

Welcome to your CDP Water Security Questionnaire 2019

W0. Introduction

W0.1

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

Gold Fields Limited is a globally diversified gold producer with seven operating mines (plus the Asanko Joint Venture in Ghana, acquired in 2018) in Australia, Ghana, Peru and South Africa. Gold Fields also has projects in Australia, Chile and the Philippines. The group has an attributable annual gold-equivalent production of approximately 2 million ounces, gold mineral reserves of around 48 million ounces and gold mineral resources of around 97 million ounces. In addition, Gold Fields also has attributable copper mineral reserves and resources totalling 691 million pounds and 847 million pounds respectively, as well as silver reserves and resources totalling 39 million ounces and 44 million ounces respectively. Gold Fields is reporting on the following mining operations:

1. South Deep (South Africa)
2. Damang (Ghana)
3. Tarkwa (Ghana)
4. Cerro Corona (Peru)
5. Agnew (Australia)
6. Granny Smith (Australia)
7. St Ives (Australia)

Gold Fields has a primary listing on the Johannesburg Stock Exchange, with a secondary listing on the New York Stock Exchange. Foreword by Nick Holland, CEO of Gold Fields: The judicious use of water and energy resources by our mines is a critical element of our sustainable development programmes, not only as part of our commitment to operational efficiencies and environmental stewardship, but also as part of strengthening our social licence to operate. Water is becoming an increasingly scarce and expensive resource globally. As such, managing the risks around water security, which includes the quantity and quality of supply as well as the associated costs, is essential to ensure sustainable production for our existing operations and the future viability of projects. Access to clean water is also a fundamental human right for our host communities. This has significant implications for us as our mines and projects have a material impact on the surrounding environment. Unless we manage our water judiciously, this could potentially cost us our licence to operate – both from a regulatory and social perspective. To manage this critical risk, Gold Fields has adopted an integrated approach to water management, including alignment to the International Council on Mining & Metals' Water Position Statement, baseline water assessments at the operations, and the adoption of a catchment approach to water management based on risk and opportunity analyses.

We also reduce our environmental impact through responsible use, storage and release of water, which has the added benefit of reducing our operational costs. Internal policies, strategies and guidelines, which are continuously reviewed and updated, reflect these operational and environmental priorities and require our operations to:

- Apply strong and transparent corporate water governance
- Collaborate with stakeholders to achieve responsible and sustainable water use
- Measure and report on water management performance
- Integrate water management into mine planning
- Comply with regulatory requirements and, where feasible, go beyond compliance requirements

In recognition of our commitment to transparency, Gold Fields has voluntarily submitted information relating to our water usage, goals and water-related risks in the CDP Water Report since 2011. This allows our stakeholders to judge for themselves whether we are meeting the stringent water use standards we have set ourselves.

W-MM0.1a

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

Activity	Details of activity
Mining	Copper Gold
Processing metals	Copper Gold

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, 2018	December 31, 2018

W0.3

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

- Australia
- Ghana
- Peru
- South Africa

W0.4

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

- USD

W0.5

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

Companies, entities or groups over which financial control is exercised

W0.6

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

No

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Vital	<p>Primary use:</p> <ul style="list-style-type: none"> - Direct value chain: used in mining and milling; for transporting tailings, dust suppression, ore washing, underground cooling and processing, health and sanitation - Indirect value chain: in the production of electricity in SA, cyanide and diesel, which are critical for the mines. Also used in gold refining process <p>Importance rating determined due to:</p> <ul style="list-style-type: none"> - Fresh water is vital during nearly every stage of mine life. Alternative sources are not readily available or viable and thus freshwater sources are vital to direct operations - South Africa's coal-fired electricity is highly dependent on freshwater along with the hydro-powered grid in Cerro Corona and Ghana. Therefore, freshwater is vital in indirect value chain as insufficient supplies can affect supply chain and in turn production - Critical for our employees' health and sanitation <p>Future water dependency: will not differ in</p>

			future as it remains vital for production and alternative sources are generally not available.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital	Important	<p>Primary use:</p> <ul style="list-style-type: none"> - Direct value chain: majority of operational water needs (e.g. mining and milling; transporting tailings, dust suppression, ore washing, underground cooling and processing) are supplemented by recycled water, displacing need for freshwater by the mines - Indirect value chain: in the production of electricity, a vital mining input <p>Importance rating determined due to:</p> <ul style="list-style-type: none"> - Direct: vital at Cerro Corona relies totally on recycled water for production during the dry season. Granny Smith and St Ives withdraw brackish (hypersaline) water as freshwater not readily available - Indirect: Important for South Deep where electricity purchased from Eskom, which desalinates polluted mine water for use at power plants, to reduce the freshwater used for electricity production <p>Future water dependency: expected to remain vital in direct value chain and increase in indirect chain, as Gold Fields operates in water stressed areas and there is a need to source alternative non-fresh water.</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%	<p>All operations owned by Gold Fields (100%) are required to measure, monitor and report the total volume of water withdrawn on a monthly basis. Gold Fields defines operations as its mines.</p> <p>The total withdrawal volumes are measured for water performance metrics. The metric used by Gold Fields is the volume of water</p>

		<p>withdrawal.</p> <p>Gold Fields' total water withdrawals are reported using the GRI Standards reporting guidelines under Standard 303-1 as well as the ICMM guidelines. Measuring and monitoring water withdrawals at frequent intervals is required to ensure that the withdrawal volumes fall within the water use license boundaries. Monitoring methods include volumes recorded in third party invoices and meters at withdrawal sources. Water is continuously monitored with meters. Withdrawal volumes are recorded in the detailed water balances at each site.</p>
Water withdrawals – volumes from water stressed areas	100%	<p>The following operations: South Deep, Cerro Corona, St. Ives, Granny Smith and Agnew, i.e. 71% of our operations, are in water stressed areas, and Gold Fields withdraws water at all these operations. Gold Fields defines operations as its mines. Gold Fields measures and monitors all withdrawals from these operations. Therefore, we monitor 100% of our operations that make use of water from these areas.</p> <p>These water sources are vulnerable with respect to environmental integrity and as such are actively measured and monitored at every operation. Monitoring methods include volumes recorded in third party invoices and meters at withdrawal sources. Water is continuous monitored with meters. Withdrawal volumes are recorded in the detailed water balances at each site. This allows Gold Fields to monitor withdrawal trends and make informed management decisions based on this data.</p>
Water withdrawals – volumes by source	100%	<p>Gold Fields measures and monitors all withdrawals (100% of operations) per abstraction source. Gold Fields' operations are mines. All operations, except Cerro Corona, withdraw renewable groundwater. St Ives and Granny Smith withdraw brackish</p>

		<p>groundwater. South Deep, Tarkwa, Damang and Cerro Corona withdraw fresh surface water. Municipal water is withdrawn by South Deep, Tarkwa and St Ives.</p> <p>Monitoring methods include volumes recorded in third party invoices and meters at withdrawal sources. Water is monitored continuously with meters. Withdrawal volumes are recorded in the detailed water balances at each operation.</p>
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sectors]	1-25	<p>Gold Fields measures and monitors the moisture content in the mined ore at its's Cerro Corona operation before the ore is processed. Gold Fields' operations are mines. The monitoring method used is periodic sampling of the mined ore.</p>
Water withdrawals quality	100%	<p>Gold Fields measures and monitors the quality of all withdrawals (100% of operations). Gold Fields' operations are mines.</p> <p>Monitoring methods include meters at withdrawal sources. The frequency of monitoring is continuous using meters.</p>
Water discharges – total volumes	100%	<p>Gold Fields measures and monitors the total discharge volumes across all operations that discharge water. Gold Fields defines operations as its mines. During 2018 only 57% (4/7) of Gold Fields' operations discharged water. The total discharge volumes require measurement and monitoring to ensure that each operation's discharged water falls within the required qualitative and quantitative parameters stipulated in its water use permit.</p> <p>Monitoring methods include meters at discharge destinations. The frequency of monitoring is continuous using meters. Additionally, total discharge volumes are tracked to ensure that water balances are accurate and updated regularly.</p>

<p>Water discharges – volumes by destination</p>	<p>100%</p>	<p>Gold Fields requires all of its operations that discharge water (57% of operations) to measure and monitor the water volume discharged to each discharge destination. Gold Fields defines operations as its mines.</p> <p>This is done to ensure that sufficient treatment of the discharged water is maintained and that volumes discharged to each source do not exceed the licensing boundaries and regulations.</p> <p>Fresh surface water discharge destinations are utilised by South Deep, Tarkwa and Cerro Corona. Granny Smith is the only operation that discharges water to a hypersaline destination. Agnew and St Ives operate within closed water cycles which result in zero water discharges. The Damang operation did not discharge any water during the reporting year.</p> <p>Monitoring methods include meters at discharge destinations. The frequency of monitoring is continuous using meters.</p>
<p>Water discharges – volumes by treatment method</p>	<p>100%</p>	<p>As Gold Fields' operations have numerous processes, the volume of water discharged per treatment method is measured and monitored for all operations (100% of operations). Gold Fields defines operations as its mines.</p> <p>This is done to ensure that the quality and volume of the discharged water meets the licensing requirements. Monitoring methods include meters at discharge destinations. The frequency of monitoring is continuous using meters. In addition the volume per treatment method is measured and monitored to ensure the maintenance of an accurate water balance between all processes.</p>
<p>Water discharge quality – by standard effluent parameters</p>	<p>100%</p>	<p>Water discharge quality data is measured and monitored at all Gold Fields' operations that discharge water. The operations that</p>

		<p>discharged water in the reporting year were South Deep, Tarkwa, Cerro Corona and Granny Smith (57% of operations). Gold Fields defines operations as its mines.</p> <p>This is done to ensure that the quality of the water which is discharged is kept within the range permitted by the licensing requirements. Monitoring methods include sampling at discharge destinations. Frequency of sampling is determined by the licence conditions of the operation.</p> <p>Additionally, the measurement of discharge quality is reported in the Global Reporting Initiative questionnaire which requires water discharge quality as a parameter per discharge source.</p>
<p>Water discharge quality – temperature</p>	<p>100%</p>	<p>Water discharge quality data is measured and monitored at all Gold Fields' operations that discharge water. The operations that discharged water in the reporting year were South Deep, Tarkwa, Cerro Corona and Granny Smith (57% of operations). Gold Fields defines operations as its mines.</p> <p>This is done to ensure that the temperature of the water which is discharged is kept within the range permitted by the licensing requirements. Monitoring methods include meters at discharge destinations. The frequency of monitoring is continuous using meters.</p>
<p>Water consumption – total volume</p>	<p>100%</p>	<p>Gold Fields measures and monitors the total amount of water consumed at each of its seven operations (100% of operations). Gold Fields defines operations as its mines. Water consumption per ounce of gold produced is a performance metric that Gold Fields utilises continually to ensure that its operations are running as efficiently as possible. Monitoring methods include recorded withdrawal volumes in third party invoices and</p>

		<p>meters withdrawal and discharge sources. The frequency of monitoring is continuous using meters. Withdrawal and discharge volumes are recorded in the detailed water balances at each site and used to calculate water consumptions.</p>
Water recycled/reused	100%	<p>Gold Fields measures and monitors the total volume of water recycled at each of its operations (100% of operations). Gold Fields defines operations as its mines. The amount of water recycled provides vital information as to the environmental impact of the operations as well as providing information on water savings due to the lowering of the water withdrawals required.</p> <p>Monitoring methods include onsite meters. The frequency of monitoring is continuous using meters. Recycled/Reused volumes are recorded in the detailed water balances at each site.</p>
The provision of fully-functioning, safely managed WASH services to all workers	100%	<p>At Gold Fields, employee health is considered to be a vital aspect of business. As such, all operations (100% of operations) ensure that employees are provided with sufficient volumes and adequate access to clean and potable wash water for drinking and sanitation services. Gold Fields defines operations as its mines.</p> <p>The licence conditions of all Gold Fields' operations require the provision of fully-functioning, safely managed WASH services to all workers. Health and safety-based processes and policies, such as those related to WASH facilities, are monitored at the Board's Safety, Health and Sustainable Development (SHSD) Committee. The frequency of monitoring at this level occurs on a quarterly basis. In addition, the Health and Safety Manager at each operation ensures on a continuous basis that fully-functioning, safely managed WASH services are provided to all workers.</p>

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	21,179	Lower	<p>Total water withdrawals decreased by 35% when compared to the previous reporting year. Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.</p> <p>The decrease is largely due to a change in the definition of water withdrawal to align with the ICMM Water Reporting Guideline. Dewatered and diverted water was previously reported as withdrawn water by the Australian operations, but have been reclassified as water diverted in alignment with the ICMM definitions as it is not used in the mine processes. In addition, Gold Fields divested from the Darlot operation in the third quarter of 2017, which partially accounts for the decrease in withdrawals in 2018 (compared to the previous year).</p> <p>Water withdrawal per tonne processed declined to 0.64Kl and decreased per ounce produced to 10.3Kl in 2018, in line with the significant drop in water withdrawal.</p> <p>It is anticipated that water efficiency projects, e.g. those planned for Cerro Corona Mine in 2019-20, will reduce future demand for fresh surface water volumes.</p>
Total discharges	2,518	Much lower	<p>The total water discharged decreased by 71% when compared to the previous reporting period, as such much lower was selected in accordance with Gold Fields’ definition. Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered</p>

			<p>lower/higher. Above 40% change is considered much lower/much higher.</p> <p>The 71% decrease is due to the following reasons:</p> <p>The reduction in water discharge volumes is related to the reduction in withdrawal volumes. The decrease in discharge volumes is therefore largely due to a change in the definition of water withdrawal to align with the ICMM Water Reporting Guideline. Dewatered and diverted water was previously reported as withdrawn water by the Australian operations, but have been reclassified as water diverted in alignment with the ICMM definitions as it is not used in the mine processes. In addition, Gold Fields divested from the Darlot operation in the third quarter of 2017, which partially accounts for the decrease in withdrawals in 2018 (compared to the previous year).</p> <p>It is anticipated that the increased use of reverse osmosis plants will reduce future discharge volumes.</p>
Total consumption	18,667	Lower	<p>The net effect of the water withdrawal and discharge resulted in a total net consumption decrease at Gold Fields. Since the water withdrawal decreased by 35% and discharges decreased by 71%, this resulted in consumption decreasing by 22% in 2018 when compared to 2017. As such, 'lower' was selected in accordance with Gold Fields' definition. Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.</p> <p>The consumption is calculated as per the CDP guidance and therefore the total withdrawals = total discharge + total consumption. For this reason, the volumes balance, $W = D + C$.</p> <p>It is anticipated that increased recycling targets and the increased use of reverse osmosis</p>

			plants will reduce future withdrawal and discharge volumes, thereby reducing total consumption volumes.
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W1.2d

(W1.2d) Provide the proportion of your total withdrawals sourced from water stressed areas.

