The global supply of water is limited

- 60% of 1% usable freshwater is found in just 10 countries
- 70% Freshwater reserves in the ice sheets
- 29% Underground Sources
- 1% Available for Human Use

70% Irrigation

22% Industry

9% Others

22% of GDP originates from here

36% of the global population live in water stressed areas

98% of electricity supply directly depends on water availability

Water is directly linked to economic growth

- 20% of GDP at risk due to water stress

45% people will be living below water stress threshold

8.1bn 2025

17% people will be living without adequate sanitation facilities

The demand for water is increasing

- 10% no access to safe and clean drinking water
- 25% reduction in global grain production due to droughts and other natural disasters

11x Growth trends over the last 10 years, show:

Population

Water Extraction

x40

By 2025 Demand

Supply
Why do we need to worry about water?

Water is key to operational excellence.

There is a financial risk associated with water issues – whether that is manifest in deterioration in quantity or quality.

Effective water management will likely result in productivity gains and a reduction in risk.

Given the cost of water management as part of mine closure, the treatment and management of water early in the mine life can result in significant reductions in long terms costs and the associated liability.

Ineffective water management can result in conflict with stakeholders. Many preoccupations outside the mine are about environmental contamination, particularly of water resources.
Mining companies need to understand and manage physical, regulatory, and reputational water risks, among others to:

- Understand and quantify the **real costs of water** (e.g. not just water tariffs but all the costs associated with water such as stakeholder engagement, business interruption, water treatment);

- Assess both **technical and non-technical risks** tied to water, such as community protests or new and more restrictive legislation in relation to water;

- **Optimize water use management**; and

- Minimize water risks in **multiple time horizons**, to account for both short-term challenges and longer-term issues that are inter-related with climate change and other trends.
Water Stewardship

Holistic Water Management is about:

- **Water awareness** – Awareness on how water impacts business and how business impacts water.
- **Knowledge of impacts** – Wider understanding of where a company’s water ‘footprint’ is actually located in terms of direct (company operations) and indirect (supply chain) water dependencies. Includes looking “beyond the fence line”.
- **Internal action** – Outlining goals, targets, actions and plans that will help tackle the solutions to priority issues.
- **Collective action** – Recognizing that working with others and at various scales (global fora to local water groups) is a necessary part of a robust water stewardship strategy.
- **Influence governance** – Advocating, influencing, partnering, supporting, facilitating, strengthening, etc. for improved water governance at the local, watershed, state or national level.