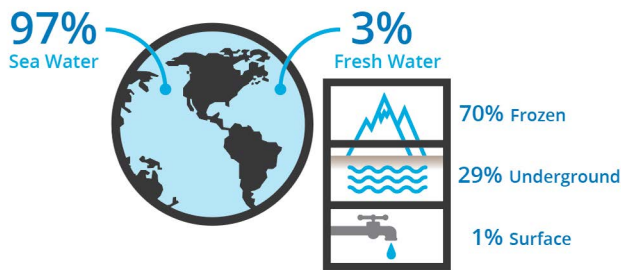


# WATER IS A FINITE RESOURCE

MARCH 2016

You've already seen the impact of drought and water shortages. Increasing faster than any other utility, the price of water outpaces electricity and gas. Accelerated by tiered pricing, water rates are shooting up. Supply is more ominous than price in some markets where water restrictions are imposed with steep fines for violations.

## The World of Water



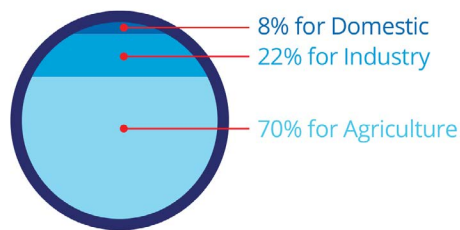
Population and land development are increasing while the water supply isn't. About 70% of the world is covered by water but less than 3% of this is fresh water. Of this, 70% is frozen as snow and ice and 29% lies underground. This leaves less than 1% readily accessible for human consumption.

Advanced planning is essential for smooth business operations. Many companies already have sustainability departments that are working on

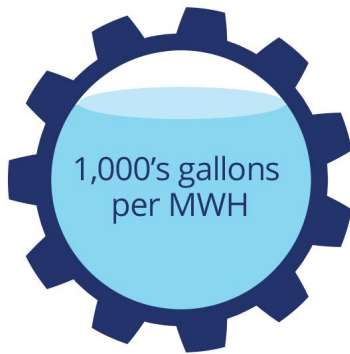
water conservation. Whether motivated by sustainability or business viability, having a long term water plan is essential.

Flint, Michigan shows the importance of careful planning. City officials were trying to reduce the cost of water. The result: lead poisoning the water supply. Now, both residents and businesses in Flint are wrestling with the issues of a poorly planned water strategy.

Planning for your business is critical considering the percentage of water consumed by industry. Worldwide, 70% of water usage is for agriculture, 22% for industry and 8% is domestic (WBCSD). According to the United Nations, by 2025, an estimated 1.8 billion people will live in areas of water scarcity, with two-thirds of the world's population living in water-stressed regions.



Additionally, water, energy and power are interdependent. Water is used to sustain life, for food production, industry and transport. Water is used in the home and office, and to irrigate our landscapes. Water is also used to generate power. Depending on the energy production method this can be thousands of gallons per MWH. Energy is required to acquire, clean, transport and recycle water. So as we use more water, we need more energy, which in turn requires more water!



## **SOLUTIONS AT HAND**

**Start implementing some solutions already available. For example:**

- Reduce energy consumption. LED lighting, insulation, solar panels and other energy savings reduces water usage as well due to the interdependent nature of power and water.
- Use brackish and sea water in mining and manufacturing reduces the demand on the freshwater supplies.

- Implement manufacturing technologies that use less water, increase water recycling and reduce pollution.
- Desalination of groundwater from coastal aquifers instead of seawater has the potential to provide a more efficient method of freshwater production. It could also reduce the intrusion of saltwater into fresh groundwater.
- Improve infrastructure to reduce plumbing leaks. According to the EPA, the US loses an estimated 16% of the drinking water every day due to leaks.
- Optimize irrigation levels. The EPA estimates that 50% of water used for landscape irrigation is wasted.

## **BUILD YOUR PLAN**

Start developing a water plan for your business. With 92% of water use going to industry and agriculture, a robust plan is essential for the sustainability of your business. Identify water leaks and excessive irrigation through a water audit. Understand the long-term water supply of your region and build a plan for reducing water consumption. Making your businesses more sustainable also makes the water supply more sustainable. Develop a plan that gives you a competitive edge over companies who aren't making a plan.

