

## Document Control Sheet

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18. abstract  Most part of the German Elbe Lowland is situated in a climatic region with mean annual precipitation between 500 and 600 mm. Nevertheless, the lowland is rich of fens which are often associated with groundwater-influenced sandy soils (here denoted by 'wetlands'). Ecology and land use in these areas are adapted to the specific site conditions. The hydro-climatic conditions and water management impacts on the water balance of the wetlands are an existential threat already today, especially in dry years. The results of the research project show the impact of climate change on the water balance of big wetlands in the Elbe Lowland. Evapotranspiration and water use of the wetland areas will increase despite of decreasing precipitation in the summer months. On the other hand the water supply from the sub-basins will decrease. The consequences are increasing water use conflicts within the wetlands and within the basin with other water users. The results are deeper groundwater levels below surface in the wetlands in the summer months. Situations, today typical for dry years, will be normal in 2050 and the problems will intensify especially in the dry years of 2050. But the development of the water balance will not be the same in all regions of the Elbe Lowland. Especially regions with a high concentration of wetlands or relatively small basins are threatened by the changing conditions. The impact on ecology and land use in the threatened wetlands can not be fully estimated today.	
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