Murray & Roberts

CDP Water Response

July 2021

Welcome to Murray & Roberts CDP Water Security Questionnaire 2021

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 more than 118 years, making a significant contribution to sustainable socio-economic development globally.
Murray & Roberts delivers its capabilities in three global primary market sectors:

- The Mining platform operates globally, and its service offering spans the project life cycle, including feasibility studies, specialist engineering, vertical and decline shaft construction, mine development, specialist mining services such as raise boring and grouting, and contract mining.
- 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 specialist engineering, construction, procurement, commissioning, and 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 feasibility studies, detailed engineering, procurement, construction, commissioning, and repairs 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 and Mongolia
3. Europe: Scotland; and
4. North America: USA and Canada

'Engineered Excellence' is a philosophy that defines our management approach at every level of the organisation. It supports our ability to offer specialist services that are clearly differentiated by excellence to clients in our chosen markets. It drives continuous improvement in project risk management and delivery, and in achieving industry-leading environment, social and governance (ESG) performance – which is as important to our clients as it is to our employees and relevant stakeholders. It underpins the Group's reputation as a well governed,

values-driven and ethical organisation. Our approach to ethical leadership, corporate citizenship and sustainability are consolidated in this philosophy which drives the group's growth, competitiveness, resilience and reputation. We define sustainability as the purposeful delivery of projects in a responsible manner, while at the same time respecting the needs and expectations of our stakeholders. The Social & Ethics committee ensures that the group formulates collaborative responses to sustainability challenges.

Our carbon, water and energy footprints have declined substantially over the past few years due to divestments in our portfolio. Despite the smaller footprint, we continue to identify new methods and adopt new technologies to reduce our energy and water consumption. Group results for FY20 saw a revenue of R20.8 billion, up 3.5% from R20.1 billion in FY19. Year on year, the number of employees decreased from 9 650 in FY19 to 9 049 (6.6% decrease). The employee number includes continuing and discontinued operations in the reporting year.

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, 2019	June 30, 2020

W0.3

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

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

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	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 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	Not very important	Not important at all	Direct use: Murray & Roberts' operations are mainly located in water-stressed regions which obliges us

recycled, brackish and/or produced water available for use			to place reliance on recycled water as water shortages become more prevalent. However, with the disposal of two water-intensive platforms our current fixed facilities' water use has become immaterial, therefore we have not implemented any water recycling initiatives except for Bentley Park (Mining platform). In the 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	100%	The disposal of two water-intensive platforms (i.e., Infrastructure & Buildings and Murray & Roberts Limited – the Middle East operations) resulted in a substantial decrease in the group-wide water usage indicators. Water usage decreased by 93% since FY2017 and makes up less than 1% of our operating costs and consequently remains an immaterial resource. As such, there are currently no 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	25.16	Higher	Water withdrawals increased by 8% in the reporting year. This increase is mainly driven by increased consumption at our corporate head office. The future volume of total withdrawal is estimated to increase as we actively continue to undertake acquisitions and expand our geographic footprint. Water withdrawal from our recently acquired OptiPower business will also be reported from FY2021.
Total discharges	0.55	Higher	Water discharges increased by 0.2 ML from FY2019 to FY2020. This is attributed to the moving of our Aquamarine water business from its Cape Town facility to a new facility in Johannesburg in the reporting year which required the discharge of larger than usual amounts of water during the decommissioning of equipment and winding-down the facility. Future discharge volumes are predicted to decrease due to the anticipated consolidation of the Aquamarine business into Murray & Roberts Water in the next reporting year.
Total consumption	24.6	About the same	Total consumption is calculated with the formula C = W – D. Withdrawals increased by 5%, mainly due to increased water usage at

			corporate head office. Although discharges increased in FY2020, the absolute change was immaterial relative to the withdrawal volumes. The future volume of total consumption is anticipated to increase as discharges decrease due to the consolidation of Aquamarine, the integration of the newly acquired OptiPower business and the implementation of our current business strategy to actively continue undertaking acquisitions and the expansion of our geographic footprint.

