

# Welcome to your CDP Water Security Questionnaire 2020

## **W0.** Introduction

#### W<sub>0.1</sub>

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

Gold Fields Limited is a globally diversified gold producer with eight operating mines (including our Asanko Joint Venture) and projects in Australia, Chile, Ghana, Peru and South Africa, and total attributable annual gold-equivalent production of approximately 2Moz. As at end-December 2019 it had attributable gold-equivalent Mineral Reserves of 51.3Moz and gold-equivalent Mineral Resources of 115.7Moz. Attributable copper Mineral Reserves totaled 616 million pounds and Mineral Resources 882 million pounds, while silver Reserves were 39.3Moz and Resources 43.7Moz. Gold Fields has a primary listing on the Johannesburg Stock Exchange (JSE) Limited, with a secondary listing on the New York Stock Exchange (NYSE). Gold Fields has a total workforce of 17,656, which includes 12,001 contractors and 5,655 employees. 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)
- 8. Gruyere (Australia)

Gold Fields has a primary listing on the Johannesburg Stock Exchange (JSE) and American depositary shares trading on the New York Stock Exchange (NYSE).

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 include 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 impact 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. Key to responsible water stewardship is to reuse or recycle much of the water we use in our processes and, in line with industry best practice. We achieved the target in 2018 and 2019, when the total water recycled or reused amounted to 66% and 68% respectively. We have set ourselves a target of 66% in 2020. We have also set longer-term targets to underpin our water strategy, namely an aspirational 70% of water recycled or reused by 2023, and reducing Group freshwater usage by 3-5% per year, also by 2023. Gold Fields has also reduced our environmental impact through the responsible use, storage and release of water across all of our operations, which has the added benefit of reducing operational costs. Internal policies, strategies and guidelines, which are continuously reviewed and updated, reflect these operational and environmental priorities and require Gold Fields' operations to:

- Comply with regulatory requirements and obligations relating to industry rules, codes and standards to which Gold Fields subscribes;
- 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;
- Ensure consistent security of water supply for operations without compromising catchment users or the environment: and
- Ensure all employees have access to clean drinking water, gender-appropriate sanitation facilities and hygiene at their workplace.

In recognition of our commitment to transparency, we have voluntarily submitted information relating to our water use, goals and water-related risks in the CDP Water Report since 2011. This allows stakeholders to judge for themselves whether we are meeting the stringent water use standards we have set for 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<br>Gold      |
| Processing | 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, 2019 | December 31, 2019 |
|----------------|-----------------|-------------------|
|----------------|-----------------|-------------------|

#### W<sub>0.3</sub>

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

Australia

Ghana

Peru

South Africa

#### W<sub>0.4</sub>

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

USD

#### W<sub>0.5</sub>

(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<br>amounts of<br>good quality<br>freshwater<br>available for<br>use | Vital                        | Vital                          | Primary use of freshwater:  - Direct operations/value chain: freshwater is used in mining and milling; for the transport of tailings, dust suppression, ore washing, underground cooling and processing and employee health and sanitation.  - Indirect operations/value chain: freshwater is used in the production of electricity in South Africa and the |



|  |       |           | production of cyanide and diesel for use on site,  |
|--|-------|-----------|--|
|  |       |           | which is critical for the mines. Freshwater is also used in the gold refining process.   |
|  |       |           | Importance rating for direct and indirect operations determined due to:  - Sufficient volumes of fresh water are 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 at Gold Fields.  - South Africa's coal-fired electricity is highly dependent on freshwater along with the hydropowered grid at Cerro Corona. Therefore, freshwater is vital for indirect operations and in the indirect value chain as insufficient supplies can affect supply chain and in turn production.  - Freshwater is critical for Gold Fields' employee health and sanitation on and off site. Accordingly, Gold Field's continued to invest in water infrastructure and potable water provision in 2019 for the Hualgayoc community near the Cerro Corona mine. Gold Fields provides the majority of community households in Hualgayoc with access to clean water.  Future water dependency: the need for sufficient amounts of freshwater will not differ in the future as it remains vital for production on site and alternative sources are generally not available. |
| Sufficient<br>amounts of<br>recycled,<br>brackish and/or<br>produced water<br>available for<br>use | Vital | Important | Primary use of recycled, brackish and/or produced water:  - Direct operations: the 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 the need for large quantities of freshwater by the mines.  - Indirect operations: in the production of electricity, a vital mining input.  Importance rating for direct and indirect operations determined due to:  - Direct: the sufficient supply of   |
|  |       |           | recycled/brackish/produced water is vital at the Cerro   |



|  | Corona mine as it relies completely on recycled water for production during the dry season. In addition, Granny Smith and St Ives withdraw brackish (hypersaline) water as freshwater is not readily available in the area.  - Indirect: Important for the South Deep mine where electricity is purchased from Eskom, which desalinates polluted mine water for use at power plants. This is in order to reduce the amount of freshwater used for electricity production.  Future water dependency: expected to remain vital in direct operations/value chain and increase in importance in indirect operations/value chain, as Gold Fields operates in water stressed areas and there is a need to source alternative non-fresh water. |
|--|---|
|--|---|

# W1.2

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

|                                   | % of sites/facilities/operations | Please explain   |
|-----------------------------------|----------------------------------|--|
| Water withdrawals – total volumes | 100%                             | Scope of monitoring: 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.                               |
|                                   |                                  | Reason for monitoring: monitoring water withdrawals is required to ensure that the withdrawal volumes fall within the water use license boundaries. Monitoring withdrawals also assists Gold Fields measure performance against water targets. |
|                                   |                                  | Frequency of monitoring: volumes are continuously monitored. Withdrawal volumes are recorded in the detailed water balances at each mining site.   |
|                                   |                                  | Method/s for measurement: third party invoices and meters at withdrawal sources. Withdrawal volumes are recorded in the  |



|   |      | detailed water balances at each mining site. Gold Fields' total water withdrawals are reported using the GRI Standards reporting guidelines under Standard 303-1, as well as, the ICMM guidelines.  |
|---|------|---|
| Water withdrawals – volumes by source   | 100% | Scope of monitoring: Gold Fields measures and monitors all withdrawals (100% of operations) per abstraction source. Gold Fields' operations are mines. All operations withdraw renewable groundwater. St Ives and Granny Smith withdraw brackish groundwater. Tarkwa, Damang and Cerro Corona withdraw fresh surface water. Third-party water is withdrawn by South Deep, Tarkwa and St Ives. |
|   |      | Reason for monitoring: monitoring water withdrawals per source is required to ensure that the withdrawal volumes fall within the water use license boundaries. Monitoring withdrawals per source also assists Gold Fields measure performance against water targets.  |
|   |      | Frequency of monitoring: volumes are continuously monitored.  |
|   |      | Method/s for measurement: third party invoices and meters at withdrawal sources. Withdrawal volumes are recorded in the detailed water balances at each operation.  |
| Entrained water<br>associated with your<br>metals & mining sector<br>activities - total volumes<br>[only metals and mining<br>sector] | 100% | Scope of monitoring: Gold Fields measures and monitors the moisture content in the mined ore at its Cerro Corona operation before the ore is processed. Gold Fields' operations are mines. The nature of the ore at Gold Fields' other operations does not require the group to monitor entrained water at these mines.   |
|   |      | Reason for monitoring: monitoring the moisture levels of the ore is required to determine drying and other ore treatment  |



|                                  |      | measure, and it also helps in accounting for water that goes into processing.  Frequency of monitoring: volumes are periodically sampled, as required.  Method/s for measurement: sampling of the mined ore using moisture meters.  |
|----------------------------------|------|---|
| Water withdrawals quality        | 100% | Scope of monitoring: Gold Fields measures and monitors the quality of all withdrawals (100% of operations). Gold Fields' operations are mines.  Reason for monitoring: monitoring water quality is required to ensure the suitability of the water for its intended use in the group's mining and processing activities. Water may be treated accordingly where the quality is deemed to be insufficient for certain activities.  Frequency of monitoring: volumes are continuously monitored.  Method/s for monitoring: meters at withdrawal sources.  |
| Water discharges – total volumes | 100% | Scope of monitoring: Gold Fields measures and monitors the total discharge volumes across all operations (100%) that discharge water. Gold Fields' operations are mines. During 2019, 87.5% (7/8) of Gold Fields' operations discharged water.  Reason for monitoring: measurement and monitoring of discharges are required to ensure that each operation's discharged water falls within the required qualitative and quantitative parameters stipulated in its water use permit. Additionally, total discharge volumes are tracked to ensure that water balances are accurate and updated regularly.  Frequency of monitoring: volumes are continuously monitored. |



|  |      | Method/s for measurement: meters at discharge destinations.   |
|--|------|---|
| Water discharges – volumes by destination            | 100% | Scope of monitoring: Gold Fields requires all of its operations (100%) that discharge water to measure and monitor the water volume discharged to each discharge destination. Gold Fields' operations are mines. During 2019, 87.5% (7/8) of Gold Fields' operations discharged water (South Deep, Tarkwa, Cerro Corona, Granny Smith, St Ives, Agnew and Gruyere). |
|  |      | that sufficient treatment of the discharged water is maintained and that volumes discharged to each source do not exceed the licensing boundaries and regulations.  |
|  |      | Frequency of monitoring: volumes are continuously monitored.  |
|  |      | Method/s for measurement: meters at discharge destinations.   |
| Water discharges –<br>volumes by treatment<br>method | 100% | Scope of monitoring: Gold Fields requires all of its operations (100%) that discharge water to measure and monitor the water volume discharged by treatment method. Gold Fields' operations are mines. During 2019, 87.5% (7/8) of Gold Fields' operations discharged water (South Deep, Tarkwa, Cerro Corona, Granny Smith, St Ives, Agnew and Gruyere).           |
|  |      | Reason for monitoring: This is done to ensure that the quality and volume of the discharged water meet the licensing requirements of each operation. In addition, the volume per treatment method is measured and monitored to ensure the maintenance of an accurate water balance between all processes.   |
|  |      | Frequency of monitoring: volumes are continuously monitored.  |



|  |      | Method/s for measurement: meters at discharge destinations.  |
|--|------|--|
| Water discharge quality  – by standard effluent parameters | 100% | Scope of monitoring: Gold Fields requires all of its operations (100%) that discharge water to measure and monitor the water quality – by standard effluent parameters. Gold Fields' operations are mines. During 2019, 87.5% (7/8) of Gold Fields' operations discharged water (South Deep, Tarkwa, Cerro Corona, Granny Smith, St Ives, Agnew and Gruyere).  Reason for monitoring: to ensure that the quality of the water which is discharged is kept within the range permitted by the licensing requirements.  Frequency of monitoring: periodic sampling, as determined by the licence conditions of the operation.  Method/s for monitoring: sampling at discharge destinations. |
| Water discharge quality  – temperature                     | 100% | Scope of monitoring: Gold Fields requires all of its operations (100%) that discharge water to measure and monitor the water temperature. Gold Fields' operations are mines. During 2019, 87.5% (7/8) of Gold Fields' operations discharged water (South Deep, Tarkwa, Cerro Corona, Granny Smith, St Ives, Agnew and Gruyere).  Reason for monitoring: to ensure that the temperature of the water which is discharged is kept within the range permitted by the licensing requirements.  Frequency of monitoring: periodic sampling, as determined by the licence conditions of the operation.  Method/s for monitoring: sampling, using   |



|                                  |      | meters, at discharge destinations.   |
|----------------------------------|------|--|
| Water consumption – total volume | 100% | Scope of monitoring: Gold Fields requires all of its operations (100%) that discharge water to measure and monitor the water consumption. Gold Fields' operations are mines.  Reason for monitoring: 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.   |
|                                  |      | Frequency of monitoring: volumes are continuously monitored.   |
|                                  |      | Method/s for measurement: withdrawal volumes are measured using third party invoices and meters at sources. Discharge volumes are measured using meters at sources. Withdrawal and discharge volumes are recorded in the detailed water balances at each site and used to calculate water consumptions.  |
| Water recycled/reused            | 100% | Scope of monitoring: Gold Fields measures and monitors the total volume of water recycled at each of its operations (100% of operations). Gold Fields' operations are mines.   |
|                                  |      | Reason for monitoring: 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. Monitoring also allows Gold Fields to track progress against its group and operation-level recycling targets. |
|                                  |      | Frequency of monitoring: volumes are continuously monitored.   |
|                                  |      | Method/s for measurement: onsite meters.   |



|   |      | Recycled/Reused volumes are recorded in the detailed water balances at each site.   |
|---|------|---|
| The provision of fully-<br>functioning, safely<br>managed WASH<br>services to all workers | 100% | Scope: Gold Fields monitors the provision of fully-functioning, safely managed WASH services to all workers at each of its operations (100% of operations). Gold Fields' operations are mines.  |
|   |      | Reason for monitoring: At Gold Fields, employee health is considered to be a vital aspect of business. This water aspect is therefore monitored to ensure that all employees are provided with sufficient volumes and adequate access to clean and potable wash water for drinking and sanitation services. Furthermore, the licence conditions of all Gold Fields' operations require the provision of such services to all workers. |
|   |      | Frequency of monitoring: volumes are continuously monitored.  |
|   |      | Method/s for measurement: Health and safety-based processes and policies, such as those related to WASH facilities, are monitored by the Board. 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.  |

