Welcome to your CDP Water Security Questionnaire 2022

W0. Introduction

W0.1

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

Murray & Roberts is a multinational specialist engineering and construction services company that applies its project life cycle capabilities to optimise client's fixed capital investment. The Group achieves this by focusing its expertise and capacity on delivering sustainable project engineering, procurement, construction, commissioning, operations and maintenance solutions. We have created employment, developed skills, installed infrastructure, delivered services, applied technology and built capacity for 119 years, making a significant contribution to sustainable socio-economic development globally.

The Group delivers its capabilities into the resources, industrial, energy, water and specialised infrastructure market sectors, through three global sector platforms:
· The Mining platform operates globally, and its service offering spans underground and open pit mining services and material logistics in global metals and minerals markets
· The Energy, Resources & Infrastructure platform is headquartered in Perth and operates under the Clough brand. It delivers projects across the full project life cycle, including detailed engineering, construction, procurement, commissioning, operations and maintenance, on new build and operating facilities.
· The Power, Industrial & Water platform operates predominantly in South Africa and sub-Saharan Africa. Its service offering includes detailed engineering, procurement, construction, commissioning and maintenance work.

We are headquartered in Johannesburg, South Africa, and listed on the Johannesburg Stock Exchange (JSE).

We transferred our listing on the JSE from Heavy Construction to Diversified Industrials on 20 March 2017 and a year later, the FTSE Russell transferred Murray & Roberts' listing to the Engineering and Contracting Services subsector, confirming the Group's expertise and strategic repositioning.
Our offices are located in:

1. Africa: South Africa, Zambia and Ghana
2. Australasia: Australia, Mongolia and Papua New Guinea

3. Europe: Scotland; and
4. North America: USA and Canada

Murray & Roberts enables and optimises fixed capital formation that corporations, governments and institutions commit to the advancement of sustainable human development.

The Group's purpose-led business model connects our capabilities to the investment our clients make in infrastructure that advances sustainable human development. Through the critical infrastructure we design, construct, maintain and operate, we improve lives of people, way beyond the duration of projects. The Group's Purpose makes sustainable human development central to our governance approach, our competitiveness as a contractor and employer of choice, and our commitments as an ethical corporate citizen. As the Group continues to realise greater opportunities for growth, profitability and value creation, our strategic choices will be guided by our Purpose, inspired by our Vision and guided by our Values.

Our competitiveness as a contractor and an employer, and our ability to secure optimal value from our projects within manageable risk, rely on the consistent application of Engineered Excellence.

Engineered Excellence defines our management approach at every level of the organisation. Vested in careful and conscious planning, its application demands leadership commitment, shared learning and continuous improvement. In our responses to challenging operating contexts, in making unavoidable trade-offs and sequencing our priorities, it aims to remove chance from our pursuit of the outcomes our stakeholders expect; it therefore fortifies our aspiration to be a contractor and an employer of choice.

This operating philosophy, which together with our Values define the Group's culture, brings discipline and rigour to every decision and action. It is embedded within our businesses through policies and management systems, including the Group Sustainability Framework, our HSE framework, the Group Statement of Business Principles and the Group ethics framework. These frameworks set clear expectations for our employees, platforms and business partners, and their application is tightly governed throughout the Group.

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.

Australia
Canada

South Africa
United States of America
Zambia

W0.4

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

ZAR

W0.5

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

Companies, entities or groups over which financial control is exercised

W0.6

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

No

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	MUR
Yes, an ISIN code	ZAE000073441

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	Important	Neutral	Direct use: Water is important for operating our business (including client project sites that we operate or are sub-contracted to). We require high-quality freshwater (sourced from the municipality) for

freshwater available for use			our employees and to run our offices (kitchens, bathrooms, etc). Water shortages and unstable water supply compromises our ability to maintain safe and productive operations and is therefore important for our operations and overall sustainability. Indirect use: Materials we purchase, such as steel and cement, where water is part of the manufacturing process of those products are not controlled by ourselves but may be vital or important to those manufacturers. As such we mainly consider the availability and visible quality of the received products that are used as key inputs in our business processes. Therefore, we are neutral to the availability of good quality freshwater for indirect use. Future: The future water dependency is anticipated to increase (direct and indirect usage) as Murray & Roberts actively continues to pursue acquisitive growth. Mining is specifically seeking to grow organically and through acquisitions, while Energy, Resources & Infrastructure is looking to expand into complimentary markets in North America - both organically and through acquisitions in USA. Acquisitions affect both direct and indirect usage. Additionally, the Group is looking to expand its geographic footprint which will impact our direct usage.
Sufficient amounts of recycled, brackish and/or produced water available for use	Not very important	Not important at all	Direct use: Murray & Roberts' operations are mainly located in water-stressed regions which obliges us to place reliance on recycled water as water shortages become more prevalent. Our current fixed facilities' water use has become immaterial; therefore, we have not implemented any water recycling initiatives except for the Bentley Park (Mining platform). In the previous reporting year two 10 000 litre water storage tanks were installed to enable reuse of grey water for garden irrigation purposes. Indirect use: The indirect use of recycled, brackish

			or produced water is not prevalent across Murray & Roberts' value chain and, as such, is classified as not very important/ material to the business. Future: Considering our current business strategy, we do not foresee a fundamental change in our future recycled/brackish/reuse water dependency differing much from the above for both direct and indirect operations.

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	All facilities and projects within Murray & Roberts (under financial control) are required to submit a monthly, detailed volumetric report on water withdrawals via the internal HSE Reporting System. Water is measured using flowmeters for project site operations. However, for administrative operations (e.g., head offices) the water is reported from municipal invoices only. Municipal invoices are based on municipal meter readings.
Water withdrawals – volumes by source	100%	All facilities and projects within Murray & Roberts (under financial control) are required to submit a monthly, detailed volumetric report on water withdrawals by source (including volumes from water-stressed areas) via the internal HSE Reporting System. The major water withdrawal sources monitored via this system include municipal water, rainwater, seawater/brackish surface water, surface water, underground water and wastewater from other organisations. Water is measured using flowmeters for project site operations. However, for administrative operations (e.g., head offices) the water is reported from municipal invoices. Municipal invoices are based on municipal meter readings.

