Environmental stewardship

MMG strives to protect communities and natural habitats by minimising our mining footprint in the regions where we operate.

116,376 ML
Total water recycled

13,488 tonnes
Non-mineral waste recycled

14%
Reduction in scope 2 emissions from 2023 to 2024

0
Level 4 and above environmental incidents

47,173 MWh
Energy consumed from solar power

74.31%
Lease area not disturbed by operating activities

Nature

We recognise that mining is a temporary land use and we have a responsibility to care for it for future generations.

We strive to minimise our impacts as much as possible, prioritising the mitigation hierarchy. Where we do have a footprint, we develop comprehensive plans to record, preserve and remediate the natural landscape and local flora and fauna.

We manage the land under our care from exploration and development to closure and post-closure phases, in close coordination with local stakeholders and authorities, incorporating traditional knowledge. MMG complies with all local laws and regulations at our operations, as well as global standards, including those set out by the ICMM (including the Nature Positive Statement).

We are also conscious of the impacts mining and processing operations can have on long-term land use. We seek to manage these impacts through progressive rehabilitation, adequate provisioning for closure and long-term land management and biodiversity plans that are aligned with our stakeholders' needs.

Growing global interest in nature-related impacts has led to the recent development of new reporting obligations, which MMG will report against in the coming years. In 2024, we developed the MMG Nature Strategy, to align our commitment to nature, support our sites and guide our vision for nature over the coming years (see page 11 of this report for more information).

Land disturbed and rehabilitated

Year	Location	Dugald River	Kinsevere	Las Bambas	Rosebery	Total
2022	Proportion of disturbance area that has been rehabilitated	0.00%	0.16%	4.12%	0.00%	**2.67%**
	Proportion of lease area disturbed by operating activities	9.89%	37.04%	32.46%	6.49%	**21.92%**
2023	Proportion of disturbance area that has been rehabilitated	0.00%	0.21%	4.51%	0.00%	**2.85%**
	Proportion of lease area disturbed by operating activities	10.39%	42.33%	32.16%	6.56%	**22.58%**
2024	Proportion of disturbance area that has been rehabilitated	0.00%	0.19%	3.81%	5.04%	**2.82%**
	Proportion of lease area disturbed by operating activities	10.42%	49.57%	36.92%	6.67%	**25.69%**

Khoemacau environmental data has been not included for 2024 reporting purposes.

Case study: Managing nature impacts at Khoemacau

Our Khoemacau mine is addressing its nature impacts through the development of a comprehensive land conservation, restoration and rehabilitation strategy. This includes implementing best practice environmental rehabilitation and closure reclamation management standards. Key actions involve conducting land disturbance assessments with comprehensive metrics, mapping and ongoing monitoring of eco-regions and biodiversity areas across the Khoemacau tenement and managing sensitive locations with an archaeological management plan approved by the Department of Environmental Affairs. In 2025, Khoemacau will further strengthen monitoring of impacted habitat, review team capabilities, develop a five-year rehabilitation plan and focus on capacity building in line with the MMG Nature Strategy.

Responsible water consumption

At MMG, water plays a crucial role in our mining and extraction processes.

Ensuring a reliable and efficient water supply is essential for consistent operational performance. We are also acutely aware of the importance of water resources for maintaining environmental ecosystems and supporting surrounding communities.

In alignment with the ICMM Water Stewardship Position Statement, we support initiatives that promote responsible water use, effective catchment management and contribute to improved water security and sanitation for our people and host communities. We have a company-wide objective to effectively manage our water intake, inventory and discharge to minimise our impacts on other users within the catchment, including upstream and downstream communities and the environment.