# 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<br>(megaliters/year) | Comparison with previous reporting year | Please explain   |
|----------------------|-----------------------------|---|--|
| Total<br>withdrawals | 22,334                      | About the same                          | Change from previous year: Total water withdrawals increased by 5% in 2019 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.                             |
|            |       |                | ŭ   |
|            |       |                | The increase in water withdrawals is largely due    |
|            |       |                | to an increase in production levels across the      |
|            |       |                | group (the Group has again exceeded its             |
|            |       |                | production and cost targets) and the                |
|            |       |                | commissioning of the Gruyere facility in the        |
|            |       |                | 2019 reporting period. In addition, increases in    |
|            |       |                | infrastructure related activities at the Cerro      |
|            |       |                | Corona facility also have contributed to the        |
|            |       |                | increase in water withdrawals across the group.     |
|            |       |                | Notably, water withdrawal per tonne processed       |
|            |       |                | declined to 0.59kl and decreased per ounce          |
|            |       |                | produced to 10.1kl in 2019, indicating the          |
|            |       |                | group's commitment to water efficiency              |
|            |       |                | measures across the operations. Future              |
|            |       |                | volumes: It is anticipated that ongoing and         |
|            |       |                | future water efficiency projects will reduce future |
|            |       |                | demand for fresh surface water volumes.             |
|            |       |                |   |
| Total      | 2,625 | About the same | Change from previous year: The total water          |
| discharges |       |                | discharged increased by 4% in the 2019              |
|            |       |                | reporting year when compared to the previous        |
|            |       |                | reporting period. 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.        |
|            |       |                | The 4% increase in water discharge volumes is       |
|            |       |                | directly related to the increase in withdrawal      |
|            |       |                | volumes. In addition, the increase in               |
|            |       |                | infrastructure related activities at Cerro Corona   |
|            |       |                | mine is also a contributing factor to the increase  |
|            |       |                | in water discharge, as water used in these          |
|            |       |                | activities could not be recycled or reused,         |
|            |       |                | resulting in decreased water recycling levels.      |
|            |       |                | Future volumes: It is anticipated that the          |
|            |       |                | increased use of reverse osmosis plants will        |
|            |       |                | reduce future discharge volumes.                    |
| I          | I     |                | I   |



| Total consumption | 19,709 | About the same | Change from previous year: The net effect of the water withdrawal and discharge resulted in a total net consumption increase at Gold Fields during the 2019 reporting period. Since water withdrawal increased by 5% and discharges increased by 4%, this resulted in a total |
|-------------------|--------|----------------|---|
|                   |        |                | consumption increase of 6% in 2019 when compared to 2018.   |
|                   |        |                | As such, 'about the same' 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.                            |
|                   |        |                | The consumption is calculated as per the CDP guidance and therefore the total withdrawals = total discharge + total consumption. For this reason, the volumes balance.  |
|                   |        |                | Future volumes: It is anticipated that increased recycling targets and the increased use of reverse osmosis plants will reduce future withdrawal and discharge volumes, thereby reducing total consumption volumes.   |

# W1.2d

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

|          | Withdrawals<br>are from<br>areas with<br>water stress | % withdrawn from areas with water stress | Comparison with previous reporting year |                 | Please explain   |
|----------|---|--|---|-----------------|--|
| Row<br>1 | Yes   | 51-75                                    | Higher                                  | WRI<br>Aqueduct | Six out of eight of Gold Fields' operations are situated in water stressed areas, as determined using the WRI Aqueduct tool. These are the facilities located in South Africa, Australia and Peru. |



The water data sets for the Gold Fields' group were inputted into the above-mentioned tool to determine whether the specific site is situated in a water stressed area. For example, the WRI Aqueduct Tool considers baseline water stress with a rating equal to/greater than 'High' (40-80%), as areas where there is competition among water users. Accordingly, South Africa is categorised as a medium-high water stress area; Australia as high and Peru as extremely high. These areas are therefore classified as water stressed areas.

The water withdrawn from water stressed areas increased from 53% in 2018 to 74% in 2019. The change in 2019 represents an increase of 39% of withdrawals from water stressed areas. As per the Gold Fields definition, the year on year comparison is 'higher'. 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.

This increase is largely due to the overall higher water withdrawal volumes across Gold Field's operations, as well as the inclusion of the newly operational Gruyere facility within the reporting boundary in 2019. The Gruyere mine is located in Australia, a water



|  |  | stressed area. |
|--|--|----------------|
|  |  |                |

# W1.2h

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

|  | Relevance | Volume<br>(megaliters/year) | Comparison with previous reporting year | Please explain   |
|--|-----------|-----------------------------|---|--|
| Fresh surface water, including rainwater, water from wetlands, rivers, and lakes | Relevant  | 8,343                       | Lower                                   | of its water from fresh surface water sources making this a material source.  The total fresh surface water withdrawals decreased in 2019 by 12% compared to 2018. 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. Notable changes at operational level include a 28% decrease at Tarkwa. However, withdrawals increased at Cerro Corona by 12% (largely due to infrastructure activities). Cerro Corona's new fresh water is rainwater, which is collected and stored in the tailings pond even if the site does not need it. It gets used first, reducing the need to withdraw water from other sources.  It is anticipated that new and ongoing water efficiency projects and targets, e.g. use |



|                                 |          |       |                | of osmosis plants and the 2019 target to reduce freshwater withdrawals by 3% in water scarce catchments, of which 7.4% reduction achieved, will reduce future demand for freshwater.  |
|---------------------------------|----------|-------|----------------|---|
| Brackish surface water/Seawater | Relevant | 1,611 | About the same | This source is relevant as Gold Fields' withdraws brackish water at 2 Australian mines. The quantities withdrawn are relatively small (7% of total withdrawals) & the mines rely heavily on this source of water as their locations are characterised by very high levels of water scarcity. Notable changes include decreased brackish water withdrawals by 76 % at St lves, which was caused by decreased rainfall in the area, resulting in the dam drying up. St lves thus withdrew potable water from Moorebar (3rd-party) when the dam was dry. Furthermore, withdrawals increased by 12% at Granny Smith. The group experienced an overall 2% decrease in brackish water withdrawn in FY2019. As such, about the same was selected in accordance with Gold Fields' definition: 10% change is considered lower/higher and above 40% change is considered much lower/much higher.  It is anticipated that future |



|                         |          |        |        | withdrawals from brackish<br>surface water sources will<br>decrease due to ongoing<br>water efficiency measures.  |
|-------------------------|----------|--------|--------|---|
| Groundwater – renewable | Relevant | 10,159 | Higher | This source is relevant as 45.5% of Gold Fields' total withdrawals come from this source, and all eight operations withdraw from renewable groundwater sources.  The overall withdrawal of renewable groundwater at Gold Fields' operations increased by 23% when compared to the withdrawals made in the previous reporting period, as such higher 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.  The reasons for this increase include Gold Fields' commissioning of the Gruyere facility in 2019, and the infrastructure activities at the Cerro Corona mine.  It is anticipated that future renewable ground water withdrawals will decrease due to increased water efficiency initiatives and due to the once-off commissioning of the Gruyere mine, requiring |



|                                 |                 |       |        | increased water withdrawals.   |
|---------------------------------|-----------------|-------|--------|--|
| Groundwater – non-<br>renewable | Not<br>relevant |       |        | None of Gold Fields'<br>operations make use of non-<br>renewable groundwater. This<br>trend is expected to remain<br>the same in the future.   |
| Produced/Entrained water        | Not<br>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        | 2,221 | Higher | This source is not particularly relevant as it is the group's second smallest withdrawal source (10% of total withdrawals).  |
|                                 |                 |       |        | The use of municipal water increased by 24%, as such higher was selected in accordance with Gold Fields' definition. Gold Fields defines above 10% change as high or lower. This increase is largely due to an increase in Rand Water intake at South Deep mine in South Africa. This is largely attributable to an increase in production levels, where the mine's overall productivity increased by 41% in 2019 from levels in 2018. It is anticipated that future third party water withdrawals will decrease due to increased efficiency measures and targets. E.g., Recycling of treated sewage effluent at |
|                                 |                 |       |        | South Deep and water savings initiatives at Cerro Corona and the Ghana operations in 2019, which is  |



|  |  | anticipated to continue into |
|--|--|------------------------------|
|  |  | the future.                  |
|  |  |                              |

## W1.2i

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

|                                       | Relevance       | Volume<br>(megaliters/year) | Comparison<br>with previous<br>reporting year | Please explain  |
|---------------------------------------|-----------------|-----------------------------|---|---|
| Fresh surface water                   | Relevant        | 2,625                       | About the same                                | This destination is relevant as Gold Fields' discharged 100% of its total discharges to a fresh surface water destination in 2019.  Fresh surface water discharges increased by 6%. As such, about the same 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  The increase can be attributed to the commissioning of the Gruyere facility in the 2019 reporting period.  It is anticipated that increased recycling targets will reduce future water discharge volumes.  Additionally, discharge volumes are expected to decrease from 2019 levels due to the once-off commissioning of Gruyere Mine which required additional discharges. |
| Brackish<br>surface<br>water/seawater | Not<br>relevant |                             |   | No discharges were made to brackish surface water/seawater discharge destinations by any of   |



|                          |                 |  | Gold Fields' operations in 2019 as such, not relevant is selected.   |
|--------------------------|-----------------|--|--|
| Groundwater              | Not<br>relevant |  | No discharges are made to groundwater discharge destinations by any of Gold Fields' operations as such, not relevant is selected.  As there are zero discharges to this source in FY2018 and FY2019 the comparison remains about the same. This trend is expected to remain the same in the future.  |
| Third-party destinations | Not relevant    |  | 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.  As there are zero discharges to this source in FY2018 and FY2019 the comparison remains about the same. This trend is expected to remain the same in the future. |

# 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:<br>Water<br>aspect | Denominator            | Comparison with previous reporting year | Please explain   |
|---------|-------------------------------|------------------------|---|--|
| Gold    | Total water withdrawals       | Ounce of final product | About the same                          | Change from previous year: In 2018 the intensity was 10.3 and in 2019 the intensity was 10.1.  This is a 1% decrease, as such about the same 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.  How the metric is used internally: Gold Fields uses the water intensity metric to understand the relationship between how much our operations are producing and how much water the production process requires. Changes in the metric give an indication of an increase 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 our annual internal and external reportings.  Future anticipated trends: 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.  Strategy in place to reduce water intensity: The strategy to reduce water intensity: The strategy to reduce water intensity includes ongoing water efficiency projects, such as the recycling of treated sewage effluent at South Deep,  Group targets include:  Reduce Group freshwater usage by an aspirational 3% – 5% per year by 2023: achieved in 2019.  Increase water recycling/fit-for purpose reuse to an aspirational 70% by 2023: |



|  |  | Gold Fields achieved this target in both 2018 and 2019. |
|--|--|---|
|  |  |   |

# 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<br>1 | We are planning to do so within the next two years | Partners in the value chain Gold Fields plans to engage with: the group's value chain on water-related issues, especially those in host communities. These stakeholders include contractors, suppliers or stakeholder groups (particularly in catchment areas) with the potential to significantly impact Gold Field's reputation, either through adverse economic, environmental or social impacts.  Time indicator of planned engagement with the value chain: next 2 years.  The method of engagement: Gold Field's new Water Stewardship Policy (2019) and the 2020-2025 Group Water Stewardship Strategy include plans to engage proactively and inclusively with stakeholders, especially in host communities who are affected by the mines' water use and discharge activities. The methods for engagement will be collaborative in nature and may vary across the different regions. For example, Gold Fields could engage its suppliers to disclose water use and management practices in certain regions. This will assist the group in terms of generating awareness of the potential economic, social or environmental challenges facing the business, with particular emphasis on water-related issues. |

# W2. Business impacts

#### W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?  $_{\mbox{\scriptsize No}}$ 



#### **W2.2**

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

No

## **W3. Procedures**

#### W-MM3.2

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

#### Country/Area & River basin

South Africa Orange

Number of tailings dams in operation

2

Number of inactive tailings dams

1

Comment

#### Country/Area & River basin

Australia
Other, please specify
Western Plateau

Number of tailings dams in operation

7

Number of inactive tailings dams

14

Comment

#### Country/Area & River basin

Ghana

Other, please specify



#### Ankobra

Number of tailings dams in operation

5

Number of inactive tailings dams

2

Comment

#### Country/Area & River basin

Peru

Other, please specify Tingo

Number of tailings dams in operation

1

Number of inactive tailings dams

0

Comment

#### W-MM3.2a

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

#### Row 1

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

Yes, we evaluate the consequences of tailings dam failure

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

Australian National Committee on Large Dams (ANCOLD)

Canadian Dam Association (CDA)

Ghana Minerals Commission (LI 2182)

South Africa (SANS) 10286

Company-specific guidelines

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

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

#### Please explain



Some, not all, TSFs are classified as hazardous/equivalent.

