



**2022** WATER  
DISCLOSURE  
PROJECT  
30 June 2022

**MINING** *with* **purpose**

---

# Welcome to your CDP Water Security Questionnaire 2022

## W0. Introduction

### W0.1

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

Harmony is a world class gold mining and exploration company, established over seven decades ago with operations in South Africa and Papua New Guinea (PNG), one of the world's premier new gold-copper regions in South-east Asia. Harmony is currently the largest producer of gold in South Africa. Harmony's South Africa operations are located within the world-renowned Witwatersrand Basin – one in the Klerksdorp Goldfield, three in the West Rand and five in the Free State. Harmony acquired the Mponeng operations and related assets, such as Covalent Water Company and Mine Waste Solutions during October 2020. Covalent was established to operate, maintain, and manage dewatering operations from adjacent historical mine voids. The strategic intention of this acquisition was to enhance the group's recovered grade, all-in sustaining costs and operating free cash flow. The eight underground operations are Doornkop, Kusasaletu, Mponeng, Phakisa, Target 1, Tshepong, Masimong, and Joel. Unisel was closed in October 2020 and Bambanani is under care and maintenance. Additionally, Harmony has one open pit mine, Kalgold, and several surface treatment operations in the Free State. Harmony also acquired a uranium processing plant when it acquired Moab Khotsong. Water management has resulted in an 8.5% decrease in potable water management including the Moab operation which harmony acquired in 2019. Through the acquisition of Mponeng, the Covalent Water Company was acquired which ensures the Mponeng shafts remain dry. PNG is one of the world's foremost new gold-copper regions and has an established gold-copper portfolio in the country. Harmony owns 100% of the Hidden Valley open-pit gold and silver mine, and has a 50% stake in the Wafi-Golpu copper-gold project, both of which are located in the Morobe Province of PNG. In FY21, Harmony's South African operations located on the Witwatersrand Basin and Kraaipan Greenstone Belt, accounted for 71% of group Mineral Resources and 58% of group Mineral Reserves. South African operations achieved a 31% increase in gold production to 1.39Moz, compared to the previous year's production of 1.06Moz, largely due to the contributions of acquisitions made during the year (Mponeng and Mine Waste Solutions). Our PNG operation accounted for 29% of group Mineral Resources (gold and gold equivalent ounces) and 42% of group Mineral Reserves at year end (FY21).

Harmony has embedded sustainable development practices into its business strategy, business processes and decision making. Harmony's sustainable development framework

considers the 10 principles advocated by the ICMM, which serve as a best-practice framework for sustainable development in the mining and metals industry. Harmony has also considered and is now implementing the United Nations Global Compact and Sustainable Development Goals. Harmony has prioritised six of the SDGs which are directly aligned to the company’s business strategy and its four pillars. These processes and practices have incorporated the necessary standards and systems, including the relevant ISO systems, developed group standards for environment and safety, and standardised processes and definitions. These principles have become embedded in Harmony’s culture, values, and approach to leadership. Harmony endeavours to reduce energy consumption and GHG emissions, adapt to climate change and diversify the energy mix by promoting energy efficiency at the deep-level mines in South Africa; optimising and rebalancing our asset portfolio; and aligning its rehabilitation programme with the green energy agenda. Harmony has a strong pipeline of renewable and low carbon energy sources. Harmony has a water management strategy in place articulating its commitment to climate change mitigation and adaptation at a strategic level. The water strategy supports conservation and demand management, including optimisation of supply, particularly to secure supply during a drought, and for the sustainable development of the business and its host communities. Across the group, Harmony has implemented a campaign to re-use process water and thus reduce dependency potable water while increasing the amount of water recycled. This has enabled Harmony to continue to maintain a favourable water use intensity. Conservation of potable water is a priority, particularly considering the recent drought in South Africa and foreseeable drought patterns in future. Enhanced water awareness campaigns and water management initiatives, including recycling, among others, were effective throughout FY21.

## W-MM0.1a

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

Activity	Details of activity
Mining	Copper Gold Silver
Processing	Gold Silver Other non-ferrous materials processing, please specify Uranium

## W0.2

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

	Start date	End date
Reporting year	July 1, 2020	June 30, 2021

### W0.3

**(W0.3) Select the countries/areas in which you operate.**

- Papua New Guinea
- South Africa

### W0.4

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

- ZAR

### W0.5

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

- Companies, entities or groups in which an equity share is held

### W0.6

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

- No

### W0.7

**(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, a Ticker symbol	JSE: HAR, NYSE:HMI

## W1. Current state

### W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater	Important	Important	Direct use: Water with varying high-quality standards is used in all stages of mining – from mining to gold processing to dust suppressions

available for use			<p>and slurry transport. A continuous fresh water supply is essential to the operational continuity of Harmony's mines, its employees and the profitability of the business as any service disruptions caused due to a lack of water would have significant financial impacts. For this reason, sufficient amounts of good quality freshwater are considered to be important to Harmony's operations.</p> <p>Harmony is retreating process water to offset the demand on potable water from municipal, borehole and river sources and is considering further treatment options to increase the amount of water recycled to reduce dependency on potable water supplies. Harmony is progressing with regional exploration in PNG and should additional assets be brought on line these will result in increased volumes of freshwater in order to sustain Harmony's growing operational footprint.</p> <p>Indirect use: Harmony's supply chain produces goods that require large quantities of good quality fresh water. Harmony's key commodities purchased from stakeholders include steel, timber, cement, cyanide, caustic soda and lime. Water is used in the cement mixing process as well as caustic soda production. Furthermore, water is necessary in timber production for the growing of plantations. Sufficient amounts of good quality freshwater are thus considered to be important to Harmony's value chain. Harmony's increased operational footprint will require an increase of commodities, resulting in higher demand for freshwater upstream in the supply chain.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	<p>Direct use: Approximately half of Harmony's operations are located in the Free State region of South Africa. Due to freshwater constraints in the area, the reuse of process and fissure water at Harmony's operations is considered to be important. Continued pumping of underground water is required to enable mining and ensure the safety of employees. Harmony is exploring viable passive treatment options with trees to limit seepage from tailings and to treat underground</p>

			<p>water daylighting on surface based on future groundwater modelling scenarios. As a result, Harmony has implemented a group-wide campaign to re-use processed water in order to reduce dependency on existing ground water and municipal suppliers, especially on potable water supplies. This builds climate resilience in Harmony's operations and reduces the impact on the already constrained water sources in areas of operation. Harmony's water treatment plants and water recycling initiatives have been successful and the company will continue to drive these efforts. As such higher volumes of recycled water could become available for use across Harmony's operations. This would aid Harmony's future increase of water demand based on the company strategically growing its asset base. Therefore, sufficient amounts of recycled water will remain important in the future.</p> <p>Indirect use: None of Harmony's value chain partners make use of brackish or produced water when manufacturing their goods. For this reason, sufficient amounts of produced or brackish water is classified as not very important to Harmony's value chain partners. This is not anticipated to change in the future.</p>
--	--	--	--

## W1.2

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

	<b>% of sites/facilities/operations</b>	<b>Please explain</b>
Water withdrawals – total volumes	100%	All of Harmony's (100%) operations measure the total volume of water withdrawn on a monthly basis. The total withdrawal volumes are measured and monitored on a monthly basis to ensure Harmony's operations' compliance and to track their performance towards its water use targets. The monitoring is conducted using an online management system. All water withdrawal volumes are verified and available online. The online system also integrates with other water consumption drivers and tracks performance.

		Internal stakeholders have access to all the information. The information from the system is used in monthly and quarterly operational reviews.
Water withdrawals – volumes by source	100%	All of Harmony’s operations (100%) measure the total volume of water withdrawals per source on a monthly basis using an online management system. This data is measured and monitored to ensure accuracy and compliance with regulations as these volumes are published in Harmony’s annual reports. The annual reports are developed in line with (amongst others) the Global Reporting Initiative G4 guidelines and are independently audited. The category G4-EN8 ‘Total water withdrawal by source’ is defined as a material reporting aspect for Harmony. This allows Harmony to track its water use against targets as well as track water withdrawal costs from the different sources.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	100%	Entrained water volumes are not relevant at 15/24 of Harmony’s reported operations in the reporting year. Harmony monitors entrained water volumes at 100% (The remaining 9 operations) of their operations where entrained water is relevant. The volumes of water are monitored monthly by measuring the moisture content of the ore milled and the volumes of ore milled. The water volumes can then be calculated using these two parameters.
Water withdrawals quality	100%	Harmony monitors withdrawal quality at 100% of its operations. This aspect is measured by taking water samples at their operations. The surface water samples are taken on a monthly basis and the groundwater samples are taken on a quarterly basis. If the withdrawals are for consumptive purposes, then the monitoring of water quality is done daily.
Water discharges – total volumes	100%	All our operations (i.e. 100%) measure water that is discharged to the environment. This measurement is continuously taken when water is discharged daily at Margaret Water Company and Covalent Water Company operations. Discharges are measured at a timestep appropriate for the nature of discharges. It is important for Harmony to measure its discharge volumes to ensure

		environmental performance of the company. The quality and quantity of water discharges are monitored to ensure compliance with regulations. The volumes are measured using an online metering system and manual meter readings at some operations.
Water discharges – volumes by destination	100%	Several of Harmony’s operations have approval to discharge water, however, only four operations discharge, these are Joel, Kusasaletu, Covalent Water and Hidden Valley discharge (100% of operations that discharge). These four-operations discharge water to fresh surface water sources (the Wonderfonteinspruit and Watut rivers respectively). Discharges are measured per instance at Kusasaletu as discharges do not happen continuously. At Joel, only effluent is discharged. It is important for Harmony to measure its discharge volumes to ensure environmental compliance. The quality and quantity of water discharges are monitored as required by the relevant regulations. These volumes are measured using an metering system.
Water discharges – volumes by treatment method	100%	Only 4 of Harmony’s operations discharge water: Joel, Kusasaletu, Covalent Water and Hidden Valley (100% of operations that discharge). These operations measure and monitor the total volume of water that is discharged by the required treatment method. Harmony ensures pH balancing through liming, to neutralise and flocculate heavy metals for removal before discharge to the environment. Hidden Valley’s water treatment also includes cyanide destruction prior to environmental release. Kusasaletu and Joel discharge mining affected water, because of being water positive mines. Covalent Water discharges from two shafts to keep Mponeng operations dry. Water quality monitoring is conducted as per regulatory best practice guidelines including the water use licence issued to the operation. It is important for Harmony to monitor water quantity discharged to various treatment methods as these have costs related to them.
Water discharge quality – by standard effluent	100%	Harmony has four operations that discharge water to the environment, Joel, Kusasaletu, Covalent Water and Hidden Valley. All these operations



parameters		<p>measure and monitor water discharge quality data at each discharge instance. The volumes are measured using an online management system. The system allows for service water quality to be measured in real-time. Notifications to responsible personnel are automatically triggered should limits be exceeded. This allows for quick reaction and ensures water quality is maintained. The quality performance is also reviewed on a monthly basis. Quality is measured using several parameters such as pH, conductivity, suspended solids, Chemical Oxygen Demand, minerals and metals and E.coli. It is important for Harmony to monitor quality of the discharged water to ensure it remains within compliance limits. Harmony also conducts assays on samples through accredited laboratories.</p>
Water discharge quality – temperature	100%	<p>Harmony monitors water discharge temperature at 100% of its operations. Only four of Harmony's operations discharge water all of which monitor the temperature of the water before discharge, thus 100% is selected. This is monitored to ensure that the temperature of the water discharge is within the range permitted by licensing requirements. Meters at the discharge destination are used for monitoring of volume and handheld meters are used to test temperature and pH at the point when samples are taken. The monitoring frequency is continuous using these meters. In PNG and Harmony SA temperatures are measured only when samples are taken, daily, weekly or monthly.</p>
Water consumption – total volume	100%	<p>100% of Harmony's operations measure their total water consumption on at least a monthly basis. The consumption levels are measured and monitored to track water performance targets at each operation. 80% of the operations also monitor the total water consumption in real-time. Control room operations monitors the consumption 24/7. Alarms and exception notifications are also triggered when consumption patterns are abnormal. Furthermore, several operations also monitor the consumption on a component level. Harmony can identify which operations are over- or under performing in terms of water used per tonne of product produced. The water consumption</p>

		volumes are measured using an online metering system and are consistent with the CDP formula of $Withdrawals = Discharge + Consumption$
Water recycled/reused	100%	100% of Harmony's operations measure the volumes of water they reuse/recycle. This is done on a daily basis. This provides a way to track their performance against their water recycling target. The volumes of recycled water are measured using an online management system.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Harmony ensures the quality of water supplied to its employees for WASH services is monitored closely. Frequent measurements are taken to ensure the quality of water used for WASH falls within the required quality range where process water is used at Doornkop, Kusasaletu and Nyala (At the Tshepong and Phakisa operations). Harmony's employees at other operations have access to municipally supplied water for WASH services. This is monitored as part of the municipal system. Ensuring that Harmony's employees have access to good quality drinking water, water for cooking and cleaning and sanitation is considered to be a vital aspect for Harmony's success and growth. Employees at Kalgold mine have access to water from the reverse osmosis plant installed by Harmony, which is assessed and analysed daily to ensure good quality. At Harmony's Hidden Valley operation employees have access to fresh water which is treated at the onsite treatment plant before being used for WASH services.

