

Improvement of Water Balance for Revival of Spring in Kumagaya City

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Abstract:

Setting of rainwater infiltration pits for groundwater recharge was projected against spring water drying-up in Kumagaya City, Saitama Prefecture, Japan. First, a land cover classification map was made from Landsat/TM. Next, groundwater recharge distribution in each city block was obtained from soil experiments and hydrological analysis with GIS. Finally, suitable infiltration pit setting areas were selected with an underground streams and groundwater level distribution map. As a result, a principle of the infiltration project for spring water revival was proposed.