#### Rationale for choice of selected guidelines:

They are best practice guidelines that assist in managing tailings risks. They provide classifications/ranking in terms of Consequence Categories. The Gold Fields TSF Guidelines set out company specific governance requirements and are aligned with ANCOLD and the ICMM Tailings Position Statement.

#### Frequency of evaluation:

The Engineers of Records carry out quarterly inspections and TSF update reports. Independent audits are undertaken at least on a triennial basis.

Consequence assessments consider potential failure and resulting impacts on society, especially potential loss of life, the natural environment and business impacts. The severity of impact along with the population at risk are then used to determine the TSF Consequence Category.

Examples of min hazard level classification:

- Ghana's LI 2182: "Class C"-potential to affect 1-20 people with moderate environmental damage.
- ANCOLD: "High C".

How classifications inform management procedures:

TSFs classified as highly hazardous are subjected to more stringent design criteria and more frequent inspection regimes. All operations have tailings management plans in place, including closure and post-closure management plans. The TSF classifications assist Gold Fields in managing risks. Risks are identified and recorded formally through risk assessments at various stages of the design and operational processes.

#### W-MM3.2b

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

#### Tailings dam name/identifier

**Granny Smith 1** 

#### Country/Area & River basin

Australia
Other, please specify
Western Plateau

#### Latitude

-28.492248



#### Longitude

122.243594

#### **Hazard classification**

High B

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD)

#### Tailings dam's activity

Inactive

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

24.77

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

25.5

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Granny Smith 2

#### Country/Area & River basin

Austria

Other, please specify Western Plateau

#### Latitude

-28.490587

#### Longitude

122.24548

#### Hazard classification

High B

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD)

#### Tailings dam's activity

Active

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

24.29

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

24.29



#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Granny Smith 3

#### Country/Area & River basin

Australia

Other, please specify Western Plateau

#### Latitude

-28.493858

#### Longitude

122.240942

#### **Hazard classification**

High C

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD)

#### Tailings dam's activity

Active

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

9.87

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

17

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Gruyere IWL TSF

#### Country/Area & River basin

Australia

Other, please specify Western Plateau

#### Latitude

-27.585658

#### Longitude



123.520866

#### **Hazard classification**

High C

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD)

#### Tailings dam's activity

Active

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

ſ

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

22

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Damang ETSF

#### Country/Area & River basin

Ghana

Other, please specify Ankobra

#### Latitude

5.304798

#### Longitude

-1.495483

#### **Hazard classification**

• ANCOLD: High B. • Ghana (LI 2182): Class B.

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD) Ghana Minerals Commission (LI 2182)

#### Tailings dam's activity

Active

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

56.57

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

56.57



#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Damang FETSF

#### Country/Area & River basin

Ghana

Other, please specify

#### Latitude

5.301456

#### Longitude

-1.500608

#### **Hazard classification**

• ANCOLD: High C. • Ghana (LI 2182): Class B.

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD) Ghana Minerals Commission (LI 2182)

#### Tailings dam's activity

Active

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

3.8

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

17.69

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Tarkwa TSF 1

#### Country/Area & River basin

Ghana

Other, please specify Ankobra

#### Latitude

5.202157

#### Longitude



-2.013173

#### **Hazard classification**

• ANCOLD High C. • Ghana (LI 2182): Class B.

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD) Ghana Minerals Commission (LI 2182)

#### Tailings dam's activity

Active

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

44.15

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

53.62

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Tarkwa TSF2

#### Country/Area & River basin

Ghana

Other, please specify Ankobra

#### Latitude

5.210535

#### Longitude

-2.015479

#### **Hazard classification**

• ANCOLD: High C. • Ghana (LI 2182): Class B.

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD) Ghana Minerals Commission (LI 2182)

#### Tailings dam's activity

Active

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

41 54

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



58.46

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Tarkwa TSF3

#### Country/Area & River basin

Ghana

Other, please specify
Ankobra

#### Latitude

5.215361

#### Longitude

-2.014636

#### **Hazard classification**

• ANCOLD: High C. • Ghana (LI 2182): Class B.

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD) Ghana Minerals Commission (LI 2182)

#### Tailings dam's activity

Active

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

25.33

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

25.33

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Tarkwa TSF5

#### Country/Area & River basin

Ghana
Other, please specify
Ankobra

#### Latitude



5.204548

#### Longitude

-2.010705

#### **Hazard classification**

• ANCOLD: High C. • Ghana (LI 2182): Class C.

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD) Ghana Minerals Commission (LI 2182)

#### Tailings dam's activity

Active

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

1.5

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

16.1

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

Cerro Corona TSF

#### Country/Area & River basin

Peru

Other, please specify Tingo

#### Latitude

-6.455565

#### Longitude

-78.382806

#### **Hazard classification**

Extreme

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD)

#### Tailings dam's activity

Active

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

47.21



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

71.54

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

South Deep Doornpoort

#### Country/Area & River basin

South Africa Orange

#### Latitude

-26.274538

#### Longitude

27.385411

#### **Hazard classification**

High B

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD)

#### Tailings dam's activity

Active

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

7.22

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

14.47

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

South Deep South Shaft

#### Country/Area & River basin

South Africa Orange

#### Latitude

-26.245277



#### Longitude

27.403643

#### **Hazard classification**

High B

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD)

#### Tailings dam's activity

Inactive

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

15.11

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

15.11

#### Please explain

Under Gold Fields' control.

#### Tailings dam name/identifier

South Deep Twin Shaft

#### Country/Area & River basin

South Africa

Orange

#### Latitude

-26.250626

#### Longitude

27.401387

#### **Hazard classification**

High B

#### Guideline(s) used

Australian National Committee on Large Dams (ANCOLD)

#### Tailings dam's activity

Active

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

23.81

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

21.9

#### Please explain



Under Gold Fields' control.

#### W-MM3.2c

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

| of your dams?  |  |  |  |  |  |
|----------------|--|--|--|--|--|
| Procedure      | Detail of the procedure  | Please explain   |  |  |  |
| Operating plan | An operating plan that is aligned with your established acceptable risk levels and critical controls framework An operating plan that includes the operating constraints of the dam and its construction method An operating plan that considers the consequences of breaching the operating constraints of the dam An operating plan that includes periodic review of the foundations and slope materials An operating plan that evaluates the effectiveness of the risk management measures and whether performance objectives are being met | Company-specific details of the operating plan procedure (level at which procedures are set): All of Gold Fields' operations have tailings management plans in place. Gold Fields has a formal Group Tailings Storage Facility Management Guideline that spans all operations in all regions, against which full compliance is expected. The tailings management plans are reviewed internally every quarter and independent audits are undertaken at least on a triennial basis.  Rationale for implementing these procedures: Gold Fields has actively participated with the International Council on Mining & Metals (ICMM) in formulating new global tailings standards and is continuously working towards ensuring that our Tailings Storage Facilities (TSFs) meet these standards. Gold Fields aim is to prevent any incidents related to these facilities, especially catastrophic failures.  Competence requirements of staff implementing the procedures: High competence levels required. All Gold Fields' TSFs, as well as associated pipeline and pumping infrastructure, are subject to an independent, external audit every three years — or more frequently where required. In addition, regular inspections and formal annual Engineer of Record reviews are required at all facilities.  Gold Fields has implemented the following:  Consideration of international seismicity design requirements in all jurisdictions  Appointments of an Engineer of Record for all Gold Fields'-managed TSFs  Undertaking or updating dam break assessments  Updating operating maintenance and surveillance manuals and emergency response plans |  |  |  |



Gold Fields has also embarked on a programme to further improve operational safety of our TSFs, including moving away from the construction of upstream facilities to centre-line or downstream designs, where practical, consideration of filtered and dry tacked tailings, as well as in-pit tailings disposal. Sustainable and integrated mine closure also continues to be one of Gold Fields' five key sustainability focus areas. Currently Gold Fields' is reviewing the following management plans and actions for our Tailings Storage Facilities: A new downstream TSF at Damang The use of filtered and dry stacked tailings at the new Salares Norte mine The increased use of in-pit tailings disposal in Australia (Agnew and St Ives) Increased use of tailings for underground backfill at the South Deep, Granny Smith and St Ives operations Approval The operating plan and the Company-specific details of the operating plan life of facility plan are procedure (level at which procedures are set): approved by a C-suite officer Company-wide. A company-wide approach also allows for a consistent management approach through standardised quality assessments and checks. Gold Fields' operating plans and life of facility plans are approved by executive management. These plans consider the respective mines' tailings management plans. Notably, in 2019 the Chairperson of the Board Safety, Health and Sustainable Development Committee visited all managed Tailings Storage Facilities and reported his satisfaction with their management to the Committee. Rationale for implementing these procedures: Approval of the life of facility plans by senior management ensures that each operation is accountable for the governance of the respective Tailings Storage Facilities. It also ensures that the operations are held to the highest internal standard. 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. Such procedures ensure a high-level of accountability for the management of Tailings Storage Facilities across the group.

Competence requirements of staff implementing the procedures:

All Gold Fields' senior management are required to have high competence levels. For example, the new position of Group Head of Tailings was filled in 2019 with a qualified and experienced geotechnical engineer. This is appropriate as Gold Fields takes the management of Tailings Storage Facilities very seriously.

Other plans to develop other related management procedures that apply to all facilities:

A new TSF Management Policy and a new TSF technical guidelines are currently being finalised for

approval. A new TSF incident reporting standard is also being implemented across the group.

# W3.3

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

Yes, water-related risks are assessed

### W3.3a

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

#### **Direct operations**

#### Coverage

Full

#### Risk assessment procedure

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

#### Frequency of assessment

More than once a year

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

More than 6 years

#### Type of tools and methods used



Tools on the market
Enterprise Risk Management
Databases

#### Tools and methods used

WRI Aqueduct
WWF Water Risk Filter
ISO 31000 Risk Management Standard
Other, please specify
ICMM's Mining Climate Assessment Tool (Mica Tool);

#### Comment

Gold Fields uses the WRI Aqueduct 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

More than once a year

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

More than 6 years

# Type of tools and methods used

Tools on the market Enterprise Risk Management Databases

#### Tools and methods used

WRI Aqueduct
WWF Water Risk Filter
ISO 31000 Risk Management Standard
Other, please specify
ICMM's Mining Climate Assessment Tool (Mica Tool)

#### Comment

Gold Fields uses the WRI Aqueduct 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

More than once a year

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

More than 6 years

#### Type of tools and methods used

Tools on the market Enterprise Risk Management Databases

#### Tools and methods used

WRI Aqueduct
WWF Water Risk Filter
ISO 31000 Risk Management Standard
Other, please specify
ICMM's Mining Climate Assessment Tool (Mica Tool

#### Comment

Gold Fields uses the WRI Aqueduct 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      | Why this information is included in water risk assessments and why it is important:                              |
|   | included              | The group's new Water Stewardship Policy Statement, approved in 2019, aims to ensure security of water supply to |



operations without compromising access for other users or the environment. All Gold Fields' operations are required to report on risks related to water availability. This is especially important as close to 75% of Gold Fields' mines, and their respective labor forces, are located in water stressed areas. Importantly, water is one of the necessities for personal hygiene. The current COVID-19 pandemic shows just how important personal hygiene is to maintaining human health and curbing the spread of infectious diseases. Thus, ensuring employees' access to water assists in reducing the spread of infectious diseases and assists in maintaining Gold Fields licences to operate.

How this contextual issue is assessed to be relevant and explanation of the assessment:

In 2019 water management was in the top-20 identified risks for the Group. A diverse range of tools and methods are used by the group to assess water availability. These 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 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 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. Both current and emerging issues related to water availability at basin/catchment level are included in the water risk assessments.