Water withdrawals quality	100%	Our group-wide Water Management Standard requires supplied water used for drinking purposes to be regularly tested to ensure that it meets potable water quality standards, unless supplied by a water services authority. Currently Murray & Roberts' water for internal use is sourced from the municipalities and are of a potable standard, so no water quality checks are performed on this water. In the case that a project sites' potable water supply is sourced from other sources, testing of the water must be conducted according to appropriate sampling standards and analysed by an accredited laboratory. Furthermore, no activities undertaken on the site should result in any wastewater or other substance entering the potable water storage or distribution system to further maintain the quality of potable water.
Water discharges – total volumes	100%	All facilities and projects within Murray & Roberts (under financial control) are required to submit a monthly, detailed volumetric report on water discharges via the internal HSE Reporting System. Volumetric data is measured using flowmeters and municipal invoices (in the case of sewerage wastewater disposal via the municipal sewerage system).
Water discharges – volumes by destination	100%	All facilities and projects within Murray & Roberts (under financial control) are required to submit a monthly, detailed volumetric report on water discharges by destination via the internal HSE Reporting System. The major discharge destinations monitored via this system include groundwater, municipal sewer, seawater/brackish surface water, surface water and third parties. Volumetric data is measured using flowmeters and municipal invoices (in the case of sewerage wastewater disposal via the municipal sewerage system).
Water discharges – volumes by treatment method	100%	All facilities and projects within Murray & Roberts (under financial control) are required to submit a monthly, detailed volumetric report on water discharge destinations and their corresponding treatment methods (if and when it occurs). Thus, this parameter is tracked for all operations on a monthly basis. Volumetric data is measured

		using flowmeters and municipal invoices (in the case of sewerage wastewater disposal via the municipal sewerage system).
Water discharge quality – by standard effluent parameters	1-25	Our fixed facilities and operations under our control that require Water Use Licenses (WUL) have a legal requirement to report our water discharge quality on a monthly basis via sampling. Third-party specialists are occasionally contracted to perform sampling and laboratory work in this regard.
Water discharge quality – temperature	Not relevant	This is not relevant as the small volumes of effluent discharged from processes in construction do not alter the water temperatures, and accordingly our licence conditions do not require us to measure this. It is anticipated that discharge water temperature will remain irrelevant in the foreseeable future.
Water consumption – total volume	100%	All facilities and projects within Murray & Roberts (under financial control) are required to submit a monthly, detailed volumetric report on water withdrawals and discharge via the internal HSE Reporting System. This data is used to automatically calculate the water consumption (withdrawals less discharge) on the system. Volumetric data is measured using flowmeters and municipal invoices (in the case of municipal water purchases and municipal sewer disposal).
Water recycled/reused	Not relevant	There are currently no material water recycling or reuse initiatives in place to report. However, should it occur, the HSE reporting system has been designed to enabling capturing of water recycled/ reused on a monthly basis. Water recycling and reuse would be determined using flowmeters and/or operational water balances.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Access to functioning water services is tracked at 100% of our sites. All employees are provided with clean drinking, cooking and cleaning water; wastewater management and drainage; and hygiene information and education. Volumetric data is reported on a monthly basis using municipal water invoices.

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	24.91	About the same	Total water withdrawals remained relatively consistent with the previous reporting year (only a 1% decrease). The future volume of total withdrawal is estimated to increase as we actively continue to undertake acquisitions and expand our geographic footprint. In addition, our orderbook has grown for the Mining and Power, Industrial and Water platforms (29% and 25% respectively), relative to the previous reporting period so we anticipate an increase in reported water withdrawals in the short term as new projects are completed.
Total discharges	13.71	Much higher	Total water discharges are substantially higher than the previous reporting year. This difference is predominantly due to the Murray & Roberts Corporate Office Campus in Bedfordview reporting water discharged to the municipal sewerage system, which was not reported in the previous reporting year. In addition, OptiPower reported surface water discharges at one of their projects during the reporting year, whereas no surface water discharges were reported in the previous reporting year. The future volume of total discharge is estimated to increase as we actively continue to undertake acquisitions and expand our geographic footprint. In addition, our orderbook has grown for all platforms (+/- 10%), relative to the previous reporting period so we anticipate an increase in reported water discharges in the short term as new projects are completed.
Total consumption	11.2	Lower	Total consumption is calculated with the formula C = W – D. Due to the substantial increase in reported water discharges and water withdrawals remaining relatively consistent, the

			calculated water consumption is 55% lower than the previous reporting year. The future volume of total consumption is estimated to increase as we actively continue to undertake acquisitions and expand our geographic footprint. In addition, our orderbook has grown for all platforms (+/- 10%), relative to the previous reporting period so we anticipate an increase in net consumption in the short term as new projects are completed.

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	Please explain
Row 1	Yes	The water stress position for Murray & Roberts has not significantly changed year on year. The WRI Aqueduct tool was used to assist in identifying the river basins within which our fixed facilities operate, as well as their corresponding water stress rating. Key operating areas that are rated as high stress include the SADC region (Southern African Development Community) and Western Australia. The WRI Aqueduct defines water stress as the ratio of total water withdrawals to available renewable surface and groundwater supplies. Water withdrawals include domestic, industrial, irrigation, and livestock consumptive and non-consumptive uses. Available renewable water supplies include the impact of upstream consumptive water users and large dams on downstream water availability. Higher values indicate more competition among users. An operating location is considered to have a 'high' water stress rating if it exceeds 40%.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater,	Relevant	6.61	Higher	Freshwater withdrawals are project dependent and occur on an ad hoc basis. In the

water from wetlands, rivers, and lakes				previous reporting year, Murray & Roberts did not use any fresh surface water in their operations (although our reporting system does allow for the tracking of fresh surface water) so a value of zero was reported. In the reporting year, an OptiPower project reported surface water withdrawals. The volume of water withdrawn from fresh surface water is anticipated to increase from FY2022 (the short-term future).
Brackish surface water/Seawater	Relevant	0	About the same	Murray & Roberts does not currently use any brackish water in its operations. However, our reporting system does allow for the tracking of seawater and brackish water. Future anticipated trends are expected to remain the same as there are no projects in the pipeline that will utilise brackish water.
Groundwater – renewable	Relevant	0.48	Higher	In the previous reporting year, Murray & Roberts did not use any renewable groundwater in their operations, although our reporting system does allow for the tracking of underground water, so a value of zero was reported. In the reporting year, an OptiPower project reported underground water withdrawals. Groundwater withdrawals are project dependent and may occur on an ad hoc basis. Future

				anticipated trends are expected to remain the same as there are no further projects in the pipeline that will require the use of material quantities of renewable groundwater.
Groundwater – non-renewable	Not relevant			Murray & Roberts does not withdraw water from non-renewable sources as the small volumes of groundwater withdrawn are from shallow aquifers, therefore, this source is currently not relevant. Future anticipated trends are expected to remain the same as there are no projects in the pipeline that will require the use of material quantities of non-renewable groundwater.
Produced/Entrained water	Relevant	0	About the same	Murray & Roberts does not currently withdraw any produced water at its fixed facilities. However, our reporting system does allow for the tracking of produced water. Future anticipated trends are expected to remain the same as there are no projects in the pipeline that will involve the withdrawal of produced water.
Third party sources	Relevant	17.83	Lower	The withdrawal from third party sources has decreased by 25%, but increased withdrawals from surface water and underground water have resulted in the total volume of water withdrawn to be relatively consistent with the previous reporting year. The

				future volume of water withdrawal from third-party sources is estimated to increase as we actively continue to undertake acquisitions and expand our geographic footprint.