## W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	44,231	Much higher	Harmony's withdrawals increased by 125% in the reporting year. This falls above the threshold of 40% set for the selection of much higher in the comparison column. The increase in water withdrawals is due to the acquisition of two

			<p>AngloGold Ashanti operations in South Africa. Harmony continues to develop its assets. As such Harmony expects water withdrawals to increase over the short and medium term. However, Harmony continues to manage finite resources responsibly, particularly further moves to maximise the mines' use of recycled water and to further restrict their water discharges. As a result of these and the improvements in water efficiency, the withdrawal volumes are expected to decrease in the long term.</p>
Total discharges	15,956	Much higher	<p>Harmony's discharges increased by 428% in the reporting year. This falls above the threshold of 40% set for the selection of much higher in the comparison column. Therefore, much higher was selected in the comparison column. The increase can be attributed to acquisition of two of AngloGold Ashanti operations in South Africa. Harmony anticipates that discharges will decrease in the short term as a result of improved water management practices such as water treatment onsite and remain similar thereafter.</p>
Total consumption	28,275	Much higher	<p>Harmony's consumption increased by 70% in the reporting year. The consumption value was calculated using the formula <math>W=D+C</math> where W is the withdrawals, D is the discharges and C is the consumption. Therefore <math>C=38784\text{ML/yr} - 10566\text{ML/yr}</math>. Harmony defines much lower/higher as any change above 40%. Therefore much higher was selected in the comparison column. The increase can be attributed to acquisition of two of AngloGold Ashanti operations in South Africa. Harmony expects water consumption to increase over the short and medium term. However, Harmony continues to manage finite resources responsibly, particularly further moves to maximise the mines' use of recycled water and to further restrict their water discharges. In addition, water treatment is conducted to generate potable water for consumptive purposes.</p>

## W1.2d

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

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	11-25	Higher	WRI Aqueduct	Harmony uses the WRI Aqueduct Water Risk Atlas tool to better understand water risk within the countries it operates – South Africa and Papua New Guinea (PNG). Harmony uses this tool as it has an up to date overview of regional and global water and water and water constraints. This tool was also used as part of Harmony's TCFD aligned climate change scenario analysis which included a detailed assessment of water risks across its operations. Harmony is already aware of its current water risks and uses the Aqueduct tool to understand future risks in terms of stress, water supply and water demand. The results from the tool form a key part of the input to Harmony's' Water Management Strategy. This focuses on improving water efficiency, protecting water as a resource, accounting for the value of water and strategically partnering for success on water management. Harmony uses the WRI Aqueduct definition of high water stress which is between 40-80% according to the online tool. Harmony defines much higher as any increase above 40%. Harmony's water

					<p>withdrawals increased by 58% resulting in a decrease in withdrawals from water stressed areas. Harmony recognises the importance of water, especially in areas of high-water stress, and as such has implemented a number of water savings targets and capital projects across its operations in order to manage water as effectively as possible. At many of Harmony's underground operations in South Africa, the company intercepts the aquifer to generate fissure water, which is then treated and used, thus liberating other fresh water supplies for other users in society. Water in South Africa is generally deemed a scarce resource and, as a country, South Africa has adopted an inter- and multidisciplinary approach to the management of our water resources by means of catchment management agencies. Harmony participates in a number of water catchment agencies including some of the following: • Far West Rand Technical Working Group • Far West Rand Dolomitic Association • KOSH Mine Water Forum • Free State Government Task Team</p>
--	--	--	--	--	--

## W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water,	Not			Harmony did not withdraw

including rainwater, water from wetlands, rivers, and lakes	relevant			from fresh surface water sources in the reporting year. Therefore, this source is not relevant.
Brackish surface water/Seawater	Relevant	3,566	Much higher	In the reporting year, some of Harmony's operations withdrew water from poor quality surface water sources therefore this source is relevant. This is a 45% increase when compared to the previous reporting period. This falls above the 40% threshold for the selection of much higher in the comparison column. This is primarily due to an inclusion of the newly acquired operations.
Groundwater – renewable	Relevant	1,528	Much higher	Harmony withdraws water from renewable groundwater at its operations (87%) and this source is therefore relevant. Withdrawals from this source increased by 277% compared to the previous reporting year. This is primarily due to an inclusion of the newly acquired operations. The new operations will investigate water optimization and use for sustainable initiatives. When compared without new acquisitions, Harmony's operations have remained stable in their water withdrawals. Harmony defines any change greater than 40% as much lower/higher. Therefore, much higher was selected in the comparison column. As Harmony implements

				sustainable water initiatives and optimization projects, these water volumes will potentially decrease.
Groundwater – non-renewable	Relevant	18,922	Much higher	Harmony withdraws water from non-renewable groundwater at its operations (87%) and this source is therefore relevant. Withdrawals from this source increased by 839% compared to the previous reporting year. This is primarily due to an inclusion of the newly acquired operations. Harmony defines any change greater than 40% as much lower/higher. Therefore, much higher was selected in the comparison column.
Produced/Entrained water	Relevant	746	Higher	Entrained water forms part of Harmony’s operations and relates to the moisture contained within the ore that is mined. This source is therefore relevant. The entrained water volumes increased by 25%. Harmony defines higher/lower as any change between 10% and 40%. Therefore higher was selected in the comparison column.
Third party sources	Relevant	19,469	Higher	Harmony withdraws water from third party sources at its operations, therefore this source is relevant. Water withdrawals from this source increased by 37 % compared to the previous reporting year. Harmony defines higher/lower as any change between 10% and 40%. Therefore, lower was

				selected in the comparison column. This is primarily due to an inclusion of the newly acquired operations.
--	--	--	--	--

## W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	11,936	Much higher	Only four of Harmony's operations discharge water from their sites. These are Joel, Kusasaletu, Margaret Water Company and Covalent Water Company in South Africa and Hidden Valley in PNG. All these sites discharge water into fresh surface water sources. Discharges increased by 295% in the reporting year. This is primarily due to much higher water discharges at Joel. Kusasaletu, Nyala and Joel discharge water on an ad hoc basis as well as the inclusion of Margaret and Covalent. Harmony defines any change greater than 40% as much lower/higher. Therefore, much higher was selected in the comparison column
Brackish surface water/seawater	Not relevant			No water is discharged to brackish surface water/seawater sources at any of Harmony's operations.
Groundwater	Not relevant			None of Harmony's operations discharge water to groundwater sources.
Third-party destinations	Relevant	4,020	This is our first year of measurement	The Margaret water company discharges water to third parties. This is the first year of inclusion for these volumes.



## W1.2j

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Not relevant				Harmony does not do any tertiary treatment to its water discharges
Secondary treatment	Not relevant				Harmony does not apply any secondary treatment to its water discharges.
Primary treatment only	Not relevant				Harmony does not apply any primary treatment to its water discharges.
Discharge to the natural environment without treatment	Relevant	11,936	Much higher	100%	All of Harmony's operations that discharge to the natural environment do not treat their water. These volumes increased by 330% due to the

					inclusion of Margaret and Covalent.
Discharge to a third party without treatment	Relevant	4,020	This is our first year of measurement	1-10	Only the Margaret Water Company discharges to third parties. This is the first year of inclusion of these water volumes.
Other	Not relevant				This category is not relevant to our operations.

### W1.3

**(W1.3) Provide a figure for your organization’s total water withdrawal efficiency.**

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	41,700,000,000	44,231	942,777.689855531	We anticipate our water withdrawal intensity to decrease in the future as our efficiency increased as more water efficiency projects are implemented and more recycled water is used out our operations.

### W-MM1.3

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

Yes

## W-MM1.3a

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

Product	Numerator: Water aspect	Denominator	Comparison with previous reporting year	Please explain
Gold	Total water use	Ton of ore processed	Lower	Harmony's water strategy supports conservation and demand management including optimisation. The water use intensity metric is used to track their performance in this regard. Harmony has a water target to reduce its water use volumes and this metric is used to monitor the progress towards achieving this target. This target forms part of the above strategy. This strategy will result in a reduction in the water intensity. The decrease in the metric can be attributed to water conservation efforts at operations. Harmony defines lower/higher as any change that is greater than 5% but less than 40%. Therefore, lower was selected in the comparison column as the intensity metric decreased by 23% in the reporting year. The intensity metric is anticipated to decrease in the future as the target is met to reduce the water use volumes.

## W1.4

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

Yes, our suppliers

Yes, our customers or other value chain partners

## W1.4a

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

Row 1

% of suppliers by number

1-25

## **% of total procurement spend**

76-100

### **Rationale for this coverage**

Harmony has engaged with its top 20 suppliers (by operational spend) on their water use. Engagement with suppliers on water use is key to Harmony's overall sustainability goals. Harmony engages with its suppliers to ensure their processes are in line with the groups' human rights & environmental standards, code of ethics & empowerment requirements and national environmental legislation. By selecting the top 20 suppliers, Harmony ensures that the majority of its upstream value chain is covered by this engagement. Harmony uses this information to understand how water is prioritised within the suppliers' organisation, as well as their approach to sustainability as a whole. Harmony requests these suppliers to provide information on their water management policies & usage, & whether they have been impacted by any water risks in the reporting year. This information feeds into how Harmony manages supplier contracts. Contracts will be suspended if suppliers in contravention or noncompliant.

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

Harmony's contractors are also expected to adhere to the company's Water Management Standard. The standard articulates good practice & set the minimum expectations for responsible water management. Harmony requests suppliers to provide information on their water management policies & usage, & whether they have been impacted by any water risks in the reporting year. Should a supplier be found to be in contravention or to be non-compliant, Harmony's contracts with them will be suspended. To date, there have been no such suspensions, & we have not received any reports of grievances against suppliers regarding adverse environmental impacts. This metric is used by Harmony to assess the success of its engagement. Harmony uses the information provided during supplier engagement to ensure alignment on environmental policies. The information is further used in meeting procurement targets related to the company's mining rights.

### **Comment**

Harmony found that the engagement with its suppliers on GHG emissions and climate change strategies strengthened the relationship with each of the suppliers. The engagement allowed Harmony and the supplier to gain a common understanding with respect to water-related information. Furthermore, the engagement has built credibility and trust with suppliers.

## **W1.4b**

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

---

### **Type of engagement**

Onboarding & compliance

### **Details of engagement**

Requirement to adhere to our code of conduct regarding water stewardship and management

### **% of suppliers by number**

76-100

### **% of total procurement spend**

76-100

### **Rationale for the coverage of your engagement**

All Harmony's contractors are expected to adhere to the company's Water Management Standard as well as the various environmental management programmes developed per water use license. The rationale for engaging with 100% of contractors in this regard is to ensure that all contractors understand and abide by the good practice standards and the minimum expectations for responsible water management set out in Harmony's Water Management Standard. The main aim is to conserve and use water in a responsible manner, for the benefit of Harmony's operations and its wider host communities.

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

The beneficial outcomes of the engagement activity assist Harmony to influence and manage water use within its boundaries but also within its wider scope of influence. Well informed contractors may extend the learnings on water management to different spheres of their respective business operations. Measures that conserve or responsibly manage water use will benefit wider communities and the environment. Harmony measures success in this regard, by assessing the number of suppliers whose processes are in line with the group's human rights and environmental standards, its code of ethics and its empowerment requirements. To date, there have been no such suspensions, and we have not received any reports of grievances against suppliers regarding adverse environmental impacts.

### **Comment**

Harmony found that the engagement with its suppliers on water stewardship and management strengthened the relationship with each supplier.

The engagement allowed Harmony and the supplier to gain a common understanding with respect to water-related information. The engagement further articulates Harmony's commitment to climate-change mitigation and adaptation at strategic levels.

Furthermore, the engagement has built credibility and trust with suppliers.

## **W1.4c**

**(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?**

Harmony engages with various partners in their value chain. Harmony prioritises engagements with their employees, surrounding communities and local governing authorities specifically regarding water-related issues. The rationale for prioritization is based on Harmony's recognition of the importance of an engaged, skilled and motivated workforce. Host community acceptance of Harmony's mines is key in maintaining social licenses to operate as well as forming partnerships with the community. Both Harmony's operational strategy and their socio-environmental rehabilitation plan refers to responsible resource management and thus, the health and safety of employees and community members, as well as adherence to the regulation of their operating regions, are prioritised.

The method of engagement with value chain partners includes:

- 1) formal communications: through information sharing and engagement campaigns;
- 2) informal communications: roadshows, pamphlets, and public announcements;
- 3) contractual obligations on environmental issues.

The strategy of engagement with value chain partners is based off Harmony's commitment to:

- 1) improve the living conditions of their employees and host communities, and
- 2) enhance socio-economic development, and ecological conservation, particularly with mine closures. Harmony's aim for post-mine closure is to ensure that the communities can support their own economies and live free from environmental/ health issues induced by poor mining practice.

Harmony measures success by comparing their performance to their targets. In South Africa, for example, the operations are measured in comparison to their group's targets and the South African Mining Charter. As such, Harmony's performance would be assessed against mine community development, sustainable development and growth, up to date project implementation and implementation of approved environmental management plans.