Level of coverage across the value chain:

This is covered company-wide. Both the direct-operations level as well as key components of the supply and value chains are considered. Notable upstream value chain components include Gold Fields' employees and also critical suppliers, such as those that provide electricity and diesel, that require water for their operations. Accordingly, one of Gold Fields' strategic water management objectives for 2020 comprises of adopting a catchment area approach to water management.



# Water quality at a basin/catchment level

# Relevant, always included

Why this information is included in water risk assessments and why it is important:

Water quality at basin/catchment level is relevant at both operational and executive levels. The quality of water impacts on all Gold Fields operations and can cause disruptions to production if not monitored and managed. Good quality water is needed for processes in order to prevent the introduction of impurities into our product. Low water quality can also lead to a spread in water-borne illnesses, such as cholera, which can significantly impact the lives of our employees. Furthermore, a healthy environment requires clean water. Water quality is included in the group's top 20 risks.

How this contextual issue is assessed to be relevant and explanation of the assessment:

In 2019, due to intensive water-related initiatives in all regions, as well as Corporate initiatives, water management was only in the top-20 identified risks for the Group. Risks regarding quality of water are managed via the risk management framework, which is included in the Group Risk Management Guideline 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 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. Both current and emerging issues related to water quality at basin/catchment level are included in the water risk assessments.

Level of coverage across the value chain:

Direct operations and along key components of the supply and value chains. Accordingly, one of Gold Fields' strategic water management objectives for 2020 comprises adopting a catchment area approach to water management.



Stakeholder conflicts concerning water resources at a basin/catchment level Relevant, always included Why this information is included in water risk assessments and why it is important:

Water management has been identified as one of the top-20 Group risks. In some regions, such as at Cerro Corona, regional water infrastructure is very poor. Thus, relatively small negative impacts caused by mines, such as minor leaks, can have material impacts. Conflicts regarding shared water resources can compromise Gold Fields social and regulatory licences to operate. The group's new Water Stewardship Policy Statement, approved in 2019, thus mandates proactive and inclusive stakeholders engagements. The advent of the Corona virus is likely to amplify any conflicts concerning water resources, which are critical in reducing the spread of the pandemic. Therefore, all of Gold Fields operations are required to implement culturally appropriate stakeholder engagement plans for all stages of the life-of-mines.

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 the Enterprise-wide Risk Management (ERM) process tool (ISO 31000 aligned). Internal company knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, is also used to assess existing and emerging stakeholder conflicts. Gold Fields requires that all mines establish mechanisms through which communities can voice their grievances and complaints about the group. E.g., Gold Fields 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.

Level of coverage across the value chain:
Across the entire value chain, particularly at direct operations and the local communities, many of which are the sources of Gold Fields' labour force. These are the stakeholders most likely to be affected by Gold Fields' operations and thus should give input to these operations.
Accordingly, one of the key objectives of Gold Fields' 2020 – 2025 Group Water Stewardship Strategy is to work with stakeholders in the catchment areas around mines. The focus is on relevant key stakeholders and forums where



|   |                                 | collaborative water actions can be identified and realised.  These approaches will differ per region due to local contexts.  |
|---|---------------------------------|--|
| Implications of water on your key commodities/raw materials | Relevant,<br>always<br>included | Why this information is included in water risk assessments and why it is important:  Water itself is a key commodity to Gold Fields' mining operations. Furthermore, some of Gold Fields' other 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. In the context of the Corona pandemic, the provision of these commodities could be jeopardised if the respective commodity suppliers do not have adequate access to fresh water, which is required to sanitise their processes and protect their employees from contracting or spreading the virus.  |
|   |                                 | How this contextual issue is assessed to be relevant and explanation of the assessment:  In 2019 water management was in the top-20 identified risks for the Group. 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 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. Both current and emerging issues related to the sensitivity of key commodities/raw materials to water are included in the water risk assessments. |
|   |                                 | 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.  |
|-------------------------------------|---------------------------------|---|
| Water-related regulatory frameworks | Relevant,<br>always<br>included | Why this information is included in water risk assessments and 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.  |
|                                     |                                 | How this contextual issue is assessed to be relevant and explanation of the assessment:  Proactive identification, management and reporting of future potential regulatory changes forms part of quarterly reporting to the Board's Safety, Health and Sustainable Development Committee. Once risks have been identified, various approaches are put in place to manage these. Regulatory changes as well as potential tariff changes are managed through the following group and 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. 2. Group wide tracking of all key legislative changes through a centralised compliance system. 3. Implementation of the Group Water Management Guideline. Internal methods/knowledge used to assess such risks also include the development and annual review of production plans that specify water requirements. These plans assess the impact of regulatory and tariff changes so that adequate actions/resources may be applied. Gold Fields also participates actively in various associations (e.g. Minerals Council of South Africa and Business Unity South Africa) enabling a thorough understanding of likely regulatory changes.  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.  |
| Status of ecosystems and habitats   | Relevant,<br>always<br>included | Why this information is included in water risk assessments and why it is important: Gold Fields views environmental stewardship as a key priority across the group. All operations are required to comply with applicable environmental regulations which require that the respective mines monitor, manage and   |

Access to fully-

functioning, safely

managed WASH



report on the status of ecosystems and habitats. An example demonstrating Gold Fields' commitment to environmental stewardship is the Group Biodiversity Guideline, updated in 2019, which aims to ensure that potentially adverse impacts on biodiversity by mines are addressed through the application of mitigation measures and integrated land management practices. Gold Fields also participates (through the ICMM) in the Cross Sector Biodiversity Initiative (CBSI), which include partners such as the International Petroleum Industry Environmental Conservation Association, the Equator Principles Association and The Biodiversity Consultancy. The aim of the CBSI is to develop and share good practices related to management of biodiversity and ecosystem services in the extractive industries. How this contextual issue is assessed to be relevant and explanation of the assessment: Part of the environmental compliance consists of assessing current and emerging water related risks and the potential impacts on ecosystems and habitats. In 2019 water management was in the top-20 identified risks for the Group. Water related impacts on ecosystems and local habitats are assessed as part of the Group Enterprise Wide Risk Management Process (ISO 31000 aligned). Gold Fields also integrates biodiversity considerations across the mining lifecycle starting at the earliest stages of mine development to mine closure. Environmental Impact Assessments and internal company knowledge, which utilises the ISO14001 certified Environmental Management Systems at each operation, are also used to identify and evaluate potential impacts on local environments, recorded in environmental registers. These registers are used to regularly evaluate potential environmental issues, including impacts on surface and ground water. Level of coverage across the value chain: Direct-operations level across all Gold Fields' mines. For example, Gold Fields reported zero environmental incidents in the Level 3-5 categories in 2019, demonstrating the effectiveness of the group's identification and management of risks related to ecosystems and habitats. Relevant, Why this information is included in water risk assessments always and why it is important: included Water is an important vector for the potential spread of



| services for all employees              |                   | pollution, making it a critical compliance issue as well as being a risk to the environment and human health if not responsibly managed. Employee health is also vitally important to Gold Fields. As the current COVID-19 pandemic shows, good hygiene is one of the best ways to stop the spread of communicable diseases. Gold Fields ensures that the workforce at all operations obtain access to clean potable and wash water for sanitation services and good hygiene.  How this contextual issue is assessed to be relevant and explanation of the assessment: Internal company 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 2019 health and safety was the sixth highest identified risks for the Group. Both current and emerging issues related to WASH services are included in the water risk assessments. Other tools, such as the WRI Aqueduct tool, could indicate regions of water stress where employees might need further assistance to maintain adequate levels of hygiene.  Level of coverage across the value chain: Direct-operations level across all Gold Fields' mines. Access to and the status of fully functioning, safely managed WASH services for all employees are relevant at respective mine-operational levels. |
|---|-------------------|--|
| Other contextual issues, please specify | Not<br>considered |  |

# W3.3c

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

|           | Relevance & inclusion              | Please explain  |
|-----------|------------------------------------|---|
| Customers | Relevant,<br>sometimes<br>included | Why these stakeholders are included in the risk assessment procedure and why they are important to the business: The direct customers of Gold Fields are the refineries. These are not particularly water intensive industries so do not possess a significant inherent water risk. That is why these are only considered periodically, when the need arises, such as now during the current COVID-19 pandemic. |



The COVID-19 pandemic has shown that the processes applied by our customers are not the only thing that should be considered. The workforce of our customers (and the greater economy) is at risk to water scarcity when it comes to the health of individuals. If Gold Fields' customers (the refineries) cannot provide their workforce with sufficient water to promote good hygiene practices at the workplace/home, then their workforce is at a greater risk of becoming infected with the COVID-19 virus. This exposes the customers to the risk of government forced capacity reduction/shutdowns. Thus, the risk of customers is also included.

The method of engagement with the stakeholder:
Gold Fields' products are sold directly to its customers, the refineries. Gold Fields has approached customers to determine that their workforce is being responsibly managed in order to reduce the risk of spread of communicable diseases, such as COVID-19. This ability directly impacts on whether or not customers could be forced to shut down by government. It also allows for Gold Fields to plan for a possible capacity reduction/shutdown of operations at refineries.

# Employees

Relevant, always included

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 risks such as floods or storms, as well as health risks, highlighted by the current COVID-19 pandemic. Impacts on Gold Fields' workforce have a direct impact on Gold Fields' production levels. In severe cases, production could be negatively impacted or halted. At the time of writing, some mines in SA were forced to close due to COVID-19 infections among labour forces. Access to clean water supplies, within operations and surrounding communities, is thus critical in reducing risk of infections and spread of the disease. Therefore, all employees are engaged with and included as stakeholders in Gold Fields' water risk assessments, supported by the new Water Stewardship Policy Statement, approved in 2019, which requires Gold Fields to ensure that all employees have access to clean drinking water and gender appropriate sanitation and hygiene facilities at their workplace.



How this stakeholder is assessed to be relevant and how relevance is defined: In 2019 water management was in the top-20 identified risks for the Group. The group level tool used to identify water risks related to employees is the Gold Fields' Enterprise Risk Management system (ISO 31000 aligned). 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.

Which stakeholders in the value chain are considered and why: only employees, because Gold Fields scope of influence or control is limited to personnel employed by the group.

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.

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.

# Investors

Relevant, always included Why these stakeholders are included in the risk assessment procedure and why they are important to the business: Investors, particularly the growing category of Environmental, Social and Governance (ESG) 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 an 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 regarding 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. The operations in the Americas are particularly affected by this risk and in 2019 the group identified social licence risks as one of the top five risks in the region. Risks to Gold Fields' reputation therefore have the potential to materially affect operations and investor confidence. |
|-------------------|--------------------|--|
|                   |                    | 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.   |
|                   |                    | 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.   |
|                   |                    | Relevance of stakeholder to specific organizational levels or geographies:   |
|                   |                    | Investors are relevant to top-levels of the organisation, across all geographies.  |
|                   |                    | Method of engagement:  |
|                   |                    | Gold Fields' engages with investors via the Investor Charter, investor road-shows and various communications. For example and with respect to water related matters, Gold Fields responded to requests from ESG investors in 2019 by detailing the specifications and technical standards of the group's tailings storage facilities.  |
| Local communities | Relevant,          | Why these stakeholders are included in the risk assessment   |
|                   | always<br>included | procedure & why they are important to the business: Local communities are an integral part of water management practices because water is a shared resource & without which neither Gold Fields nor local communities can survive. A large part of Gold Fields' workforce is also employed from the local communities. Impacts in the local community (such as COVID-  |
|                   |                    | community (such as COVID-  |



19) may therefore impact Gold Fields' entire workforce. Local communities are therefore important to Gold Fields' direct operations as well as the mines' social licences to operate. One of Gold Fields' strategic objectives for 2020 is therefore to collaborate with stakeholders, particularly host communities, to achieve responsible & sustainable water use. E.g. Gold Fields continued to invest in water infrastructure & potable water provision in 2019 for the Hualgayoc community near the Cerro Corona mine.

How this stakeholder is assessed to be relevant & how relevance is defined:

In 2019 water management was in the top-20 identified risks for the Group. The group level tool used to assess local communities water risks includes an Enterprise Risk Management system (ISO 31000 aligned). 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.

Which stakeholders in the 3 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.

Relevance of stakeholder to specific organizational levels or geographies:

Local communities are relevant to all organisational levels, across geographies.