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	6.56	Higher	All facilities and projects within Murray & Roberts which are financially controlled, are required to submit a detailed volumetric report on water discharge on the internal HSE Reporting System on a monthly basis. During the previous reporting year there was no reported water discharge to fresh surface water at operations within our financial control. In the reporting year, an OptiPower project reported discharge to fresh surface water. Future anticipated trends are expected to remain the same as there are no further projects in the pipeline that will require the discharge of material quantities of water to fresh surface water destinations.
Brackish surface water/seawater	Relevant	0	About the same	All facilities and projects within Murray & Roberts which are financially controlled, are required to submit a detailed volumetric report on water discharge on the internal HSE Reporting System on a monthly basis. During the reporting year there was no reported water discharge to brackish surface water or

				seawater at operations within our financial control. Future anticipated trends are expected to remain the same as there are no projects in the pipeline that will involve the discharge of water to brackish surface water or seawater.
Groundwater	Relevant	0	About the same	All facilities and projects within Murray & Roberts which are financially controlled, are required to submit a detailed volumetric report on water discharge on the internal HSE Reporting System on a monthly basis. During the reporting year there was no reported water discharge to groundwater at operations within our financial control. Future anticipated trends are expected to remain the same as there are no projects in the pipeline that will involve the discharge of water to groundwater.
Third-party destinations	Relevant	7.15	Much higher	Water discharges to third-party destinations (specifically municipal sewerage) increased substantially from the previous reporting year. This is predominantly attributed to the Murray & Roberts Corporate Office Campus (Douglas Roberts Centre) reporting water discharges to the municipal sewerage system in the reporting year, whereas no discharges from this facility were reported previously. The future volume of discharge to third-party destinations is estimated to increase as we actively continue to undertake acquisitions and expand our geographic footprint.

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				All facilities and projects within Murray & Roberts which are financially controlled, are required to submit a detailed volumetric report on water discharge on the internal HSE Reporting System on a monthly basis. During the reporting year there was no reported water discharges that required tertiary treatment prior to being discharged. The responsible discharge of

					industrial wastewater to prevent impacts on water resources forms a key part of our group-wide Water Management Strategy. Pre-treatment of industrial wastewater where required is recognised as one of the effective industrial wastewater management mechanisms .
Secondary treatment	Not relevant				All facilities and projects within Murray & Roberts which are financially controlled, are required to submit a detailed volumetric report on water discharge on the internal HSE Reporting System on a

					monthly basis. During the reporting year there was no reported water discharges that required secondary treatment prior to being discharged. The responsible discharge of industrial wastewater to prevent impacts on water resources forms a key part of our group-wide Water Management Strategy. Pre-treatment of industrial wastewater where required is recognised as one of the effective industrial wastewater management mechanisms.
Primary treatment only	Not relevant				All facilities and projects within

					Murray & Roberts which are financially controlled, are required to submit a detailed volumetric report on water discharge on the internal HSE Reporting System on a monthly basis. During the reporting year there was no reported water discharges that required primary treatment prior to being discharged. The responsible discharge of industrial wastewater to prevent impacts on water resources forms a key part of our group-wide Water Management Strategy. Pre-treatment of

					industrial wastewater where required and to the applicable wastewater quality parameters and limits, is recognised as one of the effective industrial wastewater management mechanisms .
Discharge to the natural environment without treatment	Not relevant				All facilities and projects within Murray & Roberts which are financially controlled, are required to submit a detailed volumetric report on water discharge on the internal HSE Reporting System on a monthly basis. During the reporting year there was no reported water discharges

					to the natural environment without treatment prior to being discharged. The responsible discharge of industrial wastewater to prevent impacts on water resources forms a key part of our group-wide Water Management Strategy. Pre-treatment of industrial wastewater where required is recognised as one of the effective industrial wastewater management mechanisms .
Discharge to a third party without treatment	Relevant				All facilities and projects within Murray & Roberts which are financially controlled, are required to submit a

					detailed volumetric report on water discharge on the internal HSE Reporting System on a monthly basis. During the reporting year offices, warehouses and some project sites discharged water to municipal or third-party sewerage and wastewater treatment facilities. This water was not pre-treated prior to discharge. The responsible discharge of industrial wastewater to prevent impacts on water resources forms a key part of our group-wide Water Management Strategy. Pre-treatment of

					industrial wastewater where required is recognised as one of the effective industrial wastewater management mechanisms
Other	Not relevant				All facilities and projects within Murray & Roberts which are financially controlled, are required to submit a detailed volumetric report on water discharge on the internal HSE Reporting System on a monthly basis. During the reporting year there was no reported water discharges that required other treatment prior to being discharged. The

					responsible discharge of industrial wastewater to prevent impacts on water resources forms a key part of our group-wide Water Management Strategy. Pre-treatment of industrial wastewater where required is recognised as one of the effective industrial wastewater management mechanisms .

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	21,900,000,000	24.91	879,164,993.978322	Murray & Roberts anticipates our total water withdrawal efficiency to remain relatively consistent in future. Although the future volume of total withdrawal is estimated to increase as we actively continue to undertake acquisitions and expand our geographic footprint, the Group's revenue is also anticipated to

				increase as a result of this growth, likely resulting in the total water withdrawal intensity remaining relatively consistent.

