

Effects of Climate Change on Water Depended Ecosystems

C&E · Consulting und Engineering GmbH

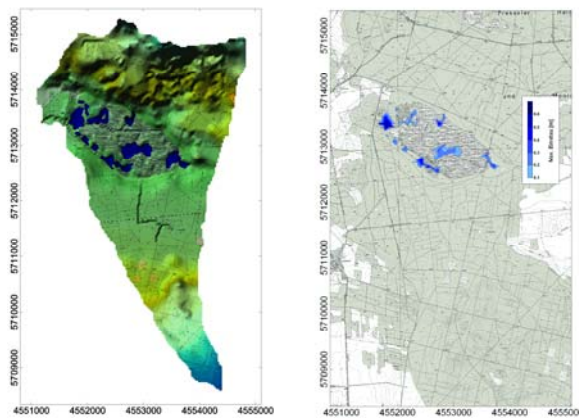


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Objective: In this study hydrological and hydrogeological models have been developed to estimate the impact of climate change on bogs in Saxony. The estimations are based on a regional climate scenario for the Free State of Saxony. For the investigation a WASIM-ETH model was used to evaluate the development of bogs in the nature protection areas “Presseler Heide- and Moorlandschaft” in terms of climate change.

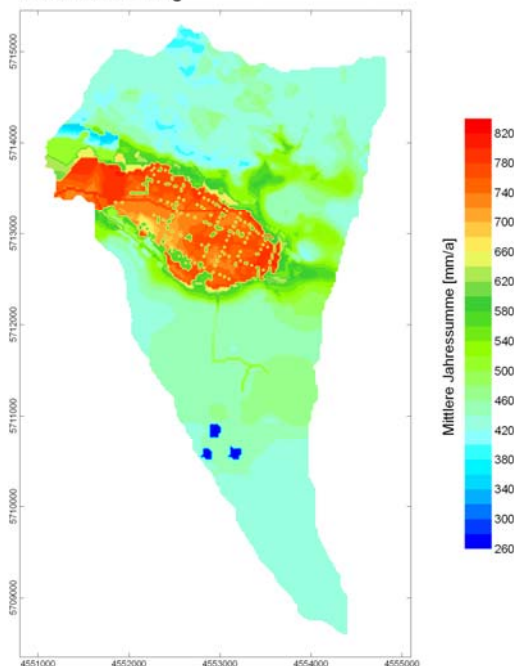
Location: Saxony
Client: Environmental Authority of Saxony, Department for Nature Protection

Beneficiary: LfUG
Year: 2006
Budget: 28.000 €



Initial situation:
 At the moment the Environmental and Nature Protective Authority of Saxony has no sufficient information about the possible effects of climate change in the range of nature, biotopes and ecosystems.

Reale Verdunstung



Services provided:

- **Climate diagnosis**
- **Regional climate prognosis** for the time span of 2010 to 2050 and 2050 to 2100 using ECHAM data base and climate scenarios
- **Water balance prognosis**
- **Ground water model**
- Analysis of current situation and prognosis of future impacts
- Evaluation of concerned ecosystems and nature protection areas, **risk assessment** for all types of ecosystems with special topic on water dependent ecosystems
- elaboration of an **conception of mitigation measures and action plan**
- Establishment of GIS and a database