#### Method of engagement:

Gold Fields has a Stakeholder Relationship & Engagement Policy which aims to "to adopt a stakeholder-inclusive approach". This has also been reinforced in our Water Stewardship Policy. 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.



| NGOs | Relevant,<br>always<br>included | 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.  How this stakeholder is assessed to be relevant & how relevance is defined:  In 2019 water management was in the top-20 identified risks for the Group. The group level tool used to assess stakeholder water risks includes an Enterprise Risk Management system (ISO 31000 aligned). 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.  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.   |
|      |                                 | Relevance of stakeholder to specific organizational levels or geographies: NGOs are relevant to all organisational levels, across geographies.   |
|      |                                 | Method of engagement: Gold Fields has a Stakeholder Relationship & Engagement Policy 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, NGOs and 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.  |



| Other water users<br>at a<br>basin/catchment<br>level | Relevant,<br>always<br>included | 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 Gold Fields mines' social licences to operate.   |
|---|---------------------------------|---|
|   |                                 | How these stakeholders are assessed to be relevant & how relevance is defined: In 2019 water management was in the top-20 identified risks for the Group. The group level tool used to assess stakeholder water risks includes an Enterprise Risk Management system (ISO 31000 aligned). 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. |
|   |                                 | 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.  Relevance of stakeholder to specific organizational levels or geographies:  |
|   |                                 | Local communities are relevant to all organisational levels & geographies.  Method of engagement: Gold Fields has a Stakeholder Relationship & Engagement Policy 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, NGOs and government. Eg. In the community of Hualgayoc, near  |
|   |                                 | Cerro Corona, continued to invest in water infrastructure and potable water provision in 2019. Gold Fields provides the majority of community households in Hualgayoc with access to clean water. This addresses one of the key needs of the  |



|            |                                 | community. In addition, one of Gold Fields' strategic water management objectives is to adopt a catchment area approach to water management. One of Gold Fields' approaches in the developing of the farming sector, which is heavily reliant on water. In 2019, Gold Fields created 88 farming jobs in South Africa; 24 in Peru and 230 in Ghana.   |
|------------|---------------------------------|--|
| Regulators | Relevant,<br>always<br>included | 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.  |
|            |                                 | How these stakeholders are assessed to be relevant & how relevance is defined: In 2019 water management was in the top-20 identified risks for the Group. Regulators 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. 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. |
|            |                                 | 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.  Relevance of stakeholder to specific organizational levels or geographies:  |
|            |                                 | Regulators are relevant to all organisational levels & geographies.  Method of engagement: Gold Fields engages with regulators at a local, regional &  |



|             |           | nestional level to main incidet into level and incident   |
|-------------|-----------|---|
|             |           | 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.   |
| River basin | Relevant, | Why these stakeholders are included in the risk assessment  |
| management  | always    | procedure & why they are important to the business:   |
| authorities | included  | Local river basin management authorities can provide insight  |
|             |           | into possible water quality and availability risks as well as future regulatory changes.  |
|             |           | How these stakeholders are assessed to be relevant & how relevance is defined:  |
|             |           | In 2019 water management was in the top-20 identified risks for the Group. 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.  |
|             |           | 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.   |
|             |           | Relevance of stakeholder to specific organizational levels or geographies:  River basin management authorities are relevant to all  |
|             |           | organisational levels & geographies.  |
|             |           | 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. Gold Fields' environmental department attends the Forum's meetings and shares water monitoring data. In addition, South Deep is working together with a neighbouring mine on restoring the Leeuspruit River which forms part of the Rietspruit catchment.   |
|----------------------|-----------|--|
| Statutory special    | Relevant, | Why these stakeholders are included in the risk assessment   |
| interest groups at a | always    | procedure & why they are important to the business:  |
| local level          | included  | 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.  |
|                      |           | How these stakeholders are assessed to be relevant & how relevance is defined:   |
|                      |           | In 2019 water management was in the top-20 identified risks for the Group. 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 2019 water management was in the top-20 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. |
|                      |           | 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.   |
|                      |           | Relevance of stakeholder to specific organizational levels or geographies:  Special interest groups are relevant to all organisational levels & geographies.   |
|                      |           | Method of engagement:  |



|           |                    | [ <del>.</del>  |
|-----------|--------------------|---|
|           |                    | Gold Fields has a Stakeholder Relationship & Engagement Policy 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.  |
| Suppliers | Relevant,          | Why these stakeholders are included in the risk assessment  |
| Сарристо  | always<br>included | 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.   |
|           |                    | How these stakeholders are assessed to be relevant & how relevance is defined: In 2019 water management was in the top-20 identified risks for the Group. The group level tool used to assess water risks related to suppliers includes an Enterprise Risk Management system (ISO 31000 aligned). 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.  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. |
|           |                    | Relevance of stakeholder to specific organizational levels or geographies: Suppliers are relevant to all organisational levels & geographies.   |
|           |                    | 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 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.  |  |
|----------------------------------|---------------------------------|--|--|
| Water utilities at a local level | Relevant,<br>always<br>included | 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.  |  |
|                                  |                                 | How these stakeholders are assessed to be relevant & how relevance is defined: In 2019 water management was in the top-20 identified risks for the Group. 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. |  |
|                                  |                                 | 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.   |  |
|                                  |                                 | Relevance of stakeholder to specific organizational levels or geographies: Relevant to all organisational levels & geographies.  |  |
|                                  |                                 | 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. |
|-----------------------------------|--|---|
| Other stakeholder, please specify | Not relevant,<br>explanation<br>provided | Not applicable  |

# W3.3d

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

Level of coverage: Gold Fields recognises that clean water is a basic human right and a vital company resource. Gold Fields' new Water Stewardship Policy Statement, approved in 2019, aims to ensure security of water supply to operations without compromising access for other users or the environment. The processes for identifying, assessing, and responding to waterrelated risks, across the three stages of the group's value chain therefore occur at both group and 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 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: all assets have detailed climate risk vulnerability assessments which 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 and 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 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 2019, Gold Fields group risk assessment identified water (particularly pollution, security and reduction in freshwater use) as one of the top 20 material group-risks. 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; development of Group and Regional Water Strategies, including the setting of freshwater reduction and recycling targets. 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'. 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?

Gold Fields' definition and means of identifying 'substantive financial impact' follow: i. Definition: any change in the business that will cause one or more day's loss of revenue. This definition is in line with the ISO 31000 risk management standard. ii. Metric: The measure used to identify substantive change is thus a change that results in one or more day's loss of revenue. iii. Threshold which indicates substantive change: one day's lost revenue, across the group, has been calculated to be approximately USD 10.2 million. Changes above this threshold are therefore considered to have a substantive financial impact. iv. Coverage/scope



of the definition: The definition listed in point (i) above includes direct operations, such as the mining and milling of gold ore and dust suppression (as described in W1.1), and activities occurring further along the value chain, such as the production of cyanide and diesel (as described in W1.1). v. Example of a substantive financial impact considered: Gold Fields has recently experienced with regards to water 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 be caused by severe draught and water shortages. These could disrupt mining operations, such as temporary shutdowns until water supply is secured again, 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 10.2 million. This impact would be considered as substantive to Gold Fields' business.

#### W4.1b

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

|          | Total number of facilities exposed to water risk | % company-wide facilities this represents | Comment                      |
|----------|--|---|------------------------------|
| Row<br>1 | 8  | 100                                       | The facilities included are: |

# W4.1c

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

Country/Area & River basin

South Africa 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

314,800,000

% company's total global revenue that could be affected

11-20

Comment

#### Country/Area & River basin

Australia

Other, please specify

Western Plateau

### Number of facilities exposed to water risk

4

% company-wide facilities this represents

26-50

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

1,244,600,000

% company's total global revenue that could be affected

41-50

Comment

#### Country/Area & River basin

Ghana

Other, please specify Ankobra

Number of facilities exposed to water risk

2

% company-wide facilities this represents

1-25



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

1,008,700,000

% company's total global revenue that could be affected

31-40

#### Comment

### Country/Area & River basin

Peru

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

399,000,000

% company's total global revenue that could be affected

11-20

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/Area & River basin

Peru

Other, please specify

Tingo

#### Type of risk & Primary risk driver

Physical

Inadequate infrastructure



#### **Primary potential impact**

Reduction or disruption in production capacity

#### Company-specific description

Gold Fields has identified several risks that could be considered to have a significant impact. The risk discussed below is considered particularly relevant considering the current pandemic. For more information on risks, see the 2019 Integrated Annual Report or https://www.goldfields.com/group-risks-and-opportunities.php.

Social licence to operate and host community relations were identified as one of the top 5 risks in the America's region during 2019. In particular, the contributors of these risks in the Americas region are related to poorly developed public water infrastructure. Linked to the risks associated with social licence to operate, Gold Fields also identified water pollution, security and reduction in freshwater use as being within the top 20 group risks in 2019. The combination of these risks has the potential to impact mining activities, which could be reduced or disrupted by either (i.e. water-linked concerns related to social licence to operate or water management issues).

Company-specific details about how the impact identified will affect direct operations: Considering the inadequate water infrastructure in the region, any negative impacts from Gold Fields' local operations have an amplified effect on water security, which may negatively impact the company's social licence to operate. For example, there is a risk that discharges from the tailings storage facilities could pollute the water in the surrounding catchment. Even if the source of pollution is not from the Cerro Corona facility, Gold Fields can suffer major reputational damage, undermining Gold Fields social licence to operate. In this respect, water-related activism at local and regional levels could also influence public opinion of the operations at Cerro Corona and further undermine Gold Fields social licence to operate at Cerro Corona.

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 if they occur frequently or are prolonged events. 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.

#### **Timeframe**

More than 6 years

# Magnitude of potential impact

Medium

#### Likelihood

Likely

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

Yes, a single figure estimate



# Potential financial impact figure (currency)

1,400,000

Potential financial impact figure - minimum (currency)

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

#### **Explanation of financial impact**

Approach employed to calculate the potential financial impact figure:

The average financial loss of revenue for 1 day's production loss in Peru is approximately USD 1.4 million. Such a loss would be due to a loss in production of ounces of gold or copper and thus reduced revenue. This figure has been calculated using the 2019 financial results.

Assumptions the figure is dependent on:

The figure is based on the approximate average value for one day's lost production at the Cerro Corona mine in Peru, assuming that the facility operated 80% of the total days in the year.

#### Primary response to risk

Improve maintenance of infrastructure

#### **Description of response**

Company-specific explanation of the primary response to the risk:

Specifically in the reporting year, Gold Fields has responded to the risk of inadequate water infrastructure by continuing to invest in water infrastructure and potable water provision for the Hualgayoc community near the Cerro Corona mine. Since starting operations in 2006, Gold Fields provides the majority of community households in Hualgayoc with access to clean water. Specifically during 2019, Gold Fields invested in:

- Operating and maintaining the potable water system in the Pilancones hamlet, which benefits 174 families.
- The potable water system in the Coimolache hamlet.
- Studies for an alternative water project at La Cuadratura

In addition in 2019, Gold Fields partnered with the Ministry of Housing to prioritise an investment of US\$1.5m in two water and sanitation projects for the hamlets of La Tahona and La Cuadratura. These projects will be developed under the Works for Taxes system.

These water-related initiatives benefit both the community and Gold Fields. These projects are part of the company's strategy to maintain its social licence to operate and further strengthen their reputation.

Furthermore in the recent past, Gold Field's has also responded water infrastructure risks in the Cerro Corona host community by promptly responding to discharges from



Cero Corona's facilities and engaging proactively with the local communities and stakeholders to address their concerns regarding Cerro Corona's water impacts. For example, Gold Fields has mobilised emergency response teams and has taken corrective measures to improve the maintenance of facilities at Cerro Corona to reduce future discharge levels.

#### Cost of response

407,000

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

Approach employed to calculate the cost of the response:

These costs were incurred during the provision of water infrastructure and services to the Hualgayoc community near the Cerro Corona mine. In particular, US\$202,000 was invested in operating and maintaining the potable water system in the Pilancones hamlet, which benefits 174 families. The remainder of the funds distributed were for the development of the potable water system in the Coimolache hamlet; studies for an alternative water project at La Cuadratura and ongoing supply of potable water to the city of Hualgayoc.

### W4.2a

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

#### Country/Area & River basin

Australia
Other, please specify
Western Plateau

#### Stage of value chain

Supply chain

#### Type of risk & Primary risk driver

Physical Severe weather events

#### **Primary potential impact**

Supply chain disruption

#### Company-specific description

Gold Fields has identified several risks that could be considered to have a significant impact. The risk discussed below is considered particularly relevant considering the current pandemic. For more information on risks, see the 2019 Integrated Annual Report or https://www.goldfields.com/group-risks-and-opportunities.php.



