitment to make operations water resilient (i.e. water efficiency, water security, building water infrastructure for mutual benefit, and partnering with key stakeholders ). To ensure that water issues are integrated into long-term objectives AA is implementing the new water-management standard and associated reporting requirements. During 2019, we continued to implement new water management standards and associated reporting requirements. The standard guides a risk-based, regional approach to water management, in line with global best practice and the ICMM water reporting guidelines. Progress with meeting requirements of standard is included in our Chief Executive scorecard. We continually review our growth strategy investments in strategic projects. Water management has been identified as a key consideration (critical risk across our operations). We integrate our water issues in the long-term business strategy for a period equivalent to the life of the mine. About R50m spent on addressing the gaps through some of the following projects (salt balance, water balance, water information system, water monitoring).
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	> 30	Progress in implementing strategy is driven by water management programme, supported by mandatory group water standard and delivered via operational water action plans. Key objectives include: minimising use of higher grade water and finding lower grade sources; maximising water reuse; ensuring no spillage of contaminated storm/process water and groundwater. Integral to FutureSmart Mining™ AA's innovation-led approach to

			<p>sustainable mining, aims to innovate and deliver step change results across the entire mining value chain. In 2018, AA developed a Water Information Management System (WIMS) that provides realtime data analytics, to capture/validate key operation specific water elements. WIMS has been implemented at Sishen and will be rolled out at Kolomela in 2019. We implement dynamic operational water balances that are linked to regional climatic data. Modelling water balance scenarios significantly improves our ability to predict and quantify risks and identify infrastructure requirements to enable timely management responses to climatic variability. Once our reporting is linked to the WIMS database, we will be able to determine a more consistent baseline of water management data with which to determine targets, KPIs, and operation-specific strategic water-action plans for our contribution towards achieving the AA Sustainability Strategy stretch goals. Site plans include provision for water security, water-use efficiency, tailings water recovery projects etc.</p>
Financial planning	Yes, water-related issues are integrated	11-15	<p>When new water projects and expansion opportunities arise, we consider all water-related issues such as water quality and quantity into the financial planning. We recognise that we have a legal and social responsibility to minimise our planned impacts on the environment, and to strive to eliminate unplanned events, such as unsanctioned water discharges and exceeded air emission standards. Ensuring responsible environmental management through the life-cycle stages of an operation can influence our future access to land and capital, improve resource security, and reduce operational risks and mine-closure liabilities. We integrate the water-related issues in the financial planning over a period that is equivalent to the life of the mine.</p>

## 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)**

32

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

19

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

0

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

0

**Please explain**

CAPEX decreased by 32% from R396 000 000.00 in FY2018 to R 269 006 125.00 in FY2019. OPEX in FY2019 was R 70 232 217.25.

**W7.3**

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

	<b>Use of climate-related scenario analysis</b>	<b>Comment</b>
Row 1	Yes	Our operations are vulnerable to extreme weather events. Future water scarcity has potentially significant implications for the company's activities. The company uses key water performance indicators and tracks water use and progress using the Anglo American Water Efficiency Target Tool. The model provides an understanding of the sensitivity to water changes up to 2020. This forms part of our water risk assessment action plan. This builds up the company's internal knowledge base to deal with the future projection of water availability and work this into the risk assessment processes. Sishen and Kolomela, with the help of external consultants, have conducted climate and risk adaptation studies to understand the future changes in climate, including the impact on water availability. We incorporate the estimates of future changes in water availability into our water risk assessment by using internal company knowledge on this issue.

**W7.3a**

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

Yes

### W7.3b

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

	Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	Other, please specify RCP 8.5	We conducted a climate change assessment for both Sishen and Kolomela mines in 2018/2019 in order to highlight the key climate – related risks that are likely to be relevant to the mines considering future climate change impacts. The analysis only looked at physical risks at an operational level. We made use of the RCP 8.5 pathway which represents a high but plausible GHG emissions. It assumes that emissions continue to rise throughout using radiative forcing to 8.5 W/m2 in 2100, it is consistent with a future of no policy changes to reduce emissions and is broadly aligned with current policies. A bottom-up risk identification process was used as the scenario analysis was conducted at this level. RCF 8.5 projections suggested that in the future both Sishen and Kolomela will experience higher temperatures across all months and seasons, and there will be more variable precipitation with longer periods between precipitation events but more intense events when they occur. The climate change risk assessment identified heavy rainfalls & flooding, drought, dust and fires, temperature extremes, water availability and storms as potential physical climate change effects to Sishen and Kolomela mine.	After identifying climate change related effects, we analysed current controls to investigate if they will withstand the identified physical risks. For example it was identified that high rainfall could result in instability of tailings dam, there are controls currently present to mitigate these climate risk, however climate risk study suggested improvement project to evaluate control as tailings dam wall instability is a priority risk.

## 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

Anglo American is currently working with Columbia University to quantify a methodology for determining the financial risk related to water. This methodology uses water valuation practices, on completion this expected to be rolled out to all Anglo Business Units.