## W2. Business impacts

### W2.1

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

Yes

#### W2.1a

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

---

**Country/Area & River basin**

South Africa

Orange

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

Acute physical

Heavy precipitation (rain, hail, snow/ice)

### **Primary impact**

Increased operating costs

### **Description of impact**

South Africa is a water scarce country, with water availability expected to continue declining in the future, but due to climate change there is also potential to experience extreme rainfall events, due to the climate variability predicted. This is evident in the excessive rainfall Harmony experienced during FY21 at Kalgold, Kusasaletu and Mine Waste Solutions. Harmony's South African operations will experience more variable climate, with increased risks to water scarcity but also intense periods of rainfall leading to floods.

The excessive rain experienced at Kalgold resulted in production stoppages. For Kusasaletu the excessive rainfall in the catchment area caused the return-water dam to overflow, resulting in contaminated water flowing into the local catchment. For Mine Waste Solutions the excessive rainfall caused run-off from Kareerand tailings storage facility that blocked the outlet pipe in the return-water dam and overflowed into the Vaal River. The scale of the impact at both Kusasaletu and Mine Waste Solutions, was considered low.

### **Primary response**

Develop flood emergency plans

### **Total financial impact**

96,000,000

### **Description of response**

The response strategy to the excessive rainfall experienced is under implementation through the construction of a storm water dam. The total financial impact was derived as part of the direct cost of constructing the storm water dam. The total financial impact cost was derived from the incident management measures.

At Kusasaletu, Harmony, monitored the impact at the point source and downstream and concluded that there has been no impact on the receiving environment. A marginal increase on elements monitored was noted at point source which normalised downstream. The total financial impact cost was derived from invoices received from the company used to test the quality of water discharge.

At Mine Waste Solutions, the impact was monitored from point source where higher levels of sulphate and total dissolved solids were detected. However, no impact could be detected to the receiving environment. To improve resilience in response to this impact Harmony is in the process of constructing additional containment facilities to separate clean and dirty water.

---

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

South Africa  
Orange

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

Chronic physical  
Water scarcity

### **Primary impact**

Increased operating costs

### **Description of impact**

Our mines are critically dependent on water and security of water supply is a material risk for us. Water is used throughout our mining process. Moreover, water is a critical requirement for Harmony's growth prospects, particularly hydraulic tailings reclamation. Water is scarce in the Free State, South Africa. This water scarcity is a risk that could generate a substantive change to operations, as well as to the profitability of the business (since stoppages lead to large financial implications).

We are largely dependent on municipal water supply in South Africa and in turn, related tariff increases and/or shortages in supply. We have previously experienced production losses due to water constraints from water utilities. The Free State is predicted to become increasingly hotter and drier, although during FY21 we weren't exposed to extreme water scarcity. However, rising temperatures and prolonged periods of water scarcity are likely to increase the risk of water shortages. This could have significant impacts on water availability and the operation of our Free State mines. It could also lead to more stringent water use requirements, water rationing, periodic cuts, and potential tariff increases. Harmony will not be able to operate if there are insufficient water volumes, resulting in production interruptions and major revenue losses. Stoppage of the Free State operations due to water scarcity or constrained municipal supply could result in losses of up to R 155 million/day.

### **Primary response**

Adopt water efficiency, water reuse, recycling and conservation practices

### **Total financial impact**

296,000,000

### **Description of response**

Harmony has adopted a group-wide campaign to reuse process water and reduce their dependency on groundwater. Harmony set long-term targets to reduce the water used for primary activities by 7% and increase water recycled by 6%, by FY22. Three water-treatment plants have been constructed to date that assist in securing water for operations, while reducing consumption and supporting water-conservation initiatives. These plants reduce consumption of potable water and recycle much of their own fissure water, while saving costs for the operation. During FY21, these plants treated 60 MI of water per day resulting in water bill savings of R 296 million.

After recent acquisitions, we have operational control of Covalent Water, which is a valuable addition to our portfolio as it opens significant opportunities to benefitiate and commercialise this scarce resource. Covalent was established to operate, maintain, and manage dewatering operations from adjacent historical mine voids. Covalent discharges on average 20MI per day into the nearby Wonderfonteinspruit or stream and operates



under an existing directive issued by the Department of Water and Sanitation. All water quality meets relevant discharge requirements for livestock standards. With the physical impacts of climate change posing potential threats to water security in South Africa, these shafts are strategic assets for community upliftment as well as operational growth and development.

## 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

8

#### Number of inactive tailings dams

54

#### Comment

The number of tailings facilities in South Africa increased when Harmony's Mponeng & Mine Waste Solutions operations were acquired.

---

#### Country/Area & River basin

Papua New Guinea  
Fly

#### Number of tailings dams in operation

1

#### Number of inactive tailings dams

0

#### Comment

There is also a deep-sea tailings facility being considered for the Wafi-Golpu project to ensure minimum impact.

## 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)  
South Africa (SANS) 10286

#### **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**

Harmony identifies all our active tailings storage facilities (TSFs) as hazardous. The hazardous classification is applied as per the National Environmental Management Act. Hazardous implies any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment. Harmony operates, designs, and audits their TSFs in line with the SANS 10286 standard as well as the DMRE Code of Practice. Since the TSFs are hazardous, they are operated under Harmony's environmental codes, to ensure maximum care is taken. The status of each TSF determines the management strategy applied. Regular inspections are conducted. TSFs that are operational and being re-mined, are inspected daily to facilitate proactive management and plant management meet monthly to review them. In addition to external audits, Harmony's chief operating officer, certain executive managers and senior engineering staff meet on a quarterly basis to assess compliance and management. External specialists are invited to these quarterly meetings as and when required. Harmony noted the publication in 2019 of the Global Industry Standard on Tailings Management. Underpinned by an integrated approach to tailings management, Harmony has adopted and implemented many of the principles and measures advocated by the Standard.

## W-MM3.2b

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

---

**Tailings dam name/identifier**

Avgold Limited: Target 1 and 2

**Country/Area & River basin**

South Africa

Orange

**Latitude**

26.626147

**Longitude**

-27.785108

**Hazard classification**

Hazardous

**Guideline(s) used**

South Africa SANS 10286

**Tailings dam's activity**

Active

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

44.4

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

31.6

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their environmental codes. Target Mine is situated in South Africa and has two compartments of their tailings storage facility (i.e. Target 1 and Target 2). Together, these two compartment TSFs held 48.3 million m3 of tailings in FY2021. Target 2 compartment is now in care and maintenance however the Target 1 compartment is active, thus active has been selected for this tailings dam.

---

**Tailings dam name/identifier**

Harmony Gold Mine (Harmony 1 Plant): FSS2

**Country/Area & River basin**

South Africa

Orange

**Latitude**

26.794074

**Longitude**

-28.02117

**Hazard classification**

Hazardous

**Guideline(s) used**

South Africa SANS 10286

**Tailings dam's activity**

Active

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

39.3

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

50.4

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their environmental codes. Harmony 1 is a tailings dam which is situated in the Free State in South Africa. This TSF in FY2021 held 39.3 million m3 of tailings from all Harmony's Free State surface operations.

---

**Tailings dam name/identifier**

Harmony Gold Mine (Central Plant): Dam 23 (H4)

**Country/Area & River basin**

South Africa

Orange

**Latitude**

26.892874

**Longitude**

-28.06944

**Hazard classification**

Hazardous

**Guideline(s) used**

South Africa SANS 10286

**Tailings dam's activity**

Active

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

43.6

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

66

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their environmental codes. The Central Plant's tailings dams includes Dam 23(H4), which is situated in South Africa and in FY2021 held 43.6 million m3 of tailings.

---

**Tailings dam name/identifier**

Harmony Gold Mine (Central Plant): Brand D

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

26.852812

**Longitude**

-28.005319

**Hazard classification**

Hazardous

**Guideline(s) used**

South Africa SANS 10286

**Tailings dam's activity**

Active

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

49.1

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

71.5

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their

environmental codes. The Central Plant's tailings dams includes Brand D. which is situated in South Africa and held 49.1 million m3 of tailings in FY2021.

---

**Tailings dam name/identifier**

Harmony Gold Mine (Saaiplass Plant): St Helena 123

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

26.709771

**Longitude**

-28.034362

**Hazard classification**

Hazardous

**Guideline(s) used**

South Africa SANS 10286

**Tailings dam's activity**

Active

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

35.6

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

75.1

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their environmental codes. The Saaiplass St Helena 123 TSF is also situated in South Africa and held 35.6 million m3 of tailings in FY2021.

---

**Tailings dam name/identifier**

Harmony Gold Mine (Doornkop Plant): Doornkop

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

27.784882

**Longitude**

-26.205289

**Hazard classification**

Hazardous

**Guideline(s) used**

South Africa SANS 10286

**Tailings dam's activity**

Active

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

51

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

63.1

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their environmental codes. The Doornkop Plant in South Africa has a TSF which in FY2021 held 49.4 million m3 of tailings.

---

**Tailings dam name/identifier**

Harmony Gold Mine (Kusasaletu Plant): Kusasaletu Upper and Lower

**Country/Area & River basin**

South Africa

Orange

**Latitude**

27.353305

**Longitude**

-26.465038

**Hazard classification**

Hazardous

**Guideline(s) used**

South Africa SANS 10286

**Tailings dam's activity**

Active

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

32.9

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

37.4

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their environmental codes. The Kusasaletu Plant in South Africa has an Upper and Lower TSF. Together these two sub-divided TSFs held 32.9 million m3 of tailings in FY2021.

---

**Tailings dam name/identifier**

Harmony Gold Mine (Noligwa Plant): Mispah 1 and 2

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

26.774707

**Longitude**

-26.997888

**Hazard classification**

Hazardous

**Guideline(s) used**

South Africa SANS 10286

**Tailings dam's activity**

Active

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

64.9

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

13.8

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their environmental codes. The Noligwa Plant in South Africa has two sub-divided TSFs as



well, called Mispah 1 and 2. In FY2021 held these two dams help 64.9 million m3 of tailings together.

**Tailings dam name/identifier**

Hamata

**Country/Area & River basin**

Papua New Guinea  
Fly

**Latitude**

-6.723669

**Longitude**

146.9909

**Hazard classification**

Hazardous

**Guideline(s) used**

Australian National Committee on Large Dams (ANCOLD)

**Tailings dam's activity**

Active

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

31

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

18.2

**Please explain**

Harmony recognises the detrimental impacts which tailings storage facilities (TSF) could pose on their surroundings and the knock-on impact that could have on their host communities. Harmony thus establishes a Zone of Influence boundary around all of their TSFs and manages their TSFs in line with the SANS 10286 standard as well as their environmental codes. The Hamata TSF is located in Papua New Guinea at the Hidden Valley operation. In FY2021 the dam held 13.3 million m3 of tailings.

**W-MM3.2c**

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

Procedure	Detail of the procedure	Please explain
Acceptable risk levels	Establishment of site-level guidance and standards for	1) The potential impacts of Harmony's TSFs on human health and ecosystems are managed

	<p>acceptable risk levels across all life stages, including post-closure</p> <p>Establishment of company-wide standards for acceptable risk levels that follow a company policy to eliminate or minimize water-related risks associated with tailings dams</p> <p>Other, please specify</p> <p>Establishment of site-level guidance and standards for acceptable risk levels for occupational health and safety</p>	<p>through use of the Mandatory Code of Practice (CoP) for Mine Residue Deposits (MRD). MRD updates are provided every two years to the South African Department of Mineral Resources and Energy (DMRE). This extends to Harmony's PNG mine practices as well, to manage all TSFs uniformly. The CoP is reviewed annually to ensure it remains updated. All TSF waste was managed by (i) minimising the quantity of material stored to limit the extent of the footprint of land disturbed, (ii) ensuring storage sites are physically and chemically safe and well-engineered, and (iii) undertaking progressive rehabilitation – returning affected land to productive use after mining. The CoP stipulates a suggested closing methodology which Harmony uses to inform their site-specific closing strategy, to maintain acceptable risk levels in the closure of their mines. This closing methodology is reviewed annually to ensure that it remains current, applicable, and compliant with country-specific legislation. 2) Harmony's quantification of acceptable risk levels form part of the CoP for MRD, which is used as a framework for each of Harmony's tailings storage facility to detail the individual CoPs. Monthly, quarterly, and annual reports are compiled based off the CoP while weekly inspections are conducted. The reports are submitted to Harmony's board, the operating team and the DMRE. Similarly, the site-specific operating procedures are reviewed annually to maintain applicability and legislative compliance. 3) Daily inspections, to facilitate proactive management, are conducted on TSFs to ensure that all TSFs are in adequate condition and to minimise risks associated with spillages or flooding of a TSF. The CoP for MRD sets out the framework to manage Harmony's deposits, even after mine closure (as per DMRE's mandatory requirement). All Harmony mines make use of this guidance as a means through which to ensure basic adherence to the South African occupational health and safety standards. The health and safety of mine employees and any other persons affected by the deposits is of key priority to Harmony. The guidance provided by the CoP is adapted on a site-to-site basis. 4) All our tailings storage facilities are in good standing and have been verified by the International Mining</p>
--	---	---