	% withdrawn from stressed areas	Comparison with previous reporting year	Identification tool	Please explain
Row 1	53	Lower	WBCSD Global Water Tool	<p>Five out of seven of Gold Fields’ operations are situated in water stressed areas, as determined using the WBCSD Global Water Tool, WWF Water Risk Filter and the WRI Aqueduct tool. The data sets for the Gold Fields group were inputted into these tools. The tools then indicate whether the withdrawals are from a water stressed area or not. For example, the WBCSD Global Water Tool identifies the baseline water stress as being high (40%-80%) in South Africa, Peru and Australia, and therefore classifies these areas as water stressed areas.</p> <p>The water withdrawn from water stressed areas reduced from 80% in 2017 to 53% in 2018. The change in 2018 represents a decrease of 34% of withdrawals from water stressed areas. As per the Gold Fields definition, the year on year comparison is ‘lower’. Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.</p> <p>This decrease is largely due to the overall lower withdrawal volumes across Gold Field’s operations. The decrease in discharge volumes is therefore largely due to a change in the definition of water withdrawal to align</p>

				<p>with the ICMM Water Reporting Guideline. Dewatered and diverted water was previously reported as withdrawn water by the Australian operations, but have been reclassified as water diverted in alignment with the ICMM definitions as it is not used in the mine processes.</p> <p>Additionally, Gold Fields divested of the Darlot Mine in Australia in the third quarter of 2017, further accounting for decreased level of withdrawals from water stressed levels.</p>
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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	Relevant	9,449	About the same	<p>The total fresh surface water withdrawals increased in this reporting year by 2% compared to the previous reporting year. Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.</p> <p>This source is relevant as Gold Fields withdraws 45% of its water from fresh surface water surfaces. The total cessation of freshwater withdrawals at South Deep and reductions at Damang (-8%) and Cerro Corona (-16%) were offset by the increase of fresh surface water withdrawal at Tarkwa (22%). At Cerro</p>

				<p>Corona, all new water is rain water, which is collected and stored in the tailings pond even if the site does not need it. It gets used first, therefore reducing the need to withdraw water from other sources.</p> <p>It is anticipated that water efficiency projects, e.g. planned for Cerro Corona Mine in 2019-20, will reduce future demand for fresh surface water volumes.</p>
Brackish surface water/Seawater	Relevant	1,644	Higher	<p>The Granny Smith and St Ives operations are the only Gold Fields operations that withdraw brackish surface water. Brackish surface water withdrawal increased during 2018 by 11% at St Ives and by 15% at Granny Smith on account of increased production compared to previous year. As such higher was selected in accordance with Gold Fields' definition: 10% change is considered lower/higher and above 40% change is considered much lower/much higher.</p> <p>This source is relevant as Gold Fields' withdraws brackish water at two of its mines and it forms 8% of the total withdrawals.</p> <p>It is anticipated that future withdrawals from brackish surface water sources will decrease due to increased efforts to improve safe</p>

				<p>mining practices. E.g., in 2018 Granny Smith implemented an initiative to harvest rain and surface water, and reinjecting this water into an aquifer, improving recharge rates and yield. Currently these volumes are small therefore not classified as formal withdrawals from freshwater surfaces.</p>
Groundwater – renewable	Relevant	8,292	Much lower	<p>The withdrawal of renewable groundwater at Gold Fields’ operations decreased by 59% when compared to the withdrawals made in the previous reporting period as such much lower was selected in accordance with Gold Fields’ definition. Gold Fields defines above 10% change is considered lower/higher and above 40% change is considered much lower/much higher.</p> <p>The reasons for this decrease include Gold Fields’ disinvestment from Darlot in late 2017 and various water efficiency initiatives. For example, Granny Smith Mine in Australia started harvesting rain and surface water, and reinjecting this water into an aquifer, improving recharge rates and yield. This reduced the reliance on the Mt Weld borefield, thus reducing groundwater consumption.</p> <p>This source is relevant as 39% of Gold Fields’ total</p>

				<p>withdrawals come from this source.</p> <p>It is anticipated that future renewable ground water withdrawals will decrease due to increased efficiency initiatives.</p>
Groundwater – non-renewable	Not relevant			None of Gold Fields' operations make use of non-renewable groundwater. This trend is expected to remain the same in the future.
Produced/Entrained water	Not relevant			None of Gold Fields' operations make use of produced water from a third-party source. This trend is expected to remain the same in the future.
Third party sources	Relevant	1,794	Higher	<p>The use of municipal water increased by 9%, as such higher was selected in accordance with Gold Fields' definition. Gold Fields defines above 10% change as high or lower.</p> <p>This source is not particularly relevant as it is the group's second smallest withdrawal source (8% of total withdrawals).</p> <p>This increase is due to increase in Randwater intake in South Deep. The increase was as a result of Randwater pipeline damage that transports water to South Deep that resulted in loss of water.</p> <p>It is anticipated that future third party water withdrawals</p>

				will decrease due to increased efficiency measures and targets. E.g., in 2019 Gold Fields set a target to reduce freshwater withdrawals by 3% in water scarce catchments. This will be achieved through implementation of various initiatives such as recycling of treated sewage effluent at South Deep and other water savings initiatives in Cerro Corona and Ghana operations.
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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	2,473	Lower	<p>Fresh surface water discharges decreased by 36%. As such lower was selected in accordance with Gold Fields' definition. Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher</p> <p>This destination is relevant as Gold Fields' discharges 98% of its total discharges to a fresh surface water destination.</p> <p>The decrease can be attributed to an increase in the percentage of water recycled resulting in lower water withdrawal requirements.</p> <p>It is anticipated that increased</p>

				recycling targets will reduce future demand for fresh surface water volumes.
Brackish surface water/seawater	Relevant	45	Much lower	<p>Granny Smith was the only Gold Fields facility that discharged water to a brackish surface water source in 2018. In 2017, 4 870 ML was discharged from Granny Smith. In the current reporting period, 45 ML was discharged. This decrease is largely due to a change in the water definitions used across the Australian operations.</p> <p>This destination is relevant as Gold Fields' discharges 2% of its total discharges to a brackish surface water destination.</p> <p>Brackish surface water discharges decreased by 99% in 2018. This was due to Granny Smith significantly reducing its water discharge volumes.</p> <p>The decrease in FY2018 is categorised as much lower. Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.</p> <p>It is anticipated that future withdrawals from brackish surface water sources will decrease due to increased recycling targets and continual efforts to improve safe mining practices.</p>
Groundwater	Not relevant			No discharges are made to groundwater discharge

				<p>destinations by any of Gold Fields' operations as such, not relevant is selected.</p> <p>As there are zero discharges to this source in FY2018 and FY2017 the comparison remains about the same. This trend is expected to remain the same in the future.</p>
Third-party destinations	Not relevant			<p>None of Gold fields' operations discharged water to municipal facilities for treatment. None of Gold Fields' operations discharged water to another organisation. As such, not relevant is selected in the relevance column.</p> <p>As there are zero discharges to this source in FY2018 and FY2017 the comparison remains about the same. This trend is expected to remain the same in the future</p>

W1.2j

(W1.2j) What proportion of your total water use do you recycle or reuse?

	% recycled and reused	Comparison with previous reporting year	Please explain
Row 1	51-75	Higher	<p>By recycling or reusing water, Gold Fields reduces its impact on fresh water sources as well as stressed water areas. The percentage of water recycled or reused in 2018 account for 66%, this is 16% higher than what was recycled and reused in 2017. The percentage of water recycled or reused was thus 'higher' when comparing 2018 data to 2017 data.</p> <p>It is envisaged that Gold Fields will continue to improve on its recycling initiatives, the company is aiming to reach and maintain the ICMM best practice target of recycling 60% or</p>

			more of its total water use at all operations. This will thus increase the future trend of the volumes of water recycled and re-used.
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W-MM1.2j

(W-MM1.2j) For your metals and mining operations, provide details of the volume of water recycled or reused by your organization and the proportion of total water use this represents.

	Volume of water recycled or reused by your organization (megaliters/year)	% of total water use recycled or reused	Please explain
Row 1	41,382	51-75	<p>By recycling or reusing water, Gold Fields reduces its impact on fresh water sources as well as stressed water areas. The percentage of water recycled or reused in 2018 account for 66%, this is 16% higher than what was recycled and reused in 2017. The percentage of water recycled or reused was thus 'higher' when comparing 2018 data to 2017 data.</p> <p>It is envisaged that Gold Fields will continue to improve on its recycling initiatives, the company is aiming to reach and maintain the ICMM best practice target of recycling 60% or more of its total water use at all operations. This will thus increase the future trend of the volumes of water recycled and re-used.</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: Unit of production	Comparison with previous reporting year	Please explain
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Gold	Total water withdrawals	Ounce of final product	Lower	<p>Gold Fields uses the water intensity metric to understand the relationship between how much their operations are producing and how much water the production requires. Any changes in the metric gives an indication of an increase in production or decrease in water withdrawals. This information is used to make informed management decisions. The metric forms part of the key sustainability indicators reported in their annual reports. In 2017 the intensity was 14.8 and in 2018 the intensity was 10.3. This is a 30% decrease, as such lower was selected in accordance with Gold Fields' definition. This decrease is due to the lower water withdrawals in the reporting year as well as an increase in production output.</p> <p>The intensity metric is expected to decrease slightly, as the water withdrawal demand and dependency are expected to reduce, and production is expected to increase.</p> <p>The strategy to reduce water intensity includes planned water efficiency projects, such as those planned for Cerro Corona Mine in 2019-20).</p> <p>Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.</p>
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W1.4

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

No, not currently but we intend to within two years

W1.4d

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

	Primary reason	Please explain
Row 1	We are planning to do so within the next two years	<p>Partners in the value chain Gold Fields plans to engage with: the group's value chain on water-related issues. The parties in the value chain will be determined using the group's established procedures for identifying "sustainability high-risk" stakeholders, defined as contractors, suppliers or stakeholder groups with the potential to significantly impact Gold Field's reputation, either through adverse economic, environmental or social impacts. For example, stakeholders in the Cajamarca province of Peru have been prioritised, as during 2018 there were a number of socio-economic conflicts related to mining in the area.</p> <p>Time indicator of when Gold Fields is planning to engage with the value chain: next 2 years.</p> <p>The method of engagement: Gold Fields intends to build and cultivate healthy relations with partners in its value chain through various engagement and dialogue methods. Gold Fields will also engage through its established 'Third Party screening solution', which screens all active parties recorded on internationally recognised and published screening databases against an array of pre-defined criteria, including but not limited to regulatory, labour practice, environmental, health and safety, management and operational issues. This will assist the group in terms of generating awareness of the potential economic, social or environmental challenges facing the business, particularly regarding water issues.</p>

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 total financial impact.

Country/Region

Ghana

River basin

Other, please specify
Ankobra

Type of impact driver

Physical

Primary impact driver

Other, please specify
unforeseen geological formations

Primary impact

Increased operating costs

Description of impact

In April 2018, supernatant water (i.e. the water at the top of solids after settling) leaked into the external environment during the commissioning of Damang Mine's Far East tailings storage facility. Liquid was transferred to the underlying, permeable waste rock fill (the geological formation), which was originally thought to be natural ground, and from there to an adjacent water body.

The detrimental impacts to Gold Fields included:

- Breach of Gold Fields water discharge licence
- The expenditure of unplanned and additional resources such as man-hours and equipment, which carry costs, to respond to the impact. The total response costs amounted to: USD 2,830.
- Potential damage to Gold Fields' brand as an environmental stewardship-leader

Length of time the business was impacted: there were no business interruptions.

Scale of impact: considered to be low (based on the financial impact and time of remediation) and therefore not substantive.

Primary response

Pollution abatement and control measures

Total financial impact

2,830

Description of response

The leaked liquid was immediately returned into the East tailings storage facility and downstream monitoring initiated. The incident was communicated to the Ghanaian regulatory bodies and communities.

Drinking water was also provided to these communities, though monitoring showed that

their water supplies were safe to drink. No lasting environmental impacts were identified. After the permeable rock burden was removed, the area was rehabilitated to the original design with a final clay tie-in. The storage facility was successfully commissioned. The response was completed in two hours.

The response will:

- Effectively prevent reoccurrence of liquid leaking into permeable waste rock fill at the Far East TSF
- Improve resilience by ensuring that the TSF is commissioned according to the required standards, preventing future financial or operational impacts
- Increase Damang Mine's water security by ensuring that the TSF is commissioned according to the required standards
- Improve water security for downstream users due to increased monitoring

The total financial impact was: USD 2,830.

- The methods for calculating the financial impact was based on actual costs related to intensive engagements with leaders and members of the community and provision of potable water to the community even though there was no contamination of any of the water sources used by the community
- This is a fixed cost
- Timescale: short-term cost.

Country/Region

Peru

River basin

Other, please specify
Tingo

Type of impact driver

Physical

Primary impact driver

Rupture of tailings dams and toxic spills

Primary impact

Increased operating costs

Description of impact

On 16 December, approximately 180m³ of water containing tailings from the Cerro Corona tailings storage facility flowed through an authorised diversion pipe into a creek leading to the Tingo river. A nearby fish farm on the bank of the river was affected. The incident did not compromise the dam's integrity or physical stability.

The detrimental impacts to Gold Fields included:

- Breach of Gold Fields water discharge licence
- The expenditure of unplanned and additional resources such as man-hours and equipment, which carry costs, to respond to the impact. The total response costs amounted to: USD 0.6 million.
- Potential damage to Gold Fields' brand as an environmental stewardship-leader

Length of time the business was impacted: rehabilitation of the affected area started immediately and was completed within 20 days.

Scale of impact: considered to be low (based on the financial impact and time of remediation) and therefore not substantive.

Primary response

Pollution abatement and control measures

Total financial impact

600,000

Description of response

An emergency response team was activated immediately and corrective measures were taken immediately to stop the discharge. Gold Fields also immediately communicated the incident, and subsequently sent a full report, to the environmental authorities.

The response was completed within 24 hours, wherein the environmental parameters in the river had returned to normal.

The response will:

- Effectively prevent the reoccurrence of liquid leaking through the diversion pipe
- Improve Gold Fields' resilience by ensuring that the tailings storage facility is operated according to the required standards, thereby preventing future financial or operational impacts

The total financial impact was: USD 0.6 million. The methods for calculating the financial impact was based on actual costs:

- This is a fixed cost. No fines nor sanctions have as yet been formalised.
- Timescale: short-term cost.

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?

Country/Region

South Africa

River basin

Orange

Number of tailings dams in operation

2

Number of inactive tailings dams

1

Comment

Country/Region

Australia

River basin

Other, please specify
Western Plateau

Number of tailings dams in operation

7

Number of inactive tailings dams

14

Comment

Country/Region

Ghana

River basin

Other, please specify
Ankroba

Number of tailings dams in operation

7

Number of inactive tailings dams

2

Comment

Country/Region

Peru

River basin

Other, please specify
Tingo

Number of tailings dams in operation

1

Number of inactive tailings dams

0

Comment

W-MM3.2a

(W-MM3.2a) 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
Operating plan	<p>An operating plan that is aligned with your established acceptable risk levels and critical controls framework</p> <p>An operating plan that includes the operating constraints of the dam and its construction method</p> <p>An operating plan that considers the consequences of breaching the operating constraints of the dam</p> <p>An operating plan that includes periodic review of</p>	<p>All of Gold Fields' operations have tailings management plans in place. Gold Fields has a formal Group Tailings Storage Facility Management Guideline (spanning all operations in all regions), and full compliance to this is expected.</p> <p>Rationale for implementing these procedures: Gold Fields takes the management of tailings storage facilities very seriously and aims to prevent incidences related to these facilities. In support of this aim, Gold Fields' group-wide procedures is aligned with the ICMM's position statement on preventing catastrophic failure of tailings storage facilities.</p> <p>The level at which procedures are set: company-wide, to</p>