W1.4

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

Yes, our customers or other value chain partners

W1.4c

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

Murray & Roberts' overall rationale for water-related engagement is two-fold:
1) to identify, develop, win and deliver projects for our water-related businesses (clients, innovation partners and project delivery partners); and 2) to continuously improve water-related performance, reporting and the identification of opportunities to reduce water-related impacts on site and in the supply chain (employees, suppliers, clients, project delivery partners, communities and academia). Engagements with clients and affected stakeholders early in the project phase has proven to be an effective and proactive step in aligning expectations and plans.
All engagement is guided by our public stakeholder engagement policy and takes place at the corporate, business, operation and community levels across the Group through technology (virtual meetings, webcasts, website, intranet, social media and email), face-to-face engagement (meetings, training, presentations, workshops and conferences) and print (newsletters/brochures, internal magazines and external reports, including the integrated and sustainability report).
It is likely that water-related emergencies will continue to arise in parts of South Africa until 2030. Given this context, Murray & Roberts Water's strategy has been to actively engage with government, municipalities and other suppliers to ensure that it is positioned to assist wastewater and industrial water treatment projects. Clough's Project Energy Connect is being delivered through a joint venture business (SecureEnergy) which Clough formed with its partner Elecnor, to deliver large power transmission projects. We worked with Elecnor camp builders, subcontractors and operators to maximise water efficiency for this water-sensitive project.
The success of these engagements is measured by whether all the clients annual requirements are confidently met and whether sufficient quantities of water are available to ensure the project can be delivered successfully and on time.

W2. Business impacts

W2.1

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

No

W2.2

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

No

W3. Procedures

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
Supply chain

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Tools on the market
Enterprise risk management
Other

Tools and methods used

WRI Aqueduct
COSO Enterprise Risk Management Framework
Internal company methods
External consultants
Scenario analysis

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
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
Employees
Investors
Local communities
Regulators
Suppliers
Water utilities at a local level
Other water users at the basin/catchment level

Comment

None.

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.

Management has designed and implemented a planned and structured approach to identify, assess, address, monitor, communicate and report the Group's large and complex risks, including any water-related risks that may arise (i.e. an internal company methodology). Murray & Roberts conducts a risk assessment on a quarterly basis and a exco-level comprehensive company-wide (including suppliers) integrated risk assessment workshop on an annual basis. The identified risks and their corresponding exposures are monitoring, reviewed and updated on a regular basis.

In order to ensure effective responses to the identified risks, the Group has defined four discrete risk environments: strategic, corporate, operational and project. Each risk has a specific owner, be it a business platform CEO, operating board or an individual executive. Each business platform also has its own risk committee ensuring that operational risks are regularly reviewed and assessed, and effectively mitigated. The primary responsibility for managing risk lies with business line management. The risk management, regulatory compliance and internal audit functions in the corporate office advise on risk management approaches, methodologies and systems. They also monitor the diligent execution of risk management at every level of the Group, reporting to various boards and committees on inherent and residual risks in each risk area. This process is aligned with international best practice standards, such as the COSO ERM Framework. The WRI Aqueduct tool is also used to identify the water stressed river basins in which we operate, and more recently, we have started using climate-related scenario

analysis to understand the risks and opportunities associated with three future climate scenarios that we developed using the RCP and SSP scenarios as a reference basis.

Practical implementation of this at a facility or project level requires water-related risks to be evaluated as a hurdle to delivering contracted scopes against cost, time and technical performance targets, while maintaining HSE performance at acceptable levels. Accordingly, contextual site issues that are considered prior and during project execution include the availability of water at sufficient quantities and quality, complying with water regulations, complying with clients' water use licenses and water-related procedures, employee access to WASH services, preventing detrimental impacts to ecosystems and habitats, and identifying and managing project-specific stakeholder's expectations around water issues. The latter is particularly important for projects in remote, rural and/or ecologically sensitive areas where an identified stakeholder has the potential to impede the successful delivery of a project (e.g. local communities, regulators, local water utilities, other water users in the region).
This facility/project level risk process needs to be done both for direct facilities but also for the supply chain. The latter is particularly important for projects that are undertaken in water scarce areas where water may need to be sourced from third-parties and/or our value chain partners rely on the availability of water on site.

For strategic, operational and project-related risks, the risk-response decision making process includes analysing risks and controls to manage identified risks; determining the required management actions; and reporting and monitoring. Project and business-specific physical, regulatory and reputational risks are tracked on a quarterly basis. At a group-level the relevant water risks form part of the 3-year risk management plan and the business then plans accordingly. Murray & Roberts has established a Group-wide Environmental Risks and Incident Reporting Standard whereby sites and facilities in are required to report on their most material environmental risks (including water) on a quarterly basis, as well as ongoing management/mitigation of pertinent risks. Our water standard provides corporate (including suppliers) and facility level guidance of how to identify and manage water-related risks.

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?

No

W4.1a

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

The substantive financial impact of water-related risks is determined using Murray & Roberts' group risk management methodology. A substantive impact would be regarded as a major or critical financial consequence, which prevents the achievement of the long-term sustainability

and value creation objectives of our business, and/or prevents the generation of profits within the business platforms. The threshold indicator used to indicate a substantive impact is a financial loss in profits of ZAR +145 million/USD + 10 million. These risks can be due to impacts on our direct operations or from impacts in the supply chain. An example of a substantive impact would be losses caused from increased intensity and frequency of weather-related events on our projects, such as floods or cyclones.

As a case in point, at the start of the FY2021 reporting year the 2020 Atlantic hurricane season impacted Clough's Project Traveller in the Gulf of Mexico, Texas. Several severe hurricanes and flooding events prevented access to the site over several days, contributing to project timeline delays. More recently, at the start of 2022, the Eastern Australian flooding disaster caused the closure of two Clough offices in the city of Brisbane (2-3 weeks, as well as delays on the delivery of Project Energy Connect and Tallawarra B.

Although these incidents did not lead to substantive business impacts, Murray & Roberts recognises that more severe storms and hurricanes have the potential to damage project infrastructure or equipment, lead to severe health and safety breaches or even the loss of lives.

W4.2b

(W4.2b) Why does your organization not consider itself exposed to water risks in its direct operations with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Murray & Roberts recognises that there are water risks in our direct operations. However, based on the definition of 'financial substantive impact' we do not believe these risks will cause a substantive change and are rated as a low business risk. For example, when we bid for a project, we are requested to identify the risks (physical, regulatory, etc.) of undertaking the project. When the risks are identified, we build this into our project plan and budget for the cost implications accordingly (e.g., requiring water licenses for using boreholes in water-stressed areas during the project lifespan). In addition, we exclude in our contracting terms unacceptable risks or those we believe cannot be mitigated within our tolerance levels. If the risks are too high with no options to mitigate or contract out the risk, then the project is abandoned in the bidding stage. To date, water risks have not resulted in us abandoning a project in the bidding stage. In addition, we have not incurred impacts on our current projects as a result of water risks that have exceeded the ZAR 145 million / USD 10 million-dollar threshold. Additionally, with the disposal of two water-intensive platforms (i.e., Infrastructure & Buildings and Murray & Roberts Limited – the Middle East operations), our water usage has decreased by 93% since FY2017 and comprises less than 0.1% of our

		operating costs. Therefore, there are currently no water related risks with the potential to have substantive financial impact on the business.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Murray & Roberts recognises that there are water risks in the supply chain. However, based on the definition of 'financial substantive impact' we do not believe the impacts will cause a substantive change or impact to our business. For example, one of the principles of managing our supply chains is to ensure that we consider the risk of single-source products or resources and assist in expanding the market to limit the probability that products or resources' supply ceases. In this way, should one of the suppliers be impacted by water risks, we would be able to source an alternative.

