

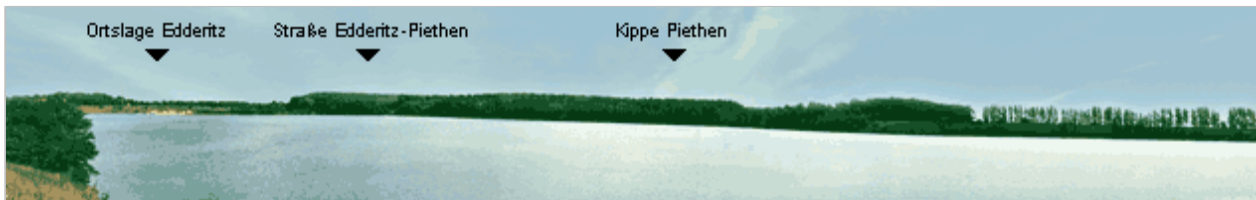


Deposits

*When a hole is plugged up, where does it go? Does it sneak sideways into the matter? Or does it run to another hole to pour out its heart to it? Where does the plugged-up hole go? Nobody knows - our knowledge has one here.*

Kurt Tucholsky

Well, our knowledge isn't holed here at all. The hole left over from opencast mining in Edderitz has been filling with water over the course of time. It's no longer a hole - it's a lake. And the lake - like many a hole - has got problems with its edges. Its embankment is crumbling, which is not only unsightly but also definitely dangerous.

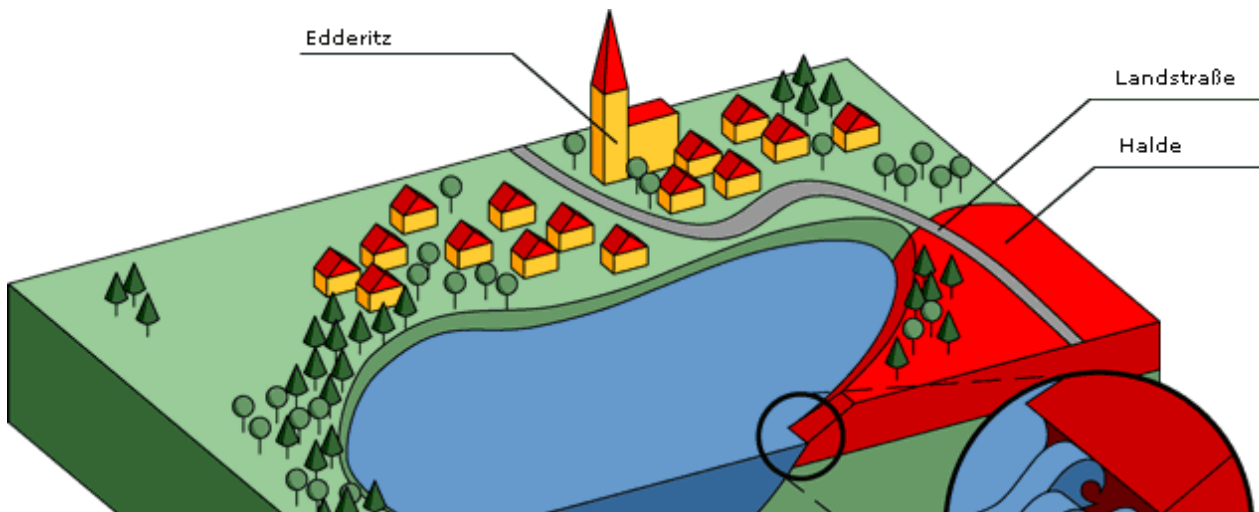


**Stocktaking**

Since 1990, the Lausitzer und Mitteldeutsche Bergbau-Verwaltungsgesellschaft (LMBV), the Lausitz and Central German Mining Administration Association has been responsible for all leftovers from brown coal mining in the new federal states of Germany. It is their task to remediate these areas. The opencast mining hole near Edderitz in the district of Köthen between Magdeburg and Halle is a special case. As early as 1953 brown coal mining was ended, dewatering was stopped. Gradually a lake of approximately 45 hectares developed. On its shores a colony of swallows have settled. Until 1991 farmers took water out of the new lake to irrigate their fields. When this practice was stopped in 1992 the water level rose.

**Safety hazard**

The waves hit the embankment unhindered. Considerable damage is the consequence: slides of up to six metres occur. The whole embankment system is unstable and no longer meets safety regulations. The road from Edderitz to Piethen in the east and the town of Edderitz in the north are at risk. Extending into the lake, the former dump for overburden from mining procedures is acutely dangerous. Shockwaves even, generated by heavy agricultural or forestry machines could trigger a slide followed by a tidal wave.





### Remediation planning

Against this background the LMBV charged us with the planning of all remediation measures. We prepared hydrological reports, static stability, wind and waves reports, contamination and foundation soil reports. In addition we made an environmental impact assessment. The administrative approval procedure with regard to water laws is introduced. The future development of the water level is decisive for the stability of the embankment area. The hydrological model we made predicts fluctuations of up to 4.3 metres. Based on these data we determine the required incline of the embankment. It is absolutely necessary to build an obstruction to the waves because it's the only way to safeguard the embankment. What effects do the required measures have on plants, animals, water, soil and people? We go through various scenarios and evaluate them. During our investigations we discover a former domestic refuse landfill in the embankment. Ashes and organic substances may not remain there: the landfill must be cleared and refilled with appropriate materials. It's not the first time that we have to react to a changed situation.

### Implementation

The complexity of the project requires HPC experts from completely different sections to work together. It's the only way to create a natural area meeting today's static stability standards. It will provide a habitat for swallows and other animals. And people will be able to swim, wander, fish and dive in a unique leisure and recreational area.

On 27.10.2000 was the first cut of the spade. Bye-bye hole, wherever you may have gone ...

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