Electricity is a critical input in Gold Fields' Australian operations, without which the company cannot operate. Australia is a water scarce country with severe drought cycles, including in the regions where Gold Fields operates. The most recent drought resulted in the 2019-2020 wildfires which burnt across the entire country causing widespread damage. Notably, electricity infrastructure and cross-country network systems were damaged when poles and wires were burnt by the bushfires. The Australian Energy Market Operator has been forced to call on emergency back-up reserves at short notice to maintain electricity supply to certain areas.

Company-specific details about how the impact identified will affect the value chain: Gold Fields' operations could be negatively affected if their supply of grid-tied electricity is interrupted. Diversifying the energy mixes of the Australian mines', particularly with technologies that are less water intensive will both reduce the risk of disruptions to Gold Fields' operations due to electricity disruptions and will also assist in reduce water stress in the country.

#### **Timeframe**

1-3 years

#### Magnitude of potential impact

Medium-high

#### Likelihood

Likely

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

Yes, a single figure estimate

#### Potential financial impact figure (currency)

1,100,000

Potential financial impact figure - minimum (currency)

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

# **Explanation of financial impact**

Approach employed to calculate the potential financial impact figure:

The average financial loss of revenue for 1 day's production loss across the Australian operations is USD 4.3 million. There are four mines operating in Australia, thus the financial impact of any one of the mines being affected is approximately USD 1.1 million. 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 2019 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' Australian operations, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different facilities.

#### Primary response to risk

Supplier engagement
Other, please specify
Increase supplier diversification

#### **Description of response**

Company-specific explanation of the primary response to the risk:

Gold Fields continues to invest in alternative and cleaner electricity supplies. The company has invested in solar power at the Granny Smith mine and in June 2019 Gold Fields and global energy group, EDL, announced a multi-million dollar investment in a world-leading energy microgrid, which combines wind, solar, gas and battery storage. This investment has assisted in diversifying the group's energy supply in Australia. The hybrid power station (assisting to diversify the electricity supply) will further result in over 50% of the Agnew mine's energy requirements being supplied from renewable and low-carbon sources. The 23MW power station that integrates solar with gas and diesel was commissioned in November 2019. This will assist Gold Fields in moving away from coal derived electricity and have a smaller water impact across the region. As a result, Gold Fields hopes to both reduce the risks of downtime due to electricity interruptions and contribute to reducing water intensity along the value chain and across the region (renewable power stations are typically less water intensive than coal-fired power stations). This aligns with Gold Fields Water Stewardship Policy.

#### Cost of response

78,000,000

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

Approach employed to calculate the cost of the response:

The cost provided is related to the capital expenditure required to invest in the new power generation technologies which will assist in diversifying the energy mix of the Australian operations.

# Country/Area & River basin

Ghana
Other, please specify
Ankobra

#### Stage of value chain

Supply chain

#### Type of risk & Primary risk driver

**Physical** 



Inadequate infrastructure

#### **Primary potential impact**

Reduction or disruption in production capacity

#### Company-specific description

Gold Fields has identified several risks that could be considered to have a significant impact. The risk discussed below is considered particularly relevant considering the current pandemic. For more information on risks, see the 2019 Integrated Annual Report or https://www.goldfields.com/group-risks-and-opportunities.php.

The Damang and Tarkwa operations in Ghana are separated by roughly 30km of road. This road is utilised for the transportation of material/equipment between the mines as well as for bringing in of purchased materials and delivery of products. One of the risks Gold Fields faces is severe weather events, such a heavy rainfall, that have the potential to damage the road between the two operations.

How the impact identified will affect the direct operations:

During such heavy rainfall events, a vast quantity of water falls into the region in a short period of time. This can lead to localised flooding that can block or even severely damage this road. Examples of such damage include potholes and sections of the road being washed away. Potholes have the potential to damage the vehicles utilising the roads and also slow down the flow of traffic. This increases the time it takes for vehicles and materials to move along this road and between the mines. This could result in a slow-down of production as well as temporary stoppages if vehicles or equipment are damaged whilst utilising the road.

#### **Timeframe**

Current up to one 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)

1,700,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)



#### **Explanation of financial impact**

Approach employed to calculate the potential financial impact figure:

The average financial loss of revenue for 1 day's production loss across the Ghanaian operations is USD 3.5 million. There are 2 mines operational in Ghana, thus the financial impact of any one of the mines being affected is approximately USD 1.7 million. 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 2019 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 Ghanaian operations, assuming that the facilities operated 80% of the total days in the year. The actual figure would vary across the different facilities.

#### Primary response to risk

Direct operations
Increase capital expenditure

#### **Description of response**

Company-specific explanation of the primary response to the risk:

Gold Fields has made considerable capital expenditures in the national road infrastructure, which culminated in the construction of a new road between Damang and Tarkwa. The road was completed and handed over to the Ghana Highway Authority in July 2019.

The construction of the road was undertaken through Gold Fields' Shared Value Program and was the largest Shared Value project to date. The road has significant socioeconomic benefits for the approximately 100,000 community members living in the Tarkwa-Nsuaem and Prestea Huni-Valley municipalities. The construction of the road has simultaneously assisted Gold Fields' Ghanaian operations by reducing risks that the respective operations could be negatively impacted by damage to the connecting road as a result of severe weather events. In this way, Gold Fields has assisted the Ghanaian operations, local communities and authorities to adapt to climate change impacts in the area, for the mutual benefit and sustainable development of all parties.

#### Cost of response

27,000,000

#### Explanation of cost of response

Approach taken to determine the cost of the response strategy:

The cost provided is related to the capital expenditure invested in the construction of the road: USD 27 million. The construction of the road took approximately 2 years to complete.



# 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

Gold Fields has identified several opportunities that could be considered to have a significant impact. The opportunity discussed below is considered particularly relevant considering the current pandemic. For more info on opportunities, see the 2019 Integrated Annual Report or https://www.goldfields.com/group-risks-and-opportunities.php.

#### Why this opportunity is considered strategic:

Support from host communities is imperative to social and relationship capital. Investments in improving community livelihoods ensures long-term sustainability and post-mining livelihood continuation. The Group is committed to creating shared value in its communities, particularly where these address the intersection of climate impacts and community vulnerability. COVID-19 has highlighted the plight of vulnerable communities in the face of global risks. Basic service provision, such as clean water is vital in the fight. Gold Fields is committed to the health and safety of its host communities and providing necessary infrastructure.

### Actions to realize opportunity:

64% of Gold Fields' socio-economic development spend contributes to infrastructure development in host communities. Gold Fields identified that water quality is a major risk to local Peruvian communities in its climate change risk and vulnerability study. Gold Fields has, since 2006, invested significantly in water provision in the Hualgayoc community near the Cerro Corona mine, providing most of the community with access to clean water. The provision of safe water to Hualgayoc has contributed to community resilience against COVID-19.

#### Example of strategy in action:

During 2019 Gold Fields spent \$4,31 mill on socio-economic projects in the Americas.



\$407 thousand was spent on water infrastructure in Hualgayoc, strengthening social and relationship capital with this community. Accordingly, community acceptance in Peru improved to 48% during 2019. Gold Fields recognises that Hualgayoc is situated in a water stressed area, where drought could impact the continuous supply of clean water. Thus, Gold Fields developed the Group 2020-2025 Water Stewardship Strategy which includes regional water strategies and 3-year management plans to mitigate identified water risks. The pillars of this strategy include water efficiency, proactive responses and stakeholder inclusiveness. Relevant objectives include continued shared value programmes and decrease freshwater withdrawals.

#### Estimated timeframe for realization

4 to 6 years

#### Magnitude of potential financial impact

High

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

Yes, a single figure estimate

### Potential financial impact figure (currency)

407,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure – maximum (currency)

#### **Explanation of financial impact**

Approach employed to calculate the figure:

In 2019 Gold Fields invested \$407,000 in water infrastructure and services to the Hualgayoc community near the Cerro Corona mine. In particular, US\$202,000 was invested in operating and maintaining the potable water system in the Pilancones hamlet, which benefits 174 families. The remainder of the funds distributed were for the development of the potable water system in the Coimolache hamlet; studies for an alternative water project at La Cuadratura and ongoing supply of potable water to the city of Hualgayoc.

Gold Fields' 2020-2025 Water Stewardship Strategy requires increased ambition from the various operations in terms of water efficiency and water management in the future. This could result in additional water management projects and resultant capital expenditures going forward.



# W5. Facility-level water accounting

# W5.1

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

#### Facility reference number

Facility 1

### Facility name (optional)

South Deep

Country/Area & River basin

#### Latitude

-26.39802

#### Longitude

27.695503

#### Located in area with water stress

Yes

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

3,220

# Comparison of total withdrawals with previous reporting year

Higher

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

0

#### Withdrawals from brackish surface water/seawater

0

#### Withdrawals from groundwater - renewable

1.442

#### Withdrawals from groundwater - non-renewable

0

#### Withdrawals from produced/entrained water

0

#### Withdrawals from third party sources



1,778

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

248

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

Lower

#### Discharges to fresh surface water

248

#### Discharges to brackish surface water/seawater

O

#### Discharges to groundwater

0

#### Discharges to third party destinations

0

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

2,972

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

Higher

#### Please explain

Water withdrawals increased by 11% and discharges decreased by 24%. As a result, total consumption also increased by 16%, this could be attributable to an increase in production levels on site. The mine's overall productivity in 2019 improved by 53% to 33.4 tonnes per employee costed from 21.7 tonnes per employee costed in 2018.

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

The freshwater source used at the mine is rainwater which collects in a pit and is then pumped out for use on site.

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.

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 2

#### Facility name (optional)

Damang

#### Country/Area & River basin

Ghana

Other, please specify Ankobra

#### Latitude

5.249448

#### Longitude

-2.004898

#### Located in area with water stress

No

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

1,577

#### Comparison of total withdrawals with previous reporting year

About the same

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

1,534

#### Withdrawals from brackish surface water/seawater

0

#### Withdrawals from groundwater - renewable

42

#### Withdrawals from groundwater - non-renewable

0

#### Withdrawals from produced/entrained water

0

#### Withdrawals from third party sources

0

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

0

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

About the same

#### Discharges to fresh surface water



0

#### Discharges to brackish surface water/seawater

0

#### Discharges to groundwater

0

#### Discharges to third party destinations

0

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

1,577

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

About the same

#### Please explain

Withdrawals increased slightly by 1% despite increases in the tonnes produced (increase of 15% in 2019). Water withdrawal by Damang remained relatively similar to the previous reporting period. This is testament to the mine's efforts at water efficiencies and recycling (21% more water recycled in 2019 compared to 2018). The freshwater source used at the mine is rainwater which collects in the pit and is then pumped out.

Damang does not discharge its water to any sources. Damang is a closed water system and, therefore, no water is discharged from the operation. The discharge values are in line with the CDP defined water accounting calculation.

Water consumption at Damang remained more or less the same (1% increase). The consumption was calculated by subtracting the metered discharge volumes from the metered withdrawal volumes, as per the CDP-defined water accounting calculation.

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/Area & River basin

Ghana
Other, please specify
Ankobra

#### Latitude



5.249448

#### Longitude

-2.004898

Located in area with water stress

No

Total water withdrawals at this facility (megaliters/year)

4,332

Comparison of total withdrawals with previous reporting year

Lower

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

3,689

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

572

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

U

Withdrawals from third party sources

71

Total water discharges at this facility (megaliters/year)

299

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

299

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)



4,033

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

Lower

#### Please explain

Water withdrawals decreased by 25% at Tarkwa. Notably, discharges decreased by 73% and water consumption decreased by 13%. These decreases could be attributed to improved water efficiencies, especially in recycling and reduced use of fresh surface water.

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

Water withdrawal from Tarkwa decreased by 25% due to increased recycled/reused volumes (50% more water was recycled in 2019 compared to 2018 values). The freshwater source used at the mine is rainwater which collects in the pit and is then pumped out for use.

Accordingly, Tarkwa's water discharge decreased materially during 2019 due to increased recycling/reuse activities.

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/Area & River basin

Australia
Other, please specify
Western Plateau

#### Latitude

-31.208691

#### Longitude

121.663284

#### Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)



2,520

#### Comparison of total withdrawals with previous reporting year

About the same

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

0

Withdrawals from brackish surface water/seawater

62

Withdrawals from groundwater - renewable

2.086

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

372

Total water discharges at this facility (megaliters/year)

6

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

6

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

ი

Total water consumption at this facility (megaliters/year)

2.514

Comparison of total consumption with previous reporting year

About the same

#### Please explain

Withdrawals increased by a marginal 2%, which could be attributed to a slight increase in production of 1% compared to 2018 levels.



