

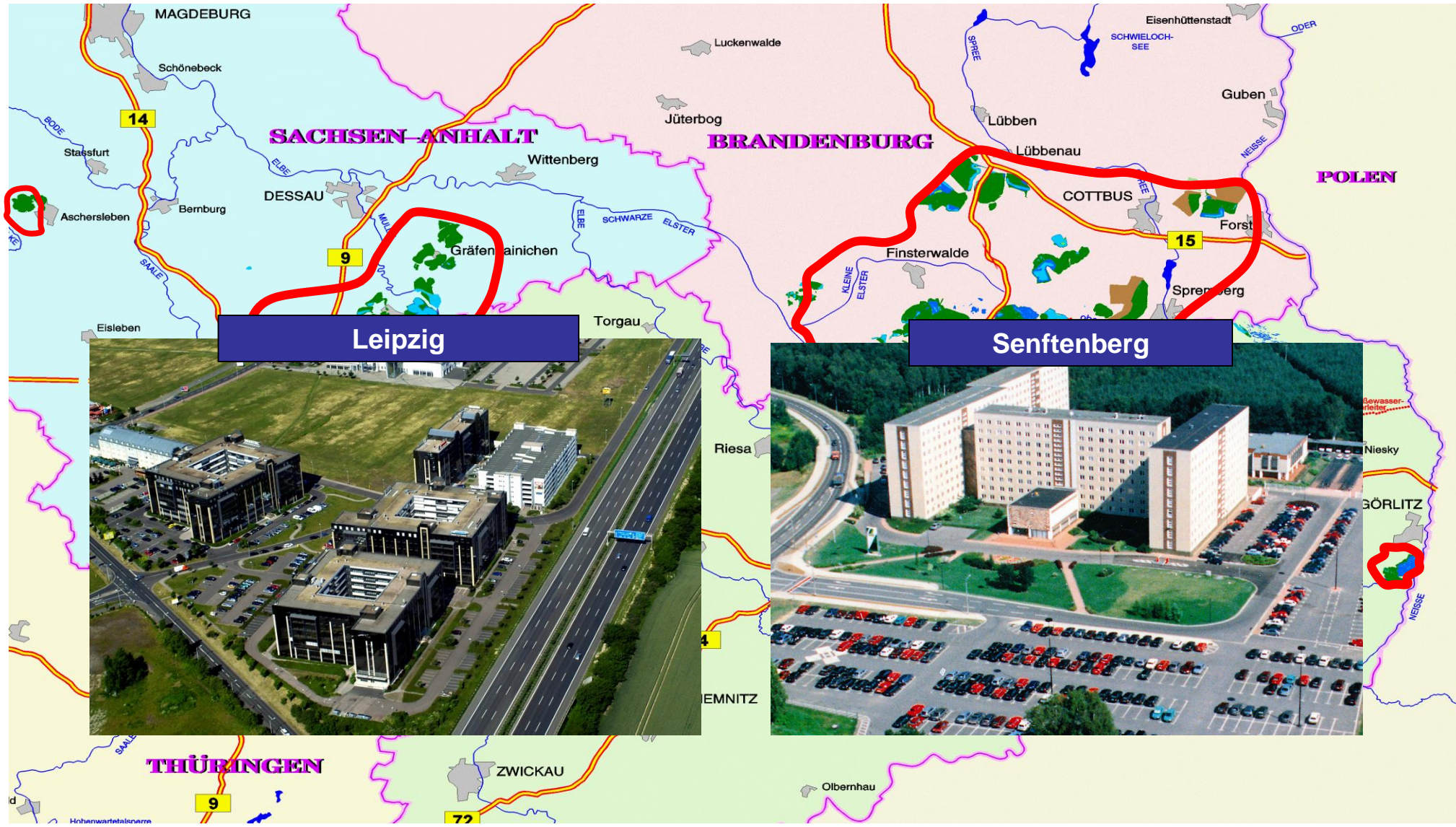
Transformation: Industrial and Landscape Change



