

## Study on the groundwater flow system in the Aizu Basin

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The Aizu Basin is located on the western part of Fukushima Prefecture and the basin has the largest area in Fukushima Prefecture. The basin is rich in groundwater, and there are many flowing wells at its central area. The people in the basin have used the groundwater for drinking water and agricultural water. Therefore the groundwater is important resource for the people in the basin. In this study, regional groundwater flow system of the basin are clarified from the three dimensional distribution of major dissolved ions, hydrogen and oxygen stable isotopes and hydraulic heads. On the other hands, from the distribution of chemical characteristics, water quality in the western part of Kitakata, Aizu Wakamatsu, Yukawa and Aizu Bange. In the Aizu Basin, the depth of un-confined aquifer is from 0m to 20m, and the depth of confined aquifer from between 50m to 70m from the ground. The thickness of confining layer is from 20m to 50m. Hydraulic heads gradually decrease from the surrounding part to the central part.

As a conclusion, from result of chemical characteristics and hydrogen and oxygen stable isotopes in the Aizu Basin, five the groundwater flow systems were classified in the Aizu Basin.