		Industry Underwriters on an annual basis; the Cyanide Management Institute every 18 months and the DMRE every two years.
Operating plan	<p>An operating plan that includes the operating constraints of the dam and its construction method</p> <p>An operating plan that considers the consequences of breaching the operating constraints of the dam</p> <p>An operating plan that includes periodic review of the foundations and slope materials</p> <p>An operating plan that evaluates the effectiveness of the risk management measures and whether performance objectives are being met</p>	<p>1) The potential impacts of Harmony’s tailings dam facilities on human health and water ecosystems are managed through use of the Mandatory Code of Practice (CoP) for Mine Residue Deposits. Harmony uses the CoP across its operations both in South Africa and Papua New Guinea, to develop their individual site-level operating plans, which consider all applicable design limitations, assumptions, and principles regarding TSFs. Harmony operates within the design limits of the dam, continuously referring to the CoP as a framework for each TSF and considering the health and safety of mine employees and any other affected persons in the process of developing site-based operating plans. Each operating plan is reviewed on an annual basis to remain current, applicable, and compliant with legislation. 2) As some aspects of our operations particularly tailings deposition, entail altering the physical landscape permanently it is our aim to rehabilitate the land concurrently (where it is possible) to effective and appropriate post-mining land use once mining has ceased.</p> <p>Harmony’s TSFs were constructed with specific volume constraints which have been maintained and revitalised from time to time. The design specifications of each dam stipulates the constraints of that dam, as well as the construction methodologies used. To ensure that Harmony can manage their impact on human health and water ecosystems, Harmony must adhere to the design specifications. The company monitors its TSFs frequently and reports on their tailings capacity used, annually. In FY21, none of Harmony’s TSFs were operated beyond the design threshold.</p>
Approval	<p>A policy to eliminate or minimize water-related risks associated with tailings dams is approved by a C-suite officer</p> <p>The operating plan and the life of facility plan are approved by the EHS manager</p>	<p>Harmony’s Water Management Strategy and Policy, company-wide (and site-specific) operating plans and the life of facility plans are all approved by the Board and Exco as part of planning process. The Environment, Social and Governance (ESG) board-level committee (the EHS committee within Harmony) over-sees the policy development and</p>

	<p>The operating plan and the life of facility plan are approved by a C-suite officer</p> <p>The results of the assurance program and the change management process are approved by the EHS manager</p>	<p>planning, while the implementation of plans are managed by the COO (C-suite officer). Harmony manages the potential impacts to human health or water ecosystems associated with tailings dams through the Mandatory Code of Practice (CoP) for Mine Residue Deposits (MRD) as well as through the Environmental Management Programmes (EMPr). This is an over-arching document for management of the TSFs under Harmony’s control. The CoP for MRD is compiled by a multi-sectoral team including representatives from Harmony, national and regional authorities, labour unions and tailings storage facility specialists. This assurance programme document and associated procedures are signed off by Harmony’s ESG team. The principle objectives of this document include: • To set out plan to manage all applicable design assumptions and principles during the life of the deposits; and • The protection of health and safety of mine employees and any other person affected by the deposits. This document covers all operations and is used as a framework for each tailings storage facility to details site-specific CoPs. Monthly, quarterly, and annual reports compiled based on the CoP, while daily monitoring also occurs. The reports are submitted to both Harmony’s operating team and the DMRE. The COP, operating plans and procedures, closure methodology and assurance programs are reviewed on an annual basis, to ensure they are current, applicable and compliant with legislation.</p>
--	---	--

### 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.**

---

**Value chain stage**

Direct operations

### **Coverage**

Full

### **Risk assessment procedure**

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

### **Frequency of assessment**

More than once a year

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

More than 6 years

### **Type of tools and methods used**

Tools on the market

### **Tools and methods used**

WRI Aqueduct

Other, please specify

Internal company methods

### **Contextual issues considered**

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

### **Stakeholders considered**

Employees

Investors

Local communities

NGOs

Regulators

Suppliers

Water utilities at a local level

Other water users at the basin/catchment level

### **Comment**

Company level: Harmony's Executive Management and Executive Directors (including the Chief Operating Officer and General Managers) meet on a quarterly basis to evaluate business risks that should be considered. Environmental issues, including water security and the various expenses associated, form part of the risk assessment processes followed and the business risks that are identified and assessed. These risk analyses take place both internally (for operational cost and compliance purposes) as well as externally (considering suppliers that may be impacted by water shortages affecting their production). Water risk considerations are also considered in the annual life of mine plans and budget plans.

---

**Value chain stage**

Supply chain

**Coverage**

Full

**Risk assessment procedure**

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

**Frequency of assessment**

More than once a year

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

More than 6 years

**Type of tools and methods used**

Tools on the market

**Tools and methods used**

WRI Aqueduct

Other, please specify

Internal company methods

**Contextual issues considered**

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

**Stakeholders considered**

Employees

Investors

Local communities

NGOs

Regulators

Suppliers

Water utilities at a local level

Other water users at the basin/catchment level

**Comment**

Facility level: All Harmony's operations adopt a Water Management Strategy. This strategy details the risk assessment procedure that each operation is required to undertake. The risk assessment procedure followed includes: 1) hydrological and geo-hydrological investigations; 2) an identification of the sources, pathways and receptors

for pollution impact; 3) an evaluation of impacts on the operation's catchment resource; 4) the completion of a water census; and 5) the assessment of local water-related legislation and permitting. The completion of the necessary steps outlined by the water risk assessment strategy and procedure gives rise to the identification of each operation's top water risks.

## W3.3b

### **(W3.3b) 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.**

Harmony's process for identifying, assessing, and responding to water-related risks is based on their engagement between management and the board regarding their direct operations, and between the company and stakeholders regarding other stages of their value chain. Through maintaining transparent and healthy relationships with all relevant stakeholders, Harmony can adequately manage the risks and uncertainties surrounding their operations. The executive committee and the audit and risk committee have quarterly meetings where they discuss water risks and changes in the responses to these risks.

Harmony's operations are critically dependent on water. Thus, water-related risks are earmarked as key in Harmony's risk assessment process. Climate change impacts on water, results in risks and opportunities to Harmony's operations, assets, and social considerations. These risks will impact on Harmony's operating costs, business infrastructure, general operations, host communities and their supply chain.

Harmony makes use of the WRI Aqueduct Tool to pre-empt water-related risks which could impact on their business operations, value chain and other relevant stakeholders. Harmony also makes use of continuous water monitoring processes to track their water consumption, to improve their management methods. Harmony's use of the WRI Aqueduct tool in conjunction with their monitored consumption values to drive water recycling initiatives. During 2021, Harmony produced their second report that is aligned with the TCFD. An increase in rainfall patterns and drought are highlighted as key physical risks in the disclosures.

In conjunction with use of the WRI Aqueduct Tool, Harmony's process to identify key water-related risks and opportunities is driven by:

- 1) identifying and understanding the key water-related risks affecting their water strategy and the opportunities afforded to achieve their business goals.
- 2) input from key stakeholders.
- 3) facilitating engagements with stakeholders to ensure risks are addressed systematically.
- 4) ensuring that identified water risks/ opportunities consider challenges faced by the gold sector.
- 5) adherence to national and international water commitments to identify emerging risks/ opportunities.

The outcomes of the above-mentioned risk assessment process inform Harmony's internal decision-making structure. This decision making is done through Harmony's evaluation of their risk appetite and tolerance levels, which contextualises the group's overall risk. Harmony recognises the potential impacts of water risk leading to a substantive financial impact for their business. Impacts include safety incidents (e.g., WASH aspects); regulatory changes (e.g.,

increasingly stringent water use licencing requirements) and major infrastructure incidents (e.g., flood damages). Harmony defines substantive financial impact as the revenue losses incurred if one day of operations was lost, resulting in around R 10 million losses (average loss for Free State operations).

Harmony uses scenario modelling through a digital twin of their mining operations, to pre-empt the risks/opportunities faced by their operations. These models determine tactical methods of combating the negative impacts of climate change and the water impacts for Harmony's operations. Conversations on outcomes of these models take place daily, weekly, and monthly amongst engineers at Harmony's operations. This twinning technology makes use of unique simulation capabilities specifically determined for Harmony, which can conduct root-cause analyses of existing inefficiencies, evaluate the effect of new and existing initiatives, as well as conduct cost modelling analyses on all items. Several operation's water networks have been modelled to indicate the costs associated with the cycling of water to be significant (on average R18/kL). The biggest portion of these costs are energy related - to pump and cool mine water. Given that Harmony recycles 60 Megalitres per year, the costs associated to cycle water could be as high as R1 billion per year (60,325,000 ML x R18/kL).

Harmony has a comprehensive water conservation strategy. The strategy consists of the several main initiatives, including:

- 1) Underground water management, focussed on reducing wastage and optimising water demand by monitoring water storage, quality, demand, and supply in real-time. This management system has been rolled out at Tshepong, Target and Bambanani mines.
- 2) Surface water management, which aims to improving the management of water between different mining operations through focusing on developing a global water balance. This allows engineers to improve water distribution which results in fewer water wastages.
- 3) Underground water leak reporting system, which is an online water leak reporting system. The system allows personnel to report and log water leaks from anywhere in the mine. After the water leak is logged, the relevant employee is notified.

## 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?**

To Harmony, a substantive financial change (or strategic impact) within business practices, operations, revenue, or expenditure is defined as approximately R11 million which equates to an average loss of one day of production at a typical Harmony operation. It should be noted that Harmony has emergency plans in place to prevent the shutdown of production for one day



at any of the operations. Hence, the R11 million average loss of one day of production is a worst-case scenario.

Harmony defines their substantive changes as a change that can negatively impact on the following four measures:

1. The safety and health of Harmony’s employees;
2. Business objectives;
3. The stability of the workforce; and
4. Its license to operate;

This definition applies to both our direct operations and supply chain, considering that both direct operation changes and upstream value chain’s changes could potentially hinder production from Harmony, resulting in revenue losses.

Harmony measures the impact of substantive changes through the revenue lost in the process of these changes. With substantial changes in production output or increase frequency of stoppages, revenue to stakeholders will decrease and thus these losses are view as financial risks.

Harmony’s threshold for such metric changes is defined as a percentage annual revenue that could possibly be lost due to production stoppage for longer than a day. Such stoppages/ production losses could potentially reduce our total revenue by 0.3% per annum (which we define as a substantive change).

The metric of “operation stoppages for longer than a day” is reviewed on a quarterly basis during Harmony’s risk assessment process. On a quarterly basis, Harmony’s Executive Management and Executive Directors evaluate business risk in which topics such as environmental issues relating to water, is one of the business risks considered.

An example of a substantive impact is the water restrictions (that could occur because of drought) which could lead to Harmony having to stop production, due to lack of water for operations. Water scarcity is thus considered a substantive financial risk to Harmony’s operations.

## 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?**

	<b>Total number of facilities exposed to water risk</b>	<b>% company-wide facilities this represents</b>	<b>Comment</b>
Row 1	24	100	Water in South Africa is considered a scare resource, particularly in the regions in which Harmony’s operations are situated. A shortage of water supply poses a significant threat to the operational continuity of Harmony’s mines, as well as to the profitability of the business (since stoppages lead to large financial implications). Water is essential to

			<p>Harmony’s operations. It is consumed in the development and growth of Harmony’s assets and is used throughout all the mining processes – from gold processing to dust suppressions and slurry transport. Harmony’s South African operations are situated in water stressed areas and thus all its facilities are exposed to water risks that could generate a substantive change to operations. However, during FY21, Kusasaletu and Mine Waste Solutions experienced excessive rainfall, which is expected due to the impact of variability from climate change. The South African facilities at risk include Doornkop, Kusasaletu, Phakisa, Target 1, Tshepong, Masimong, Bamabanani, Unisel, Joel, Kalgold, Harmony’s surface operations and Moab Khotsong.</p>
--	--	--	---

### 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**

24

**% company-wide facilities this represents**

76-99

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

35,261,546,000

**% company’s total global revenue that could be affected**

100%

**Comment**

Most of Harmony’s South African operations are situated in water stressed areas around the Vaal River basin, in both Gauteng and the Free State Province. As all these operations contribute to Harmony’s production output in South Africa (and revenue generated), 100% of Harmony’s operations could be affected within this river basin in terms of either flooding or drought. During FY21, Harmony acquired full operational control of the Covalent Water Company which increased the South African operations from 22 to 23.

---

**Country/Area & River basin**

Papua New Guinea  
Fly

**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**

3,971,710,000

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

100%

**Comment**

In Papua New Guinea, Harmony has one operation at which production does occur, the Hidden Valley mine, which is exposed to water risks that could result in substantive change in production output and revenue generated accordingly. This is due to it being the only operational facility in Papua New Guinea. As such, it results in 100% of the chosen metric which could be affected within the river basin.

## W4.2

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

---

**Country/Area & River basin**

South Africa  
Orange

**Type of risk & Primary risk driver**

Acute physical  
Drought

**Primary potential impact**

Reduction or disruption in production capacity

**Company-specific description**

Our mines are critically dependent on water and the security of water supply was identified as a material climate-related risk by Harmony. Water is used throughout our mining process – from gold processing to dust suppressions and slurry transport. Water

is a critical requirement for Harmony's growth prospects, particularly hydraulic tailings reclamation. The Free State Province in South Africa is a drought disaster area. Drought is a risk that could generate a substantive change to operations, as well as to the profitability of the business (since stoppages lead to large financial implications), including:

1. Reduced mining and or processing activities
2. Increased dust loads for open-pit operations such as Kalgold
3. Reduced viability of rehabilitation plans
4. Increased health and safety risks as clean water is critical for ensuring the health and safety of Harmony's employees and host communities especially given the current Covid-19 pandemic.

