



Changes in water balance in Western Bohemia and options for adaptation

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Several basins in the Western Bohemia are regularly confronted with problems of water scarcity during dry periods, which have far-reaching impacts on water stream ecology and the availability of drinking water for the users. The authors presents assessment of hydrological balance in the catchments of Western Bohemia for present and future conditions together with possible directions of climate change adaptation at local scale. Assessment of climate change impacts on hydrological balance components in an ensemble of regional climate models revealed an increase in air temperature in all months during the year leading to an increase in evaporation. Together with changes in distribution of precipitation during the year (increase of winter precipitation and decrease in summer precipitation) it results in decrease in groundwater recharge and groundwater storage in general. Adaptation measures as water transfers or construction of water reservoirs are assessed with respect to increase water availability in the Western Bohemia region during dry periods.