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

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

Murray & Roberts operates mainly in water-stressed regions, and it is likely that emergency water situations will become more prevalent with more frequently occurring climate-induced droughts. In light of this, Murray & Roberts Water (MRW) is strategically positioned in the water treatment and technology sector to offer a spectrum of client solutions to target various water challenges.

In order to implement our MRW strategy, we formed a strategic partnership with

Organica, a global provider of innovative solutions for the treatment and recycling of wastewater. This partnership has allowed MRW the opportunity to engage with local municipalities to provide them with solutions to upgrade/replace historically inefficient wastewater treatment plants (WWTP). A pilot demonstration plant was constructed and operated for 2 years at the eThekwini municipality in Durban. This demonstration led to us developing a service level agreement with the V&A Waterfront (V&A) in Cape Town.

Other MRW water treatment opportunities have been identified at the municipal and national government level. As part of a drought resilience project pipeline from the City of Cape Town, MRW has submitted a tender for the Design-Build of the mechanical and electrical works for the upgrade and expansion of Potsdam Wastewater Treatment Plant which is currently under adjudication. Additional tender opportunities identified are the Cape Flats Regional Sludge Handling Facility project in Cape Town and the two greenfield WWTP's at uMhloti and uMkhomasi in the eThekwini municipality.

Finally, the Head of Investment and Infrastructure in the South Africa President's Office has gazetted 11 water and sanitation Special Integrated Projects (SPI's). These projects, estimated at R68 billion, consist primarily of large civil intensive bulk water supply schemes comprising dams, transfer tunnels and pipelines, pumping stations and reservoirs. Water treatment opportunities are embedded within these megaprojects which MRW will be able to bid on.

The anticipated timeframe for realising this opportunity is over the next one to three years, particularly as the impacts of the COVID-19 pandemic are easing and the South African government has indicated that an increase in infrastructure investment is a key means of igniting the post-COVID-19 economic recovery.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

69,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

In order to estimate the potential financial impact of expanding the Power, Industrial and Water platform's business portfolio and pipeline to include more wastewater treatment and desalination capabilities, we have considered the Athlone Wastewater Treatment Plant refurbishment project which was awarded by the City of Cape Town in January 2020 as part of their drought resilience project pipeline. This value of this project was R69 million and is considered to be indicative of the financial scale of the water-related opportunities in the Southern African market, hence the financial impact figure provided is equivalent to the value of this project, i.e. R69 000 000.

Type of opportunity

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

There is increasing pressure on companies to address both reputational and operational risks related to water usage. Communities, governments and customers' expectations and demands around good water management, particularly in remote or ecologically sensitive sites is leading to higher compliance requirements and onsite water performance and reporting demands. There is an opportunity for the Mining and Energy Resources and Infrastructure Platforms to innovate, design and deliver services to our clients what enable their operations to be more water efficient and have lower impacts on surrounding water sources.

As a case in point, Terra Nova Technologies (TNT) (a business of the Mining platform), is developing and marketing a new Dry Stack Tailings (DST) technology for the mining sector which dewaters the tailings waste stream before conveying and stacking it, rather than pumping it into a tailings pond. These technologies are particularly suited to mining operations in areas where water conservation is critical. They also provide significant safety and other environmental benefits, including substantial reductions in site water requirements (principally achieved by recycling process water and near elimination of water losses through seepage and/or evaporation) and the virtual removal of groundwater contamination risks from tailings seepage.

Other activities to enhance our service offering related to the delivery of projects with sound water management practices includes the reuse of water recycling ponds for raise drilling at clients' mining operations (RUC), developing non-water-based dust suppression options for water-intensive project sites (Clough).

The current strategy to realise this opportunity primarily focuses on engagement through marketing the technologies within the industry (via conferences, webinars and direct client engagements), as well the developing the technologies through academic

channels such as the publishing of research papers and presenting at conferences on the dry stack tailings innovation.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

774,000,000

Potential financial impact figure – maximum (currency)

946,000,000

Explanation of financial impact

In order to estimate the potential financial impact of this opportunity, we have considered the project value of to a previous dry stack tailings project implemented by Terra Nova Technologies for a client in Saudi Arabia. The project included the design and supply of mechanical and structural electrical and instrumentation of a 35 000 tonne tailings/day overland conveying and dry staking system. The value of the project was approximately $60million (ZAR860 million). In the reporting year, Terra Nova secured a three-year engineering ongoing and on-site technical support contract for this mine site, which has generated additional revenue from the Terra Nova dry stack tailings innovation. The financial value of this service level agreement cannot be disclosed; hence we have estimated the potential finance impact of similar future projects to fall within a 10% range of the value of the original installation project (i.e., R860 000 x 110% = R946 000 000 maximum and R860 000 x 90% = R774 000 000 minimum). Terra Nova is a business within our Mining Platform and is based in America.

Type of opportunity

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

There is increasing pressure on governments and companies to address physical risks from climate change. There is an opportunity for Clough to increase our water infrastructure-related service offering to our clients, and secure more projects related to water infrastructure including renewable hydropower solutions and building resilience to water-related physical climate change impacts (e.g. droughts and floods). The potential

of this opportunity is being bolstered by extensive investment programs being undertaken in Australia and North America as part of post COVID-19 recovery investments in public and private infrastructure.

As a case in point, Clough recently refurbished and upgraded the outlet weir of the Wellington Hydropower Plant in Australia to meet future climatic requirements, namely lower water levels. The output from this project decreased the minimum operating level by 6.6m; improved power efficiency by reducing dead storage capacity to 6.2GL from 16.7GL; and reduced dam surface area to reduce annual evaporation by 1.5GL/year, equivalent to the volume of 600 Olympic Swimming Pools which has saved 10 million litres of water which can be used elsewhere in the water network in Perth.

In the reporting year, Clough in a joint venture with WeBuild also secured a major project to add an additional 2 GW hydro-electrical power station to the existing New South Wales Snowy Hydro scheme. The project will provide on-demand renewable energy and large-scale storage for Australia's National Electricity Market.