Significant amounts of water are used in all of Harmony's operations and development practices. In FY21, Harmony used 30.31 million m<sup>3</sup> of water for primary activities (up from 19.69 million m<sup>3</sup> in FY20 due to the recent acquisition of Covalent Water). Covalent was established to operate, maintain, and manage dewatering operations from adjacent historical mine voids such as Mponeng. The two shafts discharge on average 20ML per day into the nearby Wonderfonteinspruit or stream, and operate under an existing directive issued by the Department of Water and Sanitation. All water quality meets relevant discharge requirements for livestock standards. With the physical impacts of climate change posing potential threats to water security in South Africa, Covalent and Margaret Water become strategic assets for community upliftment as well as operational growth and development.

For Harmony's SA operations, water is not drawn directly from surface sources (except for Kalgold, which draws from an aquifer and Moab which has a small allocation to use water from the Vaal River), as Harmony is restricted by legislation. Bulk water service providers supply Harmony with most of the water that they consume. Other water sources for Harmony includes surface water run-off, water that enters underground operations, recycled water, and boreholes. Additionally, given the contiguous nature of our orebodies, many mines operate within the same catchment area. This, combined with the scarcity of water, puts further strain on water resources.

**Timeframe**

1-3 years

**Magnitude of potential impact**

High

**Likelihood**

Very likely

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

155,637,000

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

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

**Explanation of financial impact**

Water insecurity, caused by droughts or other reasons for intermittent water supply, could result in production stoppages and revenue losses.

This figure specifically considers Harmony's Free State operations and considers the following in the calculation: the gold produced, the gold price, revenue loss, cash operating costs and capital expenditure. In this regard the total loss per day of all of Harmony's Free state operations total R 155 637 000.

**Primary response to risk**

Other, please specify

Water-related capital expenditure

**Description of response**

Harmony has implemented a campaign to reuse process water while increasing the amount of water recycled. This campaign aims to reduce dependency on potable water. This enables the group to maintain or improve its water-use intensity. Moreover, Harmony has constructed three water-treatment plants in recent years that assist in securing water for operations, while reducing consumption and supporting water-conservation initiatives. These plants deliver dual benefits: reducing its consumption of potable water and recycling much of its own fissure water, while saving costs for the operation. Further to its water treatment plants, Harmony continues to pump water out of their Margaret and Covalent shafts, a portion of which is used within its processes with the remaining being discharged. This additional water could provide Harmony with water resources to adapt to future water-stressed conditions.

Harmony has implemented three water treatment plants:

- Doornkop – water treatment plant, R 30 604 000
- Nyala 1 – water treatment plant, R 16 747 190
- Kusasalethu – water treatment plant, R 2 500 000

**Cost of response**

49,851,190

**Explanation of cost of response**

The cost of response relates to Harmony's implementation costs for the three water treatment plants and include:

- Doornkop – water treatment plant, R 30 604 000
- Nyala 1 – water treatment plant, R 16 747 190
- Kusasalethu – water treatment plant, R 2 500 000

**Country/Area & River basin**

South Africa  
Orange

**Type of risk & Primary risk driver**

Acute physical  
Flood (coastal, fluvial, pluvial, groundwater)

**Primary potential impact**

Brand damage

**Company-specific description**

Flooding of tailings, pits and water storage facilities presents a significant and long-term challenge, with additional operational costs associated with water treatment and discharge that may extend over several years. Material climate- and water-related risk – which could result in substantive financial impacts include safety issues, include aspects such as flash flooding. Flash flooding can also result in major infrastructure incidents. As such, Harmony has identified flash flooding as a risk to their direct operations. This is supported by our 2021 Climate-related financial disclosure (TCFD aligned) as well as the risk and vulnerability assessment conducted by OneWorld. In addition, the WRI Aqueduct Tool lists the Free State region in South Africa as high risk to flash flooding.

Harmony operates multiple tailings facilities in the Free State region. Should extreme flooding occur there is a risk that the tailings dam could fail due to the increased volumes of water. This would result in reputational damage to the company and further impact on their social license to operate in the region.

**Timeframe**

1-3 years

**Magnitude of potential impact**

High

**Likelihood**

Unlikely

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

7,800,699,339

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

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

**Explanation of financial impact**

The potential financial impact relates to the estimated drop in share price that could result should tailings dam failure occur. An average share price of R 52.76/share was used as the closing price as of 30 June 2021. The number of issued ordinary shares at the end of the period was 616 052 197.

An estimated 24% drop in share price could occur from a tailings dam failure. This figure is based on a similar incident that occurred at a recent international tailings dam failure. The resultant share price is estimated at R 41.00/share. The difference in share price was then multiplied by the number of issued shares to obtain the financial impact of the drop in share price. This equated to R 7 800 699 339.

### **Primary response to risk**

Other, please specify

Harmony's response to this risk is to monitor its tailings dams to mitigate the risk.

The monitoring is conducted for safety purposes to minimize the chance of the dam failing.

### **Description of response**

Harmony identifies all our active tailings storage facilities (TSFs) as hazardous. Harmony operates, designs, and audits their TSFs in line with the SANS 10286 standard and by Pr Engineers, as per SANS requirements. This standard is used since it is the preferred international standard by which to practice safe TSF management in South Africa (SA) within which Harmony operates. Since the TSFs are hazardous, they are operated under Harmony's environmental codes, to ensure maximum care is taken.

Robust and meticulous engineering and dam design, along with a continual focus on managing risks as well as layered assurance and oversight, ensures sustainable integrity, stability, environmental and legal compliance for our facilities. These are all in good standing as verified by:

- International Mining Industry Underwriters (IMIUI) – annual audit of all operating tailings storage facilities
- International Cyanide Management Institute – audit every 18 months
- Mine residue deposit – updates provided every two years to DMRE
- Quarterly reports by accredited consulting engineers in South Africa and Papua New Guinea.

The status of each TSF – operational, re-mined or dormant – determines the management strategy that is applied. Regular inspections are conducted – in the case of those TSFs that are operational and being re-mined, such inspections are undertaken daily to facilitate proactive management. Our TSFs are inspected daily, and plant management meet monthly to review them. In addition to external audits, Harmony's chief operating officer, certain executive managers and senior engineering staff meet on a quarterly basis to assess compliance and management. External specialists are invited to these quarterly meetings as and when required.

Harmony notes the publication in 2019 of the Global Industry Standard on Tailings Management. Underpinned by an integrated approach to tailings management, the standard aims to prevent catastrophic failure and enhance the safety of our doorstep

communities. Harmony has always enforced exemplary standards in the design, engineering, operation, and decommissioning of tailings dams. In addition, controls are dictated by the eco-terrain in which we operate. After reviewing the standard, we are implementing those aspects that augment our existing protocols for heightened protection. Harmony will revisit full implementation of the standards once the supporting guidelines are issued.

**Cost of response**

150,000,000

**Explanation of cost of response**

The cost of the response is the amount that Harmony spent on the monitoring and maintenance of all its tailings facilities. TSF maintenance and monitoring undertaken by contractors and consultants cost roughly R 150 million.

## 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**

Papua New Guinea  
Fly

**Stage of value chain**

Supply chain

**Type of risk & Primary risk driver**

Acute physical  
Other, please specify  
Severe weather events

**Primary potential impact**

Reduction or disruption in production capacity

**Company-specific description**

Harmony's value chain exposes them to additional climate- and water-related risks. The characteristics of the Hidden Valley operation in Papua New Guinea – namely steep surrounding topography, high rainfall, and low levels of evaporation – results in a year-round positive water balance which puts the operation and its value chain at risk to extreme weather events. Climate-related disruption to supply chains can occur through flooding and intense storms. In Papua New Guinea extreme weather events such as prolonged rainfall and tropical storms are becoming more common. These extreme events in conjunction with a rise in sea level energy could result in port closures.

In the ICMM's latest report Adapting to a Changing Climate, several members



highlighted risks to port facilities during extreme weather events and from gradual sea-level rise. These risks are particularly acute when operations are dependent on a single transportation link that is owned and operated by an external body over which the mining or metals company does not have direct control. The potential disruption and delay in deliveries can cause operational losses and impact on the entire value chain.

In Papua New Guinea, a small island developing nation, most supplies are imported for mining operations making Harmony dependent on long global supply chains. The reliability of transport and infrastructure is highly vulnerable to climate change impacts which has consequences for supply chains and logistics. Port closures can therefore impact mining operations significantly. Should ports close, Harmony's Hidden Valley operation would be required to stop production as there would be a shortage in required goods.

The risk of severe weather events impacting on supply chains and logistics also remains a risk for our South African operations.

**Timeframe**

1-3 years

**Magnitude of potential impact**

High

**Likelihood**

About as likely as not

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

30,853,000

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

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

**Explanation of financial impact**

Should ports close due to extreme weather events such as tropical storms, Harmony will be unable to receive the necessary goods it requires, and the Hidden Valley operation's production would stop.

Therefore, the potential financial impact relates to the cost for stopping production at Harmony's Hidden Valley operation for a day which is estimated at R 30 853 000. This figure was calculated considering the gold price, amount of gold produced, revenue, capital expenditure and operating costs.

**Primary response to risk**

Supplier engagement

Other, please specify

Early Warning Response System and Coastal Engineering Protection; Critical spares stocks on site

### Description of response

The Climate Change (Management) Act (2015) in Papua New Guinea outlines several initiatives including an early warning response system and coastal engineering protection to adequately respond to extreme climate related events. This early warning system will allow Harmony to anticipate extreme weather events in advance and provide an opportunity to minimize the risk to their Hidden Valley operation. By participating in the early warning system process, Harmony can engage with suppliers to ensure that their goods are delivered and are not affected by any extreme weather events.

Furthermore, by participating in the coastal engineering protection programme, Harmony can assist in the development of infrastructure that can protect ports against extreme weather events thus reducing the delays experienced in getting their necessary supplies. Since this response involves engaging with suppliers and other stakeholders, there is no cost involved in the response.

### Cost of response

0

### Explanation of cost of response

There is no cost associated with stakeholder engagements with the PNG government and suppliers around both the early warning response system and the coastal engineering protection programme.

## W4.3

**(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes, we have identified opportunities, and some/all are being realized

## W4.3a

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

---

### Type of opportunity

Efficiency

### Primary water-related opportunity

Cost savings

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

Why this opportunity is considered strategic:

Harmony recognises an opportunity to reduce its operating costs through recycling its water. Process water recycling is prioritised to limit as far as practicable the volumes extracted from the surface environment. Harmony's water strategy supports the shift towards self-generation and zero discharge of water, to encourage the group's water conservation and demand management objectives. Harmony prioritises the conservation of potable water, especially considering the impact of drought in South Africa. In FY21 Harmony spent R298 835 478 on municipal water which was higher than our spend during FY20. This could partially be attributed to the acquisition of Mine Waste Solutions and Mponeng operations.

Actions to realize the opportunity:

Harmony has implemented a campaign to reuse process water while increasing the amount of water recycled. This enables the group to maintain or improve its water-use intensity. We have set long-term targets to reduce the water used for primary activities by 7% and increase water recycled by 6%, by FY22. Further to these short-term targets, Harmony has a 10 year target to recycle 80% of their water with zero discharge by FY27. Moreover, Harmony has constructed three water-treatment plants in recent years that assist in securing water for operations, while reducing consumption and supporting water-conservation initiatives. These plants deliver dual benefits: reducing its consumption of potable water and recycling much of its own fissure water, while saving costs for the operation. Further to its water treatment plants, Harmony continues to pump water out of their Margaret and Covalent shafts, a portion of which is used within its processes with the remaining being discharged. This additional water could provide Harmony with water resources to adapt to future water-stressed conditions.

Case study of the strategy in action:

Harmony has constructed three water treatment plants (WTP) that assist in continuing to secure water for operations, whilst also reducing water consumption and assisting with water conservation initiatives. The plants work so well that we are considering the feasibility of an additional plant in the Free State while work has started on plants in Orkney and Carletonville. The implementation costs of the three water treatment plant cost R 49 851 190.

**Estimated timeframe for realization**

Current - up to 1 year

**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)**

49,851,190

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

## Potential financial impact figure – maximum (currency)

### Explanation of financial impact

The financial impact relates to the cost to implement the water treatment plants. The cost breakdown is as follows:

- Doornkop – water treatment plant, R 30 604 000
- Nyala 1 – water treatment plant, R 16 747 190
- Kusasalethu – water treatment plant, R 2 500 000

---

### Type of opportunity

Markets

### Primary water-related opportunity

Strengthened social license to operate

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

Why this opportunity is considered strategic:

Water is a basic human right and limited access to this resource due to drivers outside of Harmony's control could jeopardise the company's relationship with their host communities and threaten Harmony's social license to operate. Harmony understands its role in making meaningful contributions towards community development, particularly in communities close to the mines.

In this regard, the strategic investment in water resources and infrastructure can help to reduce competition for scarce water resources and provide better lives for the community. This would give Harmony the opportunity to improve their social license to operate.