	<p>the foundations and slope materials</p> <p>An operating plan that evaluates the effectiveness of the risk management measures and whether performance objectives are being met</p>	<p>ensure a consistent management approach through standardised quality assessments and checks. In February 2019, the Gold Fields' Board also requested strengthened governance of the Group's tailings storage facilities through among others, quarterly tailings storage facilities update reports, continuous environmental monitoring, including satellite monitoring scans, and increased external and independent verification. These measures will allow for regular reviews of the procedures.</p> <p>Competence requirements of staff implementing the procedures: high competence levels required. All Gold Fields' tailings storage facilities, as well as associated pipeline and pumping infrastructure, are subject to an independent, external audit every three years – or more frequently where required by local circumstances or regulations. In addition, regular inspections and formal annual Engineer of Record reviews are required at all facilities.</p> <p>Other plans to develop other related management procedures that apply to all facilities: Gold Fields has embarked on a programme to further improve operational safety of its tailings storage facilities, including moving away from the construction of upstream facilities to centre-line or downstream designs, consideration of filtered and dry stacked tailings, as well as in-pit tailings disposal.</p> <p>Gold Fields is considering implementing improvement initiatives related to:</p> <ul style="list-style-type: none"> • Seismicity design considerations • Appointment of an Engineer of Record for each tailings storage facilities • Dam break assessments • Update of emergency response plans • Tailings storage facilities seepage management and control
<p>Life of facility plan</p>	<p>A life of facility plan that identifies minimum specifications and performance objectives for the operating and closure phases</p>	<p>All of Gold Fields' operations have closure and post-closure management plans, which are reviewed and updated annually.</p> <p>Rationale for implementing these procedures: Gold Fields views sustainable and integrated mine closure as</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>A life of facility plan that considers post-closure land and water use</p> <p>A life of facility plan that details the financial and human resources needed</p>	<p>one of the group's five key sustainability focus areas. Gold Fields aims to reduce its impacts on the environment and surrounding communities by optimising closure liabilities and, where possible, enhancing asset values. The management of tailings storage facilities in integrated mine closure planning and progressive rehabilitation is therefore a crucial part of the mine closure management programmes. In support of tailings storage management, Gold Fields aligned its group-wide procedures with the ICMM's position statement on preventing catastrophic failure of tailings storage facilities.</p> <p>The level at which the procedures are set: company-wide. The rationale for this level of implementation is to ensure a consistent management approach through standardised quality assessments and checks.</p> <p>Competence requirements of staff implementing the procedures: high competence levels required. All Gold Fields' closure plans are approved and implemented by senior- management levels. Noteworthy is the decision by the Western Australian Department of Mines, Industry Regulation and Safety department to approve the St Ives Mine's 2018 closure plan and use it as a benchmark for other Western Australian mines.</p> <p>Other plans to develop other related management procedures that apply to all facilities: progressive rehabilitation opportunities, as identified in mine closure plans, are embedded in the mines' 2019 business plans. The respective operations have identified practical progressive rehabilitation activities and costs that are aligned to regulatory requirements and which can be implemented in 2019. The different mines have different plans. The group-wide focus is however on reducing the Group's long-term closure liabilities.</p>
Approval	The operating plan and the life of facility plan are approved by a C-suite officer	<p>Gold Fields's operating plans and the life of facility plans are approved by senior management at board level. These plans consider the respective mines' tailings management plans.</p> <p>Rationale for implementing these procedures: approval</p>

		<p>of the life of facility plans by senior management ensures that each operation is accountable for the governance of the respective tailings storage facilities. To further support high standards of tailings storage management, Gold Fields aligned its group-wide procedures with the ICMM's position statement on preventing catastrophic failure of tailings storage facilities.</p> <p>Gold Fields reviews and approves the operating and life of facilities plans in its short-, medium- and long-term plans which have different timeframes. One-year short-term plans are approved and communicated per facility in Operations Plans. Medium-term plans are approved and communicated per facility via the three-year Business Plans and five-year Strategic Plans. Long-term plans are approved and communicated in the end-of-life plans, per operation. These plans have approved budgets.</p> <p>The level at which the procedures are set: company-wide. Senior management approves the operating and the life of facility plans which ensures a high-level of accountability for the management of tailings storage facilities across the group. A company-wide approach also allows for a consistent management approach through standardised quality assessments and checks.</p> <p>Competence requirements of staff implementing the procedures: all Gold Fields' senior management are required to have high competence levels. This is appropriate as Gold Fields takes the management of tailings storage facilities very seriously.</p> <p>Other plans to develop other related management procedures that apply to all facilities: organisational structures and roles have been established to support management and accountability for the risks and governance associated with tailings storage facilities. Communication processes have also been developed to ensure that staff understand their responsibilities. Training is conducted to maintain currency of knowledge and skills. Roles are clearly defined with regards to the competency and experience levels that are required to undertake management of the facilities.</p>
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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

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

Six-monthly or more frequently

How far into the future are risks considered?

>6 years

Type of tools and methods used

Tools on the market
Enterprise Risk Management
Databases
Other

Tools and methods used

WBCSD Global Water Tool
WRI Aqueduct
WWF-DEG Water Risk Filter
ISO 31000 Risk Management Standard
Internal company methods
Other, please specify
ICMM's Mining Climate Assessment Tool (Mica Tool)

Comment

Gold Fields uses the WRI Aqueduct; WBCSD Global Water and WWF Water Risk Filter Tools; an Enterprise-wide Risk Management process (aligned with ISO 31000); the ICMM's Climate Data Viewer Tool and internal company methods. Internal methods are aligned to the risk management requirements of the King IV Code. Each operation implements an ISO14001 certified Environmental Management System to ensure that all identified risks have the necessary control measures and mitigating strategies in place.

Supply chain

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

Six-monthly or more frequently

How far into the future are risks considered?

>6 years

Type of tools and methods used

Tools on the market
Enterprise Risk Management
Databases
Other

Tools and methods used

WBCSD Global Water Tool
WRI Aqueduct
WWF-DEG Water Risk Filter
ISO 31000 Risk Management Standard
Internal company methods
Other, please specify
ICMM's Mining Climate Assessment Tool (Mica Tool)

Comment

Gold Fields uses the WRI Aqueduct; WBCSD Global Water and WWF Water Risk Filter Tools; an Enterprise-wide Risk Management process (aligned with ISO 31000); the ICMM's Climate Data Viewer Tool and internal company methods. Internal methods are aligned to the risk management requirements of the King IV Code. Each operation implements an ISO14001 certified Environmental Management System to ensure that all identified risks have the necessary control measures and mitigating strategies in place.

Other stages of the value chain

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

Six-monthly or more frequently

How far into the future are risks considered?

>6 years

Type of tools and methods used

- Tools on the market
- Enterprise Risk Management
- Databases
- Other

Tools and methods used

- WBCSD Global Water Tool
- WRI Aqueduct
- WWF-DEG Water Risk Filter
- ISO 31000 Risk Management Standard
- Internal company methods
- Other, please specify
 - ICMM's Mining Climate Assessment Tool (Mica Tool)

Comment

Gold Fields uses the WRI Aqueduct; WBCSD Global Water and WWF Water Risk Filter Tools; an Enterprise-wide Risk Management process (aligned with ISO 31000); the ICMM's Climate Data Viewer Tool and internal company methods. Internal methods are aligned to the risk management requirements of the King IV Code. Each operation implements an ISO14001 certified Environmental Management System to ensure that all identified risks have the necessary control measures and mitigating strategies in place.

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	<p>Why this information is included in water risk assessments and why it is important: All Gold Fields' operations are required to report on risks related to water availability. Gold Fields water availability levels of the main aquifers that the mines depend on and on those on which the operations impact.</p> <p>How this contextual issue is assessed to be relevant and explanation of the assessment: The group level tools used to identify water availability risks include an Enterprise Risk Management system (ISO 31000 aligned); operational and predictive water balances (to understand current and future water management requirements e.g. water availability levels); internal company knowledge (ISO14001 certified EMS); the WRI Aqueduct Tool; the WBCSD Global Water Tool; the WWF Water Risk Filter Tool and the ICMM's</p>

		<p>Climate Data Viewer Tool. The use of these tools allows Gold Fields to assess relevance and identify key water availability issues and risks. Reporting of these risks is undertaken on a quarterly basis to the Safety, Health and Sustainable Development Committee of the Board. Water availability issues form part of the input to the company risk register. In 2018 water management was in the top-10 identified risks for the Group.</p> <p>Level of coverage across the value chain: direct-operations level across all Gold Fields' mines and along key components of the supply and value chains. E.g. at South Deep Mine in SA, grid-based electricity (critical for mining) is derived largely from coal-fired power stations which are water intensive. Thus risks to water availability could affect electricity supply. This risk is relevant in SA due to the water-scare nature of the country.</p> <p>Water availability at basin/catchment level is relevant at both operational and executive levels. Both current and emerging issues related to water availability at basin/catchment level are included in the water risk assessments.</p>
<p>Water quality at a basin/catchment level</p>	<p>Relevant, always included</p>	<p>Why this information is included in water risk assessments and why it is important: the quality of water impacts on all Gold Fields operations and can cause disruptions to production if not monitored and managed.</p> <p>How this contextual issue is assessed to be relevant and explanation of the assessment: The group level tools used to identify water availability risks include an Enterprise Risk Management system (ISO 31000 aligned); operational and predictive water balances (to understand current and future water management requirements e.g. water availability levels); internal company knowledge (ISO14001 certified EMS); the WRI Aqueduct Tool; the WBCSD Global Water Tool; the WWF Water Risk Filter Tool and the ICMM's Climate Data Viewer Tool. The use of these tools allows Gold Fields to assess relevance and identify key water quality issues and risks. Reporting of these risks is undertaken on a quarterly basis to the Safety, Health and Sustainable Development Committee of the Board. Water quality issues form part of the input to the company risk register. In 2018 water management was in the top-10</p>

		<p>identified risks for the Group.</p> <p>Level of coverage across the value chain: direct-operations level across all Gold Fields' mines and along key components of the supply and value chains. For example, water quality at basin/catchment level is critical for community health. Damang Mine in Ghana has therefore established a water monitoring team, comprising members of the local community, to enhance transparency and communication of water results.</p> <p>Water quality at basin/catchment level is relevant at both operational and executive levels. Both current and emerging issues related to water quality at basin/catchment level are included in the water risk assessments.</p>
<p>Stakeholder conflicts concerning water resources at a basin/catchment level</p>	<p>Relevant, always included</p>	<p>Why this information is included in water risk assessments and why it is important: Gold Fields' mines face increasing pressures over social licence to operate. Water availability and quality are frequently raised as concerns by host communities. Formal permission to operate is granted by host governments but Gold Fields' operations also need the permission of host communities and other stakeholders to operate.</p> <p>How this contextual issue is assessed to be relevant and explanation of the assessment: The group level tool used to identify stakeholder conflicts concerning water resources includes Gold Fields' Enterprise Risk Management system (ISO 31000 aligned). In 2018 water management was in the top-10 identified risks for the Group. Internal company knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, is also used to assess existing and emerging stakeholder conflicts. As an example, Gold Fields' Stakeholder Relationship and Engagement Policy was implemented in 2018 as part of the alignment with King IV "to adopt a stakeholder-inclusive approach". Gold Fields also has an internal stakeholder register and management teams are incentivised to enhance the number and quality of stakeholder engagements. These tools support stakeholder conflict assessments and proactive measures to respond to issues.</p> <p>Level of coverage across the value chain: direct-operations</p>

		<p>level across all Gold Fields' mines and along key components of the supply and value chains. For example, one of Gold Fields' key risks in Peru is relates to the perception that the Cerro Corona Mine is responsible for water quality pollution which is actually the responsibility of neighbouring mines. Gold Fields' strategic response includes proactive engagements with community organisations and local government (integral components of the supply and value chains).</p> <p>Water conflict at basin/catchment level is relevant at both operational and executive levels.</p>
<p>Implications of water on your key commodities/raw materials</p>	<p>Relevant, always included</p>	<p>Why this information is included in water risk assessments and why it is important: some of Gold Fields' key commodities are water intensive or require water as critical inputs. These key commodities/raw materials include electricity, diesel, LPG, blasting agents, cyanide, cement, caustic soda and lime. Water itself is a key commodity to Gold Fields' mining operations.</p> <p>How this contextual issue is assessed to be relevant and explanation of the assessment: The implications of water on key commodities/raw materials is assessed as part of Gold Fields' Enterprise Risk Management system, which is ISO 31000 aligned. The assessment of water risks associated with key commodities is conducted if there are indications that water supply/quantity might be an issue. Water risks also consider water scarce areas and areas that have been previously exposed to water impacts. In 2018 water management was in the top-10 Group risks. Internal company knowledge; the WRI Aqueduct Tool; the WBCSD Global Water Tool; the WWF Water Risk Filter Tool and the ICMM's Climate Data Viewer Tool are also used to assess this issue as they provide climate projections related to different regions and are used to assess the issue of current implications of water on key commodities/raw materials.</p> <p>Level of coverage across the value chain: direct-operations level across all Gold Fields' mines and along key components of the supply and value chains. E.g. at South Deep Mine in SA, grid-based electricity (critical for mining) is derived largely from coal-fired power stations which are water intensive. Thus risks to water availability could affect</p>

		<p>electricity supply. This risk is relevant in SA due to the water-scare nature of the country.</p> <p>Implications of water on key commodities/raw materials are relevant at both operational and executive levels. Both current and emerging issues related to the sensitivity of key commodities/raw materials to water are included in the water risk assessments.</p>
<p>Water-related regulatory frameworks</p>	<p>Relevant, always included</p>	<p>Why this information is included in water risk assessments & why it is important: all Gold Fields' mines must operate in accordance with the respective host-country regulatory frameworks. Non-compliance may result in fines or closure.</p> <p>How this contextual issue is assessed to be relevant & explanation of the assessment: Regulatory & potential tariff changes are managed through the following group & regional/operational level processes: 1. Operational risk management registers, which feed into the group risk register on a quarterly basis through the Group Enterprise Wide Risk Management Process (which is ISO 31000 aligned). In 2018 water management was in the top-10 Group risks. 2. Group wide tracking of key legislative changes through centralised compliance system. 3. Implementation of the Group Water Management Guideline (internal company method). Regulatory changes affecting availability & price of water are reported quarterly to the Safety, Health & Sustainable Development Committee of the Board. Proactive identification, management & reporting of future potential regulatory changes forms part of quarterly reporting to the Board's Safety, Health & Sustainable Development Committee. Once risks have been identified, various approaches are put in place to manage these. Internal methods/ knowledge used to assess such risks also include the development & annual review of production plans that specify water requirements. These plans assess the impact of regulatory & tariff changes so that adequate actions/resources may be applied. Gold Fields also participates actively in national & provincial Mining Chambers & other industry/professional bodies enabling a thorough understanding of likely regulatory changes.</p> <p>Level of coverage across the value chain: direct-operations level across all Gold Fields' mines.</p>

		Water-related regulatory frameworks are relevant at both operational & executive levels. Both current & emerging issues are included in the water risk assessments.
Status of ecosystems and habitats	Relevant, always included	<p>Why this information is included in water risk assessments and why it is important: All Gold Fields operations are required to comply with applicable environmental regulations which require that the respective mines monitor, manage and report on the status of ecosystems and habitats.</p> <p>How this contextual issue is assessed to be relevant and explanation of the assessment: Part of the environmental compliance consists of assessing water related risks and the potential impacts on ecosystems and habitats. In 2018 environmental compliance was in the top-10 identified risks for the Group. Environmental Impact Assessments and the ISO 14001 certified environmental management systems are the tools used to assess such risks. Water related impacts on ecosystems and local habitats are also assessed as part of the Group Enterprise Wide Risk Management Process (which is ISO 31000 aligned).</p> <p>Level of coverage across the value chain: direct-operations level across all Gold Fields' mines.</p> <p>The status of ecosystems and habitats are relevant at both operational and executive levels (the latter is required due to the compliance requirement related to the monitoring and management of this contextual issue). Both current and emerging issues related to ecosystems and habitats are included in the water risk assessments.</p>
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	<p>Why this information is included in water risk assessments and why it is important: Water is an important vector for the potential spread of pollution, making it a critical compliance issue as well as being a risk to the environment and human health if not responsibly managed. As employee health is vitally important to Gold Fields, all operations ensure that the workforce obtain access to clean potable and wash water for sanitation services.</p> <p>How this contextual issue is assessed to be relevant and explanation of the assessment: Internal company</p>

		<p>knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, is used to assess access to fully functioning, safely managed WASH services for all employees. In 2018 health and safety was the second highest identified risks for the Group.</p> <p>Level of coverage across the value chain: direct-operations level across all Gold Fields' mines.</p> <p>Access to and the status of fully functioning, safely managed WASH services for all employees are relevant at respective mine-operational levels. Both current and emerging issues related to WASH services are included in the water risk assessments.</p>
Other contextual issues, please specify	Not relevant, explanation provided	Not applicable to Gold Field operations