Dirk Sonnen, [Rolf Schlottmann](#), LMBV mbH

- **Overview of the mining areas and LMBV**
- **Geotechnical works**
- **Rehabilitation of the Water household**
- **Re-cultivation, Site Development and tourism**

Lignite rehabilitation areas of LMBV



Leipzig

Senftenberg



- **State owned company (Ministry of Finance)**
- **Responsibility: Decommissioning and rehabilitation of sites used by the lignite mining industry of the GDR**
- **Includes:**
 - **the re-cultivation of dumps feasible for re-use in the public interest**
 - **the restoration of a self regulating water balance according to water quantity and quality**

Business segments LMBV

**Closing down
Lignite Mining
until 1999**

*Orderly and fast closing down of business units
which can not be privatized*



**Rehabilitation-/
Backfilling &
Maintenance of
underground mines**

*Acting as a mining company in the fields of
rehabilitation of lignite industry and securing
underground mines of potash-spade-ore mining*

Utilization

*Use and sell of assets, property and real estates
of the company*

Organization of the lignite mining rehabilitation

Steering & Budgeting Council: StuBA

National Gov.: Ministries of
Finance, Environment, Economy

4 Federal States: Ministries

Office of National Gov. &
Federal Government

Hosts: LMBV, Labor Agency

- Acceptance of overall planning
- Budgeting and approval of projects
- Controlling
- Audits of Resource allocation

Regional rehabilitation council (National/States/Communities)

- Acceptance of Planning
- Consideration of public interests

Federal Audit Office

Project Management Organization: LMBV

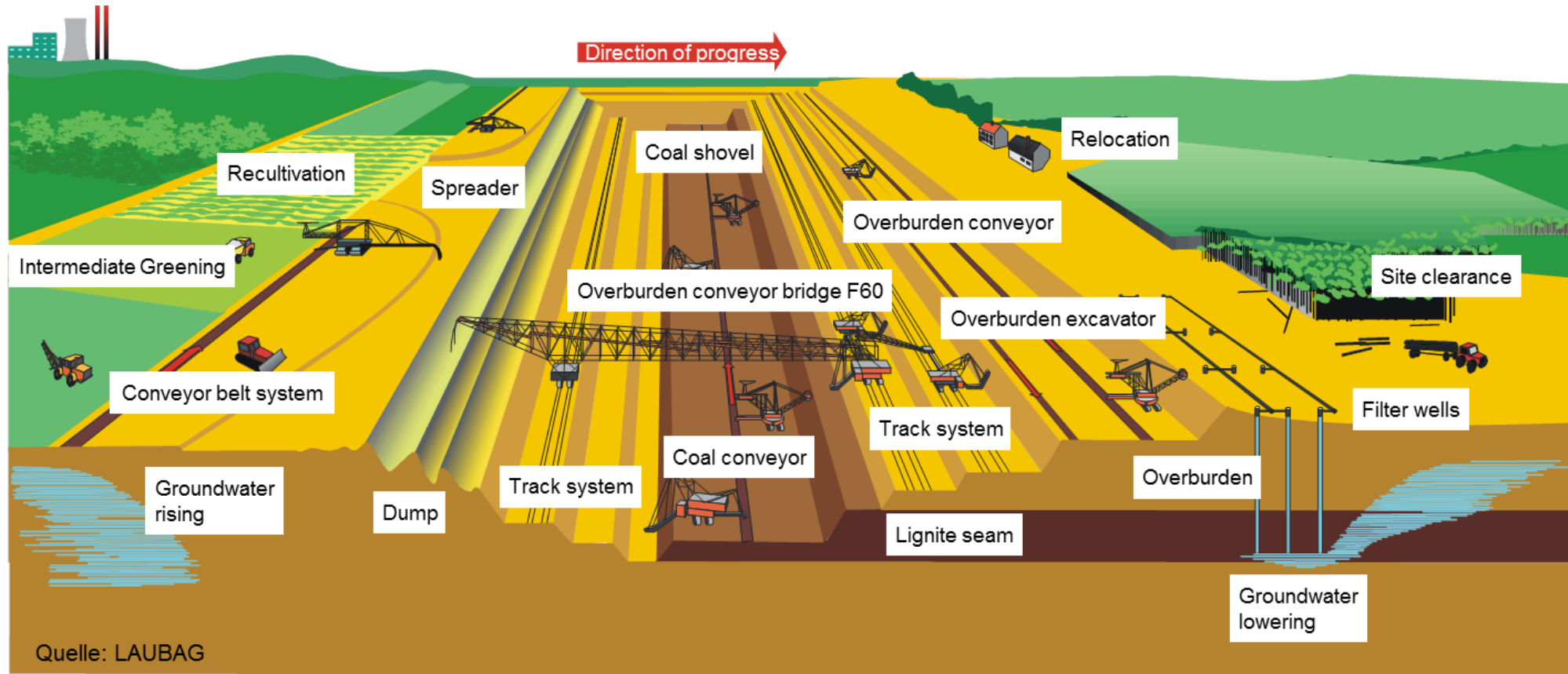
- Rehabilitation Planning
- Obtaining of permission
- Tendering / Contracting
- Project Control / Controlling
- Preparation of reuse / Utilization of properties
- Proof of fund allocation

