



Water Supply

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Estimating the future hydric needs of Baja California, Mexico. Assessment of scenarios to stop being a region with water scarcity

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


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Abstract

This paper shows the actual conditions of freshwater availability in Baja California (BC), Mexico. It aims to estimate the water needs by 2030, and propose scenarios to move out of the scarce water region classification defined by international organizations. A population of 4.1 million people was defined for year 2030 as a target to provide at least 1,000 m³ of water *per capita*. As agriculture is the main water consumer in the region, empirical decomposition and optimization methods were used to define the trend line of the principal crops production and to establish the optimum conditions for planted surface reduction and water gain. The results show that by 2030, BC will need a total of 4,105 hm³ of water to be classified as a non-water