In order to realise this opportunity, the Energy, Resources and Infrastructure platform's strategy comprises leveraging credible positions in the Australian power, infrastructure and resources sector to secure further orders from the existing pipeline, as well as expanding the service offering and market presence by leveraging existing synergies across the platform's geographic footprint. As in the case of the Snowy Project, the platform is exploring more collaborative forms of contracting and partnerships (through industry forums) to meet public infrastructure delivery agency requirements.

This opportunity has the potential to expand our project pipeline and business profile for the Energy, Resources and Infrastructure platform and accordingly increase revenues.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

174,000,000

Potential financial impact figure – maximum (currency)

18,000,000,000

Explanation of financial impact

In order to estimate the potential financial impact of water infrastructure related opportunities, we have considered the value of two recent projects which are considered to be indicative of the financial value that can be realised for water infrastructure projects in the Australian market.

The Mundaring Weir project was valued at R174 million, while Clough's share of the Snowy Hydro 2.0 project is valued at R18 billion. Thus, Murray & Roberts estimates the revenue potential for similar future infrastructure projects to be between R174 000 000 and R18 000 0000. This opportunity is primarily focused on the Australian market and of relevance to the Energy, Resource and Infrastructure platform.

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 Company water targets and goals Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education	Murray & Roberts' approach to the sustainable use of environmental resources such as water is defined in our Group-wide Health, Safety and Environment Policy, which applies to the whole company and is publicly available. The policy incorporates a number of critical performance standards, implemented to regulate important environmental issues including water management. The policy defines minimum performance standards for our operations and our critical suppliers, including the setting of objectives and target, the maintenance of transparent and effective communication with employees, other stakeholders and communities, the promotion of efficient use of resources or prevent pollution in support of the global climate change agenda, among other commitments. We have identified certain critical environmental issues, one of which is water management. The Health, Safety and Environment Policy underpins our Group-wide Water Management Standard and

		Commitment to water stewardship and/or collective action Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	provides further guidance specifically on water management. The standard has resulted in improved accuracy and completeness of our water data and reduced water consumption from water-saving and recycling initiatives. It has been aligned to the latest definitions set out in the CDP Water questionnaire to aid our reporting to various stakeholders and support comparability. The scope of the Water Management Standard is clearly articulated in the strategy and covers all Murray & Roberts operating companies, subsidiaries, and joint ventures.

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)	The Group Chief Executive (CEO) and Murray & Roberts Holdings Limited (MRHL) Board members have ultimate responsibility for water and have the highest decision-making authority within the company. To guide the CEO and MRHL Board, a standing Health, Safety and Environment (HSE) committee has been organised to consider and review the quarterly HSE reports and any other important matters relating to climate change and water. Below the Murray & Roberts Holdings Limited (MRHL) Board level, the Group Director for Health, Safety, Environment (HSE) and Risk has the highest level of responsibility for water-related issues. This is a C-suite position who reports directly to the CEO and the MRHL Board. The CEO is therefore the individual with the overarching responsibility for environmental issues, including water. Environmental KPIs, including those for water, are embedded in the CEO's performance contract. One of the most important decisions made during FY2021 by the CEO and Board was to review the Group's Sustainability Framework to align it with changing stakeholder expectations, and to engage an independent organisation to assess and rate its ESG (including water reporting, governance, risk and target aspects performance in terms of the scope and disclosure to stakeholders. CEN-ESG, a United Kingdom Based Company, conducted this review and the Group is pleased with the favourable outcome which provides a reference point from which to further improve our ESG performance. Water forms a key component of the Sustainability Framework.

	More recently, in FY2022, the board developed and published a Group Sustainability Statement which defines Murray & Roberts' principles and approach to sustainability given our purpose is to enable clients' fixed capital investments that support the advancement of sustainable human development Water-related aspects are considered under all environment-related elements of the Group Sustainability Statement and HSE Policy.

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	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy	A quarterly HSE report is compiled by the Group Director: Health, Safety, Environment (HSE) and Risk, and team which includes quarterly water, climate and waste results, and any other important matters relating to water and climate change as they arise. The Group HSE Director presents this quarterly report to the Health, Safety and Environment (HSE) Committee, a committee of the Murray & Roberts Holdings Limited (MRHL) Board, which has the highest level of direct responsibility (oversight) at Murray & Roberts for water-related issues. The Board's oversight on these issues ensures that the relevant executives within the business are regularly and accurately informed of the most important water-related risks and opportunities. The responsibility for water management is delegated down into the organisation. For example, in the reporting year, the board played a role in the decision to suspend operations in our chemicals supply business, Aquamarine Water, due to the lack of opportunity in the local market. Aquamarine Water was a strategic acquisition made in 2014 in light of water shortages becoming more prevalent in South Africa. The business provided water purification and desalination technologies and its services were

		Reviewing innovation/R&D priorities Setting performance objectives	extended to our other customers particularly those in water-intensive businesses.

W6.2d

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

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	Board members' competence on water-related issues is assessed based on completed training on climate-related and ESG topics and through independent ESG assessments to determine the effectiveness of the Board in ensuring that strategic decision-making considers ESG imperatives in line with stakeholder expectations, global accountability frameworks (such as TCFD an SDG), our public climate change and sustainability position statements, and risk and environmental management policies. Continuous training is made available to all directors as needed and requested. We consider board training to be an important mechanism for enhancing the water and environment-related competencies of all board members, executives and senior management.

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)

Other C-Suite Officer, please specify

Group Director: HSE and Risk

Responsibility

Assessing future trends in water demand
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

Below the Murray & Roberts Holdings Limited (MRHL) Board level, the Group Director for Health, Safety, Environment (HSE) and Risk has the highest level of responsibility for water-related issues and reports directly to the CEO and the MRHL Board. The Group Director for HSE and Risk is responsible for managing operational risks and achieving industry-leading HSE performance. He co-ordinates the water data and related environmental performance information that goes to the board-level HSE Committee, on a quarterly basis. The report contains the quarterly environmental indicators, including water consumption per platform and by source, as well as the current group water consumption trends. The report also contains ad-hoc information on emerging legislation, global environmental developments and trends, progress on internal projects or initiatives such as the scenario analysis, and the group environmental focus areas for the reporting period.

