

Changes in shallow groundwater chemistry over the past 75 years in the Musashino Plateau, central Tokyo, Japan

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Changes in shallow groundwater chemistry from the 15-17 m deep wells of the Suginami Water Purification Plant, central Tokyo, over the past 75 years were examined and anthropogenic and natural factors affecting them were discussed. The Long-term change in sulfate concentration proved to be totally different from those of chloride and nitrate-N & nitrite-N concentrations. Contribution of LAS (principal ingredient of synthetic detergent), leaking water from water mains and/or sewers to shallow groundwater are indicated as plausible factors accounting for a constant increasing trend in sulfate concentration over the past 75 years.

Keywords: Tokyo Metropolitan area, urban groundwater chemistry, long-term change, chloride concentration, nitrate concentration, sulfate concentration