Execution: Private Companies

- Execution of rehabilitation work after competitive tendering
- Billing and handover of contract content

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Principle of overburden and lignite excavation and movement



- **Short distance (Direct dumping combination)**
- **Mixed substrates => physical and chemical quality problems possible**
- **Lose material density in Lusatian region (sandy substrates)**

Open pit



Typical mining in soft rock material – here sand



Geotechnical reinforcement railway bed Lohsa



depth compaction eastern slope Silver-lake:

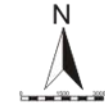
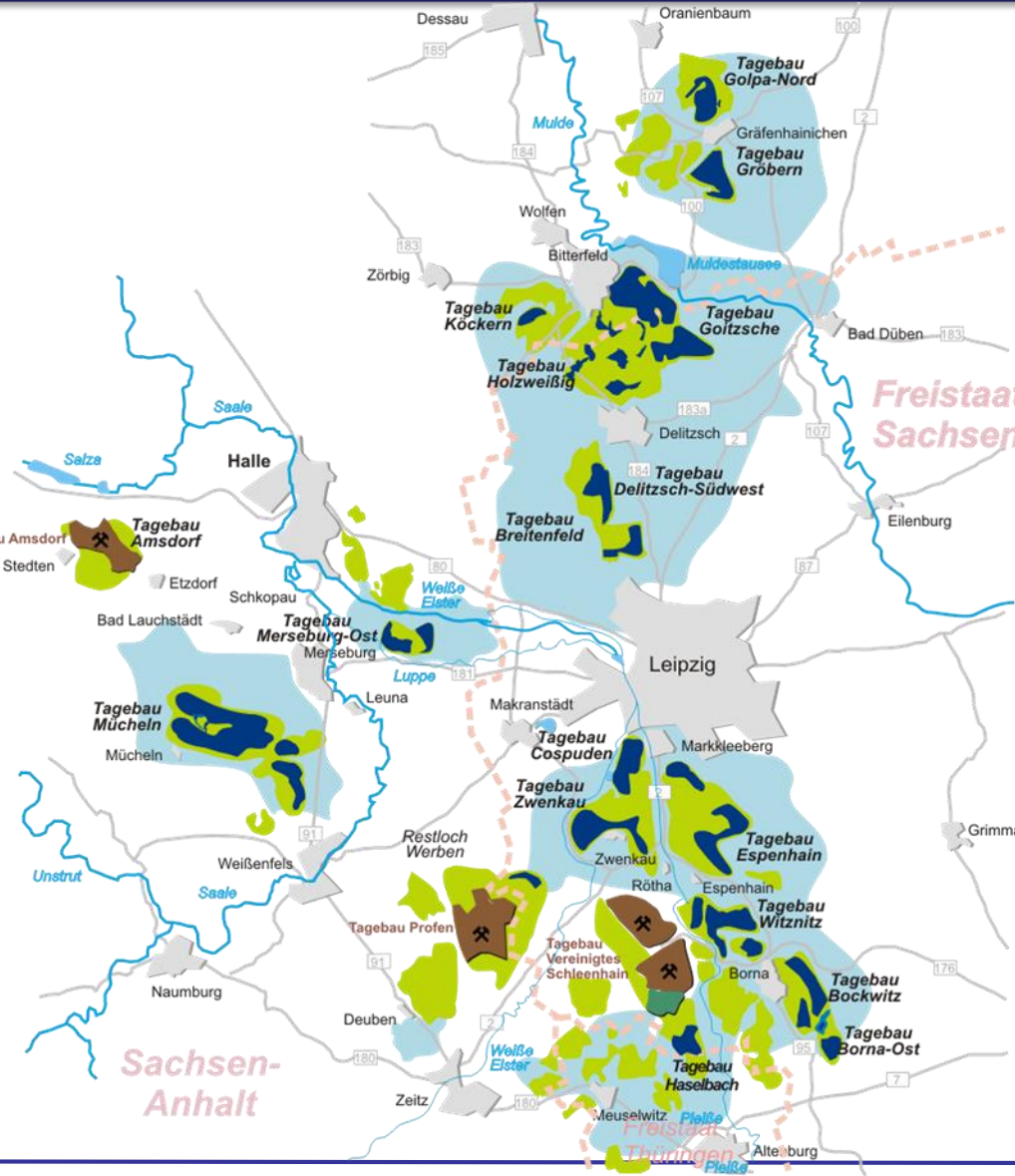
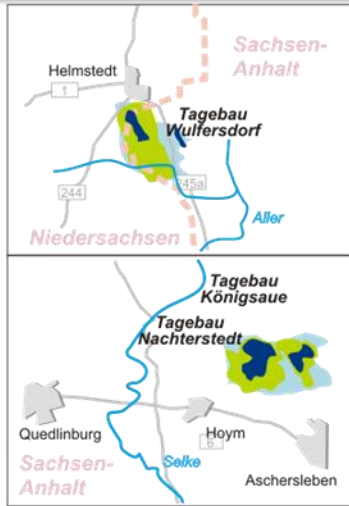
950 m length

