Closure and Aftercare Regime for Landfills below the Water Table

Part 1: Introduction to the „Halle-Lochau“ landfill
Part 2: Problems of landfills below the water table
Part 3: Research and development project

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Closure and Aftercare Regime for Landfills below the Water Table

Part 1: Introduction to the "Halle-Lochau" landfill
Groundwater lowering system

"Revolution Point" area

Eastpart 296 ha

Westpart 184 ha

Direction of groundwater flow

~ 1000 m

"Halle-Lochau" landfill
Overview of the „Halle-Lochau“ landfill 2003

Northern landfill area: household waste

Southern landfill area: commercial waste

Eastern landfill area: sediments

Administrative building including waste control departments

Groundwater lowering system

Leachate collection system

Household waste

Commercial waste

~ 30 m

~ 100 m

Northern landfill area: household waste

Southern landfill area: commercial waste

Administrative building including waste control departments

Overview of the „Halle-Lochau“ landfill 2003
Closure and Aftercare Regime for Landfills below the Water Table

Part 2: Problems of landfills below the water table
Stopping of the groundwater lowering operation in „Halle-Lochau“ without additional measures.

Generated lake in wide parts of the former open cast mining including landfill body.
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Part 3:
Research and development project
Investigations for the sustainable closure of landfills which were installed in areas of the former open coal mining carried out at the example “Halle-Lochau” landfill

**Aims of the research project:**

*Development of measures for closure, aftercare, recultivation and reuse of landfills below the water table*

- least cost solution
- technically feasible solution
- environmentally friendly solution
- sustainable solution
East-Part

West-Part

Innenkippe

Generated lake

Groundwater collection

Groundwater flow to the nearby river