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	About the same	WRI Aqueduct	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 Cape Town in South Africa, Adelaide and Brisbane in Australia, Calgary in Canada, and Santee in the United States of America. 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 its 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, water from wetlands, rivers, and lakes	Relevant	0	About the same	Murray & Roberts does not currently use any fresh surface water in its operations, although our reporting system does allow for the tracking of fresh surface water. Freshwater withdrawals are project dependent and occur on an ad hoc basis. The Snowy Hydro project (Energy, Resources and Infrastructure platform) started in August 2020 and may require withdrawals from fresh surface water. Therefore, the volume of water withdrawn from fresh surface water is anticipated to increase from FY2021 (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	About the same	Murray & Roberts currently does not withdraw water from renewable sources. 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 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	25.16	Higher	The withdrawal from third party sources has increased

				by 8% from the last reporting year, mainly due to increased water usage in our South African operations. Water withdrawals from third-party sources are anticipated to increase in the future with the integration of the acquired OptiPower business in FY2021 and the implementation of our current business growth strategy. This includes geographic footprint expansion (the establishment of offices in new countries will increase water withdrawal from municipal sources) and strategic acquisitions in our Mining and Energy, Resources and Infrastructure divisions.

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	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 fresh surface water at operations within our financial control.
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.
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.
Third-party destinations	Relevant	0.55	Higher	Water discharges to third-party destinations (specifically municipal sewerage) increased by 0.2 ML from FY2019 to FY2020. This is attributed to the moving of our Aquamarine water business from its Cape Town facility to a new facility in Johannesburg in the reporting year which required the discharge of larger than usual amounts of water during the decommissioning of equipment and winding-down the facility. Future discharge volumes are predicted to decrease due to the anticipated consolidation of the Aquamarine business into Murray & Roberts Water in the next reporting year.

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	0.55	Higher		All water discharges in the reporting year were destined to municipal sewerage and wastewater treatment facilities and were not pre-treated prior to discharge. This discharge increased by 0.2 ML from FY2019 to FY2020. This is attributed to the moving of our Aquamarine water business

					from its Cape Town facility to a new facility in Johannesburg in the reporting year which required the discharge of larger than usual amounts of water during the decommissioning of equipment and winding-down the facility.
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.

W1.4

(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?

South Africa's current potable water allocation is 15 billion m3 and by 2030 the demand for potable water is estimated to be 17,7 billion m3. Murray & Roberts Water (MRW) has expertise to design, supply equipment, construct, commission, operate and maintain water treatment plants in Africa. It is likely that water-related emergencies will continue to arise in parts of South Africa. Given this context, MRW's strategy has been to actively engage with potential clients in sectors with high water usage to offer alternate solutions and expand its business portfolio to include more wastewater treatment and water desalination capabilities. Aquamarine's (a division of MRW) small capacity water treatment plants can be quickly deployed at short notice and water quality and quantity are guaranteed.

One of our most important partners is our customers, in particular the larger municipalities that are implementing or planning to implement wastewater treatment reuse schemes. There are opportunities for Murray & Roberts in the City of Cape Town as the City is implementing its water sustainability plan with a budget of R14 billion. This includes various projects to upgrade wastewater treatment plants and to supplement potable water supplies through reuse, aquifer abstraction and recharge and sea water desalination. Murray & Roberts Water engages actively with the City and other suppliers to ensure that it is positioned to assist on these projects and to explore alternative contracting models such as alliance-type contracts, which

aim for closer cooperation between clients and contractors to align expectations and enhance project outcomes. The method of engagement is ongoing dialogue and face-to-face meetings with the City.

Success is measured through our ability to secure new contracts. Murray & Roberts Water has been awarded the refurbishment of the Athlone wastewater treatment plant, and will be bidding on a number of other similar opportunities coming to market during 2020.

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.

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an 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

Comment

None.

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Other

Tools and methods used

Internal company methods
External consultants

Comment

None.

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Other

Tools and methods used

External consultants

Comment

None.

W3.3b

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

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Water availability is essential to our localized short to medium term projects and is typically considered in both our tender stage and during operational projects. This may include, for example, specific water use license requirements from our clients that we need to abide by on a project. We measure these parameters on a monthly basis to track environmental performance from a compliance and efficiency perspective. We use this data and our internal company knowledge to feed into the risk assessments that we conduct on-site. A large portion of our operations are conducted in water-constrained regions, including SADC and Western Australia. The COSO Enterprise Risk Management Framework may be applied to operations where water availability risks are material and have the potential to impede the successful delivery of a project.
Water quality at a basin/catchment level	Relevant, always included	Water quality is essential to our localized short to medium term projects and is typically considered in both our tender stage and during operational projects. This may include, for example, specific water use license requirements linked to water quality from our client that we need to abide by on a project. We monitor withdrawals and discharges for reporting on a monthly basis to track environmental performance from a compliance and efficiency perspective. We use this data and our internal company knowledge to feed into the risk assessments that we conduct on site. The COSO Enterprise Risk Management Framework may be applied to operations where water quality risks are material and have the potential to affect the health and safety of employees, breach water use license requirements or impede the successful delivery of a project.

Stakeholder conflicts concerning water resources at a basin/catchment level	Not relevant, explanation provided	Murray & Roberts does not consider stakeholder conflicts concerning water resources to be relevant in our water-related risk assessment. As we have disposed of our water-intensive businesses, very few of our fixed facilities remain. Additionally, our fixed facilities are mainly administrative operations with minimal water usage from municipal sources, resulting in no stakeholder conflicts. Our activities mainly take place on client-owned and -operated sites. As such, the responsibility of assessing risks associated with stakeholder water resource conflicts lies with them. The relevance and inclusion of water-related stakeholder conflicts is anticipated to remain consistent in the foreseeable future as our current business model (Engineering, Procurement and Construction services for client-owned projects and operating sites) is anticipated to remain unchanged. Nevertheless, water-related stakeholder conflict risks are identified during the early stages or new projects or acquisitions, these will be assessed and monitored accordingly.
Implications of water on your key commodities/raw materials	Not relevant, explanation provided	Prior to 2017, Murray & Roberts was vulnerable to raw material supply disruptions for materials that are inherently dependent on the availability of water supply during their production (e.g., concrete, grouting). The Infrastructure and Building platform (which was disposed of in 2017) relied on the availability of large quantities of these materials. Thus, if the suppliers of these products and materials faced drought conditions or water supply disruptions at their extraction or production sites, this could impede their ability to supply these materials, and subsequently affect our ability to source the required materials in sufficient quantities to continue and complete our projects. However, since the disposal of the Infrastructure and Building platform, this vulnerability has decreased significantly. Water-dependent materials are required in significantly smaller quantities in the remaining platforms. Furthermore, 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.

		We recognise that potential key commodity/raw material supply risks may arise in the future as a result of climate change physical impacts on precipitation patterns and water supply. This is being considered at a high-level as part of the first stage of our climate change scenario analysis process. We recognise that potential key commodity/raw material supply risks may arise in the future as a result of climate change physical impacts on precipitation patterns and water supply. This is being considered at a high-level as part of the first stage of our climate change scenario analysis process.
Water-related regulatory frameworks	Relevant, always included	Changes to water legislation can pose risks to Murray & Roberts operations by impeding the successful delivery of projects or increasing resource-requirements for compliance. We actively engage with regulatory authorities to ensure that we understand the implications of future legislation and can respond proactively in this regard. Furthermore, regulatory frameworks and localized water costs are important in the successful delivery of projects in terms of cost overruns and stoppages caused by legal issues. We use internal knowledge and external support (e.g., conducting both internal and external audits on our sites and projects) and the results of these feed into our risk processes.
Status of ecosystems and habitats	Relevant, always included	This risk aspect is usually assessed by our clients, and the project developers, who manage the Environmental Impact Assessment (EIA) and approval process. However, we operationalize our conformance specification, usually found in the water use licences and any other client-specific requirements around ecosystems and habitats. Our environmental specialists then monitor conformance against those requirements and this information is integrated into the risk assessment process, where relevant.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	A healthy workforce is important to the business because it means that our employees are fit to work at their full potential and absences due to sickness are reduced. Access to fully-functioning, safely managed WASH services for all employees is part of our general baseline for any site under our control. Projects and fixed facilities will provide potable and sewage treatment or removal for our employees. This is governed by our HSE Policy. Internal company knowledge is used to integrate the

		contextual issues of WASH services into the risk assessment process.
Other contextual issues, please specify	Not relevant, explanation provided	There are no other contextual water-related issues currently considered in our Group's water-related risk assessments. We do not foresee any other contextual water-related issues becoming relevant for our risk assessment process in the future.

W3.3c

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

	Relevance & inclusion	Please explain
Customers	Relevant, always included	Murray & Roberts takes water risks into consideration when operating (within our financial control) on customer sites. As water-related incidents arise (e.g., water leakage from a pipe burst), these are logged and tracked in our environmental incidents register and communicated to our clients immediately via email, phone calls and in-person meetings (depending on the nature of the incident). During 2018 and 2019, with assistance from external parties, we undertook a risk and opportunity identification assessment specific to the mining sector. Given the water-intensive nature of mining, the results indicated that our client base from the Mining platform is likely to face increasing input costs for water which will in turn impact resource viability.
Employees	Relevant, always included	Murray & Roberts engages its employees regarding water management in several ways. As part of one of our critical environmental standards, we have a specific water awareness and training program that engages our employees on how we expect them to behave regarding the use of water. In addition, under OHS and contractual obligations, we supply drinking water, showers and ablutions to our employees. We therefore, factor our employees into the water risk assessment process through regular email and face to face engagement. We also raise employee awareness on water management and risks through ongoing, site-specific awareness campaigns (e.g. posters on water saving placed in buildings and bathrooms).
Investors	Relevant, always included	Investors are increasingly aware that water is important to our operations and a loss of investor confidence could affect our share price and access to capital. Views expressed by investors are through meetings, such as the AGM, and direct correspondence on an ad hoc basis. We incorporate the views of these investors into the risk assessment process, where

		relevant. We also provide water-related performance results in our Annual Sustainability Reports.
Local communities	Relevant, always included	Our exposure to communities' stems mainly from changing the quality of a water body in which we are temporarily working on, such as a structure that may cause turbidity whilst it is being built. As such our construction and engineering risk assessments consider prevention of water pollution or other impacts through controls. Our projects have community liaison officers who continually engage all parties to ensure that aspects such as water management is dealt with in a professional and consistent manner. In this way, consideration for local communities and their views are included in the risk assessment process.
NGOs	Relevant, always included	NGOs are included when applicable and are typically related to short term localized projects. As per the preference of our clients, we usually engage with NGO's contractually through our clients. An example of this would be the liaisons we activate with farming communities on river catchments as to how our temporary activities in this water basin would be controlled to prevent water quality from deteriorating. In this way, NGO's would be considered in our risk assessment process if applicable for the project.
Other water users at a basin/catchment level	Relevant, always included	Other water users are included when applicable and only related to short term localized projects. Other water users at the basin/catchment level may have concerns around the quality and ecosystem water impacts that any of our project sites may cause. We usually engage contractually through our clients, for which we are building the project. Our clients are usually members of catchment management agencies. In this way, other water users would be considered in our risk assessment process if applicable for the project.
Regulators	Relevant, always included	We operate within our clients Water Use licenses (WULs) for the project sites we operate on. As such we ensure that we comply with the conditions set out in terms of these WUL's by collecting benchmark data setting upstream and downstream data points and assessing the efficacy of the controls. Engagement with water quality inspectors varies but may occur monthly on some of our sites. If water parameters are not within specification, further action by the authorities can occur. Any non-conformance is dealt with as an incident and must be addressed immediately. This information then feeds into the risk and incident processes we have embedded in the company.

River basin management authorities	Relevant, always included	We regard river basin authorities and regulators as the same. We operate within our clients Water Use licenses (WULs) for the projects we operate on. As such we ensure that we comply with the conditions set out in terms of these WUL's by collecting benchmark data setting upstream and downstream data points and assessing the efficacy of the controls. Engagement with water quality inspectors varies but may occur monthly on some of our sites. If water parameters are not within specification, further action by the authorities can occur. Any non-conformance is dealt with as an incident and must be addressed immediately. This information then feeds into the risk and incident processes we have embedded in the company.
Statutory special interest groups at a local level	Not relevant, explanation provided	Statutory local special interest groups for a specific project are usually addressed in the formalized communication protocols of our client's contracts with ourselves. Our clients typically prefer to engage directly with the authorities themselves, hence this stakeholder is currently considered to be irrelevant for Murray & Roberts. We do not anticipate our clients to fundamentally change their engagement expectations and requirements for statutory local special interest groups to change in the foreseeable future. For this reason, we do not foresee this stakeholder group becoming relevant for our water-related risk assessment process in the future.
Suppliers	Relevant, always included	Our risk-based approach onboards suppliers that may have an impact on the environment by taking cognisance of our environmental management plans where water pollution is addressed. The most significant supplier that could cause harm is our fuel and chemical suppliers that may require arrangements for bulk fuel/chemical storage. Our engagement is through face to face communication. As part of our onsite induction, we include HSE training (inclusive of water) to our suppliers to reduce the emergence of water impacts due to supplier activities.
Water utilities at a local level	Relevant, always included	Murray & Roberts is reliant on water utilities for the supply of potable water. Murray & Roberts engages with major water utilities on an ad-hoc basis through face to face meetings. Any significant issues raised will be incorporated into the risk assessment process.
Other stakeholder, please specify	Not relevant, explanation provided	There are no other stakeholders currently considered in our Group's water-related risk assessments. We do not foresee any additional or other stakeholders to be relevant to our water-related risk assessment in the future.

W3.3d

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

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 and water-related risks that may arise. Murray & Roberts conducts a comprehensive company-wide (including suppliers) integrated risk assessment process 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 used to identify the water stressed river basins in which we operate.

Practical implementation of this at a facility or project level requires the risk to be evaluated as a hurdle to delivering contracted scopes against cost, time and technical performance targets, while maintaining HSE performance at acceptable levels. This needs to be done both for direct facilities but also for the supply chain. Murray & Roberts has established a Group-wide Environmental Risks and Incident Reporting Standard. Sites and facilities in the Group are required to report on their most material environmental risks (including water) on a quarterly basis. Our water standard provides corporate (including suppliers) and facility level guidance of how to identify and manage water-related risks.

For strategic, operational and project-related risks, the risk-response decision making process includes identifying risks; analysing risks and controls to manage identified risks; determining the required management actions; and reporting and monitoring. Physical, regulatory and reputational risks are identified and assessed on a quarterly basis and are considered 3-6 years into the future. The relevant water risks form part of the 3-year risk management plan and the business then plans accordingly.

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, 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. Although these incidents did not lead to substantive business impacts, Murray & Roberts recognises that more severe hurricanes and storms 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 to 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 than 1% of our operating costs. Therefore, there is currently no substantive financial impact on the business with regards to water related risks.

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. We anticipate repeating this exercise in 2021 and will request additional information from suppliers who we consider to be potentially exposed to water risks.

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

Sales of new 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 the more frequently occurring climate-induced droughts. In light of this, Murray & Roberts Water (MRW) have been strategically positioned in the water treatment and technology sector to offer a spectrum of client solutions to target various water challenges and opportunities.

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 two years at the eThekwini municipality in Durban. This demonstration lead to the successful development of a Organica Wastewater Treatment service level agreement with the V&A Waterfront (V&A) (Cape Town) in the reporting year. MRW considers this project to be an ideal opportunity to showcase Organica technology in commercial operation. We anticipate the V&A Waterfront plant will generate interest in the technology and lead to the securing of additional contracts.

There are additional water opportunities that have been identified at the City of Cape Town, eThekwini Municipality and national government level. As part of a drought resilience project pipeline from the City of Cape Town, MRW was awarded an Athlone Wastewater Treatment Works project. Two additional tender opportunities identified through this pipeline are the Potsdam Wastewater Treatment Plan and the Cape Flats Regional Sludge Handling Facility projects. eThekwini municipality is looking to develop two greenfield WWTP's at uMhloti and uMkhomasi.

Finally, the Head of Investment and Infrastructure in the South Africa President's Office has gazetted eleven 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.

Murray & Roberts is actively pursuing these and other water opportunities.

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

The budgeted spend for the Athlone wastewater treatment plant alone by the City of Cape Town for 2020 is R69 million and represents the potential opportunity for Murray & Roberts.

Type of opportunity

Products and services

Primary water-related opportunity

Sales of new products/services

Company-specific description & strategy to realize opportunity

There is increasing pressure on companies to address both the regulatory and physical risks from climate change. Climate change is expected to result in a significant shift in weather patterns leading to rising temperature, increased storm and flood events and droughts. Governments and customers' expectations and demands around the need to reduce business contributions to climate change is also leading to a regulatory and market changes.

There is an opportunity for Mining Platform to innovate, design and deliver services to our clients to enable their operations to be more energy and water efficient, make use of lower carbon energy sources, and to be resilient to the acute and chronic physical impacts of climate change. A specific example relates to reduced water consumption technologies Murray & Roberts is developing in the mining sector.

Cementation North America acquired a new business, Terra Nova Technologies (TNT) in FY2019. TNT is developing and marketing a new Dry Stack Tailings (DST) technology 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 operating in areas where water conservation is critical – they also provide significant safety and other environmental benefits too. The benefits include reduced water requirements, principally achieved by recycling process water and near elimination of water losses through seepage and/or evaporation. This also virtually removes the risk of groundwater contamination from tailings seepage.

The current strategy to realise this opportunity primarily focuses on engagement through marketing the technologies within the industry (via conferences and webinars), as well the developing the technologies through academic channels such as the publishing of research papers and presenting at conferences.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

860,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The financial impact relates to a previous dry stack tailings project implemented by Terra Nova Technologies for a client in Saudi Arabia including the design and supply of Mechanical, Structural Electrical and Instrumentation. The value of the project was approximately $60million (ZAR860 million)

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 the regulatory and physical risks from climate change. Climate change is expected to result in a significant shift in weather patterns leading to rising temperature, increased storm and flood events and droughts. There is an opportunity for Clough Murray & Roberts to increase sales to our clients who need to build resilience to physical climate change impacts. This includes designing and building operations to be resilient against increasing temperature and more frequent drought conditions, particularly in the Australian market.

As a case in point, Clough 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 another project as part of Water Corporation’s Groundwater Replenishment Scheme

in Australia, the Advanced Water Recycling Plant currently has the capacity to treat secondary treated wastewater and recharge up to 14 billion litres of recycled water into groundwater supplies each year. The scope of the expansion project Murray & Roberts was involved in includes doubling the plant's capacity to recharge up to 28 billion litres of recycled water each year, which will provide further water security to the residents of Perth.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

174,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The financial impact relates to the value of the Mundaring Weir project which is valued at R174 million.

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	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

		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 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	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 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 Water Disclosure Project 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 M&R 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. As a case in point, in the reporting period, the MRHL board (including the CEO) developed and approved the climate change policy statement with the intention of committing the Group to play a meaningful role in efforts aimed at mitigating the impact of climate change and ensures a consistent approach.

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 light of water shortages becoming more prevalent in South Africa, a business decision was made to acquire Aquamarine (a business with water purification and desalination technologies). These services can be extended to our customers particularly those in water-intensive businesses. From a key growth driver perspective, the Aquamarine business performed well with the supply of containerised water treatment plants to hospitals, industrial and agricultural users.

		Reviewing innovation/R&D priorities Setting performance objectives	

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

Both assessing and 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. They report 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. They co-ordinate the water data and related environmental performance information that goes to the HSE Committee, which is a standing committee of the MRHL Board, 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 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 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		The disposal of our Infrastructure & Building platform in FY2018 significantly reduced our group water consumption (93% decrease in water withdrawal from FY2017 to FY2018). As a result, our internal water usage has become 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)

FY2020_Group_Sustainability_Report.pdf

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	As our internal water usage became immaterial with the disposal of the water-intensive Infrastructure & Building platform and the Middle-East business, we have shifted our aim to ensure that the water issues faced by our clients are integrated into our business objectives. Murray & Roberts is positioning itself to take advantage of opportunities within the water resource and purification market. This was achieved by Murray & Roberts Water (MRW) acquiring a water treatment business, Aquamarine and entering into licencing agreements with leading international wastewater treatment companies. MRW partnered with Organica to employ new wastewater treatment technology at a demonstration wastewater treatment works in Verulam, Durban for the eThekwini Municipality. The success of this demonstration has enabled its relocation to the V&A Waterfront in Cape Town. In addition, Murray & Roberts has invested in businesses that provide technologies such as Dry Stack Tailings which helps our mining clients reduce their water consumption. 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 the report year, 42 new water projects totalling around R170 billion were announced at the

			South African President's Sustainable Development Investment Symposium, which bodes well for potential opportunities over the next 10 years.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	We have been marketing our sustainable wastewater treatment solutions to all relevant stakeholders. For example, the demonstration wastewater treatment technology allows us to demonstrate the technology to Southern African Development Community (SADC) countries as a solution to their need for a sustainable water supply. Murray & Roberts Water will relocate the Organica wastewater treatment plant to the V&A Waterfront in Cape Town where it will be put into commercial operation. We believe housing the demonstration facility at the high-profile V&A Waterfront will support a breakthrough in commercialising this technology. 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, in the reporting year, MRW was awarded its first contract by the City of Cape Town, in consortium with Lektratek Water Technology, to design and build the mechanical and electrical works associated with refurbishing the Athlone Wastewater Treatment Works. This award is significant in that it positions MRW for similar projects planned by the City of Cape Town in the first half of FY2021. 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. 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.

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 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 waste water treatment pilot project. We spent R200,000 on improvements in FY2019 but no additional capex in the reporting year. We don't anticipate additional capex spend in the next two to three years.

W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	None.

W7.3a

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

Yes

W7.3b

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

	Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	RCP 2.6 Other, please specify RCP 1.9; RCP 4.5; RCP 6; RCP 8.5	Murray & Roberts's scenario analysis process has thus far focused on scenario development for the mining platform. 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. For example, South Africa has experienced ongoing drought conditions since 2018. Whilst the drought has primarily impacted the agricultural sector, mining activities can also be vulnerable to drought.	Murray & Roberts has only recently started work on climate related scenario analysis (during FY2021). Specifically, scenarios have been developed, including scenarios in which moderate and high degrees of climate change occur (RCP 4.5, RCP 6 and RCP 8.5). In future, we expect to expand on this work and further evaluate the impacts of these scenarios on Murray & Roberts's activities. A priority of the future work includes performing quantitative analysis of the impacts to understand where key financial and business risks and opportunities lie within our markets and our physical operating locations.

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.

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. Targets were previously set by the individual operations. These were monitored throughout the year and progress was reported on a quarterly basis. Furthermore, before the disposal of the Infrastructure & Building platform, water reduction targets were required as the projects within this platform were water-intensive. However, since the disposal of the Infrastructure & Building and exiting from projects in the Middle East, our water withdrawals have decreased substantially (93% decrease in water withdrawal from FY2017 to FY2018) and we are no longer reporting on these targets. 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 savings targets are established for projects or operations in drier or water-scarce areas, or areas experiencing water shortages. 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 Executives, Managing Directors and Functional Leaders.

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
26

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 FY2020 was 1 797 kL, which corresponds to a decrease of 97 kL from the baseline. This translates to 26% 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 progress towards this target in the oncoming reporting year FY2021.

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 water management standard

Level

Company-wide

Motivation

Risk mitigation

Description of goal

Water management is one of the Group's key environmental performance areas. Accordingly, Murray & Roberts developed a Group water management standard which gives a clear mandate as to how we expect our operations to manage water in terms of compliance and performance efficiency. The goal was to ensure alignment with the Group water management standard by FY20. The measure of success for this goal is full compliance and use of the standard across the business. The implementation of this goal is being achieved through employee and supplier communications, implemented water efficiency projects, employee training updates and the achievement of ISO 140001 certifications for operations.

Baseline year

2015

Start year

2016

End year

2020

Progress

We are making progress against this goal. In FY15 we developed and communicated the Group water management standard. In FY16 we identified and implemented water efficiency projects at selected fixed facilities and project sites. In FY17, we updated the definitions in our water management standard aligning them to the CDPs water disclosure definitions. We also rolled out training on the updates to ensure that accurate data will be reported on. In the reporting year, all businesses were ISO 140001 certified, except for RUC Cementation Mining which has an equivalent environmental management system in place. 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 fines, non-compliance or client concerns are issues

related to water. In the reporting year, full adherence to the water standard (in terms of the listed metrics for assessing success) was achieved in terms of effective reporting, and the avoidance of fines, compliance and client concerns.

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	Group Director: HSE and Risk	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)].

No

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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