Surface water resources availability – Basis for sustainable development of Rio de Janeiro State, Bazil

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The main goal of this work was to estimate the surface water resources availability of the state of Rio de Janeiro, in order that government and other stakeholders can develop and stablish sustainable developing policies and water resources strategies.

This study used the regional analysis technique, which allows estimating the discharge at sites where there are no available data. This technique utilizes a multiple linear regression model that uses physiographic characteristics and average rainfall of a basin as explanatory variables. It provides the definition of the homogeneous regions over the state of Rio de Janeiro.

The products of this work are: definition of homogeneous regions over the state of Rio de Janeiro with the respective regression equations for maximum, mean and minimum discharge, estimating of surface water resources availability at strategic sites and their mapping (scale 1:250.000).