

Refined hydrologic modeling of groundwater behavior in Urban Area

HIroyuki Tosaka[1]

[1] Dept. Geosystem Eng., Tokyo Univ.

The urbanization has necessarily led physical changes to land surface and groundwater system. To mitigate recent water problems such as inner-city floodings, heat-island phenomenon, water environmental deterioration, etc., it is necessary to quantify the urban surface/subsurface conditions in order to take proper countermeasures.

In this research, by utilizing an integrated hydrologic simulator, the author tries to depict the dynamic state of the groundwater system of a part of Tokyo Municipal area located on the east of

Musashino Terrace near the Tokyo bay. Results of several case studies concerning the effect of infiltration facilities, coastal groundwater conditions, etc., are presented.