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	<p>Company-specific explanation of why these stakeholders are not currently relevant: Gold Fields does not factor customers into the company's water risk assessments because there are intermediary companies/entities that are responsible for liaising directly with customers. For example, Gold Fields delivers product to refineries and does not engage directly with customers beyond a refinery level. Refineries may be considered Gold Fields customers. However as refineries are not major water users they are therefore not factored into the company's water risk assessments either.</p> <p>Expected relevance in the future: neither end-use customers of Gold Fields' products nor the refineries are expected to be included in water-related risk assessments in the future. This is because the nature of the mining value chain is not expected to change (i.e. refineries will continue to operate as intermediaries between Gold Fields and end-users) and the business processes of refineries is not expected to change (i.e. the refineries are not expected to increase water consumption</p>

		significantly in future).
Employees	Relevant, always included	<p>Why these stakeholders are included in the risk assessment procedure and why they are important to the business: Employees are integral to Gold Fields' operations. They are impacted by water issues, particularly physical risks such as floods or storms. Impacts on Gold Fields' workforce has a direct impact on Gold Fields' production levels. Therefore, all employees at a corporate, regional and operational level are engaged with and included as stakeholders in Gold Fields' water risk assessments.</p> <p>How this stakeholder is assessed to be relevant and how relevance is defined: The group level tool used to identify water risks related to employees is the Gold Fields' Enterprise Risk Management system which is ISO 31000 aligned. In addition, all operations have ISO14001 certified Environmental Management Systems which enable them to assess, manage, monitor and report on water risks related to employees. The Group risk manager defines relevance using the Enterprise Risk Management system.</p> <p>Which stakeholders in the three stages of the value chain are considered and why: only Gold Fields' employees are considered because Gold Fields scope of influence or control is limited to personnel employed by the group.</p> <p>Relevance of stakeholder to specific organizational levels or geographies: Water risk assessments focus on the workforce because workers are often exposed to physical elements during mining. E.g., higher than usual precipitation levels in Ghana have the potential to flood the mining pits, which puts the health and safety of employees at risk. Gold Fields considers water impacts on employees across all the regions in which it operates.</p> <p>Current or future stakeholder: current stakeholders and expected to continue to be so in the future.</p> <p>Method of engagement: Gold Fields' method of engagement with employees includes comprehensive employee surveys, which provide a holistic view of employee concerns. These are run every second year with shorter surveys taken annually.</p>

Investors	Relevant, always included	<p>Why these stakeholders are included in the risk assessment procedure and why they are important to the business: Investors, eg. Environmental, Social and Governance investors, seek proof of sound water management practices and are therefore always factored into the company's water risk assessments. Investors are important because they provide capital required to fund the business. An example of a investor risk is that Gold Fields' reputation could be damaged should the company be perceived as being anything less than an environmental stewardship leader, particularly re water issues. Gold Fields' reputation as an environmental stewardship leader is important considering that water is a shared resource and 3/4 regions in which the company operates are classified as water stressed regions. Gold Fields recognises that reputational risk affects the company's social licence to operate which affects the company's sustainability. Gold Fields recognises that the social licence to operate from its host communities is one of the group's key social and relationship capitals. Risks to Gold Fields' reputation therefore have the potential to materially affect operations and investor confidence.</p> <p>How this stakeholder is assessed to be relevant and how relevance is defined: Investors are relevant stakeholders because they provide the capital required to fund the business. The Group risk manager defines relevance using the Enterprise Risk Management system.</p> <p>Which stakeholders in the three stages of the value chain are considered and why: only Gold Fields' investors are considered because Gold Fields scope of influence or control is limited to investors in the group.</p> <p>Relevance of stakeholder to specific organizational levels or geographies: investors are relevant to top-levels of the organisation, across all geographies.</p> <p>Method of engagement: Gold Fields' engages with investors via the Investor Charter, which aims at regaining and growing investor confidence in Gold Fields.</p>
Local communities	Relevant, always included	<p>Why these stakeholders are included in the risk assessment procedure & why they are important to the business: Gold Fields recognises that local communities are an integral part of water management practices because water is a shared</p>

		<p>resource & without which neither Gold Fields nor local communities can survive. Local communities are therefore important to Gold Fields' operations because local communities can impact the mines' social licences to operate.</p> <p>How this stakeholder is assessed to be relevant & how relevance is defined: The group level tool used to assess local communities water risks includes an Enterprise Risk Management system (ISO 31000 aligned). In 2018 water management was in the top-10 identified risks for the Group. Internal company knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, is also used to assess existing & emerging local community water risks. Gold Fields also has an internal stakeholder register which is used to assess & manage risks or conflict related to local communities.</p> <p>Which stakeholders in the three stages of the value chain are considered & why: only the local communities located around Gold Fields mines are assessed. This is because Gold Fields scope of influence or control is limited to these communities.</p> <p>Relevance of stakeholder to specific organizational levels or geographies: local communities are relevant to all organisational levels, across geographies.</p> <p>Method of engagement: Gold Fields has a Stakeholder Relationship & Engagement Policy (implemented in 2018) which aims to "to adopt a stakeholder-inclusive approach". Gold Fields' teams are incentivised to enhance the number & quality of stakeholder engagements. Engagements include formal & informal meetings with community-based organisations, traditional authorities & local businesses & government. All the mines have mechanisms through which communities can voice their grievances & complaints about the group.</p>
NGOs	Relevant, always included	<p>Why these stakeholders are included in the assessment procedure & why they are important to the business: NGOs are important stakeholders because they represent communities and can impact the mines' social licences to operate. Acceptance of Gold Fields operations, particularly regarding water issues, by local communities is required for current & future operations.</p>

		<p>How this stakeholder is assessed to be relevant & how relevance is defined: The group level tool used to assess stakeholder water risks includes an Enterprise Risk Management system (ISO 31000 aligned). In 2018 water management was in the top-10 identified risks for the Group. Internal company knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, is also used to assess existing & emerging local community water risks. Gold Fields also has an internal stakeholder register which is used to assess & manage risks or conflict related to local communities.</p> <p>Which stakeholders in the three stages of the value chain are considered & why: NGOs relating to the direct, supplier and community value chains are assessed because NGOs operate at different levels in Gold Fields' value chains.</p> <p>Relevance of stakeholder to specific organizational levels or geographies: NGOs are relevant to all organisational levels, across geographies.</p> <p>Method of engagement: Gold Fields has a Stakeholder Relationship & Engagement Policy (implemented in 2018) which aims to “to adopt a stakeholder-inclusive approach”. Gold Fields’ teams are incentivised to enhance the number & quality of stakeholder engagements. Engagements include formal & informal meetings with community-based organisations, traditional authorities & local businesses & government. Eg. in South Africa, Gold Fields engages on a formal basis with the Federation for a Sustainable Environment, which has a strong focus on water issues. All the mines have mechanisms through which communities can voice their grievances & complaints.</p>
<p>Other water users at a basin/catchment level</p>	<p>Relevant, always included</p>	<p>Why these stakeholders are included in the assessment procedure & why they are important to the business: Farmers and communities of nearby towns are other water users at catchment level and are important because water is a shared resource. These stakeholders have a right to clean water suppliers & conflicts can impact the the Gold Fields mines’ social licences to operate.</p> <p>How these stakeholders are assessed to be relevant & how relevance is defined: The group level tool used to assess stakeholder water risks includes an Enterprise Risk</p>

		<p>Management system (ISO 31000 aligned). In 2018 water management was in the top-10 identified risks for the Group. Internal company knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, is also used to assess existing & emerging local community water risks. Gold Fields also has an internal stakeholder register which is used to assess & manage risks or conflict related to local communities.</p> <p>Which stakeholders in the three stages of the value chain are considered & why: only the local users at a basin/ catchment level located around the mines are assessed because Gold Fields' scope of influence or control is limited to these communities.</p> <p>Relevance of stakeholder to specific organizational levels or geographies: local communities are relevant to all organisational levels & geographies.</p> <p>Method of engagement: Gold Fields has a Stakeholder Relationship & Engagement Policy (implemented in 2018) which aims to "to adopt a stakeholder-inclusive approach". Gold Fields' teams are incentivised to enhance the number & quality of stakeholder engagements. Engagements include formal & informal meetings with community-based organisations, traditional authorities & local businesses & government. Eg. in South Africa, Gold Fields engages with water users in Westonaria, Bekkersdal and Simunye. All the mines have mechanisms through which communities can voice their grievances & complaints about the group.</p>
Regulators	Relevant, always included	<p>Why these stakeholders are included in the risk assessment procedure & why they are important to the business: Regulators are key stakeholders because they can impact Gold Fields' operational licences to operate as well as opex costs. Mines need to operate within their respective regulatory frameworks to be legally compliant. Water regulations are particularly important not just from an operational compliance perspective but from the perspectives of investors & host communities.</p> <p>How these stakeholders are assessed to be relevant & how relevance is defined: Regulators are assessed through: 1. Quarterly operational risk management registers (part of the Group Enterprise Risk Management Process). The Risk</p>

		<p>Committee (Board subcommittee) is responsible for the overall risk assessment system. 2. Tracking of all key legislative changes through a centralised compliance system. Any regulatory changes affecting availability & price of water are reported quarterly to the Safety, Health & Sustainable Development Committee of the Board. Additionally, impacts of regulatory & tariff changes are determined & managed through water requirements specified in production plans.</p> <p>Which stakeholders in the three stages of the value chain are considered & why: only the regulators within the direct value chain are considered because Gold Fields' scope of influence or control is limited to these regulators.</p> <p>Relevance of stakeholder to specific organizational levels or geographies: regulators are relevant to all organisational levels & geographies.</p> <p>Method of engagement: Gold Fields engages with regulators at a local, regional & national level to gain insight into local, regional & national water concerns & possible future regulatory changes. Through this engagement, regulators are factored into water related risk assessments. All of Gold Fields' regions have representatives that regularly engage with Government, via associations or directly, on water issues & potential regulatory changes.</p>
<p>River basin management authorities</p>	<p>Relevant, always included</p>	<p>Why these stakeholders are included in the risk assessment procedure & why they are important to the business: Local river basin management authorities can provide insight into possible water quality and availability risks as well as future regulatory changes.</p> <p>How these stakeholders are assessed to be relevant & how relevance is defined: River basin management authorities are assessed through 1. Quarterly operational risk management registers (part of the Group Enterprise Risk Management Process). The Risk Committee (Board subcommittee) is responsible for the overall risk assessment system. 2. Tracking of all key legislative changes through a centralised compliance system.</p> <p>Which stakeholders in the three stages of the value chain are considered & why: River basin management authorities within the direct value chain are considered because Gold Fields' scope of influence or control is limited to these authorities.</p>

		<p>Relevance of stakeholder to specific organizational levels or geographies: River basin management authorities are relevant to all organisational levels & geographies.</p> <p>Method of engagement: Gold Fields engages with river basin management authorities at local & regional levels to gain insight into local, regional & national water concerns & possible future regulatory changes. Through this engagement, these authorities are factored into water related risk assessments. All of Gold Fields' regions have representatives that regularly engage with Government, via associations or directly, on water issues & potential regulatory changes. For example, South Deep is a member of the Rietspruit Catchment Forum, run by local government. The South Deep Mine's environmental department attends the Forum's meetings and shares water monitoring data.</p>
<p>Statutory special interest groups at a local level</p>	<p>Relevant, always included</p>	<p>Why these stakeholders are included in the risk assessment procedure & why they are important to the business: Relevant local statutory special interest groups are important because water is a shared resource. Special interest groups often represent communities & can impact the mines' social licences to operate. Acceptance of Gold Fields operations, particularly regarding water issues, by local communities is required for current & future operations.</p> <p>How these stakeholders are assessed to be relevant & how relevance is defined: The group level tool used to assess water risks related to statutory special interest groups includes an Enterprise Risk Management system (ISO 31000 aligned). In 2018 water management was in the top-10 identified risks for the Group. Internal company knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, is also used to assess existing & emerging water risks related to special interest groups. Gold Fields also has an internal stakeholder register which is used to assess & manage risks or conflict related to local communities and stakeholders.</p> <p>Which stakeholders in the three stages of the value chain are considered & why: only the special interest groups at a local level (i.e. direct value chain), located around the mines are assessed because Gold Fields' scope of influence or control is limited to these special interest groups.</p>

		<p>Relevance of stakeholder to specific organizational levels or geographies: special interest groups are relevant to all organisational levels & geographies.</p> <p>Method of engagement: Gold Fields has a Stakeholder Relationship & Engagement Policy (implemented in 2018) which aims to “to adopt a stakeholder-inclusive approach”. Gold Fields’ teams are incentivised to enhance the number & quality of stakeholder engagements. Engagements include formal & informal meetings with statutory special interest groups, such as the Minerals Council of South Africa.</p>
Suppliers	Relevant, always included	<p>Why these stakeholders are included in the risk assessment procedure & why they are important to the business: supplier water risks are important because water availability and quality can affect the provision of inputs required in Gold Fields’ businesses. For example, diesel is a key component of Gold Fields’ operations which could be negatively affected by issues related to water scarcity in the regions in which the suppliers operate.</p> <p>How these stakeholders are assessed to be relevant & how relevance is defined: The group level tool used to assess water risks related to suppliers includes an Enterprise Risk Management system (ISO 31000 aligned). In 2018 water management was in the top-10 identified risks for the Group. Internal company knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, is also used to assess existing & emerging water risks related to suppliers.</p> <p>Which stakeholders in the three stages of the value chain are considered & why: only the suppliers at along the mines’ direct value chains are assessed because Gold Fields’ scope of influence or control is limited to these suppliers.</p> <p>Relevance of stakeholder to specific organizational levels or geographies: suppliers are relevant to all organisational levels & geographies.</p> <p>Method of engagement: Gold Fields engages suppliers through company-level sustainability policies and region-specific compliance standards. Standard supplier evaluation templates and weightings are determined on a case by case</p>

		<p>basis, based on the value and risk profiles of the vendor category. The evaluation covers commercial and non-commercial sustainability aspects like compliance, quality, safety, environment, human resources and social.</p>
<p>Water utilities at a local level</p>	<p>Relevant, always included</p>	<p>Why these stakeholders are included in the risk assessment procedure & why they are important to the business: Water utilities and suppliers are important stakeholders because water issues at these levels can impact Gold Fields operations and productivity. For example, water is a critical input in mining operations. Disruptions in supply could disrupt operations which will negatively impact Gold Fields' productivity levels. Also, increased water tariffs will impact Gold Fields' operational expenditures, which can affect the profitability of the operation in question.</p> <p>How these stakeholders are assessed to be relevant & how relevance is defined: local water utilities are assessed through quarterly operational risk management registers (part of the Group Enterprise Risk Management Process). The Risk Committee (Board subcommittee) is responsible for the overall risk assessment system. Water utilities are relevant because they can provide insight into local, regional & national water concerns & possible future tariff changes. Any changes affecting availability & price of water are reported quarterly to the Board's Safety, Health & Sustainable Development Committee. Additionally, impacts of supply & tariff changes are determined & managed through production plans.</p> <p>Which stakeholders in the three stages of the value chain are considered & why: only local water utilities within the direct value chain are considered because Gold Fields' scope of influence/control is limited to these utilities.</p> <p>Relevance of stakeholder to specific organizational levels or geographies: relevant to all organisational levels & geographies.</p> <p>Method of engagement: All of Gold Fields' regions have representatives that regularly engage with water utilities, via associations or directly, on water issues & potential supply or tariff changes. Gold Fields actively engages with the representatives of water utilities/suppliers at a local level on a regular basis through formal and informal meetings.</p>

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.

Level of coverage: Gold Fields recognises that clean water is a basic human right and a vital company resource. The processes for identifying, assessing, and responding to water-related risks, across the three stages of the group’s value chain therefore occur at both a group and at asset levels. Risk mitigations are included in the annual Group Performance Scorecard and cascaded down to the performance scorecard of management employees at regional and asset (company) levels. The dual level of coverage provides for extra levels governance on water matters. Governance at an asset level is important because all the mines operate as private companies, albeit under the group structure, and therefore can make relatively autonomous decisions regarding water issues. Furthermore water-governance level at asset level provides insights that may be missed at group level where local knowledge may not be as proficient as at the company or country-levels.

How risks are classified:

At a group level: - Key risks and mitigating actions are identified and classified using an Enterprise-wide Risk Management process (ISO 31000 aligned) as well as the risk management requirements of South Africa’s King IV governance code. Strategic risks and macro-trends are identified and analysed at management’s annual strategic planning sessions, where the group’s risk register and mitigating actions are developed. These are updated quarterly and presented to the Board’s Risk Committee twice a year for verification. - Levels of the value chain: Gold Fields has complete detailed climate risk vulnerability assessments for all assets, which consider water risks. These vulnerability assessments consider water risks across the three levels of the value chain (direct, supply and broader community). - Severity and probability of risks are determined by the Board’s Risk Committee which ranks risks per region. Risks with high severity and probability ratings are ranked as top risks. Mitigation decisions are made by the Board based on the risk assessments. Material sustainability issues are assessed and prioritised according to the GRI Standards. The iterative assessments use a common, quantitative scoring framework and draw on a range of internal and external sources, as well as detailed engagement with senior executives at the Company and representatives of external stakeholders (e.g. industry, government, community and environmental organisations).