St Ives discharges came to 6ML, with no discharge water in the previous reporting period, hence a 100% increase in discharge volumes is recorded. Even though St Ives is a closed water system, some minor discharges are required from time to time, reflected by the low water discharge volume in 2019.

St Ives water consumption increased by a minimal 2%. Consumption was calculated by subtracting the 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 5

#### Facility name (optional)

Agnew

#### Country/Area & River basin

Australia
Other, please specify
Western Plateau

#### Latitude

-27.905845

#### Longitude

120.704727

#### Located in area with water stress

Yes

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

1.247

#### Comparison of total withdrawals with previous reporting year

Much lower

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

0

#### Withdrawals from brackish surface water/seawater

0

#### Withdrawals from groundwater - renewable

1,247



#### Withdrawals from groundwater - non-renewable

0

#### Withdrawals from produced/entrained water

0

#### Withdrawals from third party sources

0

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

19

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

Much higher

#### Discharges to fresh surface water

19

#### Discharges to brackish surface water/seawater

O

#### Discharges to groundwater

0

#### Discharges to third party destinations

0

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

1,228

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

Much lower

#### Please explain

Withdrawals at Agnew decreased by 50%, largely attributed to material increases in the volumes of reused/recycled water (240% more water was recycled in 2019 compared to 2018 levels).

Agnew's water discharge came to 19ML, no water discharge was recorded in the previous year, hence a 100% increase in discharge volumes is recorded. Even though Agnew is a closed water system, some minor discharges are required from time to time, reflected by the low water discharge volume in 2019.

Water consumption at Agnew decreased by 51% due largely to the decrease in water withdrawals. 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/Area & River basin

Peru

Other, please specify Tingo

#### Latitude

-6.776103

#### Longitude

-78.660736

#### Located in area with water stress

Yes

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

4,279

#### Comparison of total withdrawals with previous reporting year

Higher

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

3,120

#### Withdrawals from brackish surface water/seawater

0

#### Withdrawals from groundwater - renewable

1,159

#### Withdrawals from groundwater - non-renewable

0

#### Withdrawals from produced/entrained water

0

#### Withdrawals from third party sources

0

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

1,992

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



Much higher

#### Discharges to fresh surface water

1,992

#### Discharges to brackish surface water/seawater

0

#### Discharges to groundwater

0

#### Discharges to third party destinations

n

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

2,287

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

Lower

#### Please explain

Withdrawals increased by 14%, largely attributed to an increase in rainfall in the area, as increased rainfall directly influences the water withdrawal figure reported by the site. Cerro Corona's main water source is rainfall that is captured and stored in the Tailings Storage Facility (TSF). If there is high rainfall, the net water captured by the TSF is also high. The increase is also attributed largely to infrastructure related activities at the facility, these included the construction of a new waste storage facility and the reallocation of infrastructure (such as access roads, blasting supplies warehouse, and general warehouse) for the life extension plan. Accordingly, discharges increased by 96% due to these activities which also results in decreased water recycling levels as water used in these activities could not be reused/recycled (9% less water was recycled in 2019 compared to 2018 values).

Water consumption decreased by 17% due to increased consumption and discharge volumes. Consumption was calculated by subtracting metered discharge volumes from metered withdrawal volumes. The discharges increased, therefore decreasing consumption.

The freshwater source used at the mine is rainwater which collects in the pit and is then pumped out.

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 name (optional)

**Granny Smith** 

#### Country/Area & River basin

Australia

Other, please specify Western Plateau

#### Latitude

28.9833

#### Longitude

122.6833

#### Located in area with water stress

Yes

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

2.332

#### Comparison of total withdrawals with previous reporting year

About the same

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

0

#### Withdrawals from brackish surface water/seawater

1.549

#### Withdrawals from groundwater - renewable

783

#### Withdrawals from groundwater - non-renewable

0

#### Withdrawals from produced/entrained water

0

#### Withdrawals from third party sources

0

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

44

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

About the same

#### Discharges to fresh surface water

44



#### Discharges to brackish surface water/seawater

0

#### Discharges to groundwater

0

#### Discharges to third party destinations

0

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

2,288

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

About the same

#### Please explain

Withdrawals increased by a marginal 4%, discharges decreased by 2% and consumption increased by 5%. Previously, Granny Smith discharged water to brackish water sources. In 2019, the facility discharged water to fresh surface water 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 8

#### Facility name (optional)

Gruyere

#### Country/Area & River basin

Australia

Other, please specify Western Plateau

#### Latitude

-27.59

#### Longitude

120.42

#### Located in area with water stress

Yes

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



2,827

#### Comparison of total withdrawals with previous reporting year

This is our first year of measurement

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

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

2.827

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

17

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

This is our first year of measurement

Discharges to fresh surface water

17

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

n

Total water consumption at this facility (megaliters/year)

2.810

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

This is our first year of measurement

#### Please explain

Gruyere was commissioned in 2019 and became fully operational by December 2019. Water withdrawal at Gruyere amounted to 2 827ML, while water discharge came to



17ML. Water was discharged into fresh surface water sources.

Water consumption at Gruyere came to 2810. 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.

#### W5.1a

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

#### Water withdrawals - total volumes

#### % verified

76-100

#### What standard and methodology was used?

The standard used: International Standard on Assurance Engagements 3000 The methodology: ERM Southern Africa (Pty) Ltd and ERM Certification and Verification Services (CVS) assurance methodology, based on the ISAE 3000 (Revised). 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

#### Water withdrawals - quality

#### % verified

Not verified

#### Water discharges – total volumes

#### % verified

Not verified

#### Water discharges - volume by destination

#### % verified

76-100



#### What standard and methodology was used?

The St Ives, Agnew and Gruyere operations are closed circuit systems; while the South Deep, Damang, Tarkwa, Cerro Corona and Granny Smith operations do discharge water.

The standard used: International Standard on Assurance Engagements ISAE 3000 The methodology: ERM Southern Africa (Pty) Ltd and ERM Certification and Verification Services (CVS) assurance methodology, based on the ISAE 3000 (Revised) 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.

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 treatment method

#### % verified

Not verified

#### Water discharge quality - quality by standard effluent parameters

#### % verified

Not verified

#### Water discharge quality - temperature

#### % verified

Not verified

#### Water consumption - total volume

#### % verified

Not verified

#### Water recycled/reused

#### % verified

76-100

#### What standard and methodology was used?

The standard used: International Standard on Assurance Engagements 3000 The methodology: ERM CVS' assurance methodology, based on the ISAE 3000 (Revised) and ISAE 3410 (for GHG Statements).

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?

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

#### W6.1a

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

| polic | olicy.      |  |   |  |  |  |  |
|-------|-------------|--|---|--|--|--|--|
|       | Scope       | Content  | Please explain  |  |  |  |  |
| Row 1 | Companywide | Description of business dependency on water Description of business impact on water Company water targets and goals Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change | A rationale for the scope selected: Water is a critical component across all of Gold Fields' businesses and therefore the 2019 Water Stewardship Policy Statement is applicable at a company-level, across all the regions in which Gold Fields operates.  An overview of the policy content: Gold Fields' Water Stewardship Policy recognising that the businesses (mines) are critically dependent on water which is required in both direct operations and further along the value chain. Gold Fields further recognises that water management at its facilities have social and environmental impacts. Accordingly, the Policy commits Gold Fields to setting site-specific water performance targets, in order to reduce freshwater withdrawals and to use water in as efficient a manner as possible.  Gold Fields acknowledges that water is a shared resource and therefore commits to achieving responsible and sustainable water use through engaging proactively and inclusively with stakeholders, especially those in host communities. As such, Gold Fields is committed to water stewardship though collective action. This also extends to Gold Fields employees, where the company has committed to ensuring all employees have access to clean drinking water, genderappropriate sanitation facilities and hygiene at their workplaces. |  |  |  |  |



|  | The group further acknowledges that access to clean water is a fundamental human right and that water security is linked and related to climate change risks. |
|--|---|
|--|---|

#### W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?  $_{\mbox{\scriptsize Yes}}$ 

#### W6.2a

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

| Position of individual | Please explain  |
|------------------------|---|
| Director on board      | How the responsibilities of the Directors on the board are related to water issues: water is a critical component of Gold Fields' business and therefore the highest level of direct responsibility for water sits with the Board and the respective directors. The Board's Safety, Health and Sustainable Development Committee is responsible for assisting the directors in their oversight of socio-economic, environmental, health and safety programs. This includes the monitoring of Gold Fields' efforts to improve water management practices, pollution prevention, recycling and conservation initiatives, as well as environment-related incidents and accidents. The Committee can also take decisions to ensure Gold Fields' compliance with relevant legislation and regulations around society, health, safety and the environment, as well as the principles of the ICMM and of the Global Compact. |

#### 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<br>mechanisms into<br>which water-related<br>issues are<br>integrated | Please explain  |
|----------|---|--|---|
| Row<br>1 | Scheduled - all meetings  | Monitoring implementation and performance  | How the governance mechanism(s) selected contribute to the board's oversight of water issues: The board is ultimately responsible and accountable for the implementation of water policies. As such, the board has oversight of water-related issues. |



Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives

The board is equipped to oversee water-related issues through various governance mechanisms. For example, the board has access to the information it requires to make well-informed decision on how to move forward regarding water-related issues through the mandate to monitor and review performance against water-related metrics. This includes responsibilities such as setting performance objectives, which provide the company with a measurable goal that can motivate further improvements.

Ongoing monitoring assists the board in managing water-related issues, such as progress against water performance objectives, and is assisted in such activities by the application of other governance mechanisms. For example, the board is tasked with overseeing major capital expenditures and reviewing budgets, business plans, other plans of action, policies, strategies and employee incentives. All of these mechanisms contribute to the board's oversight of water issues within Gold Fields.

#### 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

CEO's position in the corporate structure: The CEO is positioned at the top of the corporate structure and is responsible for the effective management and running of the company's business.

Nature of the CEO's reports to the board on water-related issues: The CEO is supported by the Executive Vice President: Sustainable Development and respective operations, which conduct quarterly assessments on business risks (including water risks and incidents) at operational and group level. These, and any other noteworthy events, are reported to the Board for the Board's consideration.

Water-related responsibilities of the CEO:

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. Their responsibilities include monitoring water-related performance and allocating appropriate resources to water-related issued.

#### W6.4

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

|       | Provide incentives for management of water-related issues | Comment |
|-------|---|---------|
| Row 1 | Yes   |         |

#### W6.4a

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

|                 | Role(s) entitled to incentive   | Performance indicator   | Please explain  |
|-----------------|---|---|---|
| Monetary reward | Corporate executive team Chief Executive Officer (CEO) Other, please specify Executive vice president sustainable development | Reduction of water withdrawals Improvements in efficiency - direct operations Implementation of water-related community project | Performance indicators chosen: - Group wide target to recycle/reuse 65% of water in the direct operations % reduction in water withdrawals. Gold Fields has an aspirational target to reduce group freshwater usage by 3% – 5% per year by 2023. This is included in the performance review scorecard of the Executive Vice President of Sustainable Development and cascaded down through regional vice presidents to key personnel at site level Number of water-related community projects are also key performance metrics. |



|                            |   |   | Rationale for chosen indicators:  |
|----------------------------|---|---|---|
|                            |   |   | Rationale for chosen indicators:  Recycle/reuse target is aligned with the commitment to the ICMM Water Position Statement. This represents an industry benchmark. It is also an easily measurable target.  This is aligned with Gold Field's goal to reduce its overall burden on water resources.  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. Good relations with the local communities are key to the operations' success.  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. |
| Non-<br>monetary<br>reward | Corporate executive team Chief Executive Officer (CEO) Other, please specify Executive vice president sustainable development | Reduction of water withdrawals Improvements in efficiency - direct operations Improvements in efficiency - supply chain Implementation of water-related community project | Performance indicators chosen: - Group wide target to recycle/reuse 65% of water in the direct operations % reduction in water withdrawals. Gold Fields has an aspirational target to reduce group freshwater usage by 3% – 5% per year by 2023. This is included in the performance review scorecard of the Executive Vice President of Sustainable Development and cascaded down through regional vice presidents to key personnel at site level 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 Statement. This represents an industry benchmark. It is also an easily measurable target whilst covering a significant portion of operation.   |



|   | - This is aligned with Gold Field's goal to reduce |
|---|--|
|   | its overall burden on water resources.             |
|   | - 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. Good          |
|   | relations with the local communities are key to    |
|   | the operations' success.                           |
|   | '  |
|   | 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.                |
|   |  |
|   |  |
| • |  |