50 m width

Temporarily with 4 machines

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Groundwater lowered area caused by open-pit mining



- Legende**
- Grundwasserabsenkung
 - Sanierungsflächen der LMBV
 - Landschaftssee/ Bergbaufolgesee
 - Betriebsflächen MIBRAG, ROMONTA

**Cone of depression
1.860 km²**

Flooding of the pit-holes

- ➔ **Flooding of 21 post- mining holes**
there as 11 in Saxony-Anhalt
10 in Western Saxony/Thuringia
- ➔ **Total water area app. 10.400 ha**

Maximum use of extraneous water (Fremdwasser)

Goal

- ➔ **Fast flooding**
- ➔ **Ensuring geotechnical stability of the slopes**
- ➔ **Enhancing the water quality**

Rehabilitation of Water household



Construction of channels for flooding with water from rivers

Construction of pipelines

Connecting channel 12 (Koschener Kanal)



Derivation of river
Schwarze Elster

Length: 1.000 m

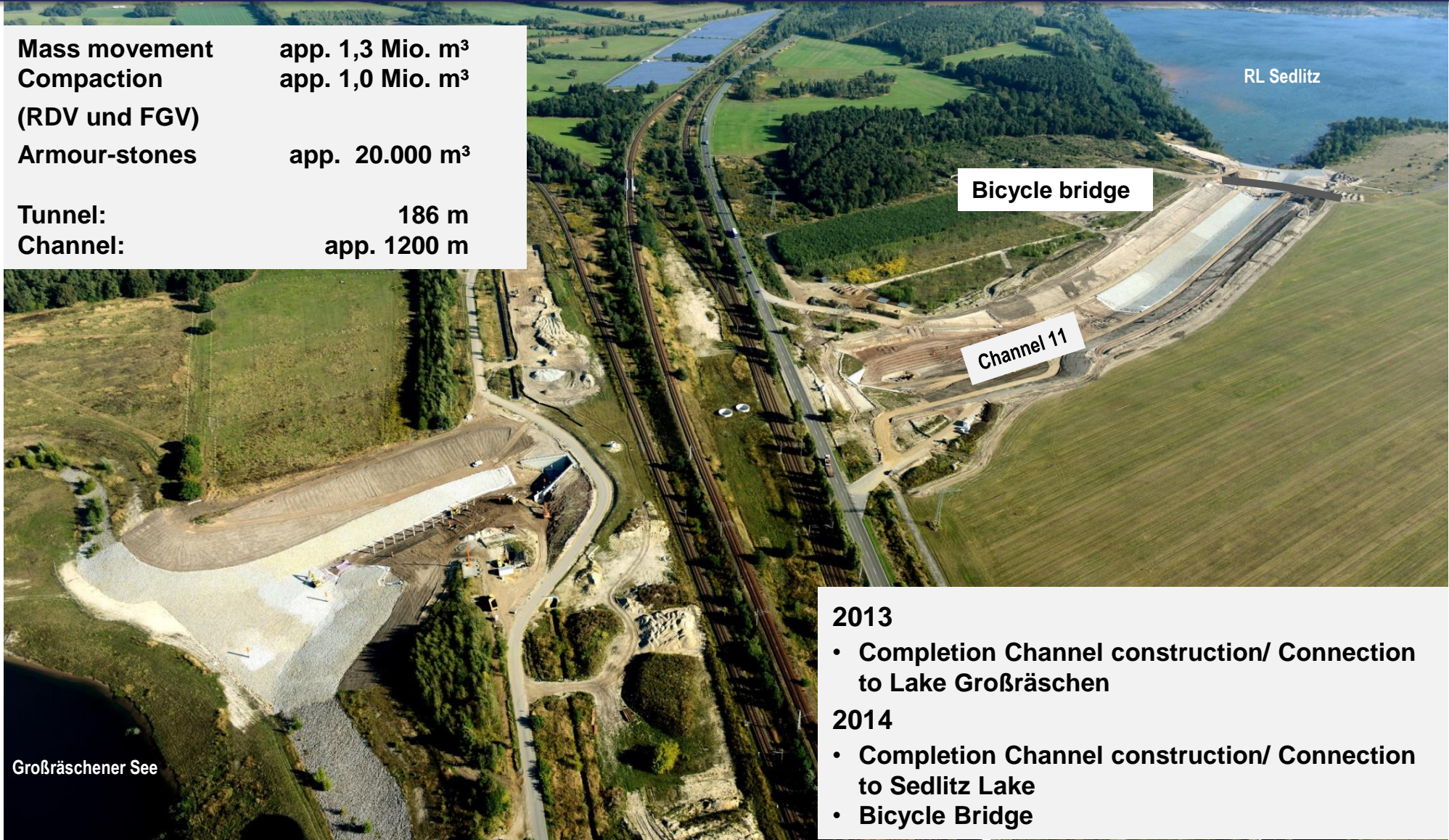
Width: up to 70 m

Putting into operation: 1. June 2013

Extension of the channels
above hydrological needs
to use them for touristic
purposes with boats and
excursion boats

Rehabilitation of Water household Connecting channel 11 (Ilse-Kanal)

Mass movement	app. 1,3 Mio. m ³
Compaction (RDV und FGV)	app. 1,0 Mio. m ³
Armour-stones	app. 20.000 m ³
Tunnel:	186 m
Channel:	app. 1200 m