## W8. Targets

### W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	At Kumba, we consider legal issues as well as the internal group's technical standards (benchmarking) when we set our targets. Our approach to realising our environmental management goals is underpinned by best practice policies performance standards and business processes, investing in capability and technological innovation, and identifying and realising opportunities for partnerships and collaboration with stakeholders. We set and track measurable goals for our performance, including targets on energy use, GHG emissions and water-use efficiency. We measure our progress through structured auditing to ensure compliance and continual improvement. Our environmental performance indicators are aligned with the Anglo American plc group-wide approach. Our mines work towards water use reduction targets that are based on projected business-as-usual (BAU) consumption. We implement water management performance indicators and track water use and progress using the Anglo American water efficiency target tool (WETT).

## W8.1a

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

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**Target reference number**

Target 1

**Category of target**

Water consumption

**Level**

Company-wide

**Primary motivation**

Water stewardship

**Description of target**

Progress in implementing the water strategy is driven through a water management programme, which is supported by a mandatory group water standard and delivered via operational water action plans. Operations work towards water use reduction targets that are based on projected business-as-usual BAU consumption. We implement water management performance indicators and track water use and progress using the Anglo American WETT, which is used to forecast the projected BAU demand of each operation and register water saving projects. We have a Company-wide water target to reduce water consumption by 34% by 2020. Due to the redesign of the Sishen and Kolomela mines, our aim was to readjust this target. We have not yet made any adjustment to this target. On an annual basis we develop an absolute water savings target to assist in achieving the 2020 target.

**Quantitative metric**

Other, please specify  
Absolute

**Baseline year**

2015

**Start year**

2015

**Target year**

2020

**% of target achieved**

**Please explain**

We have a company-wide water target to reduce water consumption by 34% by 2020. This target has not been achieved yet as it is long term in nature, but significant progress has been made towards achieving the goal by 2020. In FY2019 we had an absolute target to reduce water consumption. We were able to save through the implementation of water savings projects. Water saving projects relate in particular to dust suppression efforts. Anglo American has been rolling out more comprehensive and rigorous performance indicators across the Group and aim to start reporting against the new indicators. The new approach, in line with ICMM practice, will measure cubic metres of water usage per tonne of production.

## W8.1b

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

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### Goal

Other, please specify  
Increase use of recycled / re-used water

### Level

Site/facility

### Motivation

Water stewardship

### Description of goal

A key feature of our water strategy is to reduce our dependency on high quality water through water switching to the use of lower quality water. This goal is important as we continually strive to manage our water use so as not to compete with other users for the same water resource, and to maintain the environmental reserve. This is also aligned to Sustainable Development Goal 6 (To ensure access to safe water sources and sanitation for all). Aligned with Anglo American, our long-term goal is for 75% of our total operational water requirements to be met by recycling/re-using water by 2020 and to reduce absolute freshwater intake by 20% by 2020. Success will be measured by our ability to reach these goals, which will be achieved through the application of advanced technology and continued focus on water efficiency at our operations.

### Baseline year

2015

### Start year

2015

### End year

2020

### Progress

This goal has not been achieved yet as it is long term in nature, but significant progress has been made towards achieving the goal by 2020. In 2016, 44% of our total operational water use was met by recycling or re-using water. Operations reduce their dependency on high-quality water through the use of lower-quality treated sewage water. We use an internal methodology to calculate the percentage of water recycled/re-used.

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**Goal**

Engaging with local community

**Level**

Site/facility

**Motivation**

Corporate social responsibility

**Description of goal**

Our Kolomela and Sishen mines pump groundwater, in excess of operational needs, to Sedibeng Water. This water benefits the bigger Northern Cape region. We continue working with the DWS, Sedibeng and other stakeholders to explore maximising this social benefit to an even wider region. Sishen uses treated effluent (grey water) from the Kathu wastewater treatment works, to increase the export of groundwater to the Sedibeng reservoir. A sales agreement has been in place with the water authority since 2014 to supply bulk water to farmers, to compensate for their potential losses from private boreholes. The agreement between us and Sedibeng does not guarantee fixed quantities. Quantities will fluctuate in line with dewatering requirements. Kolomela mine artificially recharges clean mine water to the underground aquifers that its operations traverse, thereby improving groundwater resources for neighbouring farmers and limiting quantities discharged into the environment.

**Baseline year**

2011

**Start year**

2011

**End year**

2032

**Progress**

The existing sales agreement between Kumba and Sedibeng has expired and we are negotiating revised water tariff rates for a new agreement. The Kolomela aquifer recharge project has been in operation for three years, recharging an average of 36,000 m<sup>3</sup> a month, approximately 10 to 15% of the excess water from the mine. Local farmers continue to respond positively. Studies are under way at Sishen to enable a similar project.

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**Goal**

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

**Level**

Site/facility

**Motivation**

Corporate social responsibility

**Description of goal**

We have a strong track record in facilitating social and economic transformation in South Africa. Our operations are located in rural areas characterised by limited formal economic activity, high levels of poverty and unemployment, inadequate provision of infrastructure and poor service delivery. Our mines represent a significant centre of socio-economic activity and an important source of welfare for rapidly growing populations.

**Baseline year**

2015

**Start year**

2015

**End year**

2032

**Progress**

We spent R2 574 762 on a Sewer Pump. We recover sewage water from the Kathu wastewater treatment works and then we recycle it back to the plant.

## **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, but we are actively considering verifying within the next two years

## W10. Sign off

### W-FI

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

### W10.1

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

	Job title	Corresponding job category
Row 1	Executive Head: Safety and Sustainable Development	Board/Executive board

### W10.2

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

No

## 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
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms