



FRESHWATER IN THE OCP INDUSTRIAL PROCESS

In freshwater the concentration of salts, or salinity, is almost zero ; this differentiates it from seawater and brackish water.

In general, It is the water of rivers, lakes, rain, glaciers...

WATER SCARCITY

Water is a vital requirement for agriculture, domestic use and industry.

As a responsible industrial actor, OCP is committed to being an exemplary operator in the chemical and mining industry.

Also, as the OCP group operates mainly in the Oum Errabii basin, a central region in Morocco which has a growing demand for water usage in agriculture, industry and of course, for drinking water.

OCP HAS CHOSEN TO IMPLEMENT A «CIRCULAR ECONOMY» APPROACH TO ANSWER THE ISSUE OF WATER

Aware of the water stress facing Morocco, the OCP group is committed to maximizing the use of unconventional water, namely desalinated water as well as treated urban wastewater. This circular approach results in the abandonment of groundwater as well as surface water.

On the other hand, the Group aims to optimize its consumption of fresh water at all levels of its value chain, both at the mine and at the chemical level.



VISION & OBJECTIVES OCP

OCP’s vision for water management is to be “Best-in-Class” by 2028, adopting the very best available environmental and technological practices.

In terms of water supply, OCP has set itself the following objectives:

- The use of unconventional water (desalinated water and water from urban wastewater treatment plants - WWTPs)
- To compensate for any withdrawal of surface water from the ecosystem of the Oum Errabii basin
- To abandon all types of groundwater
- Optimizing the consumption of water by opting for recycling and reuse of water within the processes used by OCP



Water in 2019 in figures at OCP:

| | Conventional water | Non Conventional water |
|-------|--------------------|------------------------|
| TOTAL | 83 | 37 |

Ratio (Water not Conv. / Total) = 31%

Recycling of more than 80% of water from phosphate washing plants.

One ton of phosphate ore extracted contains **10%** moisture, i.e. water. The transition to the slurry pipeline, as well as the adaptation of phosphoric acid processes to a pulp (instead of dry phosphate), maintains this natural water in the entire value chain, therefore minimizing its use.

Seawater desalination supplies the Jorf Lasfar platform with more than **70,000 m³/day**, the equivalent of almost **20** Olympic swimming pools per day.

The energy required for desalination at Jorf Lasfar comes from electricity cogenerated by sulfuric acid production units.

Three municipal water treatment plants already supply OCP's mining sites, and the group plans to develop more STEPs in cities near OCP mines and laundries.

According to the UNEP: below **1000 m³/Inhabitant/Year**, the lack of water begins to alter the development of the region, and the health of the population. Morocco is **650 m³/Inhabitant/Year**.