2013

- Completion Channel construction/ Connection to Lake Großräschen

2014

- Completion Channel construction/ Connection to Sedlitz Lake
- Bicycle Bridge

Lusatian lake chain



Flood protection: Open-pit Zwenkau



River Weiße Elster

Inauguration May 2013

Costs of construction: 11 Mio. €

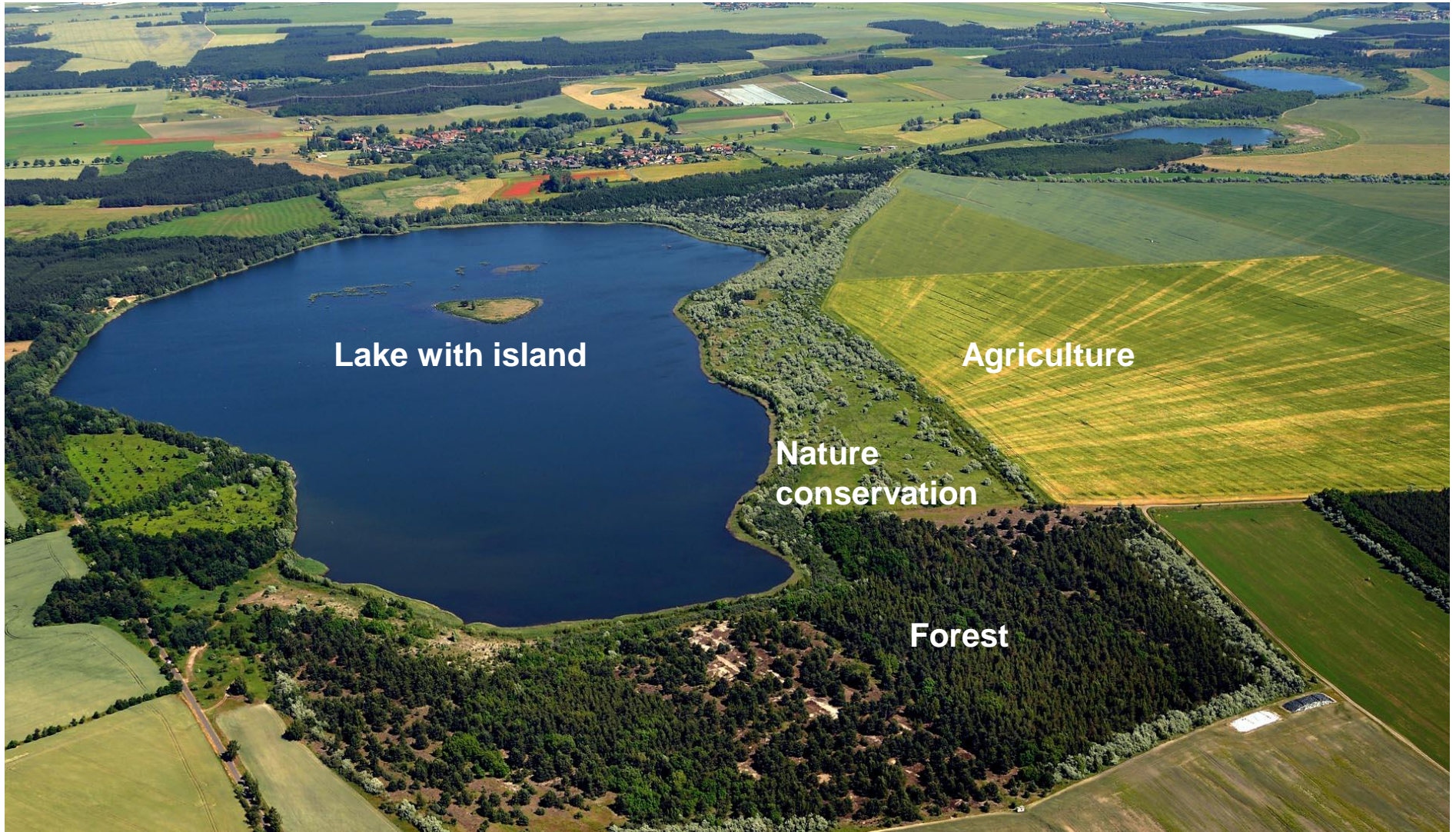
Capacity: 130 m³/s

Flood protection volume: 18,5 Mio. m³

Discharge in 21 days: 14,5 Mio. m³

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Re-cultivation



Lake with island

Agriculture

Nature
conservation

Forest





Opening of the Lake Störmthal for new use



THE CENTRAL GERMAN LAKE DISTRICT



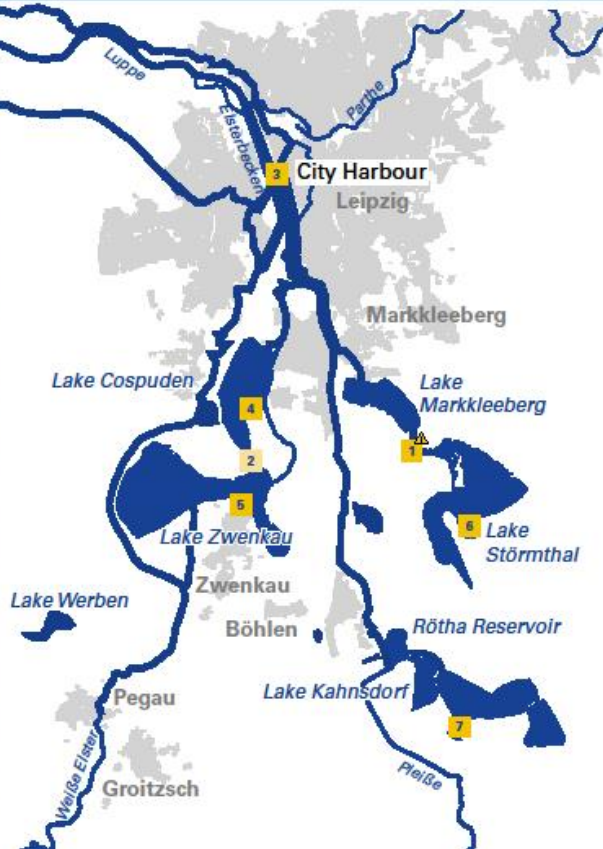
Lakes in the Central German Lake District north of the city of Leipzig



Lake Störmthal



Lake Zwenkau and in the background, Lake Cospuden



1 Störmthal Canal

from Lake Störmthal to Lake Markkleeberg

Completed in 2012, length 850 metres, bottom width 5.0 metres

The watercourse connection was established with a lock and passes under two bridges. The Störmthal Canal with its Kaprupark Lock was the first watercourse connection between two former open-cast mine lakes in the Central German Lake District. It has been used for navigation since October 2012 and is also used to discharge excess water from the Störmthaler See (Lake Störmthal) into the Markkleeberger See (Lake Markkleeberg). Since the end of March 2021, the canal has been temporarily closed due to potential geotechnical hazards.

