

# Kumamoto, a World Renowned City of Groundwater Conservation: Collaborative Efforts in Groundwater Conservation beyond Municipal Boundaries

Kumamoto City



The process of compost production at the East Composting Centre in Kumamoto City.



Lake Ezu, registered as part of the Kumamoto Water Heritage.



Flooding of rice paddies in the middle basin of the Shirakawa River in Kumamoto City.

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## Situation (background, aims, etc.)

Kumamoto City, with a population of 740,000, meets 100% of its municipal water needs with groundwater, making it the only city in Japan with a population of over 500,000 to do so, and a worldwide rarity. As living standards improve and the economy develops, the city has undertaken various initiatives over the years to address challenges related to groundwater, which is a vital resource for its citizens' livelihoods.

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## Details (project outline, etc.)

The city is working on groundwater conservation from both the aspects of quality and quantity. Initiatives include the operation of the 'Eastern Composting Centre' which aims to prevent groundwater pollution from nitrate nitrogen, rice paddy inundation projects in the Shirakawa River middle basin, development of water source recharge forests, and implementation of citizen-led water saving campaigns. Further initiatives include conservation of groundwater through wide-area collaboration and cooperation, promotion of the Kumamoto Water Brand, and utilisation of groundwater in times of natural disaster.

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## Results (special features and innovations, future developments, etc.)

Progress has been observed in groundwater quantity, including in the recovery of groundwater levels and a decrease in citizens' water usage. However, regarding water quality, as groundwater takes a long time to recover once polluted, continuous efforts are necessary to address this issue.

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