

## A decreasing mechanism of the well water before the Nankai earthquake

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A few days before the Showa Nankai earthquake (1946, M8.0), the water level of well where distributed within the area of Pacific coast from Kii peninsula to Shikoku decreased. It is said that the water level was decreased in several decimeter or 1 m just before the earthquake. Why does the well water remarkably decreased before the Nankai earthquake? If a pre-slip had occurred before the earthquake in the deep portion of the asperity, an upheaval and extension field would be expected in the area of Pacific coast from Kii peninsula to Shikoku. This field may explain the decreased water level qualitatively. The value of the upheaval and extension was estimated with a few centimeters and 0.1 micro-strain, respectively. Shall it be able to explain this phenomenon by this value? On the landward in the coastline, the fresh water floats over seawater by the difference in the density. In this case, it is found that a slight upheaval induces a large decrease of the water level. The gradient of riverbed and seabed is same in the delta. In this case, the decrease of the well water level is amplified 41 times of the upheaval.