

Determination geogenic background levels of heavy metals in surface waters in the Free State of Saxony-Anhalt

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Objective:

The Free State of Saxony-Anhalt, represented by State Office for flood damage prevention and water management, needs the concentrations of the geogenic background levels of heavy metals in the surface waters for the implementation of EC Water Framework Directive. The objective of these activities is the determination of water specific geogenic background levels to derive the necessary basics for the exceeding of the environmental standards for the specific heavy metals at a level of the surface waters in Saxony-Anhalt. The data will be used in the strategies and actions plans with the intent of implementation of EC Water Framework Directive.

Location: Saxony-Anhalt

Client: Authority for Flood Protection

Beneficiary: Authority for Flood Protection

Year: 2008-2009

Budget: 40.000 €

Initial Situation:

The derivation of geogenic background levels of heavy metals in the surface waters in the Free-State of Saxony-Anhalt was realized using the existing measuring data of the Authority for Flood Protection and with the inclusion of literature data and research findings.. The data for surface water, sediments and ground water will be prepared and evaluated in relation to the parameters and locations. Then the investigation programs will be set up to close the knowledge gaps.

Services Provided:

- Development of the grid search for flowing waters, evaluation of the target areas
- Research, analysis of data deficits
- Preparation of the further measuring programs for elimination of data deficits
- Development of appropriate method for derivation of background values
- Statistical evaluation and plausibility checks, sensitivity checks and evaluation of data variability, model checks, visualisation on GIS-basis
- Evaluation, setting up, discussions and presentation of conception, conclusions