W6.4

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

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

W6.4a

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

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Chief Executive Officer (CEO)	Other, please specify Other, please specify Increased revenue in the Power, Industrial and Water business	As previously described, Murray & Roberts' own water use is not material and therefore there are no incentives for reducing water consumption in our own operations. However, the Group recognises the opportunity to assist our clients in transitioning their operations to a water-scarce future. Hence, the Executives of Murray & Roberts Water and ultimately the CEO of the business are incentivised to grow the Murray & Roberts Water business. This involves identifying opportunities to develop products and services to assist our clients and society to address water issues. The performance indicator used to assess business growth of the Murray & Roberts Water business is an increase in revenue for the Power, Industrial and Water platform. This forms part of both the Short-Term Incentives (STI) and Long-Term

			Incentives (LTI) of the remuneration scheme for executive directors and prescribed officers. STI performance is based performance for the reporting year (FY2020), while LTI performance is measured over a three-year period.
Non-monetary reward	No one is entitled to these incentives		Our internal water usage is immaterial, for this reason, Murray & Roberts currently has no non-monetary incentives around the management of water-related issues. Nevertheless, as per our Water Management Strategy, water conservation is closely monitored and managed for projects or operations in drier or water-scarce areas, or areas experiencing water shortages. Functional leaders and project managers would be entitled to any incentives developed as part of the water management strategy for such projects.

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?

No

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	A key facet of Murray & Roberts' business model and strategy is to service the water infrastructure, treatment and purification market. Murray & Roberts Water (MRW)

			acquired a water treatment business and entered into a licencing agreement with a leading international wastewater treatment company to enhance its water service offering for the Southern African market. Clough has infrastructure EPC capabilities to service the hydropower, water and wastewater sectors. Recent projects include the refurbishments and upgrades to the Wellington Hydropower Plant and the Snowy Hydropower project, both in Australia. In addition, the increased focus and expectation around sustainability and ESG issues within our markets has created an opportunity for all businesses to assist our clients with meeting their water-related objectives and commitments. The capability to include water and sustainability considerations into our service offering is a long-term business objective as it enhances our value proposition to clients and provides a competitive edge. A time horizon of 11–15 years has been selected because although these solutions will need to be implemented now, we anticipate growth in the long-term in the water sector as water scarcity issues become more prevalent throughout our key markets. In South Africa specifically, 42 new water projects totalling around R170 billion were announced at the South African President's Sustainable Development Investment Symposium in the reporting year.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	In the Power, Industrial and Water platform a key strategy for driving long-term enterprise value includes leveraging our breakthrough in commercialising Organica Water wastewater treatment technology to secure further PPP greenfield wastewater treatment plant opportunities. We have been marketing our sustainable wastewater treatment solutions to all relevant stakeholders through our Organica demonstration wastewater treatment facility which is currently installed in the V&A Waterfront. We rely on the successful deployment of our water treatment solutions together with prevalent water resource challenges faced by our clients to grow the business and achieve our long-term objectives. For example, MRW has submitted a tender to the City of Cape Town for the Design-Build of the mechanical and

			electrical works for the upgrade and expansion of Potsdam Wastewater Treatment Plant which is currently under adjudication. A time horizon of 11 – 15 years has been selected as although these solutions will need to be implemented now, we anticipate growth in the long-term in this sector as water scarcity issues become more prevalent over time.
Financial planning	Yes, water-related issues are integrated	11-15	Our water treatment solutions are underpinned by financial plans that outline our capital requirements for the next few years in order to achieve our long-term objectives. For example, we invested R18 million in capital to build the demonstration wastewater treatment plant in partnership with Organica. The additional investment to hold the exclusive rights to the Organica technology in the SADC region has also been part of our financial planning and long-term strategy process. In addition, a key strategic focus area is the diversification of earnings potential and risk exposures through organic and acquisitive means. In our Power, Industrial & Water platform, one opportunity for achieving this strategic objective is to secure annuity-type income through the operation and maintenance of wastewater treatment plants. We also suspended operations in our chemicals supply business, Aquamarine Water, in the reporting year. The decision was made in the context of financial planning, given the lack of opportunity in the local market, and that goodwill in the business was impaired. A time horizon of 11 – 15 years has been selected because although these solutions will need to be implemented now, we anticipate growth in the long-term in this sector as water scarcity issues become more prevalent. In addition, the water sector in South Africa remains inactive and currently presents limited opportunity due to both macroeconomic and COVID-19 related stagnation.

W7.2

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

Row 1

Water-related CAPEX (+/- % change)

0

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

0

Water-related OPEX (+/- % change)

0

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

0

Please explain

Murray & Roberts Group does not track water Opex. As previously described, water consumption in our own operations is restricted to municipal consumption for potable water use only and as such there is no incentive for us to track this as it is not material.

Water capex is restricted to the Organica wastewater treatment pilot project. We spent R200,000 on improvements in FY2019 but no additional capex has been sent since then. We relocated our Organica wastewater treatment plant to the V&A Waterfront (V&A) in Cape Town, South Africa. Ownership of the plant is retained by us, and we will "sell" treated effluent to the V&A. The V&A covered the relocation costs and capex costs to make it "fit-for-purpose" for the V&A application. We do not anticipate additional capex spend in the next two to three years.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	None.

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	Climate-related Socioeconomic	Three qualitative scenarios were used to understand and analyse the implications of climate change on the Mining platform. The 1.9-2.6, 4.5 and 6.0-8.5 representative GHG concentration pathway (RCP) scenarios were used to define the physical changes of the three climate future scenarios. The scenario with the highest GHG concentration considers catastrophic levels of climate change due to insufficient preventative responses. The scenario with the lowest GHG concentration outcomes considers physical impacts which are roughly on par with current levels. The 1, 2, 3 and 4 shared socio-economic pathway (SSP) scenarios were used as references to consider whether the low carbon transition occurs in an orderly or disorderly fashion in five key areas: social, technology, market, policy and legal, and global economic impacts. In an organised transition, it is assumed that	Murray & Roberts's climate-related scenario analysis process focused on its Mining platform which is particularly sensitive to the physical and transition risks and opportunities. Due to the remote environments in which mining activities take place, there is a high potential for physical climate change to impact Murray & Roberts's activities. This includes water related events, such as drought, extremely high levels of precipitation, and flooding. Under RCP 4.5, RCP 6 & RCP 8.5, there are likely to be two water related outcomes. Firstly, there is a chronic risk of changing rainfall patterns, which may lead to certain areas in which Murray & Roberts provides services becoming arid. Secondly, there is a heightened risk of acute climate related events such as flooding.	Overall, scenario analysis identified an opportunity to deploy new technologies to enable the management of water-related risks and operational efficiencies for clients. Potential technologies include desalination and water recirculation systems to enhance operational resilience against water supply constraints during periods of drought. In addition, scenario analysis was applied to commodity market outlooks and the Mining platform's revenue and margin projections to further understand the potential impacts of the different climate scenarios in the next three years (up to 2024). Murray & Roberts is still in the process of developing, workshopping and integrating the outcomes of the scenario analysis. Hence, the operational or strategic response to the water-related outcomes described may only be

		significant investments in green technology occurs with rapid development and implementation from 2025 onwards. Alternatively, in the most extreme physical climate change scenario, technological development is limited until after 2050. In addition, the organised transition is considered to include significant finance and investment for sustainable economic activities which leads to stable and continued growth. The disorderly response scenario assumes the transition forced through litigation and government enforcement.		implemented over the next 1 to 2 years.