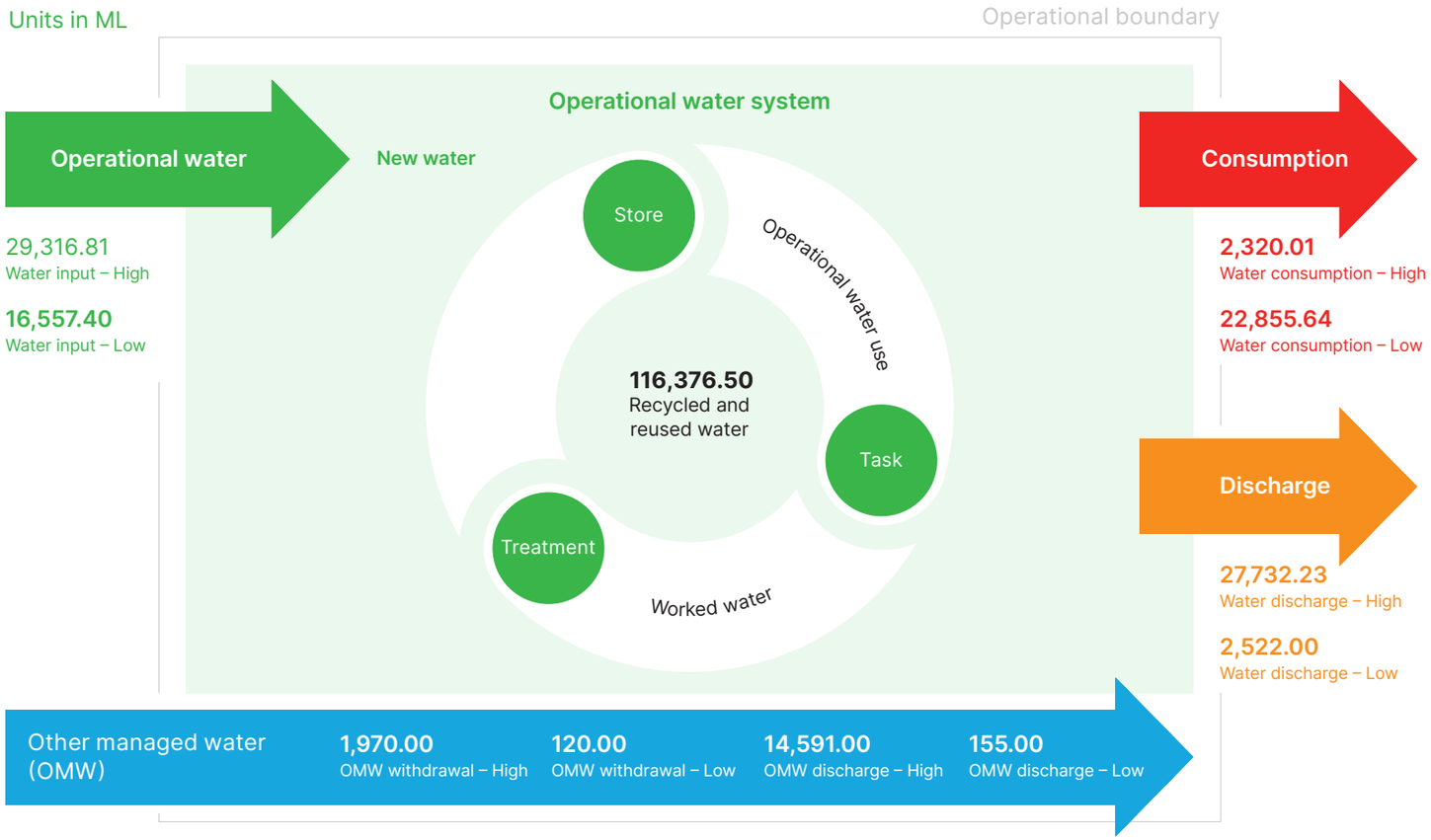
Our water management strategies vary based on site-specific requirements. Some of our operations are in areas with high seasonal rainfall and abundant water resources, while others are located in areas where securing water can be more challenging. Targets tailored to site-specific requirements and risks are set against these objectives.

We uphold commitments to apply strong transparent water governance, manage water at our operations effectively and efficiently, and collaborate with our host communities to achieve responsible and sustainable water use.

MMG reports water operational inputs, outputs and other managed water in line with the ICMM Good Practice Guide, 2nd edition.

MMG water balance – ICMM

Units in ML



Note: High-quality water has high socio-environmental value with multiple potential beneficial uses, including water supply for drinking, agriculture, ecosystem function, etc. Low-quality water typically has lower socio-environmental value as the poorer quality may restrict potential suitability for use.

Reporting metrics

Operational water withdrawal
Volume of water that enters the operational water system used to meet the operational water demand.

Total consumption
Total volume of water that is removed by evaporation, entrainment (in waste or product) or other losses and not released back to surface water, groundwater, seawater or a third party.

Total discharge
Total volume of water that is released back to the environment (surface water, ground or seawater) or a third party.

Other managed water withdrawal
Volume of water that is actively managed without intent to supply the operational demand.

Reuse-recycle
Total volume of worked water used in operational tasks with or without treatment.

Responsible water consumption (continued)

Case study: Khoemacau's water management strategy

The Kalahari Copper Belt in Botswana is a region that faces significant water scarcity and drought conditions, which are exacerbated by climate change. To mitigate these risks, our Khoemacau operation has implemented a comprehensive water management strategy to minimise freshwater consumption and ensure environmental stewardship. Key initiatives include closed-loop water systems, advanced water treatment technologies and using non-potable water sources, such as brackish water and rainwater. The operation is fully compliant with local and international regulations, evidenced by annual groundwater reports and adherence to international reporting frameworks and guidance. Moving forward, Khoemacau will continue to prioritise water-efficient technologies, enhanced recycling systems and community engagement to ensure sustainable water consumption and long-term access to water resources for all users of this shared resource.

Tailings and waste management

Our mining and processing activities generate significant quantities of mineral waste.

Our aim is to minimise our impacts by managing our waste safely and appropriately, reducing our overall footprint of disturbed land and supporting long-term closure planning.

Our mineral waste can be categorised into two components:

Waste rock

Extracted during the mining process

Tailings

The residue left after processing minerals with water

Some of the mineral waste can be chemically reactive and has the potential to create acid and metalliferous drainage (AMD). If not identified early and managed effectively, AMD can negatively impact water quality and the success of land rehabilitation. To address this, we implement control plans that focus on characterising mineral waste and managing its storage.

At MMG, we prioritise the management of our tailings and tailings storage facilities (TSFs) as crucial material issues and risks that demand ongoing and rigorous risk management. Our approach includes enforcing minimum requirements for our TSFs and dams across all sites, spanning strategic planning, design, operations, maintenance, inspections, emergency response and closure. Our commitment to protecting lives and the environment is mandated in our Tailings Management Policy and Tailings Storage Facilities and Water Storage Dam Standard.

To develop these minimum requirements, we collaborate with internal and external subject matter experts, ensuring alignment with global standards, such as the Global International Standard on Tailings Management (GISTM) and the Australian National Committee on Large Dams (ANCOLD), and reference the Canadian Dam Association (CDA) and the Mining Association of Canada (MAC). Our approach not only complies with but often exceeds regulatory requirements in the jurisdictions where we operate.

MMG adheres to critical design and execution requirements based on a thorough risk assessment process. This process undergoes annual review, focusing on both operating and non-operating TSFs. Our primary goal is to minimise environmental and community impacts, with an additional objective of maximising operational efficiency.

Our risk management and control execution measures are subject to internal, external and independent audits.

We closely monitor the safety, environmental and social risks of tailings management and engage with our host communities, governments, regulators and other stakeholders. Any concerns raised or brought to MMG's attention are incorporated into our planning processes.

Mineral waste (tonnes) by site

Component	Location	2023 Consumption	2024 Consumption
NAF waste rock mined	Dugald River	319,799	260,597
	Kinsevere	15,392,478.8	9,033,683.97
	Las Bambas	122,908,814.3	122,617,926.8
	Total	**138,621,092.1**	**131,912,207.8**
PAF waste rock mined	Dugald River	381,365	422,594
	Kinsevere	463,771.55	1,464,686.85
	Rosebery	356,878.83	380,320
	Total	**1,202,015.381**	**2,267,600.85**
Tailings generated	Dugald River	917,529	872,667
	Kinsevere	1,985,187.88	2,060,365.39
	Las Bambas	52,139,765.48	50,225,770.79
	Rosebery	785,562.37	889,505.75
	Total	**55,828,044.74**	**54,048,308.93**

Khoemacau environmental data has been not included for 2024 reporting purposes.

NAF: non-acid forming waste rock

PAF: potentially acid forming waste rock

Tailings and waste management (continued)

Case study: Increasing our tailings storage capacity at Rosebery

In December 2024, our Rosebery operation received final approval from the West Coast Council in Tasmania, Australia to progress with an expansion of an existing TSF.

Works will begin in early 2025 on the Stage 11 and 12 embankment raises at the Bobadil TSF, providing around 3 years of additional tailings storage capacity.

Rosebery General Manager Steve Scott said continued works at Bobadil and a capacity increase at 2/5 Dam has the potential to extend the life of our existing tailings facilities through to 2030, subject to permitting approvals.

“This is great news for our 600 strong workforce, our local communities and local supply chain that benefits from the ongoing operation and success of Rosebery Mine,” he said.

A significant focus remains on finding a long-term tailings storage solution to extend the life of Rosebery Mine.

“Our team is working hard to find a suitable location to build a new TSF to ensure the continuous operation of the mine for the next generation of miners.”

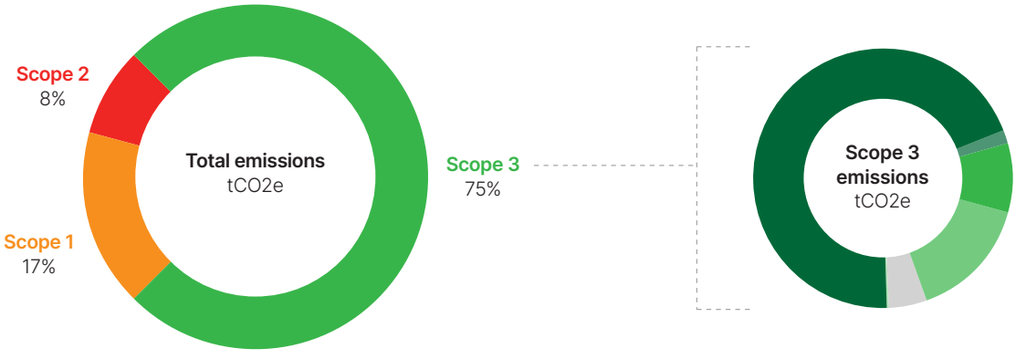
Energy and climate change action

We recognise the impacts and risks that climate change poses to our operations, our host communities and regions.

We see opportunities and potential to be part of the global energy shift, as the minerals and metals MMG produces are essential for sustainable technologies including solar and wind power, electric vehicles, energy storage and critical infrastructure. All of this will help contribute to a low carbon future. Minimising our environmental footprint is a key part of our goal to achieving net zero carbon emissions by 2050 for Scopes 1 and 2.

Our operations are committed to reducing their energy use and improving efficiency on site, with Khoemacau and Las Bambas actively exploring options to develop renewable energy sources for operational requirements. Dugald River's solar farm, which came online in 2023, has reduced energy-related emissions by over 30 per cent. We are also supporting governments in the regions in which we operate to review efficiency and stability of grid electricity, such as in the DRC, which faces stability challenges with its electricity grid that is primarily fed by renewable power.

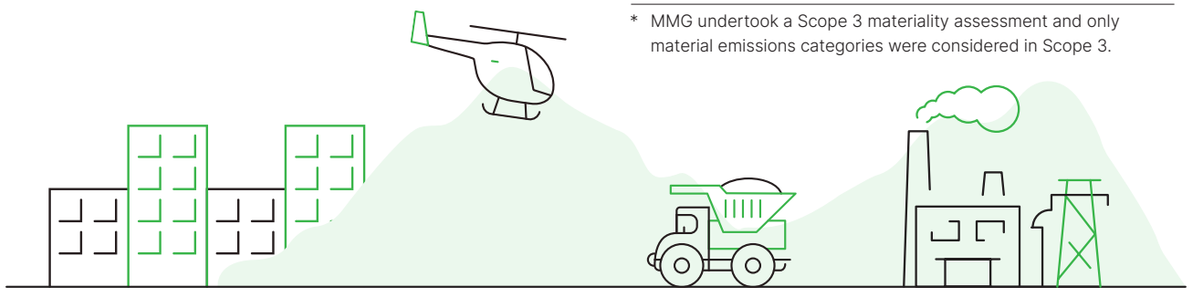
We are also constantly improving the quality of our emissions data, with a dedicated project in 2025 to work with our Supply Chain and Enterprise Technology teams on improving Scope 3 emissions data. This will give us more accurate data on our upstream and downstream emissions profiles and the ability to take strategic decisions as we work towards our 2050 goals.



Scope 1	**648,866.40**
Scope 2	**315,043.80**
Scope 3	**2,914,385.18**

Downstream processing	**2,031,640.60**
Downstream T&D	**42,585.35**
Fuel and energy	**255,715.69**
Scope 3 spend-based	**440,840.64**
Upstream T&D	**137,094.17**
Waste	**6,508.73**

* MMG undertook a Scope 3 materiality assessment and only material emissions categories were considered in Scope 3.



Case study: Rosebery invests in diesel-electric loaders

As we move towards a lower-carbon future, our operations need to adopt new technologies to meet our climate commitments. Our Rosebery operation has invested in diesel-electric vehicles to reduce its carbon footprint. In the initial two-month trial, the loaders reduced emissions, used 56 per cent less fuel and generated 15 per cent less heat, which in turn reduced refrigeration requirements underground. They also considerably reduced the diesel particulate matter emissions underground, promoting safer workplace conditions for our people. This initiative not only addresses environmental concerns but also offers cost savings, showcasing a balanced approach to sustainability and operational efficiency.