

Water

Water is a global issue, which requires local solutions. There is growing concern about global water scarcity and its possible social, economic and security consequences. Although cement is not a major water-using activity, it is our responsibility to use water carefully and to balance our needs against those of other users.

Protecting a resource

Types of water use

Most of the water we need (for cooling in cement plants, for dust suppression and for watering newly-established trees and other plants) is groundwater; permits govern the amount and location of the necessary drillings. We use some treated water; overall about 12% of our water needs are met by supply of treated water through the municipal water supply network but the situation at each plant varies. For instance, the Volos plant uses only ground water while the Milaki plant was, until the commissioning of the desalination unit (see example), 90% dependent on water imported from another region.

Conserving water

Water used for cooling is contained in closed systems and can be re-used again and again. At Milaki almost all the water that would otherwise be discharged is collected, treated and used for dust suppression and watering. The Halkis plant collects and uses rainwater.

Protecting the water environment

We have nearly completed the installation of a new drainage system at our Halkis plant which is improving the quality of water discharged back to the environment. At the Volos and Milaki plants settling ponds and oil traps are used to treat water before it is discharged.

A new Port and Marine Standard Operating Procedure is reducing the risk of incidents that might compromise the marine environment. It specifies the anti-spill pollution prevention kits that are now held at all terminals for use in the event of spillage or other incidents.

Water footprint

We are also taking part in the water footprinting activities of the whole Lafarge Group. Water footprinting, which is widely recognized as an important tool in water management, enables us to set site specific targets and to prioritize our actions. Milaki, as a plant that is located in an area of extreme water scarcity, was mapped this year using the Global Water Tool designed by the World Business Council on Sustainable Development. We will then complete water footprints for our other sites.

example

MILAKI - A CHALLENGE AND A DECISION

In September 2010, the Milaki desalination unit started operation. It provides the process water (350,000 – 400,000 m3 per annum) the plant needs for its operation.

Previously, 90% of the water for the Milaki cement plant had come from another region, transported to the island in sea tankers. Another 7% had come from the island's own municipal supply and the remaining 3% from groundwater sources under permit. Although the plant recycled as much water as possible, we knew that relying on water from another region was not sustainable in the long-term and we began to consider proposals for desalination in 2007.

Our stakeholders were concerned about the potential impact of desalination on water quality in the gulf of Aliveri. To address their concerns, we commissioned the Hellenic Center of Marine Studies to study the potential impact and to undertake periodic tests of sea water quality and the monitoring of marine flora and fauna through oceanographic studies. The reports of the Institute are available to controlling authorities and community stakeholders.

Total water withdrawn by source

(m ³ per year)		
	2009	2010
Groundwater	2,507,995	2,842,971
Surface water	-	306,625
Other	350,605	35,115
Total	2,858,600	3,184,711

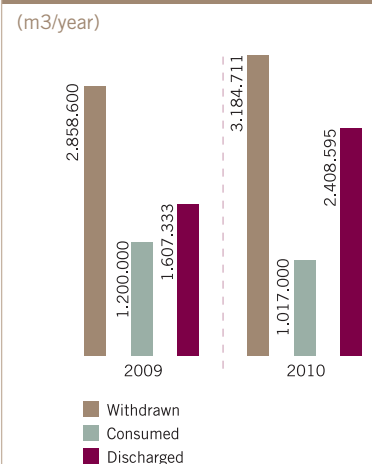
83% of the water we use is abstracted from groundwater sources under licence.

Total process water discharged

(m ³ per year)		
	2009	2010
Groundwater	18,000	15,585
Surface water	1,589,333	2,408,595
Municipal supply	-	-
Other	-	0
Total	1,607,333	2,424,180

In the water withdrawn and discharged is included a well in the Volos plant, which is not used as process water.

WATER



20%
WATER CONSUMPTION REDUCTION
IN 2010