According to the Coulomb failure criterion the variation of either shear stress, normal stress, or pore pressure can affect the occurrence, or not, of earthquakes. Abnormal seismicity increases around reservoirs are often thought to be induced by the water impounded behind the dam, which leads to nearby increases in crustal pore pressure and Coulomb stress, and so may promote the nearby faults to fail. To investigate how much the Zipingpu reservoir, whose dam is just a few hundred meters from the Longmen Shan fault, influenced the 12 May 2008 Wenchuan earthquake Mw 7.9, we calculated the Coulomb stress variation induced by the filling of the Zipingpu reservoir, which began in October 2005. We also analyzed the correlation between local seismicity variations and the induced Coulomb stress variations. Both the calculated Coulomb stress variations and the observed seismicity analysis suggest that the probability that the huge Wenchuan earthquake, Mw 7.9, was induced by the Zipingpu reservoir is very low. The filling of the Zipingpu reservoir could only result in an increase in the rate of shallow earthquakes with hypocenter depth smaller than 5 km near the reservoir region.