At asset levels:

- Water risks are classified and assessed on a quarterly basis by the operations and management teams. The Group Risk Manager is responsible for risk management at an asset (company) level.
- Application of tools: Gold Fields uses the WRI Aqueduct, WBCSD Global Water and the WWF Water Risk Filter tools; the ICMM’s Climate Data Viewer Tool as well as internal company

methods to identify and respond to risks. Internal methods are aligned to the risk management requirements of South Africa's King IV Code. Each operation implements an ISO14001 certified Environmental Management System to ensure that all identified risks have the necessary control measures and mitigating strategies in place. These tools are applied and implemented at all Gold Fields' assets.

- Levels of the value chain: the vulnerability assessments for each asset consider water risks across the three levels of Gold Fields' value chain (direct, supply and broader community).
- Severity of risks: a scale of Level 1 (most minor) is used to 5 (most severe) to assessing environmental incidents.

Decision-making process for risk response: The outcomes of the risk assessments are used to inform the risk response. E.g. in 2018, Gold Fields group risk assessment identified water pollution, supply and cost as a material group-risk. The risk response includes strict and focused compliance with environmental management regulations; ISO 14001 certification of all operations; expansion of water management plans to include post-closure water management and the setting of water recycling, reuse and conservation practices in all regions.

Gold Fields' decision-making processes are aligned with the ICMM's SD Framework, Principles, Position Statements and Reporting Requirements, with additional reference to the ICMM's report on 'Adapting to a changing climate: implications for the mining and metals industry'. The group takes into account the views and concerns of a wide range of stakeholders. In addition, as part of the integrated reporting process, the group conducts comprehensive interviews with key management and external stakeholders. Gold Fields assesses water risks in the short, medium and long-term, across its operations which inform the risk mitigation decisions. Decisions are incorporated into short-term (1-year) Operations Plans; medium-term Business Plans (3-years) and Strategic Plans (5-years) and long-term end-of-life plans (over 5 years).

W4. Risks and opportunities

W4.1

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

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

W4.1a

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

Definition of 'substantive water impact': Gold Fields defines a 'substantive impact' on the business at the corporate level, in the context of a water-related risk, as any change (i.e. related to the direct operations or further along the value chain) that will cause one or more day's loss of production (magnitude threshold), if the probability of the incident occurring is once

every fortnight or less (probability and frequency thresholds). The combined application of the magnitude, probability and frequency thresholds has the potential to significantly impact Gold Fields revenues, considering that the group comprises seven operations. Therefore, the probability of such risks materialising is considered to be likely.

Details of metrics used: The metrics used to measure substantive water risks are classified as either strategic or operational. Gold Fields therefore uses separate matrices for strategic and operational risks. The two risk matrices are used to assess the severity and probability of each risk.

The threshold or amount of change in the metric which indicates substantive change: Depending on the risk score when re-rated in a Group context, Gold Fields' Board will decide if the risk warrants a position on the Group Risk Register.

Frequency of which metrics are reviewed and updated: Strategic risks and macro-trends are identified and analysed at management's annual strategic planning sessions, where the group's risk register and mitigating actions are developed. These are updated quarterly and presented to the Board's Risk Committee twice a year for verification.

Company specific examples of substantive strategic and operational water impacts: An example of a strategic water risk impact is a change in a mine's water use licences. If not adhered to, Gold Fields could be in contravention of its licencing conditions and could face fines or ultimately closure of the mine in question. The impacts of non-compliance could include increased risks of shut-downs or down time.

An example of an operational water risk metric could be security of water supplies due to water shortages in Sub-Saharan African due to droughts. Disruptions of water supplies in the South African and Ghanaian operations could disrupt mining operations which would lead to production losses. The loss of one day's production at the South African or Ghanaian operations would result in the average financial loss of group revenue of USD 8.8 million. This impact would be considered as substantive to Gold Fields' business.

Relation to Gold Fields' value chain: Gold Fields' definition, thresholds and metrics related to the substantive impacts of water related risks apply to the group's direct operations. This is because Gold Fields has direct control over operations and the management of water related risks.

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
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Row 1	7	100	
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W4.1c

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

Country/Region

South Africa

River basin

Orange

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

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

180,446,000

% company's total global revenue that could be affected

1-25

Comment

Country/Region

Australia

River basin

Other, please specify
Western Plateau

Number of facilities exposed to water risk

3

% company-wide facilities this represents

26-50

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

1,082,676,000

% company's total global revenue that could be affected

26-50

Comment

Country/Region

Ghana

River basin

Other, please specify

Ankroba

Number of facilities exposed to water risk

2

% company-wide facilities this represents

26-50

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

928,008,000

% company's total global revenue that could be affected

26-50

Comment

Country/Region

Peru

River basin

Other, please specify

Tingo

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

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

386,670,000

% company's total global revenue that could be affected

1-25

Comment

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/Region

Peru

River basin

Other, please specify

Tingo

Type of risk

Physical

Primary risk driver

Inadequate infrastructure

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

One of the key risks identified in 2018 for the Cerro Corona operation is related to poorly developed public water infrastructure in the region. The impacts of this risk on the Cerro Corona Mine include: Cerro Corona could be blamed for ongoing or perceived water quality pollution by neighbouring mines; leakage of polluted water from Cerro Corona into neighbouring rivers and water-related activism at local and regional levels. The impact of poor water infrastructure therefore puts Cerro Corona's reputation and social licence at risk.

Social licence to operate and community acceptance are key to Gold Fields' operations in Peru. Local social pressures, conflicts and community expectations were ranked among the top 5 risks for the region in 2018. The potential impact of a lack of community acceptance on the Cerro Corona Mine includes work stoppages, which could have substantive impacts on productivity levels and revenues. The establishment and maintenance of a strong social licence to operate from Cerro Corona's host communities as well as regional and national governments is therefore essential for the sustainability and growth of the both the operation and the Gold Fields group.

Gold Fields considers water risks as material to the overall group business. In 2018 water management was ranked in the top 10 group risks.

Timeframe

More than 6 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)

8,800,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The average financial loss of revenue for 1 day's production loss is USD 8.8 mil. Such a loss would be due to a loss in production of ounces of gold and thus reduced revenue. This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:

The timescale is more than 6 years.

Primary response to risk

Improve alignment of our public policy influencing activity with our water stewardship commitments

Description of response

In 2018 Gold Fields' operations assessed and closed-out gaps regarding alignment with the ICMM Position Statement on water stewardship commitments (adopted in 2017).

Gold Fields also engaged an external company to conduct a third-party review which confirmed overall alignment and found a strong commitment to water stewardship at both corporate and operational levels, with transparent communication and disclosure of Gold Fields' water performance statistics.

The review also found a need for greater alignment of Gold Fields' operations' water balances within the context of the water requirements of the wider catchment areas, particularly adjacent communities. This response measure is still underway.

In the interim, Cerro Corona's other responses include abiding by its water use permits; water balances to control the volume of run-off water stored in the TSF; rainwater storage and recycling; water monitoring and quality controls at discharge points; proactive engagements with community organisations and local government and more.

The response impacts are expected to include increased regulatory compliance. It is also expected that the responses will assist Cerro Corona further reduce the residual risks related to community perceptions around the group's commitments to water stewardship.

Contributes to the progress of UN SDG's goal 6.

Cost of response

370,000

Explanation of cost of response

The cost of community water supply programmes (part of Gold Fields' Shared Value programme that benefit both the mine and communities) at Cerro Corona in 2018 amounted to USD 370 thousand. This included upgrading water systems for the Kiwillas and Lipiag hamlets which provided 1,494 families access to water at a low cost. This cost is based on actual expenses and is not an estimate based on assumptions. The costs of the Shared Value programme, specific to the provision of water to communities, is ongoing.

Gold Fields undertakes the following response actions inhouse and as a part of the day-to-day operations at Cerro Corona: abiding by its water use permits; water balances to control the volume of run-off water stored in the TSF; rainwater storage and recycling; water monitoring and quality controls at discharge points; proactive engagements with community organisations. These costs are therefore not quantified at a disaggregated level from the day-to-day operations.

Country/Region

Peru

River basin

Other, please specify
Tingo

Type of risk

Physical

Primary risk driver

Pollution incident

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Leakage of polluted water from Gold Fields operations into neighbouring rivers was identified as a key risk in 2018. On 16 December 2018, approximately 180m³ of water containing tailings from the Cerro Corona tailings storage facility in Peru, flowed through a creek and reached the nearby Tingo river. This has since been rectified.

The incident is in contravention of the Cerro Corona water use licence. No fines nor sanctions have as yet been formalised. The impacts fines or sanctions have the potential to negatively affect Cerro Corona's social and regulatory licences to operate. Cerro Corona has however had increased operational costs to remediate the incident impacts.

Social licence to operate and community acceptance are key to Gold Fields' operations in Peru. Local social pressures, conflicts and community expectations were ranked among the top 5 risks for the region in 2018. The potential impact of a lack of community acceptance on the Cerro Corona Mine includes work stoppages, which could have substantive impacts on productivity levels and revenues. The establishment and maintenance of a strong social licence to operate from Cerro Corona's host communities as well as regional and national governments is therefore essential for the sustainability and growth of the both the operation and the Gold Fields group.

Gold Fields considers water risks as material to the overall group business. In 2018 water management was ranked in the top 10 group risks.

Timeframe

Current up to 1 year

Magnitude of potential impact

Medium-high

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,800,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The average financial loss of revenue for 1 day's production loss is USD 8.8 mil. Such a loss would be due to a loss in production of ounces of gold and thus reduced revenue. This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:

The timescale is more than 6 years.

Primary response to risk

Pollution abatement and control measures

Description of response

Regulator, local authorities and communities were notified and activated immediately on news of the leakage. The environmental parameters were returned to normal within 24 hours. Rehabilitation of the affected area started immediately and was completed within 20 days – community members were used in clean-up operation.

The response involved a collective action initiative: engagement with regional environmental activists was undertaken through government mediation.

The response will:

- Effectively prevent the reoccurrence of liquid leaking through the diversion pipe
- Improve Gold Fields' resilience by ensuring that the tailings storage facility is operated according to the required standards, thereby preventing future financial or operational impacts

Cost of response

600,000

Explanation of cost of response

The total financial impact was: USD 0.6 million.

- The methods for calculating the financial impact was based on actual costs.
- This is a fixed cost. No fines nor sanctions have as yet been formalised.
- Timescale: short-term cost.

Country/Region

South Africa

River basin

Orange

Type of risk

Physical

Primary risk driver

Increased water scarcity

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Within the last five-years South Africa experienced one of the country's worst drought cycles in 40 years. While the drought has eased in recent years, short and medium-term climate forecasts for the region indicate there are increased risks of droughts and heatwaves. These impacts could result in water scarcity in the region.

Such increased water scarcity has the potential to materially impact Gold Fields' South Deep operations. Gold Fields recognises that South Deep therefore needs to closely manage water issues: in 2018 footwall (water) management was identified as the one of the risks under the 2nd highest risk identified for the region, titled 'poorly defined execution strategy'. Changes in water availability or quality can therefore reduce or disrupt production capacity at South Deep's operations. Decreases in productivity will negatively impact the facility's revenues.

Water is a critical component of the mine and is also critically required by its host communities. A secondary impact of increased water scarcity is therefore the potential for conflicts with host communities to increase as competition for the scarce resources increases. South Deep Mine has experienced community conflict in the past with regards to water management and in some cases, the mistaken perception that the facility was contributing to acid mine leakage (which was the fault of neighbouring mines).

Timeframe

Current up to 1 year

Magnitude of potential impact

Medium-high

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,800,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The average financial loss of revenue for 1 day's production loss is USD 8.8 mil. Such a loss would be due to a loss in production of ounces of gold and thus reduced revenue. This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:

The timescale is up to 1 year.

The company also risks increased conflicts with host communities over water availability and quality, which could reduce shareholder confidence and the share price. 1% decrease would result in lost revenue of +/- \$31.5 mil.

Primary response to risk

Adopt water efficiency, water re-use, recycling and conservation practices

Description of response

South Deep's response to water scarcity risks include reducing freshwater withdrawals; the use of a number of water sources, including recycling and conservation initiatives, water treatment plants, boreholes and access to the public water system.

South Deep is also undertaking ongoing water monitoring, containment in storage facilities, water treatment and purification, to ensure water security and mitigate water pollution. The mine is also undertaking studies of the mine's impact on the wider catchment area, including a post-

closure water management plan.

Managing water scarcity risks requires increased engagement with affected stakeholders and communities. South Deep's response in this regard is to participate in the existing catchment forum and to provide environmental educational lectures and tours for local communities.

The response impacts are expected to reduce disruptions in production capacity due to water scarcity and related stresses. It is also expected that the responses will assist South Deep further reduce the residual risks related to community perceptions around the mine's commitments to water stewardship.

Contributes to the progress of UN SDG's goal 6.

Cost of response

1,100,000

Explanation of cost of response

The total financial impact was: USD 1.1 million.

- The methods for calculating the financial impact was based on actual maintenance and capital costs.
- The capital costs are once-off costs however the maintenance costs are ongoing.
- Timescale: short-term cost.

Country/Region

Ghana

River basin

Other, please specify
Ankobra

Type of risk

Physical

Primary risk driver

Severe weather events

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

The Damang and Tarkwa operations in Ghana are open-cast mines, which are at risk of flooding during intense rainfalls. The region has experiences sever weather events,

such as heavy rainfalls, in recent years and climate predictions indicate that such events could prevail in the future. One of the key risks identified in 2018 for the Ghanaian operations is therefore the risk of intense periods of precipitation during Ghana's rainy seasons.

The impacts of increased precipitation and flooding include increased surface, open-pit geotechnical risks (identified as one of the top-5 regional risks and one of the top-20 group-level risks in 2018), such as the destabilisation of the pit-walls at the Damang mine. Unstable pit-walls could have direct impacts on the Ghanaian operations, such as physical safety risks to miners and plant and increased risks of downtime due to remedial measures required to dewater or stabilise the pit walls.

Increased operational costs were also identified as risks following intense rainfalls. The impact of dewatering flooded pits, such as those that occurred at Tarkwa mine, entails increased use of diesel in the dewatering pumps. Dewatering measures can also result in downtime. Increased downtimes reduce productivity and revenues.

Timeframe

Current up to 1 year

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)

8,800,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The average financial loss of revenue for 1 day's production loss is USD 8.8 mil. Such a loss would be due to a loss in production of ounces of gold and thus reduced revenue. This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:
Current up to one year.

Primary response to risk

Infrastructure maintenance

Description of response

The response of the Ghanaian operations to the geotechnical risks driven by severe weather events such as heavy precipitation and flooding include landform reviews to ensure adequate surface water drainage; expanded cut-off trenches and enhanced pit dewatering strategies such as staggering of pit floors to aid drainage and dewatering.

In particular, Damang has also instituted real-time continuous pit wall monitoring and control. The mine also established a water monitoring team, comprising members of the local community, to enhance transparency and communication of water management. Both Damang and Tarkwa also now have fully functioning water balance software, with teams trained in developing water management models in order to assist manage water risks.

Gold Fields is also responding to this risk through reviews of catchment mapping and provision made for rain delays in the Tarkwa and Damang operational plans.

The response impacts are expected to decrease the physical and safety risks associated increased precipitation during Ghana's rainy season, which will decrease risks of downtimes and reduced productivity levels.

Cost of response

890,000

Explanation of cost of response

The total financial impact was: USD 890 thousand.

- The methods for calculating the financial impact was based on actual maintenance costs.
- The maintenance costs are ongoing.
- Timescale: short-term cost.