Actions to realize the opportunity:

Harmony optimises the supply of regional water in Welkom, Free State Province. This initiative provides support to the local government in terms of basic service delivery as well as ensuring sufficient supply for Harmony's operations in the event of a protracted drought. Harmony continues this initiative and embarked on several significant water projects within its host communities in South Africa. These projects further ensure that Harmony's host communities have access to safe potable water. The COVID-19 pandemic has highlighted the important of access to clean and safe water to combat diseases such as the coronavirus. By assisting in the provision of potable water to the community, Harmony has improved the resilience of their host communities in the Free State.

Case study:

We also recently acquired Covalent Water which operates, maintains and manages the dewatering operations from adjacent historical mine voids. The two shafts discharge on

average 20MI per day into the nearby Wonderfonteinspruit or stream and operate under an existing directive issued by the Department of Water and Sanitation. All water quality meets relevant discharge requirements for livestock standards. With the physical impacts of climate change posing potential threats to water security in South Africa, Covalent and Margaret Water become strategic assets for community upliftment as well as operational growth and development.

**Estimated timeframe for realization**

Current - up to 1 year

**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)**

400,000

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

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

**Explanation of financial impact**

Harmony spent R 400 000 as CAPEX for the construction of the Nyala water treatment plant in FY19. Considering that both water and road infrastructure form part of Harmony's relationship development process with their host communities, Harmony's investment in maintaining good relations was valued according to this. In addition, the Nyala water plan will be used to treat water that will then be provided to the employees as potable water and displace municipal water requirements. This displacement would allow the municipality to have more potable water at its disposal for local communities.

## 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)**

Doornkop

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-26.217517

**Longitude**

27.790908

**Located in area with water stress**

No

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

837

**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**

71

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

50

**Withdrawals from third party sources**

716

**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)**

837

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

Higher

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Doornkop increased their withdrawals by 27% and increased their consumption by 27% in the reporting year as they did not discharge water as in the previous reporting year. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 2

**Facility name (optional)**

Kusasaletu

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-26.454481

**Longitude**

27.3592

**Located in area with water stress**

Yes

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

2,878

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

About the same

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

16

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

45

**Withdrawals from third party sources**

2,817

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

156

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

About the same

**Discharges to fresh surface water**

156

**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)**

2,722

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

About the same

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge



volumes are obtained from direct measurements using an online data monitoring system.

Kusasaletu increased their withdrawals by 6% and increased their consumption by 6% in the reporting year. Their discharges remained the same as the previous year. If a zero value is

reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 3

**Facility name (optional)**

Phakisa

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

1,753

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

About the same

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1,753

**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)**

1,753

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

About the same

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Phakisa increased their withdrawals by 2% and increased their consumption by 2% in the reporting year. As in the previous reporting year they did not discharge any water at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 4

**Facility name (optional)**

Target 1

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

463

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

Higher

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

463

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

221

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

Much higher

**Discharges to fresh surface water**

221

**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)**

242

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

Lower

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Target 1 increased their withdrawals by 30% and decreased their consumption by 32% in the reporting year. Target did discharge water in the reporting year resulting in 100% increase in volumes discharged. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 5

**Facility name (optional)**

Tshepong

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

1,031

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

About the same

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1,031

**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)**

1,031

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

About the same

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's

formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Tshepong decreased their withdrawals by 6% and decreased their consumption by 6% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 6

**Facility name (optional)**

Masimong

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

383

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

Lower

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

383

**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)**

383

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

Lower

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Masimong decreased their withdrawals by 25% and decreased their consumption by 25% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 7

**Facility name (optional)**

Bambanani

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

1,024

**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**

12

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1,012

**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)**

1,024

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

Much lower

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Bambanani decreased their withdrawals by 54% and decreased their consumption by 54% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce as the operation reaches its end of life and closes.

---

**Facility reference number**

Facility 8

**Facility name (optional)**

Unisel

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

269

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

Lower

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

269

**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)**

269

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

Lower

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge

volumes are obtained from direct measurements using an online data monitoring system. Unisel decreased their withdrawals by 35% and decreased their consumption by 35% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce as this operation closed in October 2020.

---

**Facility reference number**

Facility 9

**Facility name (optional)**

Joel

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

907

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

About the same

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

907

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

756

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

Much higher

**Discharges to fresh surface water**

90

**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)**

151

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

Much lower

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system.

Joel increased their withdrawals by 7% and decreased their consumption by 80% in the reporting year. The discharges increased by 740%. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 10

**Facility name (optional)**

Kalgold

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-26.172222

**Longitude**

25.25

**Located in area with water stress**

Yes

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

305

**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**

89

**Withdrawals from groundwater - renewable**

178

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

38

**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)**

305

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

About the same

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Kalgold decreased their withdrawals by 1% and decreased their consumption by 1% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 11

**Facility name (optional)**

Hidden Valley

**Country/Area & River basin**

Papua New Guinea

Fly

**Latitude**

-6.723669

**Longitude**

146.9909

**Located in area with water stress**

No

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

2,154

**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**

1,983

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

171

**Withdrawals from third party sources**

0

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

2,485

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

Lower

**Discharges to fresh surface water**

2,485

**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)**

-331

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

Much higher

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. The Hidden Valley operation operates in a region that experiences heavy rainfalls. As a result of higher rainfalls, the operation's discharges are higher than the operation's

withdrawals in the reporting year leading to a negative consumption figure. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Hidden Valley increased their withdrawals by 18%, decreased their discharges by 11% and increased their consumption by 65% in the reporting year. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 12

**Facility name (optional)**

Joel Plant

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

0

**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**

0

**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)**

0

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

Much lower

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Joel Plant decreased their withdrawals by 100% and decreased their consumption by 100% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 13

**Facility name (optional)**

Harmony 1 Plant

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

1,231

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

Much higher

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

0

**Withdrawals from brackish surface water/seawater**

782

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

170

**Withdrawals from third party sources**

279

**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)**

1,231

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

Much higher

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system.

Harmony 1 Plant increased their withdrawals by 257% and increased their consumption by 257% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination.

Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 14

**Facility name (optional)**

Target plant

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

152

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

Higher

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

18

**Withdrawals from third party sources**

134

**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)**

152

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

Higher

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's

formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system.

Target Plant increased their withdrawals by 33% and increased their consumption by 33% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 15

**Facility name (optional)**

Saaiplaas Plant

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

305

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

About the same

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

305

**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)**

305

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

About the same

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system.

Saaiplaas Plant decreased their withdrawals by 5% and decreased their consumption by 5% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 16

**Facility name (optional)**

Central Plant

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

203

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

Higher

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

203

**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)**

203

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

Higher

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system.

Central Plant increased their withdrawals by 19% and decreased their consumption by 19% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 17

**Facility name (optional)**

Free State surface operations

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

1,168



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

About the same

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1,168

**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)**

1,168

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

About the same

**Please explain**

Free state surface operations is an aggregate of several surface operations owned by Harmony Gold in the Free State area. The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much

higher/lower is defined as a change greater than 40%. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. The Free State surface operations decreased their withdrawals by 2% and decreased their consumption by 2% in the reporting year. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 18

**Facility name (optional)**

Moab Khotsong

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-26.979163

**Longitude**

26.781464

**Located in area with water stress**

No

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

6,275

**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**

279

**Withdrawals from groundwater - renewable**

51

**Withdrawals from groundwater - non-renewable**

2,836

**Withdrawals from produced/entrained water**

101

**Withdrawals from third party sources**

3,008

**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)**

6,275

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

About the same

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. Moab Khotsong's withdrawals increased by 5%, and their consumption decreased by 5%. As in the previous reporting year there were no discharges at the operation. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 19

**Facility name (optional)**

Nufcor

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-26.309144

**Longitude**

27.73853

**Located in area with water stress**

Yes

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

16

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

About the same

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

16

**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)**

16

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

About the same

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. Harmony calculates their water consumption in accordance with the CDP's formula of Withdrawals minus consumption. Their water withdrawal and discharge volumes are obtained from direct measurements using an online data monitoring system. Harmony defines higher/lower as any change between 10% and 40% and about the same as any change below 10%. Much higher/lower is defined as a change greater than 40%. If a zero value is reported for this operation it indicates that the operation did not withdraw from that source or discharge to that destination. Water withdrawals decreased by 6%, discharges remained at zero therefore the water consumption decreased by 6%. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 20

**Facility name (optional)**

Nyala

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-28

**Longitude**

26.833333

**Located in area with water stress**

No

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

157

**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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

157

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

0

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

This is our first year of measurement

**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)**

157

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

This is our first year of measurement

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. This is the first year that this facility is being reported on therefore no comparison can be made with previous reporting years. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 21

**Facility name (optional)**

Kopanang

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-26.979163

**Longitude**

26.781464

**Located in area with water stress**

No

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

1,808

**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**

433

**Withdrawals from groundwater - renewable**

802

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

108

**Withdrawals from third party sources**

465

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

0

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

This is our first year of measurement

**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)**

1,808

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

This is our first year of measurement

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. This is the first year that this facility is being reported on therefore no comparison can be made with previous reporting years. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 22

**Facility name (optional)**

Mponeng

**Country/Area & River basin**

South Africa  
Orange

**Latitude**

-26.338435

**Longitude**

27.492663

**Located in area with water stress**

Yes

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

2,295

**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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

45

**Withdrawals from third party sources**

2,250

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

0

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

This is our first year of measurement

**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)**

2,295

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

This is our first year of measurement

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. This is the first year that this facility is being reported on therefore no comparison can be made with previous reporting years. Harmony anticipates their future water volumes to increase in FY22 due to the full inclusion of the operation in the reporting cycle. Thereafter volumes are expected to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 23

**Facility name (optional)**

Mine Waste Solutions

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-26.836511

**Longitude**

26.796732

**Located in area with water stress**

No

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

6,222

**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**

398

**Withdrawals from groundwater - non-renewable**

3,691

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

2,133

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

0

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

This is our first year of measurement

**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)**

6,222

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

This is our first year of measurement

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. This is the first year that this facility is being reported on therefore no comparison can be made with previous reporting years. Harmony anticipates their future water volumes to increase in FY22 due to the full inclusion of the operation in the reporting cycle. Thereafter volumes are expected to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling.

---

**Facility reference number**

Facility 24

**Facility name (optional)**

Covalent Water Company

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-26.338435

**Longitude**

27.492663

**Located in area with water stress**

Yes

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

6,948

**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**

0

**Withdrawals from groundwater - non-renewable**

6,948

**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**

This is our first year of measurement

**Discharges to fresh surface water**

6,948

**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)**

0

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

This is our first year of measurement

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. This is the first year that this facility is being reported on therefore no comparison can be made with previous reporting years. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling. Covalent Water Company maintains water

management infrastructure in shaft 4 and 6 at the Mponeng operations, where groundwater is withdrawn from the shafts and discharged into the Wonderfontein Spruit.

---

**Facility reference number**

Facility 25

**Facility name (optional)**

Margaret Water Company

**Country/Area & River basin**

South Africa

Orange

**Latitude**

-26.979163

**Longitude**

26.781464

**Located in area with water stress**

No

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

5,447

**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**

0

**Withdrawals from groundwater - non-renewable**

5,447

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

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

5,390

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

This is our first year of measurement

**Discharges to fresh surface water**

1,370

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

4,020

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

57

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

This is our first year of measurement

**Please explain**

The WRI Aqueduct Tool was used to evaluate the water stress in the operation's area. This is the first year that this facility is being reported on therefore no comparison can be made with previous reporting years. Harmony anticipates their future water volumes to reduce in line with their water targets and water conservation initiatives such as process optimisation and water recycling. Margaret Water Company maintains water management infrastructure at the Moab Khotsong operations.

## W5.1a

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

**Water withdrawals – total volumes**

---

**% verified**

76-100

**Verification standard used**

International Standard on Assurance Engagements (ISAE) 3000. Scope - Assurance Engagements other than audits or reviews of historical financial information. The water use (as part of water used for primary activities) was audited with limited assurance. The scope of coverage for the audit was corporate.

**Water withdrawals – volume by source**

---

**% verified**

76-100

### **Verification standard used**

International Standard on Assurance Engagements (ISAE) 3000. Scope - Assurance Engagements other than audits or reviews of historical financial information. The water use (as part of water used for primary activities) was audited with limited assurance. The scope of coverage for the audit was corporate.

### **Water withdrawals – quality by standard water quality parameters**

---

#### **% verified**

Not verified

#### **Please explain**

These volumes are not used to track water withdrawal efficiency and are therefore not verified.

### **Water discharges – total volumes**

---

#### **% verified**

Not verified

#### **Please explain**

These volumes are not used to track water withdrawal efficiency and are therefore not verified.

### **Water discharges – volume by destination**

---

#### **% verified**

Not verified

#### **Please explain**

These volumes are not used to track water withdrawal efficiency and are therefore not verified.

### **Water discharges – volume by final treatment level**

---

#### **% verified**

Not verified

#### **Please explain**

These volumes are not used to track water withdrawal efficiency and are therefore not verified.

### **Water discharges – quality by standard water quality parameters**

---

#### **% verified**

Not verified

#### **Please explain**

These volumes are not used to track water withdrawal efficiency and are therefore not verified.

