WATER STORIES: 're-use' OR HOW UNITED WATER, A SUEZ ENVIRONNEMENT SUBSIDIARY, IS GIVING WATER A SECOND LEASE ON LIFE

After Southern California suffered prolonged periods of drought, the West Basin Municipal Water District joined forces with United Water, a SUEZ ENVIRONNEMENT subsidiary, to operate the facility that protects a precious resource in this driest of regions, by recycling water for local businesses. We take a closer look at how water is shaping this region for the future.

Overcoming the challenge of drought

Southern California, the late 1970s: the start of a period of drought that would last for nearly two decades. Over those 20 long years, the climate seemed to be wreaking havoc on this region, which had never experienced anything quite like it. It seems somehow unfair that an ordeal of this magnitude was inflicted on a region that has always lived under the threat of water stress. However, things began to change towards the end of the 20th century, when the West Basin Municipal Water District decided that the region's well-being could no longer remain at the mercy of nature and took matters into its own hands by exploring the opportunities offered by new, advanced water treatment technologies. It launched a wide-ranging, ambitious programme that aimed to reduce the region's reliance upon imported drinking water. To achieve this goal, it had to draw on new resources, while at the same time raising awareness among local residents and businesses about the need to use water more economically.



Entrance to Edward C. Little Water Recycling Facility © SUEZ ENVIRONNEMENT
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It was decided to construct a high-tech wastewater recycling plant in the city of El Segundo, part of Los Angeles, and beside the famous Santa Monica bay. The work was completed in 1995 and West Basin chose United Water, a SUEZ ENVIRONNEMENT subsidiary to operate and manage the facility. This decision was not taken lightly, given the critical situation facing the residents of Southern California at that time. United Water had exactly the expertise they needed to operate a leading-edge, water-saving facility, especially since the company had been operating in the US market since 1869 and has been awarded some of North America's biggest service contracts. This SUEZ ENVIRONNEMENT subsidiary is the second largest supplier in the US water industry and has successfully developed innovative solutions that have proved crucial to preserving local industries. Furthermore, its ability to offer tailored solutions to different cases of water stress – which can vary hugely from one area of the country to another – would also have been a factor in their decision.

Mission accomplished in Southern California!

The high-tech Edward C. Little Water Recycling Facility (ECLWRF) treats secondary effluent (treated wastewater) for reuse in non-domestic environments and is the only plant in the world that delivers five different kinds of designer water to its more than 200 customers. Together with its satellite facilities, it produces 190,000 m^3 of recycled water every day. This water is used in a range of commercial, industrial and irrigation applications, whatever the type of water (whether it's process water, water for washing, demineralised water for producing steam or water for cooling systems). Projects of this kind are vital to ensuring balanced growth in Southern California.


Edward C. Little Water Recycling Facility
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In fact, the facility produces five different grades of water for uses as varied as watering public and private gardens, irrigation, supplying refinery boilers and cooling towers and replacing groundwater – solutions that are helping local businesses face water scarcity and environmental challenges now and in the future. United Water operates the ECLWRF that provides water to the Chevron Nitrification Facility, the Exxon-Mobil Nitrification and Micro-filtration/Reverse Osmosis Facility and the Carson Regional Water Recycling Facility, all facilities that United Water is also responsible for operating. In doing so, it ensures that the Exxon-Mobil, Chevron and Tesoro refineries – all of which use large quantities of water – are able to operate efficiently. The facility can also produce up to approximately 67 million liters of water to recharge and protect West Basin's coastal groundwater reservoirs against salt water intrusion from the Pacific Ocean. As Antoine Vuillermet, Operations Manager at this United Water site, explains, "*at the Edward C. Little Water Recycling Facility, by combining our client's ambitious policy and ability to promote involvement in its projects with our ability to respond to the challenges raised by using the facility's technologies on influent water quality that is very changing we have succeeded in reducing the amount of imported drinking water from 80% to 60% of total demand!*" This is an outstanding achievement in a dry region that has also undergone significant population growth. It should be possible to further cut this figure in half thanks to the West Basin's firm commitment to the 'Water Reliability 2020' programme, which aims to reduce reliance on imported water in the coastal area around Los Angeles to 33% by 2020.

A winning team for an innovative region


Edward C. Little Water Recycling Facility
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You don't change a winning team and in 2014 the West Basin Municipal Water District once again demonstrated its confidence in SUEZ ENVIRONNEMENT by awarding it a five-year service contract.Rich Nagel, General Manager of the West Basin Municipal Water District, had yet another reason to celebrate as, according to him, "*For eighteen years, our partnership with United Water has aimed toreduce our reliance on imported water and preserve our natural resources in order to guarantee a safe, reliable water supply for the region. Together, we are also helping to protect the local environment by reducing the volume of treated wastewater that is discharged into Santa Monica Bay*".
Antoine Vuillermet emphasises that these achievements are a win-win situation recycling treated wastewater so that it can be reused in a number of different ways, but also limiting the impact of effluents on the environment. Last but not least, we have developed a unique system for reinjecting recycled water into aquifers that allows us to limit the infiltration of sea water, while at the same time replenishing drinking water reserves for the future!
Mission accomplished for SUEZ ENVIRONNEMENT, which through United Water has overcome one of the major challenges of the 21st century: protecting water resources. The Edward C. Little facility has come to symbolise a water-saving policy that has opened up new ways of promoting sustainable development and balanced growth. By establishing itself at the heart of the world's biggest economic power, United Water stands as proof that the notion of green growth is by no means a pipe dream.

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