Country/Region

Australia

River basin

Other, please specify
Western Plateau

Type of risk

Physical

Primary risk driver

Increased water scarcity

Primary potential impact

Increased operating costs

Company-specific description

Australia is water scarce and climate forecasts for the region indicate there are increased risks of droughts and heatwaves as temperatures rise. These impacts could further exacerbate water scarcity in the region.

Increased water scarcity could materially and directly impact Gold Fields' Australian operations which are located in Western Australia, a particularly arid area. Water is a critical component of the mines and is also critically required by its host communities. Gold Fields will therefore need to increase operational resources and measures to mitigate the increased risk of water scarcity. For example, Granny Smith has installed rain harvesting and surface water equipment which reinject water into an aquifer, improving recharge rates and yield.

A secondary impact of increased water scarcity is the risk of further declining water quality in the region. The US Environmental Protection Agency notes that drought and changes in water demand and availability can increase the salinity of both groundwater and surface water sources (www.epa.gov/arc-x/climate-adaptation-and-saltwater-intrusion). Gold Fields' operations have to treat all hypersaline water before it can be used. Increased levels of hypersaline water will require increased treatment, which has associated costs. Water quality and security are therefore critical in Gold Fields operations and therefore changes will impact operational costs at the St Ives, Agnew, Granny Smith operations and the Gruyere project.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

10,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Approach was employed to calculate the figure:

The figure is based on the combined water operational expenditure figures for Gold Fields' Australian operations in 2018:

- 6,6 million USD: St Ives
- 814 thousand USD: Agnew
- 2,5 million USD: Granny Smith

Assumptions: the figure assumes that the annual rate of capital expenditure at the Australian operations remains about the same in the future.

The likely timescale for the financial impact is approximately more than 6 years.

Primary response to risk

Secure alternative water supply

Description of response

Gold Fields' Australian operations actively engage in securing alternative water supplies to ensure water security. Some activities are completed and some are ongoing. Eg. Granny Smith has entered into a 5-yr agreement with the Mt Weld Mining Company for access to the nearby Mt Weld borefield, which will ensure continued supply for the current life of mine. St Ives has two water agreements in place: a supply agreement with the Water Corporation which terminates in 2050 and supplies most of the water needed by the mine. The other supplementary water agreement is with the neighbouring Nickel West mine, which provides for declining entitlements through to 2021. The Agnew mine currently receives water for its operations from a number of sources, including water from a range of pits that are filled with rainwater. A hydrological study on the Fairyland borefield suggests that the facility can be expanded to supplement existing water supply at the mine. At the Gruyere project two borefields will supply the mine and village. To date, over 30 boreholes have been drilled and installation of a 95km water pipeline to the processing plant has commenced.

The responses are expected to be effective in mitigating the impacts of water scarcity in the region, thereby increasing the Australian operations' water security. The responses will also improve resilience at the asset level, preventing future financial, operational or strategic impacts.

Contributes to the progress of UN SDG's goal 6.

Cost of response

239,000

Explanation of cost of response

Gold Fields hydrological studies across the operations amounted to just under USD 239 thousand in FY2018. These are actual costs incurred during the year, and are once-off costs.

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/Region

South Africa

River basin

Orange

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Gold Fields' South Deep mine in South Africa is in a particularly water stressed region. A number of the products required by Gold Fields' operations are highly water intensive to produce. Examples of such products include: diesel, cyanide and electricity. Electricity production in South Africa is particularly water intensive and consumes 1.38m³ of water per MWh of electricity produced. Increased water stress may limit the production of water intensive products which could in turn disrupt South Deep's operations. Reduced productivity levels could negatively impact revenues.

Furthermore, as water scarcity becomes a reality in South Africa, suppliers like Rand Water may not have enough water to supply large customers like South Deep. In periods of drought, Rand Water will most likely prioritise water supply to residential areas over industry.

Timeframe

1 - 3 years

Magnitude of potential financial impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,800,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The average financial loss of revenue for 1 day's production loss is USD 8.8 mil. Such a loss would be due to a loss in production of ounces of gold and thus reduced revenue. This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:

Current up to one year.

Primary response to risk

Map supplier water risk

Description of response

Gold Fields includes an assessment of supplier related water risks in its ongoing Enterprise-wide Risk Management processes. Gold Fields has also assessed regional climate-related risk (and its effects on the supply chain) by conducting climate change vulnerability assessments for South Deep utilising the Group risk and ICMM tools/guidelines.

South Deep also continues to invest heavily in improving water management practices, including pollution prevention, recycling and conservation initiatives. These investments, combined with weather monitoring, will assist the operation to prepare for periods of increased water stress, which may limit negative impacts on the operations, strategy

and performance.

Cost of response

0

Explanation of cost of response

Approach taken to determine the cost of the response strategy:

The cost of weather monitoring is carried in-house by Gold Fields South Africa on an ongoing basis, thus no additional cost is quantified as a response cost.

Assumptions:

The of response assumes that this approach will remain the same in future.

Timescale for the response:

Expected to continue for long-term (6-10 years).

Country/Region

Ghana

River basin

Other, please specify

Ankroba

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

Increased water scarcity

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Climate projections for Ghanaian region indicate that that there is increased risk of seasonal variation in rainfall. This risk threatens the electricity supply of Gold Fields' Ghanaian operations because national electricity supplies in Ghana arise from hydropower sources.

During 2018, Tarkwa and Damang sourced some of their power from the Volta River Authority and the Electricity Company of Ghana. Hydro-power schemes contribute significantly to Ghana's power, but with low dam levels due to a drought, security of electricity supply remains under threat. Daily load-shedding (brownouts) have disrupted

operations, resulting in reduced levels of productivity and impaired revenues.

Timeframe

Current - up to 1 year

Magnitude of potential financial 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)

8,800,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The average financial loss of revenue for 1 day's production loss is USD 8.8 mil. Such a loss would be due to a loss in production of ounces of gold and thus reduced revenue.

This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:

Current up to one year.

Primary response to risk

Supplier diversification

Description of response

Gold Fields (in partnership with Genser Energy, an independent power producer) has developed two natural gas power stations at its operations in Ghana to mitigate risks of electricity disruptions that may affect productivity and the safety of mine workers.

The gas power plants have improved reliability, operational efficiencies and contributed to significant cost savings as a result of lower tariffs and using less diesel-driven

generators. Gold Fields is considering extending the capacity of the gas power stations.

The response is expected to mitigate the risks of disrupted national power supplies that may arise from periods of drought that may result in water scarcity in the region.

This response contributes to the progress of UN SDG's goals 7 (Affordable and Clean Energy) and 13 (Climate Action).

Cost of response

12,300,000

Explanation of cost of response

Approach employed to calculate the figure:

The \$12.3 million cost of response relates to purchase of electricity in FY2018 from the two Genser gas power plants in Ghana. The figure is based on actual costs.

Likely timescale for the financial impact:

This is a reoccurring cost, liable on an annual basis.

Country/Region

Peru

River basin

Other, please specify

Tingo

Stage of value chain

Use phase

Type of risk

Physical

Primary risk driver

Severe weather events

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Changes in precipitation patterns and extreme variability in weather patterns have the potential to materially impact Gold Fields' Cerro Corona operation.

Severe weather events, such as heavy rains, have the potential to damage road infrastructure and disrupt the transport of copper concentrate from Cerro Corona mine to the port of Salaverry, where these impacts affect roads and other transport related

logistics. If there are delays of more than 40 days at the port, the warehouse will not be able to receive more concentrate until the existing stock has been shipped. The concentrate stockpile at the mine can only hold up to 15 days of production. Delays in transportation could ultimately disrupt operations at the mine because if the port and mine storage facilities are at full capacity then the mine cannot continue with its operations as there will be a lack of storage space to store the mined product. Severe weather events along the value chain can therefore cause work stoppages and decreased production levels which can negatively impact revenues.

Timeframe

1 - 3 years

Magnitude of potential financial impact

Medium-high

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,800,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The average financial loss of revenue for 1 day's production loss is USD 8.8 mil. Such a loss would be due to a loss in production of ounces of gold and thus reduced revenue.

This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:

1-3 years.

Primary response to risk

Water-related capital expenditure

Description of response

Gold Fields has invested in capacity extensions to the mine and has constructed an additional storage building for ore concentrate at the Salaverry warehouse. Cerro Corona is also investigating the requirements of an alternate route to the port as a secondary response strategy.

The increased capital expenditures in this regard have been completed.

These responses are expected to mitigate the risk of disruptions to sales of copper concentrate.

Cost of response

44,600

Explanation of cost of response

The cost of managing this risk included:
Increasing concentrate storage facility at Cerro Corona: USD 44,600

This was a once-off cost.

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

Improved community relations

Company-specific description & strategy to realize opportunity

Description of the positive benefit:

Gold Fields implements Shared Value programmes on an annual basis. Many of the programmes focus on host community employment (helps communities adapt and become climate resilient) and other measures such as improving water provision and security to host communities. Shared Value programmes are an opportunity for mutual sustainable development which strategically benefits Gold Fields because these

programmes generate positive opinion of Gold Fields' work with the communities surrounding operations, and also create solid ties of coexistence with neighbouring communities.

Where in the organization the benefit applies:

Shared Value programmes have strategic impacts at corporate level as well as facilities and value chain (host community) levels across all Gold Fields' regions but particularly in Peru and South Africa.

Actions to realize the opportunity:

Shared Value is created when Gold Fields takes a proactive role in simultaneously addressing business and social needs, which benefit both communities and the group's mines. This may include strategic interventions to proactively address socio economic challenges.

An example of a shared value project is the provision of potable water to Cerro Corona's Hualgayoc communities in Peru, as well as other water infrastructure projects. Also, the Youth in Horticulture Production programme in Ghana aims to create youth employment opportunities through agricultural initiatives and training.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,800,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The impact of reducing 1 day's downtime is USD 8.8 mil (equivalent to the average financial loss of revenue for 1 day). This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production

across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:
1-3 years.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Description of the positive benefit:

Improved water efficiency in operations (such as resource management and new technologies) are expected to reduce work stoppages. Five out of seven of Gold Fields' mines are located in water stressed regions. To operate sustainably in these areas Gold Fields needs to be committed to responsible water stewardship and management at both corporate and facilities levels.

Where in the organization the benefit applies:

Business-wide opportunity; across all the regions and operations. Also benefits host communities who share water resources.

Where in the organization the benefit applies:

Company-wide and also extend to the host communities in the value chains.

Actions to realize the opportunity:

All operations are required to develop a water strategy and water management plan in accordance with this Gold Fields' Group Water Management Guideline. The guideline is based on good practice, such as the United Nations Global Compact and the ICMM Principles.

An example of the implementation of this strategy relates to the Australian operations, where water management at the sites forms an integral consideration within mine closure plans that are reviewed on a three-year cycle and submitted to the regulator for approval.

Estimated timeframe for realization

>6 years

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,800,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Approach employed to calculate the figure:

The impact of reducing 1 day's downtime is USD 8.8 mil (equivalent to the average financial loss of revenue for 1 day). This figure has been calculated using the 2018 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production across the Gold Fields group, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different regions and facilities.

Likely timescale for the financial impact:

1-3 years.

W5. Facility-level water accounting

W5.1

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

Facility reference number

Facility 1

Facility name (optional)

South Deep

Country/Region

South Africa

River basin

Orange

Latitude

-26.39802

Longitude

27.695503

Total water withdrawals at this facility (megaliters/year)

2,892

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

328

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

2,564

Comparison of consumption with previous reporting year

Lower

Please explain

Withdrawals decreased by 13% and discharges decreased by 11%, which could be attributed to the decrease in production at the facility. Total consumption therefore also decreased.

The consumption was calculated by subtracting the metered discharge volumes from the metered withdrawal volumes.

Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.

Facility reference number

Facility 2

Facility name (optional)

Damang

Country/Region

Ghana

River basin

Other, please specify

Ankobra

Latitude

5.249448

Longitude

-2.004898

Total water withdrawals at this facility (megaliters/year)

1,560

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

1,560

Comparison of consumption with previous reporting year

About the same

Please explain

Withdrawals decreased by 7% which could be attributed to a slight decrease in the tonnes treated.

Damang does not discharge its water to any sources.

The consumption was calculated by subtracting the metered discharge volumes from the metered withdrawal volumes.

Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.

Facility reference number

Facility 3

Facility name (optional)

Tarkwa

Country/Region

Ghana

River basin

Other, please specify

Ankobra

Latitude

5.249448

Longitude

-2.004898

Total water withdrawals at this facility (megaliters/year)

5,776

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

1,129

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

4,647

Comparison of consumption with previous reporting year

Much higher

Please explain

Withdrawals increased by 20%,
Discharges decreased by 43% and Consumption increased by 63%. These changes could be attributed to an increase in tonnes treated at Tarkwa despite the decrease in production.

The consumption was calculated by subtracting the metered discharge volumes from the metered withdrawal volumes.

Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.

Facility reference number

Facility 4

Facility name (optional)

St Ives

Country/Region

Australia

River basin

Other, please specify
Western Plateau

Latitude

-31.208691

Longitude

121.663284

Total water withdrawals at this facility (megaliters/year)

2,463

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

2,463

Comparison of consumption with previous reporting year

Much lower

Please explain

Withdrawals decreased by 76% due to change of definition of water withdrawal to exclude diverted water. This approach is aligned with the ICMM approach: water diversions are not included in withdrawals.

St Ives did not discharge any water in the reporting period nor in the previous period.

Consumption was calculated by subtracting the metered discharge volumes from metered withdrawal volumes.

Gold Fields defines a 40% change or higher as much lower/much higher.

Facility reference number

Facility 5

Facility name (optional)

Agnew

Country/Region

Australia

River basin

Other, please specify
Western Plateau

Latitude

-27.905845

Longitude

120.704727

Total water withdrawals at this facility (megaliters/year)

2,498

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

0

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

2,498

Comparison of consumption with previous reporting year

About the same

Please explain

Withdrawals increased by 9% due to change of definition of water withdrawal to exclude diverted water. This approach is aligned with the ICMM approach: water diversions are not included in withdrawals.

Agnew does not discharge any water from its operations thus no change between reporting years.

Consumption was calculated by subtracting metered discharge volumes from metered withdrawal volumes.

Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.

Facility reference number

Facility 6

Facility name (optional)

Cerro Corona

Country/Region

Peru

River basin

Other, please specify

Tingo

Latitude

-6.776103

Longitude

-78.660736

Total water withdrawals at this facility (megaliters/year)

3,757

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

1,016

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

2,741

Comparison of consumption with previous reporting year

About the same

Please explain

Withdrawals decreased by 10% which could be attributed to a decrease in tonnes treated. Discharges decreased by 33% which could be due to increased water recycling.

Consumption was calculated by subtracting metered discharge volumes from metered withdrawal volumes. The discharges decreased, therefore increasing consumption.

Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.

Facility reference number

Facility 7

Facility name (optional)

Granny Smith

Country/Region

Australia

River basin

Other, please specify

Western Plateau

Latitude

28.9833

Longitude

122.6833

Total water withdrawals at this facility (megaliters/year)

2,233

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

45

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

2,188

Comparison of consumption with previous reporting year

Much lower

Please explain

Withdrawals decreased by 64%, discharges decreased by 99% and consumption increased by 56%. This could be attributed to the change in water accounting methodology.

The consumption was calculated by subtracting the metered discharge volumes from the metered withdrawal volumes.

Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher.

W5.1a

(W5.1a) For each facility referenced in W5.1, provide withdrawal data by water source.

Facility reference number

Facility 1

Facility name

South Deep

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

1,373

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

1,519

Comment

South Deep's water withdrawals decreased due to a decrease in production. The freshwater source used at the mine is rainwater which collects in the pit and is then pumped out.

Facility reference number

Facility 2

Facility name

Damang

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

1,507

Brackish surface water/seawater

0

Groundwater - renewable

53

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Water withdrawal by Damang remained relatively similar to the previous reporting period. The freshwater source used at the mine is rainwater which collects in the pit and is then pumped out.

Facility reference number

Facility 3

Facility name

Tarkwa

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

5,155

Brackish surface water/seawater

0

Groundwater - renewable

537

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

84

Comment

Water withdrawal from Tarkwa increased by 20% due to lower recycled/reused volumes and an increase in tonnes treated. The freshwater source used at the mine is rainwater which collects in the pit and is then pumped out.