#### 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?

Process to ensure consistency: Gold Fields' water policy has been encapsulated in the Water Stewardship Policy Statement and the 2020-2025 Water Stewardship Strategy. The Environmental Policy Statement mandates, amongst others, that the Group undertakes environmental stewardship in line with ISO 14001. Gold Fields has a range of guidelines and policies that are applicable across our mines, projects and regions to ensure that the group's direct and indirect activities are consistent with the Group Water Management Guideline. For any external engagements with key stakeholders, Gold Fields' Stakeholder Engagement, Sustainable Development and Climate Change policy statements ensure alignment with the Group Water Management Guideline. 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 executives are familiar with all Group guidelines and ensure that the message is consistent and in line with our various Group guidelines and policy statements. Annual reviews ensure early detection of any inconsistencies. Action is taken if inconsistency is discovered: should any inconsistencies arise, 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-<br>related issues<br>integrated? | Long-<br>term time<br>horizon<br>(years) | Please explain  |
|-------------------------------|---|--|---|
| Long-term business objectives | Yes, water-related issues are integrated    | 11-15                                    | Water issues integrated into long-term business objectives and company examples:  • Water stewardship at catchment level is integrated through site level management plans informed by catchment level stewardship priorities (one of five key elements of Gold Fields' sustainable development strategy)  • Water efficiencies are being addressed through Gold Field's group-wide recycling target (70% by 2023).  • Reduce withdrawals from freshwater sources by 3-5% per year by 2023, eg by improved recycling. Total freshwater use reduced by 7.4% in 2019  • Monitoring of quantity and quality of water discharges to minimize environmental impacts by using technology, such as long-term water balances, to evaluate use and minimize environmental impacts  • Flood planning and protection through infrastructural changes eg development of new downstream TSF at Damang  • Water R&D by allocating a budget 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 |



|  |   |       | Why decisions were taken: addressing water issues in long-term planning assists to identify and mitigate risks such as reduced supply; quality and increased water tariffs. These risks could negatively impact operating and capital expenses.  |
|--|---|-------|--|
| Strategy for<br>achieving<br>long-term<br>objectives | Yes, water-<br>related issues<br>are integrated | 11-15 | Water issues integrated into long-term strategy for responsible stewardship and water security:  • Pursuing zero harm through sound water management practices.  • Creating shared value and leaving an enduring, positive legacy.  • Integrating water management into mine planning.  • Measuring and reporting water management performance.  |
|  |   |       | Example of how water issues are integrated: 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. Notably, Gold Field's continued to invest in water infrastructure and potable water provision in 2019 for the Hualgayoc community near the Cerro Corona mine. Gold Fields provides the majority of community households in Hualgayoc with access to clean water. |
|  |   |       | 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.  |
| Financial planning                                   | Yes, water-<br>related issues<br>are integrated | 11-15 | Water issues integrated into long-term financial planning:  • Water management financial provisions for post-closure  • Site level management plans informed by catchment level stewardship priorities   |



| Budgets for research, technology and infrastructure to |
|--|
| manage water quality, efficiency and opportunities for |
| shared use   |

- Operational water efficiencies: minimize, reuse, recycle (e.g. Gold Fields increased water recycling/ reuse target to an aspirational 70% by 2023. In both 2018 and 2019 the ICMM recommendation of 60% was exceeded)
- Flood planning and protection
- · Long-term water balances to evaluate usage
- Monitoring of quantity and quality of water discharges to minimize environmental impacts

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.

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.

#### 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)

104

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

10

Water-related OPEX (+/- % change)

-17



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

10

#### Please explain

Year on year change: 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.

Furthermore, Gold Field's has made considerable capital expenditures related to other climate change issues, such as investing in alternative energy sources.

Description of water-related expenditures: CAPEX spend was related to Gold Fields' strategy to deliver permanent, high-quality water to the host communities of our Cerro Corona mine in Peru for domestic and agricultural purposes. Opex costs were largely related to water purchases .

#### 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 related outcomes scenarios and models applied |                                       | Company response to possible water-related outcomes |  |
|-----|--|---------------------------------------|---|--|
| Row | Nationally   |                                       | Gold Fields response to the water-                  |  |
| 1   | determined   | The NDCs of Gold Fields' host         | related outcomes of scenario analyses:              |  |
|     | contributions  | countries recognise that climate      | The results of the NDC scenario                     |  |
|     | (NDCs)   | change impacts make the regions       | analyses are incorporated into Gold                 |  |
|     |  | particularly vulnerable to water      | Fields' risk management processes                   |  |
|     |  | supply and quality risks. Gold Fields | which utilise a mixture of both                     |  |



uses the NDC scenarios of the related countries so that the company is aligned with the relevant national plans and measures to reduce global temperature increases.

The water-related outcomes associated with the climate scenarios include:

- Americas: Water shortages during drier months; constraints in delivering concentrate for shipping during severe weather events.
- South Africa: Variability in rainfall intensity increasing costs of alternate water sources; increased ambient temperatures will increase evaporative losses of water; Climate change-related regulatory uncertainty.
- -Australia: Variability in rainfall intensity increasing costs of alternate water sources; Water shortages during drier months; Water-intense supply chain
- West Africa: Increased capital and operational costs linked to construction and 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

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.

quantitative and qualitative analytical choices. Water risks are assessed and managed by the Board.

The outcomes of the scenario analyses have informed Gold Fields' business plans and budget allocations and led to the following water-related issues being incorporated in long-term financial planning:

- •Improve operational water efficiencies through minimization, reuse and recycle technologies
- •Site level management plans informed by catchment level stewardship priorities
- Long-term water balances to evaluate usage
- Flood planning and protection
- Monitoring of quantity and quality of water discharges to minimize environmental impacts
- Water management provisions postclosure
- •Budgets for research, technology and infrastructure to manage water quality, efficiency and opportunities for shared use

#### Anticipated timescale:

Gold Fields' strategy for achieving its long-term (11-15 years) water objectives is founded in 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).



#### 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 as the currency of water prices depends on the different regions. For example, the price of water in Australian operations is in Australian Dollars.

Based on the understanding of current costs of water and anticipating future price changes, the regional price of water can be established. 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<br>targets<br>and/or goals  | Monitoring at corporate level   | Approach to setting and monitoring targets and/or goals  |
|----------|--|---|--|
| Row<br>1 | Company-<br>wide targets<br>and goals<br>Basin specific<br>targets<br>and/or goals | Targets are monitored at the corporate level Goals are monitored at the corporate level | Gold Fields' approach to setting and monitoring targets and goals consists of inputs from both internal and external stakeholders. In 2019, Gold Fields' approach was expanded from considering company-wide targets and goals to include consideration of basin specific targets and goals.  Approach to setting company-wide targets/goals: Gold Fields' Water Policy Statement and the Group Water Management Guidelines (both updated in 2019) direct the setting of water performance targets at each site and at a company level. For example, Gold Fields' target to reduce total group freshwater withdrawals by 3% (or 415ML) was achieved in 2019 by |



reducing total freshwater use by 7.4%. Water withdrawal 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. In addition, another water-related goal is to strive for zero harm which assists in maintaining Gold Fields' compliance licence to operate as well as their social licence to operate. In 2019, Gold Fields' Group Water Management Guidelines were updated to include the commitments of the International Council on Mining and Metals Water Stewardship position statement.

Approach to setting basin specific targets/goals: This approach has been formalised the 2020-2025 Group Water Stewardship Strategy (finalised in early 2020), which includes regional water strategies and a three-year water management plan which are integrated with the 2020 business plans. This Strategy is based on three main objectives:

- 1. Become a water efficient operator by reducing as much freshwater demand from catchment areas as possible.
- 2. Adopt a proactive and risk-based approach to water management. E.g. embed water planning into core operational management, empower informed management decisions and align water risks with resourcing over the life of operations.
- 3. Work with stakeholders in the catchment area surrounding the mines.

General approach: Gold Fields identifies water goals and targets 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 a formal annual group water recycling target of 65% and an aspirational target of 70% by 2023, both of which are aligned with the ICMM water position statement. Water recycling assists the underlying facilities in reducing the consumption of freshwater, thereby reducing risks associated with water scarcity and stresses.

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. Gold Fields also ensures that all of its employees have access to clean drinking water and gender-appropriate sanitation and hygiene facilities at the workplace.



#### 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 a formal annual group water recycling target of 65% and an aspirational target to recycle 70% by 2023, motivated 3 out of its 4 regions being classified as water stressed. This target therefore contributes to water security in water stressed regions.

The 65% target was chosen because it aligns with best practice in the mining sector. The rationale for selecting this target and its level of ambition is linked to Gold Fields' commitment to group-wide alignment to the ICMM's water position statement. The 65% recycling target is therefore higher than the recommended sector best practice.

Water recycling at this level is important as it assists the underlying facilities reduce freshwater consumption, thereby reducing risks associated with water scarcity and stresses. Reducing water-related risks is a priority within Gold Fields and water recycling levels are, therefore, monitored at the corporate level.

#### **Quantitative metric**

% increase in water use met through recycling/reuse

#### Baseline year

2018

#### Start year

2018

#### Target year

2019



#### % of target achieved

100

#### Please explain

Gold Fields exceeded the annual group recycling target of 65% in the reporting year (2019). Overall Gold Fields recycled 68% (or 47,604 ML) of the group's water withdrawals compared to the target of 65%. This is a 3% improvement on the previous year's recycled volumes. Gold Fields exceed the ICMM recommended recycling target of 60% in both 2018 and 2019.

Furthermore in 2019, Gold Fields committed to increasing water recycling/fit-for purpose reuse to an aspirational 70% by 2023.

#### 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%-5% per year by 2023.

One of the target drivers is that three out of four regions in which the company operates are classified as water stressed regions. This target therefore contributes to water security in water stressed regions. In particular, reducing freshwater withdrawals at facility level assists in addressing water security for host communities that share the common water resources. This target is important because it assists in maintaining Gold Fields' social licence to operate in the area.

Additionally, reducing freshwater withdrawals assists in increasing water resource efficiencies at facility level, which often results in opex savings. Consequently, this target is set at the group level, enabling 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

2018

#### Target year

2019

#### % of target achieved

100

#### Please explain

Gold Fields exceeded the annual freshwater withdrawal reduction target of 3% in the reporting year (2019). Overall Gold Fields reduced our freshwater usage by 7.4% (or 1.125ML) in 2019 compared to the target of 3%.

#### W8.1b

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

#### Goal

Engaging with local community

#### Level

Company-wide

#### **Motivation**

Shared value

#### **Description of goal**

Gold Fields' most pertinent water goal in 2019 was the engagement of local communities on water matters, particularly in catchment areas around mines.

Why this goal is important to the company: engaging with stakeholders, is important because water from these areas is essential for both mining/processing activities as well as for host communities. Community engagements around water matters assist Gold Fields meet one of the key 2019 Board decisions: Drive Shared Value creation with impacted communities. Host communities are one of Gold Fields' most important stakeholder groups. Their support underpins social licence to operate which impacts the ability to generate sustainable value.

How Gold Fields is implementing the goal through investments in water infrastructure across the group. Eg. in 2019 Gold Fields continued to invest in water infrastructure and potable water provision in Hualgayoc near the Cerro Corona mine, addressing a key community need. Since the mine started operating in 2006, Gold Fields has provided the majority of Hualgayoc households with access to clean water. This is relevant



considering the global Corona virus pandemic, which may be restricted through good hygiene practices that rely on the supply of water.

The timescale of this goal will continue for the life of mine for each operation. Mines that actively engage local communities around water matters have a better chance of achieving water security for both direct operations and host communities.

#### Baseline year

2012

#### Start year

2013

#### **End year**

2030

#### **Progress**

Indicator used to assess progress: Gold Fields measures shared value creation through social economic development investments. The indicator used is US dollars invested and the quantity of this spend that remains in host countries.

Threshold of success and progress against it:

Of the US\$2.58bn in value created during 2019, US\$782m (33%) remained with Gold Fields' host communities. Comparatively,

in 2018, US\$687m (25%), of the US\$2.71bn in total value creation remained with Gold Fields' host communities. The values indicate that the Gold Fields mines are delivering ongoing economic benefit to the communities that host them.

This is an ongoing goal for Gold Fields' operations.

### **W9. Verification**

#### W9.1

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

Yes

#### W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?



| Disclosure module   | Data verified   | Verification standard | Please explain  |
|---------------------|---|-----------------------|---|
| W1 Current<br>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 | ISAE 3000             | These data points have been verified as they provide important information on Gold Fields' production and environmental impact. The verification ensures that Gold Fields can safely and accurately make corporate decisions using the data |

### W10. Sign off

#### W-FI

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

#### W10.1

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

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

#### W10.2

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

Yes

### Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP



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

#### Please confirm below

I have read and accept the applicable Terms