

Water balance climatology under conditions of future climate scenarios in the Pantanal Nhecolândia, Brazil

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The study of global climate change is the subject of several international and national initiatives to outline future climate scenarios, quantifying impacts and proposed mitigation and adaptation measures. The objective of this work is to investigate the behavior of water conditions due to global warming analyzing future water availability for the Pantanal Sul Mato-grossense. To investigate the water behavior, the water balance (BH) was performed, climatology according to the method of Thornthwaite and Mather (1995), for average conditions and then used to monthly rainfall scenarios (10% and 20% of decrease) and temperature (increase of 2,5°C and 3,5°C) for the period 2011-2040 (Marengo et al., 2016). For the medium conditions were used climatological series (1977-2014) of air temperature and rainfall of climatological station Nhumirim, located in the sub region of Nhecolândia, Pantanal, MS. It was noted by the BH that average conditions water deficiency predominates in most months, except, in a few months when the water supply from the rainfall exceeds the atmospheric demand. The results obtained with the scenarios of higher temperatures and decreased precipitation point critical situation for water resources, and may interfere with agricultural and hydrological activities in the sub region of Nhecolândia.

Keywords: global warming, water availability, future scenarios.

References

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