Facility reference number

Facility 4

Facility name

St Ives

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

257

Groundwater - renewable

2,015

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

191

Comment

St Ives water withdrawals decreased due to the change in water accounting methodology.

Facility reference number

Facility 5

Facility name

Agnew

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

2,498

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Water withdrawal from Agnew remained relatively similar to the previous reporting period with only a minor increase of 9%.

Facility reference number

Facility 6

Facility name

Cerro Corona

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

2,787

Brackish surface water/seawater

0

Groundwater - renewable

969

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Water withdrawal at Cerro Corona decreased by 10% The freshwater source used at the mine is rainwater which collects in the pit and is then pumped out.

Facility reference number

Facility 7

Facility name

Granny Smith

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

1,387

Groundwater - renewable

846

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Granny Smith's water withdrawal decreased by 64%. This is due to the change in water accounting methodology.

W5.1b

(W5.1b) For each facility referenced in W5.1, provide discharge data by destination.

Facility reference number

Facility 1

Facility name

South Deep

Fresh surface water

328

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

The South Deep operation discharges treated sewage water to a fresh surface water source. Prior to discharge, the water is treated at the operation to ensure the quality complies with environmental and water use regulations. The South Deep operation does not discharge water to any other destination.

Facility reference number

Facility 2

Facility name

Damang

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Damang is a closed water system and therefore no water is discharged from the operation.

Facility reference number

Facility 3

Facility name

Tarkwa

Fresh surface water

1,129

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Tarkwa's water discharge decreased by 43% during 2017 due to the marginal increase in tonnes treated.

Facility reference number

Facility 4

Facility name

St Ives

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

St Ives is a closed water system and therefore no water was discharged

Facility reference number

Facility 5

Facility name

Agnew

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Agnew is a closed water system and therefore no water is discharged from the operation.

Facility reference number

Facility 6

Facility name

Cerro Corona

Fresh surface water

1,016

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Cerro Corona's water discharge decreased by 33% due to increased water withdrawal because of the high rainfall in the region as well as construction on the tailings facilities that occurred in the previous reporting period.

Facility reference number

Facility 7

Facility name

Granny Smith

Fresh surface water

0

Brackish surface water/Seawater

45

Groundwater

0

Third party destinations

0

Comment

Granny Smith's discharge decreased by 99% due to the change in water accounting methodology.

W5.1c

(W5.1c) For each facility referenced in W5.1, provide the proportion of your total water use that is recycled or reused, and give the comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name

South Deep

% recycled or reused

51-75%

Comparison with previous reporting year

About the same

Please explain

South Deep's proportion of recycled water decreased from 52% in 2017 to 51% in 2018, resulting in an overall 2% decrease (about the same) in the proportion of recycled water in 2018.

The CDP definitions and methodology were used for the calculations.

Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher

Facility reference number

Facility 2

Facility name

Damang

% recycled or reused

76-99%

Comparison with previous reporting year

About the same

Please explain

Damang's proportion of recycled water decreased from 79% in 2017 to 78% in 2018, resulting in an overall 1% decrease (about the same) in the proportion of recycled water in 2018.

The CDP definitions and methodology were used for the calculations.

Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher

Facility reference number

Facility 3

Facility name

Tarkwa

% recycled or reused

51-75%

Comparison with previous reporting year

About the same

Please explain

Tarkwa's proportion of recycled water decreased from 69% in 2017 to 64% in 2018, resulting in an overall 7% decrease (about the same) in the proportion of recycled water in 2018.

The CDP definitions and methodology were used for the calculations.

Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher

Facility reference number

Facility 4

Facility name

St Ives

% recycled or reused

26-50%

Comparison with previous reporting year

Much higher

Please explain

St Ives’ proportion of recycled water increased from 14% in 2017 to 39% in 2018, resulting in an overall 175% increase (much higher) in the proportion of recycled water in 2018.

The CDP definitions and methodology were used for the calculations.

Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher

Facility reference number

Facility 5

Facility name

Agnew

% recycled or reused

11-25%

Comparison with previous reporting year

Lower

Please explain

Agnew’s proportion of recycled water decreased from 30 % in 2017 to 18% in 2018, resulting in an overall 39% decrease (lower) in the proportion of recycled water in 2018.

The CDP definitions and methodology were used for the calculations.

Gold Fields defines “about the same” to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher

Facility reference number

Facility 6

Facility name

Cerro Corona

% recycled or reused

76-99%

Comparison with previous reporting year

About the same

Please explain

Cerro Corona's proportion of recycled water increased from 82% in 2017 to 84% in 2018, resulting in an overall 3% increase (about the same) in the proportion of recycled water in 2018.

The CDP definitions and methodology were used for the calculations.

Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher

Facility reference number

Facility 7

Facility name

Granny Smith

% recycled or reused

11-25%

Comparison with previous reporting year

Higher

Please explain

Granny Smith's proportion of recycled water increased from 16% in 2017 to 22% in 2018, resulting in an overall 37% increase (Higher) in the proportion of recycled water in 2018.

The CDP definitions and methodology were used for the calculations.

Gold Fields defines "about the same" to be between 0 – 10%. Above 10% change is considered lower/higher. Above 40% change is considered much lower/much higher

W5.1d

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

Water withdrawals – total volumes

% verified

76-100

What standard and methodology was used?

The standard used: ISAE 3000

The methodology: ERM CVS' assurance methodology, based on the ISAE 3000

The scope of methodology: Reviewing policies and procedures to ensure compliance with the ICMM sustainable development principles. Site visits and virtual reviews to verify source data.

Water withdrawals – volume by source

% verified

Not verified

What standard and methodology was used?

Water withdrawals by source is not a commonly requested indicator, apart from the WDP.

As this is not a common externally verified parameter, Gold Fields does not make use of an external verification body to verify its water withdrawals by source. Gold Fields has identified that the most material water parameters to its key stakeholders is total water withdrawal and water intensity per ounce of gold produced.

Water withdrawals – quality

% verified

Not verified

What standard and methodology was used?

Water withdrawals by quality is not a commonly requested indicator, apart from the WDP.

As this is not a common externally verified parameter, Gold Fields does not make use of an external verification body to verify its water withdrawals quality. Gold Fields has identified that the most material water parameters to its key stakeholders is total water withdrawal and water intensity per ounce of gold produced.

Water discharges – total volumes

% verified

Not verified

What standard and methodology was used?

Four of the seven Gold Fields' operations discharge water. The St Ives and Agnew operations are closed circuit systems; while the South Deep, Damang, Tarkwa, Cerro Corona and Granny Smith operations do discharge water. This parameter is not externally verified as in the cases where discharges occur, they are monitored in accordance with licence conditions agreed with the local environmental and water regulator (quality and volume).

Water discharges – volume by destination

% verified

Not verified

What standard and methodology was used?

This parameter is not externally verified as in the cases where discharges occur, they are monitored in accordance with licence conditions agreed with the local environmental and water regulator (quality and volume). Each discharge destination is monitored and measured by Gold Fields to ensure compliance with regulations at all operations.

Water discharges – volume by treatment method

% verified

Not verified

What standard and methodology was used?

Volume by treatment method is not externally verified as in the cases where discharges occur at an operation, they are monitored in accordance with licence conditions (quality and volume). All water that is discharged by Gold Fields' operations complies with the quality criteria set out in the relevant water use licenses.

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

What standard and methodology was used?

Environmental incidents (level 3 and above) are assured by ERM (in accordance with the ISAE 3000 Standard). Any significant exceedance of water quality discharge requirements is recorded as an environmental incident. A description of all level 3 and above environmental incidents, including the mitigation measures to address the incident, are recorded in Gold Fields' Integrated Annual Report.

Water discharge quality – temperature

% verified

Not verified

What standard and methodology was used?

Environmental incidents (level 3 and above) are assured by ERM (in accordance with the ISAE 3000 Standard). Any significant exceedance of water quality discharge requirements is recorded as an environmental incident. A description of all level 3 and above environmental incidents, including the mitigation measures to address the incident, are recorded in Gold Fields' Integrated Annual Report.

Water consumption – total volume

% verified

Not verified

What standard and methodology was used?

Water withdrawal (which is assured by ERM) includes water consumption volumes at each of the Gold Fields operations.

Water recycled/reused

% verified

76-100

What standard and methodology was used?

The standard used: ISAE 3000
The methodology: ERM CVS' assurance methodology, based on the ISAE 3000
The scope of methodology: Reviewing policies and procedures to ensure compliance with the ICMM sustainable development principles. Site visits and virtual reviews to verify source data.

W6. Governance

W6.1

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

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

W6.2

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

Yes

W6.2a

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

Position of individual	Please explain
Director on board	<p>Rationale: water is a critical component of Gold Fields' business and therefore the highest level of direct responsibility for water sits with the Board.</p> <p>The Board's Safety, Health and Sustainable Development Committee effects the Board's mandates and provides the Board with the water information that it requires to make decisions. The Committee is responsible for assisting the Board in its oversight of socio-economic, environmental, health and safety programs. This includes the monitoring of Gold Fields' efforts to improve water management practices, including pollution prevention, recycling and conservation initiatives, as well as environment-related incidents and accidents. The Committee also ensures Gold Fields' compliance with relevant legislation and regulations around society, health, safety and the environment. Conformance with the principles of the ICMM and the principles of the Global Compact is also evaluated by the Committee.</p>

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	<p>Monitoring implementation and performance</p> <p>Overseeing acquisitions and divestiture</p> <p>Overseeing major capital expenditures</p> <p>Providing employee incentives</p> <p>Reviewing and guiding annual budgets</p>	<p>The Board is ultimately responsible and accountable for the implementation of water policies. To achieve this responsibility the Board has oversight of Gold Fields' socio-economic, environmental, health and safety programs, including water responsibilities. This includes reviewing and guiding strategies; major plans of actions; risk management policies; water policies; annual budgets and business plans. Assisted by the Safety, Health and Sustainable Development Committee, the Board is able to monitor the implementation and performance of objectives; goals and targets for addressing water-related issues.</p>

		<p>Reviewing and guiding business plans</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing innovation/R&D priorities</p> <p>Setting performance objectives</p>	<p>In South Africa the directors of a company may be held directly and legally responsible for water related impacts. Therefore Gold Field's CEO and Directors hold the highest level of direct responsibility for water within the company.</p> <p>Delegation for collecting water information: The board's Safety, Health and Sustainable Development Committee is responsible for briefing the board on water issues. The Safety, Health and Sustainable Development Committee and respective operations conduct quarterly assessments on business risks, which include water risks, at an operational and group level. These risks are reported to the Gold Fields' board. The board meets biannually to assess and monitor risks and water matters are scheduled on the agenda at each meeting.</p> <p>Incentives: the executive team, Chief Executive Officer and the executive vice president sustainable development are incentivised with monetary rewards for implementation of Gold Fields' policies relating to water efficiency projects or targets in direct operations, as well as the implementation of water-related community projects.</p> <p>The nature of the underlying information and control systems used to provide information to the board on water related matters: Gold Fields utilises an Enterprise-wide Risk Management process (aligned with ISO 31000) as its information and control system that is used to identify and monitor water risks.</p>
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W6.3

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

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

Chief Executive Officer (CEO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

In South Africa company directors may be held directly and legally responsible for water related impacts. Therefore, the CEO and Directors hold the highest level of direct responsibility for water within the company.

The CEO is responsible for the effective management and running of the company’s business. The CEO is supported by the Executive Vice President: Sustainable Development and respective operations, which conduct quarterly assessments on business risks (such as water risks) at operational and group level. The outcomes are reported to the Board for consideration.

The Board meets biannually to assess and monitor risks. Water matters are scheduled on the agenda at each meeting. The Board has oversight of socio-economic, environmental, health and safety programs, including water responsibilities. This includes reviewing and guiding strategies; targets major plans of actions; risk management policies; water policies; annual budgets and business plans.

W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4

(W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

Yes

W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a

(W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a) 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)?

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
Monetary reward	Corporate executive team Chief Executive Officer (CEO) Other, please specify	Efficiency project or target – direct operations Water-related community project	Performance indicators chosen: - Group wide target to recycle/reuse 65% of water in the direct operations. - Number of water-related community projects are also key performance metrics Rationale for chosen indicators: - Recycle/reuse target is aligned with the commitment to the ICMM Water Position

	Executive vice president sustainability		<p>Statement. This represents an industry benchmark</p> <ul style="list-style-type: none"> - Water-related community projects build the operation-specific social licences to operate as well as the group’s overall reputation as a leader in environmental stewardship. <p>The thresholds for success per indicator:</p> <ul style="list-style-type: none"> - Recycle/reuse target: 65% - Water-related community projects: the links between the selected water-related performance and the monetary incentive/s are accounted for in annual performance reviews where the thresholds for success are defined, per individual. The financial rewards differ, as each performance review is conducted according to respective conditions of employment contract. <p>Linkage between the selected water-related performance and the monetary incentive/s for a given timescale: water-related performance targets are tracked in the Business Scorecard along with other performance indicators. It is not possible to disaggregate these values. Performance bonuses are distributed on an annual basis.</p>
Recognition (non-monetary)	<p>Corporate executive team Chief Executive Officer (CEO) Other, please specify Executive vice president sustainability</p>	<p>Efficiency project or target – direct operations Efficiency project or target – upstream in the value chain Water-related community project</p>	<p>Performance indicators chosen:</p> <ul style="list-style-type: none"> - Group wide target to recycle/reuse 65% of water in the direct operations. - Number of water-related community projects are also key performance metrics <p>Rationale for chosen indicators:</p> <ul style="list-style-type: none"> - Recycle/reuse target is aligned with the commitment to the ICMM Water Position Statement. This represents an industry benchmark - Water-related community projects build the operation-specific social licences to operate as well as the group’s overall reputation as a leader in environmental stewardship. <p>The thresholds for success per indicator:</p> <ul style="list-style-type: none"> - Recycle/reuse target: 65% - Water-related community projects: at least one water-related community project should be undertaken during the year.

			Linkage between the selected water-related performance and the non-monetary incentive/s for a given timescale: recognition incentives are provided for performance against the targets specified above on an annual basis.
Other non-monetary reward	Other, please specify Not applicable		

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, direct engagement with policy makers

Yes, trade associations

W6.5a

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

Gold Fields Group’s water policy/water commitments fall under the umbrella of the Group Water Management Guideline, which is aligned with the ICMM’s Water Position Statement commitments and is further informed by the Environmental Policy Statement. The Environmental Policy Statement mandates, amongst others, that the Group undertakes environmental stewardship in line with ISO 14001. Internally, Gold Fields has a range of guidelines and policies that ensure that the group’s direct and indirect activities are consistent with the Group Water Management Guideline. The use of the Guideline across our mines, projects and regions ensures that any operational activities are consistently implemented against the group’s standards and principles. A further guarantee of alignment with the Group Water Management Guideline in any external engagements with key stakeholders are the Gold Fields’ Stakeholder Engagement, Sustainable Development and Climate Change policy statements. Furthermore, any public policy statement or other public engagements can only be carried out by senior executives as mandated by the Group’s Corporate Affairs Department. These executive are familiar with all Group guidelines and ensure that the message is consistent and in line with our various Group guidelines and policy statements. Should any inconsistencies arise, these are dealt these are immediately addressed by management.