### Water consumption – total volume

**% verified**

76-100

**Verification standard used**

International Standard on Assurance Engagements (ISAE) 3000. Scope - Assurance Engagements other than audits or reviews of historical financial information. The water use (as part of water used for primary activities) was audited with limited assurance. The scope of coverage for the audit was corporate.

## W6. Governance

### W6.1

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

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

### W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitment to align with	Harmony has adopted a company-wide approach to water management. This strategy provides the minimum requirements, strategic goals and the overarching principles defined by Harmony to guide the group's internal water management practices. Harmony's water management strategy includes (but is not limited to) the content specified, indicating Harmony's commitment to being a leader in environmental stewardship (both internally and externally) in managing water, to recognise it as scarce natural resource and in terms of driving operational efficiencies. Water management is recognised as a key priority for the group and therefore the company-wide policy needs to comprehensively address a wide range of elements in a consistent and well-coordinated manner. Over and above the business's dependency on water for their direct and indirect operations, the company is



		<p>public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p> <p>Other, please specify</p> <p>Conservation and protection of the water resource, as well as shared value</p>	<p>committed to the health and safety of their employees and surrounding communities, thus Harmony aims to ensure minimal social and environmental impact.</p> <p>As part of Harmony’s licence to operate in both South Africa and Papua New Guinea, the company commits to adhere to both local legislative limitations. Since both countries have committed to the SDGs, Harmony’s commitment to such public policies and other such regulations are part and parcel of Harmony’s responsible operational practices.</p> <p>Harmony aims to reduce their water footprint on their surrounding communities. Thus, Harmony has set long-term targets to reduce the amount of potable water by 10% while ensuring 50% is recycled, both targets set to be met by 2027. A company specific example of a company-wide water management approach is Harmony’s specification of performance standards related to its operations and procurement practices. The performance standards set for water include all stages of operation across the different regions in which the group operates. The performance standards therefore apply to planning, implementation and monitoring phases</p>
--	--	---	---

## W6.2

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

Yes

### W6.2a

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

Position of individual	Please explain
------------------------	----------------

Chief Executive Officer (CEO)	<p>Water is a critical resource to Harmony’s mining and processing activities. Water risks are therefore managed through influences from the Chief Executive Officer (CEO), who addresses issues at board-level through the Social and Ethics sub-committee, pro-actively filtering decisions and actions into Harmony’s operational targets. The CEO (an executive director on the Board) is ultimately responsible for the management of climate change and water-related risks at Harmony. It is responsibility of the CEO to integrate adequate water management and operational consistency in a top-down approach. The CEO’s water-related responsibility includes overseeing strategy development and implementation and identifying relevant risks and opportunities. Water-related targets and incentives, for example, were approved by the CEO. The Executive: Sustainable Development, who is responsible for the implementing Harmony’s water strategy, supports the CEO in his responsibilities. This strategy informs the appropriate management of water within Harmony.</p>
-------------------------------	--

## W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	<ul style="list-style-type: none"> <li>Monitoring implementation and performance</li> <li>Overseeing acquisitions and divestiture</li> <li>Overseeing major capital expenditures</li> <li>Providing employee incentives</li> <li>Reviewing and guiding annual budgets</li> <li>Reviewing and guiding business plans</li> <li>Reviewing and guiding major plans of action</li> <li>Reviewing and guiding risk management policies</li> </ul>	<p>As part of the mining industry, Harmony is afforded the responsibility and opportunity to be a responsible corporate citizen. In order for Harmony’s board to adequately execute their responsibilities, tasks are delegated to various board committees, not to reduce the overall responsibility of directors but rather reporting directly to the board.</p> <p>Harmony has integrated a thorough understanding of water management and water risks across its operational spectrum. We have integrated water into our long-term business objectives, our business strategy as well as our financial planning. As such Harmony’s commitment to responsibly managing water is driven from an executive level and has evolved from a strategy into practical and relevant actions across the group. This process is achieved through Harmony’s Water Strategy.</p> <p>The Social and Ethics Committee (SEC) has the highest level of strategic oversight regarding water-related risks at Harmony. This committee is appointed by Harmony’s Board. This SEC ensures that water-related risks are well</p>

	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing innovation/R&amp;D priorities</p> <p>Setting performance objectives</p>	<p>managed, and opportunities are earmarked, underpinning Harmony’s values. The SEC is guided by the relevant environmental legislation, including the Paris Agreement on Climate Change and the Nationally Determined Contributions by South Africa. In addition Harmony subscribes to the 17 UN Development Goals (SDGs), which consider water and water-related risks across the various goals.</p> <p>There is a direct line of communication between the SEC, Harmony’s Board of Directors and the executive management team. The executive management team is invited to all SEC meetings.</p>
--	---	--

## W6.2d

**(W6.2d) Does your organization have at least one board member with competence on water-related issues?**

	<b>Board member(s) have competence on water-related issues</b>	<b>Criteria used to assess competence of board member(s) on water-related issues</b>
Row 1	Yes	<p>Harmony’s corporate executive responsible for Sustainable Development, holds a Master of Science degree in sustainable development, which covers water-related issues. Harmony also has a board member who was the chair of Rand Water and another board member who works extensively on water under the ICMM.</p> <p>In addition, the Harmony board has overall responsibility for guiding the strategic direction of the company, including the management of water-related issues within the company. The board level competency is further evaluated against the King IV principles applied by Harmony, particularly principle 7 that ensures board members should comprise the appropriate balance of knowledge, skills, experience, diversity, and independence for it to discharge its governance role and responsibilities objectively and effectively with respect to sustainability and management of water issues. Competency requirements, such as key performance indicators, and incentives are in place for assessing board members that are responsible for environmental management and water-related issues.</p>

## W6.3

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

---

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

Chief Executive Officer (CEO)

**Responsibility**

Assessing water-related risks and opportunities  
Managing water-related risks and opportunities

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

Quarterly

**Please explain**

Harmony recognizes the need to be a responsible corporate citizen. This is monitored by the board of directors (the board), who are responsible for appointing the CEO.

Harmony's CEO serves as a link between the board and management and is accountable for reporting to the board and stakeholders. The CEO reports to the board and relevant stakeholders, quarterly, on Harmony's operating status, targets, and regulatory and including water-related actions.

The CEO is responsible for the implementation and execution of board-approved strategy, policies and planning, including Harmony's reputational value and their associated response to climate change and water-related impacts.

Ultimately, the CEO is responsible for all day-to-day management decisions and the implementation of the Company's long- and short-term plans. As such, water, its management, environmental and social stewardship, resource efficiency and emissions reduction are part of the CEO's operational responsibilities.

---

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

Other, please specify  
Executive- Sustainable Development

**Responsibility**

Assessing water-related risks and opportunities  
Managing water-related risks and opportunities

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

Quarterly

**Please explain**

At the forefront of Harmony’s environmental stewardship and climate (including water-related) actions, is Harmony’s Executive: Sustainable Development. This position forms part of the Executive Management Committee, who report directly to the CEO. In particular, the Executive: Sustainable Development manages and navigates group-wide climate- and water-related challenges faced throughout Harmony’s operations. This role acts as a support to the CEO’s ultimate responsibility. All reporting to the board on climate change and water-related actions/ impacts are done on a quarterly basis.

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

Safety, Health, Environment and Quality committee

**Responsibility**

Assessing water-related risks and opportunities  
 Managing water-related risks and opportunities

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

Quarterly

**Please explain**

The CEO is supported by an Executive Management Team. Harmony’s executive management comprises the CEO’s office, which is supported in its work by management teams for the South Africa and South-east Asia operations. Members of the Executive Management Committee meet weekly to discuss matters arising which includes water and climate related impact on water which could influence inter alia energy and emission targets, operational safety, the environment and community relations.

**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	NA

**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	Board/Executive board Chief Executive	Reduction of water withdrawals Reduction in	Harmony’s Social and Ethics Committee is a board-level committee whose responsibilities include providing the strategic

	<p>Officer (CEO) Chief Operating Officer (COO) Other, please specify  General Managers; Environment/ Sustainability managers</p>	<p>consumption volumes Improvements in efficiency - direct operations Implementation of employee awareness campaign or training program</p>	<p>direction for Harmony's water management strategy and related targets. The CEO assists the board in setting targets for their direct operations. Similarly, Harmony's COO: South Africa and CEO: South-east Asia are rewarded based on their ability to optimise their operational efficiency, while Harmony's General Managers are monetarily rewarded for the achievement of operational-level water efficiency management and withdrawal reductions, and target achievements. Similarly, the environmental managers are rewarded for managing Harmony's water footprint, the implementation of water efficiency programmes and water re-use initiatives. As such, efficiency targets are included in as Key Performance Indicators for these managers.</p> <p>The committee is remunerated for serving on the board, with 36% guaranteed pay, and a 35% long-term and 23% for short-term incentive. Short-term incentives are based on tangible target achievements including water-related incentives.</p> <p>The annual pay mix for the CEO constitutes 34% guaranteed pay, with 36% long-term incentives and 24% short-term incentives. Short-term incentives are based on tangible target achievements, including water-related incentives. Annually, 5% of all employee short-term incentives are based on environmental (including water) target achievements.</p>
<p>Non-monetary reward</p>	<p>No one is entitled to these incentives</p>		<p>Non-monetary rewards are not applicable in terms of Harmony's remuneration policy.</p>

## 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
- Yes, funding research organizations

## 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?**

Harmony adopts a company-wide water management strategy which provides a consistent approach and operations baseline for use across the group. This document clearly highlights Harmony’s objectives related to water conservation, efficient water use and the necessities surrounding water in the context of its host communities. In particular this includes:

- Integrating water management and efficiencies
- Acknowledging water in respect of climate change
- Water management at mine closure
- Recognising water as critical resource for local communities

To ensure the successful implementation of the Water Strategy in the overall group context, a framework for monitoring progress, integrating initiatives and communicating progress was developed. The well-defined communication component of the Strategy facilitates policy implementation and reporting, for both internal and external stakeholders. Internal communication, including education and awareness, encourages buy-in and behavioural change to water conservation. Using communication and education, regarding Harmony’s Water Strategy, the executive board and management can identify inconsistencies and mitigate accordingly.

## 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)

■ HAR-IR21.pdf

■ HAR-ESG21.pdf

■ HAR-CRFD21.pdf

## W7. Business strategy

### W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term	Yes, water-	16-20	Harmony recognises that water is a critical natural

business objectives	related issues are integrated		<p>resource in continuity, operational sustainability, and growth, and for a regional socio-economic context. Harmony's Water Management Strategy aims to direct water efficiency, promote conservation and demand management with a uniform Group-wide approach. Water-related issues are integrated in the company's long-term approach to ensure its operations remain feasible and sustainable. Water-related issues are integrated into the business objectives as:</p> <p>1) Awareness around the increasing frequency of extreme weather events (e.g. droughts and floods), how this will affect their water access and in turn, their operations. 2) Efforts towards decreasing Harmony's water consumption such that operating costs remain minimised with the ever-increasing water tariffs in South Africa (water scarce country) and Papua New Guinea 3) Managing water to ensure availability for the growth aspirations of Harmony's assets. An example of how these water-related issues is integrated into Harmony's long-term business strategy is indicated in the principles of Harmony's water management strategy which stipulate that all development strategies for new mines need to consider water management and optimal water-use practices, from the projects' foundation phase. This indicates how Harmony acknowledges the interconnectedness of water security and the success of all its operations, as interdependent role-players in achieving their key business objectives.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	16-20	<p>Harmony annually publishes reports which govern their business practices, stipulates their business strategy, and directs their actions towards achieving their long-term business objectives.</p> <p>Within these annual reports, Harmony explores their strategy used for optimising their water use intensity and limiting their impact (see ESG Report page 36).</p> <p>This annual reporting of Harmony's water-related actions is conducted in line with Harmony's water management policy and strategy. Harmony deals with the twin challenges of South Africa being a severely water-stressed region, while Papua New Guinea has a tropical climate, characterised by high rainfall. Water-issues are therefore adapted to the characteristics and requirements of each mine. In addition, water issues are</p>



			<p>integrated into in Harmony's life of mine plans and 5 year business plan.</p> <p>As such water fundamentally informs Harmony's capital investment programme and organic growth programme. Harmony has implemented a Water Management Strategy which directs their water usage and management techniques to ensure that all Harmony's operations maintain a uniform, groupwide approach to water management, such to obtain their stipulated long-term water use objectives.</p>
Financial planning	Yes, water-related issues are integrated	11-15	<p>The impacts of climate change, including changes in precipitation extremes and droughts, have been noted to have one of the highest impacts on the profitability of Harmony's business.</p> <p>Water is critical to Harmony's business operations, thus interruption in water supply pose a significant threat to Harmony's operational continuity and profitability in both South Africa and Papua New Guinea.</p> <p>Thus, in Harmony's Water Management Strategy, the financial implications of inefficient water availability are considered and integrated into Harmony' risk management processes annually.</p>

## W7.2

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

### Row 1

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

5

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

214

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

53

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

19

**Please explain**

OPEX and CAPEX expenditure were affected as a result of the COVID-19 pandemic. The Covid-19 pandemic significantly affected Harmony’s operations, gold production and employees in the last quarter of the financial year to June 2020 , following the South African government’s imposed temporary closures on underground mines as part of the nation-wide lockdown. The national lockdowns associated with the pandemic prevented us from maximising production to meet the increased demand, particularly in the fourth quarter of the year under review. Production at our Hidden Valley operation continued to be affected by the planned move from stage 5 to stage 6 mining in the pit during the year. The mine imposed its own site-lockdown for several weeks from the onset of the pandemic but was able to maintain production at a reduced rate. Both CAPEX and OPEX increased as operations returned to normal from the pandemic lockdowns, and these numbers are expected to increase as operations fully resume.