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, and we do not anticipate doing so within the next two years

Please explain

Currently, our water costs are less than 1% of our operational costs and are therefore not impacting the business materially from a financial point of view. Therefore, an internal price on water is not a current (or foreseeable future) priority or focus area.

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	Please explain
Row 1	Yes	In the United States, our business Terra Nova Technologies provides services to help clients reduce water consumption using dry stack tailings Cementation North America has recently been awarded a contract to sink a mining shaft that will be mechanically excavated with a raised bore machine. Elimination of the use of explosives (around 80 000 kilograms required in conventional excavation methods), saving emissions produced by blasting and preventing nitrates from entering the groundwater

W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Targets and goals are set on a needs basis at all levels in the business (site/facility level, business platform level and group level). In the case of a project being undertaken in drier or water-scarce areas, or areas experiencing water shortages, water targets and goals are set. This is one of the water conservation mechanisms highlighted in our group-wide Water Management Standard. The responsibility for this standard lies with Business Platform Chief Executives, Managing Directors and Functional Leaders. Targets and goals are monitored throughout the year and progress was reported on a quarterly basis. In 2019, we set a water target at our Bentley Park facility in Carletonville based on the results of a water and energy audit we conducted to identify resource efficiency and savings opportunities. This water target is currently underway. Water targets and goals are also in place at various water-sensitive project sites (for example, Clough's Energy Connect project within the Energy, Resources and Infrastructure platform) which are being tracked and reported

			on. At a business level, Clough Group (Energy, Resources and Infrastructure platform) has made commitments to reduce water usage and implement water strategies that prioritise non-potable water sources of construction as part of its 2025 sustainability strategy. At a group level, we are in the process of assessing water consumption and usage patterns across the platforms as well as opportunities for water efficiency and reduction in pursuit of identifying appropriate platform targets and group-level commitments and goals. The approach will be guided by a materiality assessment to determine which our water impact is greatest and where our facilities or projects are most likely to be impacted by water issues. The motivation for setting these targets includes increasing stakeholder and investor expectation around ESG-related target setting, as well as the need to reduce operational risks associated with water supply disruptions. Given our client-facing business model, Murray & Roberts faces the challenge of establishing targets that are ambitious and long-term in nature but still sufficiently flexible to account for changes in the nature and size of projects, as well as fluctuations in our project pipeline. All businesses provide on-site products and services which typically means that little to no financial or operational control is maintained over water usage and data. Offices and warehouses remain the only sites with consistent water usage activities, yet consumption is immaterial at these sites.

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

Site/facility

Primary motivation

Cost savings

Description of target

Murray & Roberts has a water intensity target at its Bentley Park facility (Murray & Roberts Cementation division) that aims to achieve water savings of 20% against a 2018 baseline of 1 894 kilolitres of municipal water withdrawal. The facility aims to achieve the target by 2022 through the implementation of technological-based changes such as the installation of water efficient toilets, economical shower heads and the changing of tap fittings.

Quantitative metric

% reduction in total water consumption

Baseline year

2018

Start year

2019

Target year

2022

% of target achieved

100

Please explain

The baseline 2018 water withdrawal for the facility was 1 894 kL. The absolute decrease in water withdrawal required to achieve the target is a decrease of 379 kL from the baseline. The water withdrawal for the facility in FY2021 was 1 317 kL, which corresponds to a decrease of 577 kL from the baseline. This translates to 152% of the target being achieved. Storage tanks have been installed at the facility for the reuse of rainwater from buildings and workshops, so we anticipate continue progress towards maintaining the achievement of this target by the final target data in FY2022.

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

Compliance with Group water management standards

Level

Company-wide

Motivation

Risk mitigation

Description of goal

Water management is one of the Group's key environmental performance areas, as well as a contractual requirement and client expectation for many of our projects. We have an ongoing, annual goal to ensure compliance and alignment with the Group water management standard across the business platforms and operating geographies. It is important that all water-related activities avoid or mitigate potential adverse impacts on the environment and comply with client and regulatory requirements. Sound environment and water management practices are considered to be an enhancement of our service offering and provides added value to clients.

This goal is being implemented through ongoing employee and supplier communications and training updates on the Group water management standard which gives a clear mandate as to how we expect our operations to manage water. The standard was developed in 2015 and implemented in 2016, hence these are the baseline and start year dates of this goal. In 2017, we updated the definitions in our water management standard, followed by training on the updates to ensure that accurate data will be reported on.

Other implementation mechanisms include achieving and maintaining the ISO 140001 environmental management standard certification across our businesses. Where appropriate, some businesses have gone beyond the clients expectations and the Group water management standard by actively identifying and implementing various water-related initiatives.

Baseline year

2015

Start year

2016

End year

2022

Progress

Engagement was undertaken with all business platforms to confirm the scope, responsibilities and requirements of the Group water management standard and environmental reporting standard. This formed part of our periodic internal assurance processes. As part of this engagement, a gap analysis was undertaken to ensure that reported water and environmental information, data and incidents are complete and representative of the Group's impacts. At a site level, induction and annual training on water and environment-aspects was completed at all sites, while additional training was provided for ecologically-sensitive sites to ensure compliance with client environmental management systems (e.g. 3 of Cementation's projects).

The success of implementing and ensuring compliance with the Group-wide water

management standard is determined by the efficiency and accuracy of each facility's reporting of water performance data and water-related incidents, as well as whether any water-related fines, non-compliance or client concerns are raised. Another indicator that is used to monitor the implementation of the standard is the annual completion rate of our environmental training.

In the reporting year, full adherence to the water standard was achieved in terms of effective water reporting, the avoidance of fines and incidents, compliance and meeting the clients' expectations. Hence, Murray & Roberts considers this goal to have been successfully achieved in the reporting year.

W9. Verification

W9.1

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

Yes

W9.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water withdrawals	ISAE 3000	Assurance of the water data is provided by an external third-party assurance provider specifically for the CDP Response.

W10. Sign off

W-FI

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

W10.1

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

	Job title	Corresponding job category
Row 1	Other C-Suite Officer: Group HSE and Risk Director	Director on board

W10.2

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

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms