Room: 202

Groundwater quality in Tokyo and current issues as altarnative water resources

Satoshi Takizawa[1]; Tomochika Tokunaga[2]; Keisuke Kuroda[3]; Masaatsu Aichi[4]; Tetsuo Fukushi[5]

[1] Dept. of Urban Eng., Univ. Tokyo; [2] Dept. Environmental Studies, Univ. Tokyo; [3] Urban Engineering Dep. Eng. Univ. of Tokyo; [4] Geosystem Eng., Univ of Tokyo; [5] none

Groundwater table in Tokyo had gone through a rapid drawdown until late 1960s, and then it went up in the last 30 years after a set of regulatory measures were implemented. The most important problem in Tokyo until 1970 was land subsidence, which has almost ceased as the groundwater table rebounded. On the other hand, rising groundwater table caused unexpected problems such as increased buoyancy force on JR Tokyo and Ueno Stations. The cost for countermeasures against such rising groundwater tables is quite high and possible increasing. Similar problems of rising groundwater tables occured in London, where they decided to pump groundwater again at a controlled rate. On the contrary, groundwater pumping is still prohibited in Tokyo in fear of such a severe land subsidence that happened in the 1960s.

Meanwhile, so-called