



Case Study

Tampico, Mexico

ConDor achieves a steady flow, and 40% water saving, while providing water for all: "it was a very good investment"

Background

The municipality of Altamira is located on the eastern coast of Mexico within Tampico's metropolitan area, in the State of Tamaulipas. Since the signing of an agreement in 2015 - when Altamira's population was ~67,000 - the La Puerta water treatment plant in Tampico had sold Altamira blocks of potable water, pumped through a 33" diameter conduction pipe at a rate of 170 lps.

Challenges Insufficient water to serve two cities

By 2022, the population of Altamira had grown by ~20%, significantly affecting demand for water. Up to four times a day, the operator, Tampico Water Utility (COMAPA), would have to manually regulate the flow through a butterfly valve installed according to the original design of the plant. Nevertheless, flows above 280 lps were measured, well above the 170 lps initially agreed. This extra flow was at the expense of the population of Tampico, who were left short of water.

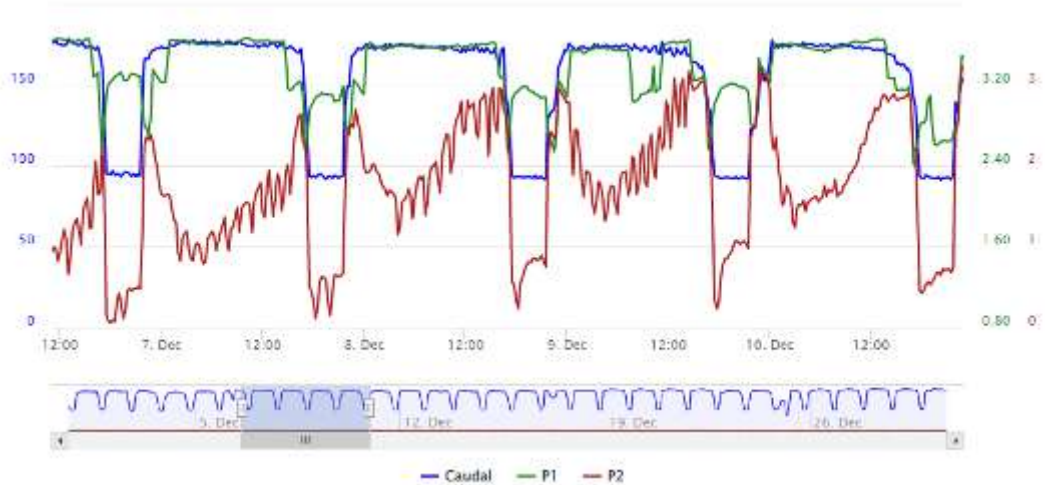
Solution Automatic, autonomous control

Staff of COMAPA requested technical support from Aquestia to address the challenge. Having evaluated the situation and the existing infrastructure, Aquestia's experts recommended installing a 24" diameter DOROT S300 control valve, together with its flagship smart ConDor solution - an automatic, autonomous system used to activate hydraulic control valves to perform any function, or combination of functions, via local or remote control and an A.R.I. D-050 air valve downstream of the control valve.



Results 40% saving, and water for all

The ConDor enables the operator to regulate, monitor and operate the valve remotely, thereby ensuring a steady flow of 170 lps during the day and 90 lps during nighttime. The flow rate can also be managed according to demand at different times. As well as relieving the operator of the time-consuming task of manual regulation, a 40 percent water saving has been achieved.



SkyPlatform - a real-time, cloud-based web platform designed for overseeing, monitoring, and controlling the ConDor - used by COMAPA. The blue line shows the regulated flow to Altamira, adjusted according to demand on the network during day and night.

Customer Perspective

"We are delighted with the results"

"The technical support we received from Aquestia was very efficient, and we are delighted with the results. The ConDor system enables us to remotely maintain the flow at 170 lps, or lower, depending on demand. So, we can comply with our original agreement with the city of Altamira, without incurring any unintended additional expense. Purchasing this valve from Aquestia has been a very good investment."

Technical Director, Tampico Water Utility (COMAPA)