**W7.3**

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

	Use of scenario analysis	Comment
Row 1	Yes	Harmony has conducted excessive scenario planning exercises to internalise the impact of climate change on our business. A scenario-planning assessment was commissioned to aid understanding of the implications of each of the operating regions in South Africa and PNG. Scenario analysis has also informed the likely water risks from extreme storm or drought events, and increased temperatures that could affect underground ambient temperatures and possible food-security risks.

**W7.3a**

**(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.**

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related Climate-related Socioeconomic	Parameters used The scenario analysis considers the impacts on Harmony’s costs, revenues, and balance sheet  Key drivers of the scenario pathway includes:	Harmony earmarks key climate-related risks as stipulated in the relevant NDCs for their operations in both South Africa (SA) and Papua New Guinea (PNG). These are:	Harmony uses the outcomes scenario analyses for both SA and PNG to inform their business strategy and budget allocations for water-related risks across the lie of mine

		<p>-Regulatory environment Availability of natural resources ( -Markets and technology changes -Reputation risks -Financial analysis (revenues, expenditure capital and financing, Analytical choices Relevant scenarios was identified in order to assess the materiality of risks that may have an impact on Harmony’s business, these include physical and transitional risks.</p> <p>Physical Risks:</p> <ul style="list-style-type: none"> <li>• Unmitigated scenario based (based on IPCC’s RCP 8.5 scenario)</li> <li>• Nationally Determined Contribution (NDC) Scenario</li> <li>• The high mitigation scenario (based on IPCC’s RCP 2.6 scenario</li> </ul> <p>Transitional Risks 2°C scenario, which lays out a pathway and an emissions trajectory consistent with limiting the average global temperature increase to a temperature range around 2°C. 3 Effectively, a 2°C scenario asks the question “if the world limits warming at or below 2°C, what are the pathways for achieving that goal? Examples of 2°C scenarios that have been developed by the IEA include the following: IEA 2DS, IEA 450, DDPP, and IRENA.</p>	<p>For SA:</p> <ol style="list-style-type: none"> <li>1) Varying rainfall intensity patterns leads to increased disruptions in production, and in turn, increased costs of alternate water sources and water management systems.</li> <li>2) Temperature increases affects surface cooling plants’ efficiencies and cause heat stress for surface and underground employees, and</li> <li>3) Climate change-related regulatory requirements are changing, posing uncertainty to Harmony’s operations.</li> </ol> <p>For PNG:</p> <ol style="list-style-type: none"> <li>1) Harmony’s PNG operations are susceptible to coastal and inland flooding, malaria and vector-borne diseases, landslides, and water/sanitation.</li> <li>2) Exploration around mitigation options in PNG (including increasing renewable energy sources for national electricity supply, reducing energy demand, transportation and increasing the sequestration options in the forestry and land use sector).</li> </ol>	<p>of its operations, thus over a 30-year timeframe. For example, Harmony identified business and strategic risks faced by their Hidden Valley operations (i.e. steep surrounding topography, high rainfall and low levels of evaporation) posing significant challenges relating to mine water discharge. Water management techniques used include:</p> <ol style="list-style-type: none"> <li>1) controlled rainfall run-off to prevent erosion</li> <li>2) Recycling site water to limit volumes of water stored on the tailings storage facility</li> <li>3) treatment of wastewater prior to discharge.</li> </ol> <p>Climate-related projections and the NDC anticipate that SA will experience drier climates, which is recognised by Harmony as an operational risk.</p> <p>As such, Harmony has implemented a campaign to re-use their process water, thus reducing their dependency on freshwater by 7%, while increasing the</p>
--	--	---	--	---

			<p>3) Capacity building and technical skills transfer is required for adequate policy implementation and management of regulatory uncertainty in PNG.</p>	<p>amount of water recycled by 16%. Harmony has exceeded this target. To determine the possible impact of protracted drought, Harmony reviewed their water balance at each operation. The water treatment plants (WTP) at Doornkop, Kusasaletu and now Nyala (operated by Tshepong) minimises the impact of water stress on these operations. Harmony engages with WTP service providers to develop more WTP. This will secure water for their operations, reduce their water consumption, and increase conservation.</p>
--	--	--	---	---

## W7.4

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

**Row 1**

**Does your company use an internal price on water?**

No, but we are currently exploring water valuation practices

**Please explain**

Water is a basic human right and Harmony’s water policy earmarks the importance of water. Furthermore, Harmony acknowledges the unique water-related risks and opportunities faced by each of their operations in the various countries. The impacts of climate change on water resources are noted by Harmony to affect broader social costs related to water and water access. Thus, Harmony is in the process of implementing several water-related projects to assist its host communities in obtaining sustainable water supply, factoring the broader social context of water into its operational spend. Harmony’s Water Management Policy contributes greatly to the group’s awareness on

water efficiency practices and encourages water recycling programmes. Even though they do not use an internal water price, Harmony is very much aware of the significance of water to both their own operations and to the livelihoods of their host communities and the importance of protecting this resource.

## W7.5

**(W7.5) Do you classify any of your current products and/or services as low water impact?**

Products and/or services classified as low water impact		Definition used to classify low water impact	Please explain
Row 1	Yes	<p>Harmony fully appreciates the significant impact of our activities on the natural environment and water consumption and pollution. Our water consumption could have an impact on the environment and communities around our operations with whom we share this resource. As such, managing and mitigating our impacts on water-catchment areas – by ensuring we do not degrade the quality or reduce the volume of water in surrounding areas – is crucial to maintaining our social licence to operate. Despite consuming more, Harmony has improved its intensities per tonne of ore processed relative to water consumption.</p> <p>After recent acquisitions, we have operational control of Covalent Water, which is a valuable addition to our portfolio as it opens significant opportunities to beneficiate and commercialise this scarce resource. Covalent was established to operate, maintain, and manage dewatering operations from adjacent historical mine voids. Covalent, purchased in conjunction with Mponeng is critical to continue pumping water out of Mponeng to keep it dry, the discharge is however small. Margaret discharges on average 18Ml/day into the nearby most of which is recycled into the Moab Khotsong and Mine Waste Solutions reticulation circuit. With the physical impacts of climate change posing potential threats to water security in South Africa, these shafts are strategic assets for community upliftment as well as operational growth and development.</p> <p>Harmony continues to initiate projects to improve water efficiencies and impacts at our operations, including Mponeng and Mine Waste Solutions. Our expanded base of assets presents an opportunity to identify synergies within and between operations, which could support more aggressive reductions in the short to medium term, which could be considered as having a lower detrimental impact on water resources, and water quality.</p>	N/A

		Further to this Harmony has recently awarded a tender to commission two additional water treatment plants which will each treat 20 Ml of water per day.	
--	--	---	--

## W8. Targets

### W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	<p>Harmony’s water strategy guides setting and monitoring water targets and goals. This includes conservation and demand management, including optimisation of supply in the various regions, particularly to secure supply during a protracted drought, and for the sustainable development of the business and our host communities. In addition, Harmony has reviewed the water balances at each operation to determine the likely effects of the protracted drought. In this regard Harmony has set itself the target of reducing the volumes of water it uses for primary activities by 7% against a 2018 baseline of 18.6 million m<sup>3</sup>. To achieve this target Harmony has been improving water efficiency by investing in process changes.</p> <p>Harmony set a group-wide goal to reduce water used for primary activities. Harmony’s deep level underground mining operations are inherently water intensive. As such Harmony views the mitigation of its water use as a key priority for achieving operational sustainability and retaining its licence to operate.</p> <p>The achievement of this goal will also be beneficial to local communities who are dependent on the same resources. Measuring the success of this goal involves tracking the reductions on the use of ground water.</p>

### W8.1a

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

**Target reference number**

Target 1

**Category of target**

Water consumption

**Level**

Company-wide

**Primary motivation**

Water stewardship

**Description of target**

Harmony has set itself the target of reducing the volumes of water it uses for primary activities by 7% against a 2018 baseline of 15.4 million m3. Harmony aims to achieve this target by 2022. To achieve this target Harmony has been improving water efficiency by investing in process changes.

This target improves Harmony's water security as they become less reliable on water withdrawal and thus are less prone to water scarcity related risks.

**Quantitative metric**

% reduction in total water consumption

**Baseline year**

2018

**Start year**

2019

**Target year**

2022

**% of target achieved**

100

**Please explain**

Harmony achieved a 21% reduction in water use for primary activity when compared to the base year of 2018 volumes. Therefore, the target has been fully achieved. When doing this comparison, the Moab Khotsong acquisition is not included as the operation was not present in FY18.

---

**Target reference number**

Target 2

**Category of target**

Water recycling/reuse

**Level**

Company-wide

**Primary motivation**

Cost savings

**Description of target**

Harmony has set itself the target of increasing the percentage of water recycled at mining operations by 6% against a 2018 base year. Harmony aims to achieve this target by 2022. To achieve this target Harmony has been investing in; water treatment plants, recycling systems, larger return-water dams and covered tanks to limit evaporation. By increasing the percentage of water recycled Harmony reduces their water withdrawal requirements which results in cost savings from both municipal bills as well as reduced pumping demands.

**Quantitative metric**

% increase in water use met through recycling/reuse

**Baseline year**

2018

**Start year**

2019

**Target year**

2022

**% of target achieved**

100

**Please explain**

Harmony has increased the volumes of water recycled by 16% when compared to the base year of 2018. This has enabled us to full achieve our target of increasing the percentage of water recycled.

---

**Target reference number**

Target 3

**Category of target**

Product water intensity

**Level**

Company-wide

**Primary motivation**

Cost savings

**Description of target**

Harmony has set a target to reduce the water intensity of their operations. The target aims to reduce the kilolitres per tonne milled by 7% by 2022 against a FY18 base year.



This target is applied at a company level and is motivated by the cost savings that would result in achieving the target. These cost savings can arise from several places including lower water volumes purchased from third parties and decreased pumping requirements.

**Quantitative metric**

% reduction per unit of production

**Baseline year**

2018

**Start year**

2019

**Target year**

2022

**% of target achieved**

100

**Please explain**

Harmony implemented a range of water efficiency projects in the reporting year. This resulted in a reduction in the water intensity of 31% when compared to FY18. This target has therefore been achieved in the reporting year.

## W8.1b

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

---

**Goal**

Other, please specify

Reduce dependency on potable water supplies

**Level**

Company-wide

**Motivation**

Risk mitigation

**Description of goal**

Harmony aims to significantly reduce its dependency on potable water supplies by 2022. This is relevant to Harmony since the occurrence of dry spells can result in unreliable potable water supplies. Harmony hopes to mitigate the risks of an intermittent water supply by reducing its dependency on these sources. This goal is important to Harmony since Harmony operates in South African, both of which are considered water scarce countries which are prone to water shortages. Since water is a key resource which ensures that Harmony's operations are sustained,

this is an important risk management practice. Harmony set a group-wide target or goal to reduce water used for primary activities by 7% (intensity and absolute targets) by 2022 against a 2018 baseline. Harmony's deep level underground mining operations are inherently water intensive. As such Harmony views the mitigation of its water use as a key priority for achieving operational sustainability and retaining its licence to operate. The achievement of this goal will also be beneficial to local communities who are dependent on the same resources. Measuring the success of this goal involves tracking the reductions on the use of potable water supplies.

**Baseline year**

2018

**Start year**

2019

**End year**

2022

**Progress**

Harmony uses primary water volumes as obtained from water flowmeters at inlet points as indicators for assessing their progress towards the target. The threshold for success is based on comparisons to base year 2018's water volumes aiming for a reduction of 7% by FY22. In this, FY21, Harmony has reduced its water used for primary activities volumes by 21%, therefore achieving the target and the related goal. Therefore, the goal has been exceeded in the reporting year. The goal was therefore achieved.

## 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

 HAR-ESG21.pdf

### 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 state	Water use	ISAE 3000	Water use for primary activities are verified and reported in Harmony's ESG Report, annually. These figures form part of Harmony's risks and opportunities assessments, in terms of determining impacts related to climate change (example,

			drought), which Harmony identifies as a risk to its operations. During FY21, water used for primary activities received reasonable assurance.
W8 Targets	Water use	ISAE 3000	Water use for primary activities are verified and reported in Harmony's ESG Report, annually. These figures form part of Harmony's risks and opportunities assessments, in terms of determining impacts related to climate change (example, drought), which Harmony identifies as a risk to its operations. During FY21, water used for primary activities received reasonable assurance.

## 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.**

n/a

### W10.1

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

	Job title	Corresponding job category
Row 1	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

### W10.2

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

No

## Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

<b>I understand that my response will be shared with all requesting stakeholders</b>	<b>Response permission</b>
--	----------------------------



Please select your submission options	Yes	Public
---------------------------------------	-----	--------

**Please confirm below**

I have read and accept the applicable Terms