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)

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	<p>The water issues incorporated into long-term business objectives include:</p> <ul style="list-style-type: none"> • Water stewardship at catchment level • Water efficiencies • Reduce withdrawals from freshwater sources • Monitoring of quantity and quality of water discharges to minimize environmental impacts • Flood planning and protection • Water R&D • Water management provisions post-closure <p>Eg. of how the business aspect was affected:</p> <ul style="list-style-type: none"> • Site level management plans informed by catchment level stewardship priorities (one of the five key elements of Gold Fields' sustainable development strategy) • 65% group-wide recycling target to reduce freshwater withdrawals • Use of technology, such as long-term water balances and monitoring, to evaluate usage and minimize environmental impacts • Flood planning and protection (e.g. increasing the tailings dam walls at Cerro Corona) • Budgets allocated for R&D, technology and infrastructure to manage water quality, efficiency and opportunities for shared use • Water management provisions post-closure: typically includes dewatering mining pits and measures to ensure that water quality and availability are suitable for the rehabilitation requirements (eg revegetation activities) and do not pose environment risks. <p>Why decisions were taken: addressing water issues in long-term planning assists Gold Fields to identify and mitigate risks such as reduced supply; quality and increased water tariffs. These risks could negatively</p>

			impact Gold Fields' operating and capital expenses
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	<p>The long-term strategy for responsible stewardship and water security integrates the following water issues:</p> <ul style="list-style-type: none"> • Creating shared value and leaving an enduring, positive legacy. E.g. The water systems supplied to the Kiwillas and Lipiag hamlets in Peru which have provided 1,494 families access to water at a low cost in 2018. • Measuring and reporting water management performance. • Pursuing zero harm through sound water management practices. • Integrating water management into mine planning. <p>Example of how the business aspect was affected: Gold Fields' long-term business objectives include sustainable development and growth of the operations and the respective host communities. Gold Fields has therefore committed to ongoing Shared Value projects, such as improving socio-economic conditions of host communities. Examples of projects include improving access to water and youth employment initiatives that provide agricultural training.</p> <p>Why decisions were taken: high standards of water management and Shared Value projects related to solving community water problems solidify Gold Fields' social licence to operate and reputation in regions such as South America and South Africa where many mining companies have experienced water-related conflicts with their host communities.</p>
Financial planning	Yes, water-related issues are integrated	11-15	<p>Gold Fields incorporates the following water-related issues in its long-term financial planning:</p> <ul style="list-style-type: none"> • Site level management plans informed by catchment level stewardship priorities • Operational water efficiencies: minimize, reuse, recycle • Long-term water balances to evaluate usage • Monitoring of quantity and quality of water discharges to minimize environmental impacts • Flood planning and protection • Budgets for research, technology and infrastructure to

			<p>manage water quality, efficiency and opportunities for shared use</p> <ul style="list-style-type: none"> • Water management financial provisions for post-closure <p>Example of how the business aspect was affected: Gold Fields' long-term planning (e.g. five-year strategic plans per operation) extends to post-mine life. Approved plans have budget allocations. Identifying financial requirements related to water management assists Gold Fields allocate appropriate resources and helps to mitigate or avoid risks of non-compliance with regulations and best practice standards.</p> <p>Why decisions were taken: Gold Fields is required by law to make financial provisions for closure. The group has also committed to alignment with the ICMM's position statements on water and on tailings storage facility management.</p>
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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)

-93

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

10

Water-related OPEX (+/- % change)

-47

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

10

Please explain

The decreases in group water capex and opex are largely due to Gold Fields' focus on maintaining existing equipment and infrastructure in the previous reporting year. One of the risks facing Gold Fields is inadequate water infrastructure and severe weather risks that could affect direct operations and stakeholders along the value chain. The potential

impact of leaving these risks unmitigated is a reduction or disruption in production capacity, which would negatively affect revenues.

W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	

W7.3a

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

Yes

W7.3b

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

	Climate-related scenario(s)	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	Nationally determined contributions (NDCs)	<p>Gold Fields uses the Nationally Determined Contributions (NDC) scenarios so that the company is aligned with the relevant national plans and measures to reduce global temperature increases. Three of the four countries (all excluding Australia) in which Gold Field operates consider the impacts of climate change on water-related issues.</p> <p>Ghana, Peru and South Africa are classified as water stressed and/or scarce regions. The NDCs related to these countries recognise that climate change impacts make the regions particularly vulnerable to water supply and quality risks. The identified medium to high risks include:</p>	<p>The results of the NDC scenario analyses are incorporated into Gold Fields’ risk management processes which utilise a mixture of both quantitative and qualitative analytical choices. Water risks are assessed and managed by Gold Fields’ Board.</p> <p>The outcomes of the scenario analyses have informed Gold Fields’ business plans and budget allocations. Gold Fields incorporates the following water-related issues in its long-term financial planning (may vary per operation):</p> <ul style="list-style-type: none"> • Site level management plans informed by catchment level stewardship priorities • Operational water efficiencies: minimize, reuse, recycle • Long-term water balances to evaluate usage

		<p>- Australia: Adequacy of flood management measures; Declining availability of water; Increased cooling costs.</p> <p>- Americas: Water shortages during drier months; Ability to deliver concentrate for shipping during severe weather events.</p> <p>- West Africa: Increased operational costs linked to maintenance of roads, more frequent replacement of tyres and increased dewatering; Increased volumes of contaminated water requiring treatment; Favourable conditions for vector borne diseases during high rainfall periods</p> <p>- South Africa: Variability in rainfall intensity increasing costs of alternate water sources; Climate change-related regulatory uncertainty.</p> <p>Disruptions to water supply and quality therefore have the potential to negatively impact operating and capital costs, and at worst can lead to work stoppages, which will negatively impact company revenues.</p>	<ul style="list-style-type: none"> • Monitoring of quantity and quality of water discharges to minimize environmental impacts • Flood planning and protection • Budgets for research, technology and infrastructure to manage water quality, efficiency and opportunities for shared use • Water management provisions post-closure <p>Gold Fields' strategy for achieving its long-term water objectives is founded in the 8 key Group sustainable development related guidelines (e.g. the Group Water Management Guideline). These guidelines support the implementation of the 8 group sustainable development policies and the top 5 group sustainability priorities (i.e. water, integrated thinking, societal acceptance, energy and climate resilience and integrated mine closure).</p>
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W7.4

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

Row 1

Does your company use an internal price on water?

Yes

Please explain

Gold Fields' internal water prices vary per operation. The currency of water prices therefore depends on the different regions. For example, the price of water in Australian operations is in Australian Dollars.

The approach to establish the regional prices is based on understanding the current costs of water and anticipating future price changes. Gold Fields incorporates water

prices into its short, medium and long-term plans. Once approved, Gold Fields allocates resources (such as finances) to the items required to achieve the plans.

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	<p>Targets are monitored at the corporate level</p> <p>Goals are monitored at the corporate level</p>	<p>Gold Fields approach to setting and monitoring targets and goals entails inputs from internal and external stakeholders.</p> <p>Gold Fields identifies water goals that are relevant to the group’s water risks, impacts, and opportunities. For example, three out of four regions in which the company operates are classified as water stressed regions. Gold Fields therefore has an annual group water recycling target of 65%. The 65% target is aligned with the International Council on Mining and Metals (ICMM) water position statement, which is one of the formal company-wide motivations that drive the setting of targets at this level. Water recycling assists the underlying facilities in reducing the consumption of freshwater, thereby reducing risks associated with water scarcity and stresses.</p> <p>Gold Fields also has a target to reduce total group freshwater withdrawals by 3% (or 415ML). Such reductions assist in maintaining relations with host communities that share the common water resources, which is a formal company-wide motivation that drives the setting of water targets. Accordingly, Gold Fields also has a water related goal: to strive for zero harm which assists maintain compliance licences to operate as well as social licences to operate.</p> <p>Gold Fields’ other water goals include providing access to safely managed Water, Sanitation and Hygiene (WASH) in local communities and engagement with public policy makers to advance sustainable water management and policies.</p>

W8.1a

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

Target reference number

Target 1

Category of target

Water recycling/reuse

Level

Company-wide

Primary motivation

Recommended sector best practice

Description of target

Gold Fields has an annual group water recycling target of 65%. One of the target drivers is that three out of four regions in which the company operates are classified as water stressed. This target therefore contributes to water security in water stressed regions.

The 65% target was chosen because it aligns with the International Council on Mining and Metals (ICMM) water position statement. The rationale for selecting this target and its level of ambition are linked to Gold Fields commitment to group-wide alignment to the ICMM's waste position statement. The 65% recycling target is therefore the recommended sector best practice.

Water recycling at this level is important because water recycling assists the underlying facilities in reducing the consumption of freshwater, thereby reducing risks associated with water scarcity and stresses. Reducing such risks is a priority within Gold Fields and water recycling levels are therefore monitored at the corporate level.

Quantitative metric

% increase in water recycling/reuse

Baseline year

2017

Start year

2017

Target year

2018

% achieved

100

Please explain

Gold Fields exceeded the annual group recycling target of 65% in the reporting year (2018). Overall Gold Fields recycled 66% of the group's water withdrawals compared to the target of 65%.

Target reference number

Target 2

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Increase freshwater availability for users/natural environment within the basin

Description of target

Gold Fields has a target to reduce total group freshwater withdrawals by 3% (or 415ML). One of the target drivers is that three out of four regions in which the company operates are classified as water stressed. This target therefore contributes to water security in water stressed regions. In particular, reducing freshwater withdrawals at facility levels assists in addressing water security for host communities that share the common water resources. This target is important because it assists Gold Fields' social licence to operate.

Additionally, reducing freshwater withdrawals assists in increasing water resource efficiencies at the facility levels, which often results in opex savings. As such this target is set at the group level which enables different facilities to reduce freshwater withdrawals at different rates that are feasible for the different facilities.

Quantitative metric

% reduction in total water withdrawals

Baseline year

2018

Start year

2019

Target year

2019

% achieved

0

Please explain

The start year of this target is 2019, which is also the target year. Progress will be reported on at the end of the 2019 reporting year.

W8.1b

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

Goal

Other, please specify
Strive for zero harm

Level

Company-wide

Motivation

Other, please specify
Maintain compliance licence to operate and social licence to operate

Description of goal

Gold Fields adopted its Water Management Guideline at the end of 2013. The guideline ensures that all operations have the appropriate designs and safeguard mechanisms in place to prevent contaminated water impacting the environment. Gold Fields therefore strives for zero harm through sound water management practices. The timescale for this goal will continue for the life of mine for each operation.

The relevance of the goal to achieving water security: Gold Fields adopted this goal because mines that strive for zero harm have a better chance of achieving water security for the direct operations and for host communities. The latter are important because host communities provide social licences to operate.

Why this goal is important to the company: social license to operate is imperative across the group.

This goal is being implemented across the company by investing in improving water practices, including pollution prevention practices. In addition adhering to the Group water guideline also support this implementation. The Group water guideline has been aligned with ICMM, to include best-practice principles. Gold Fields' environmental policy guideline also mandates the company to undertake environmental stewardship as per ISO14001.

This goal aligns with Gold Fields priority in ensuring that there are sufficient amounts of good quality freshwater available for use at its operations.

Baseline year

2012

Start year

2013

End year

2030

Progress

Indicator used to assess progress:

The goal will be successful if Gold Fields receives no environmental fines during the reporting period. The indicator used to assess progress is thus the number of fines and the threshold of success is zero fines.

Threshold of success and progress against it:

No significant environmental fines were received during 2018. Gold Fields has therefore made significant progress towards meeting its goal of striving for zero harm.

This is an ongoing goal for Gold Fields operations.

Goal

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

Level

Site/facility

Motivation

Shared value

Description of goal

Gold Fields' Water Management Guideline aims to create shared value and leave an enduring positive legacy. To reach this goal, Gold Fields evaluates opportunities for the development and implementation of water-related shared value projects.

The relevance of the goal to achieving water security:

Water has been identified as one of the most important issues for communities located near mining operations. It is for this reason that Gold Fields evaluates opportunities to supply clean water to host communities where possible. This is an important factor company wide and thus the goal is set company wide.

Why this goal is important to the company: Gold Fields adopted this goal because community relationships are vital for maintaining a mine's social license to operate. For example, Gold Fields' Cerro Corona mine is located in a region that is known for water

related activism at both a local and regional levels. Although Cerro Corona has not been materially affected by such activism, this has had material impacts on other operators in the region.

This goal is being implemented through investment in shared value projects, providing water support to communities.

Baseline year

2014

Start year

2014

End year

2030

Progress

The indicator used to track this ongoing goal is the continued investment of capital expenditures for water access projects in the reporting year.

Threshold of success and progress against it:

Gold Fields continues to implement a number of shared value water projects in different regions.

During 2018, the following water access projects were completed or are in development:

- Construction of the water systems for the Peruvian Kiwillas and Lipiag hamlets was completed in early 2018. The water systems for the Kiwillas and Lipiag hamlets have provided 1,494 families access to water at a low cost. 2018 spend: US\$370,000.
- Food security projects were initiated by planting vegetable gardens in four high schools in Westonaria in South Africa. The infrastructure includes a tunnel, irrigation system, water tank and gardening equipment.

Goal

Engagement with public policy makers to advance sustainable water management and policies

Level

Company-wide

Motivation

Recommended sector best practice

Description of goal

Gold Fields recognises that water is a 'shared resource' and should be responsibly stewarded. To effectively achieve this Gold Fields engages peers and policy makers to advance sustainable water policies and management practices. This is a goal that is

important company-wide and thus includes all operations. This goal is implemented through engaging with Gold Fields' peers via membership of the International Council on Mining and Metals (ICMM) Water Working Group.

The timescale for this goal will continue for as long as Gold Fields is in business.

Baseline year

2014

Start year

2014

End year

2020

Progress

Gold Fields measures the success of this goal through the adoption of the ICMM Water Position Statement into company policy so that it aligns with global best practice on water management.

Gold Fields engagement with public policy makers is an ongoing process, which is supported by the Water Management Guideline.

Gold Fields is also a member of the Water Working Group under the ICMM.

Through the above-mentioned engagement, Gold Fields has made significant progress towards meeting the goal.

W9. Linkages and trade-offs

W9.1

(W9.1) Has your organization identified any linkages or tradeoffs between water and other environmental issues in its direct operations and/or other parts of its value chain?

Yes

W9.1a

(W9.1a) Describe the linkages or tradeoffs and the related management policy or action.

Linkage or tradeoff

Tradeoff

Type of linkage/tradeoff

Increased energy use

Description of linkage/tradeoff

Severe weather events such as heavy rains can increase Gold Fields' energy use and resulting GHG emissions. Heavy rainfalls at the Australian, Ghanaian and Peruvian operations often result in rainwater collecting in the mine pits. This water must be abstracted using fossil fuel pumps (largely diesel). Increased water pumping activities increase the operations' energy use as well as the GHG emissions related to these activities.

Measurement or quantification of the impact on Gold Fields: pit dewatering activities have associated energy costs which are quantified as abstraction costs. The total water abstraction costs in 2018 amounted to USD 2 million. Increases in precipitation levels will directly increase water abstraction costs. E.g. a 10% increase in precipitation will result in an additional cost of USD 200 thousand.

Policy or action

Action to manage trade-off between increased precipitation and energy used for pumping water from mine pits:

Gold Fields is investing heavily into improving water management practices. These include pollution prevention, recycling and conservation initiatives.

In this trade-off Gold Fields prioritises the use of rainwater sources first, thus reducing the amounts of water withdrawals required from other sources. If the rainwater is not required, the water is collected and stored in the tailings pond for future use. The use of pit-water, prior to other withdrawal sources, reduces the need to treat and reuse wastewater, thus lowering energy consumption and costs associated with treatment activities.

How the management action is integrated into the water-related business strategy:

One of Gold Fields' water goals is to increase water access to host communities. The use of pit-water, prior to other withdrawal sources, is incorporated into the group water-related business strategy because it reduces the strain on water sources within the areas in which Gold Fields' mines operate, particularly reducing withdrawals from groundwater or third party sources which are typically shared by host communities.

Change in measured impact of trade-off in the reporting year: total group water related energy costs in 2018 increased by 6% from 2017. The increase is immaterial and likely to be a factor of increased energy costs, as total group withdrawals decreased by 35% from levels in 2017.

W10. Verification

W10.1

(W10.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1d)?

Yes

W10.1a

(W10.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W1. Current state	The company level withdrawal and recycled data has been verified by an external company. The intensity metric reported in W – MM1.3a has also been verified	ISAE3000	These data points have been verified as they provide important information on Gold Field's production and environmental impact. The verification ensures that Gold Fields can safely make corporate decisions using the data.

W11. 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.

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	The CEO is responsible for providing strategic leadership by working with the board of directors and the executive management team to establish long-range goals, strategies, plans and policies.	Chief Executive Officer (CEO)

W11.2

(W11.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate’s Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors

Please confirm below

I have read and accept the applicable Terms