Costa Rica is a small country in Central America, with a land area of 51100 km², yet it is crossed with a mountain ridge, mostly of volcanic origin that gives it a complex topographic profile that creates a diversity of microclimates. As such, there are no big lakes, but many small ones instead located at different conditions of altitude and weather conditions. In total there are about 600 lakes, from the top mountains in Chirripó to the low lands in the northern plains. Here I resume the results of a recent research aimed to re-describe the limnological conditions of the Lake Río Cuartomore, which is a maar lake, with meromictic conditions. We studied the limnology for three years (2013–2016) to compare with previous data. Vertical profiles of temperature, dissolved oxygen, conductivity, pH, chlorophyll a, dissolved H2S were performed several times per year, for a total of 22 samplings. Aerial photographs taken from 1952 to 1992 were analyzed to describe land use changes. The lake had a shallow Secchi depth (<5 m) at all times. It was stratified on all occasions, with a thermocline that fluctuated between 10 and 20 m. It has a monimolimnion, with a chemocline at 14 to 22 m. Below the chemocline it was always anoxic, and during annual partial mixing events in the mixolimnion, oxygen levels decreased compared to stratified periods. There was a continuous presence of H2S from 20 m downwards, with annual fluctuations, being lower during partial mixing events. A peak in chlorophyll was detected on all occasions just below the thermocline. Land use around the lake hasn’t changed much since 1952, when only a rim of tree cover was left around the steep margins of the lake. The lake has maintained its limnological characteristics, with the only exception that it didn’t cooled down to historical levels. This limited response could be the result of the high relative depth and steep margins of the lake, which prevent the downward distribution of heat and keeps the lake in a meromictic state.