2 Plans for the future Harth Canal

from Lake Zwenkau to Lake Cospuden

Length 790 metres, bottom width trapezoid profile 8.0 - 11.5 metres, triangular profile 11.0 metres

The Harthkanal (Harth Canal) is part of the planned watercourse network south of Leipzig. Under German mining law, the LMBV is obligated to establish a hydraulic link between Lake Zwenkau and Lake Cospuden. In addition, tourists should also be able to use this waterway. The implementation of this project depends on official approval being granted.

3 Leipzig City Harbour

Pier 1, Lake Cospuden

Cape Zwenkau Marina

Lake Störmthal Marina

Kahnsdorf Lagoon Marina

LMBV - Lausitzer und Mitteldeutsche Bergbau-Verwaltungsgesellschaft mbH
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NEW LAKE DISTRICTS

A brief survey of the Central German and the Lusatian lake district



Lausitzer und Mitteldeutsche Bergbau-Verwaltungsgesellschaft mbH

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Transformation: Industrial and Landscape Change

Maritime-touristic commercial area lake Bärwalde



LMBV 

Lausitzer und Mitteldeutsche
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Lausitzer Seenland Resort – Swimming houses



Geierswalder See

Canoe-park-lock between lake Störmthal and lake Markkleeberg



Opening on 18th May 2013

Canoe-park at post-mining lake Markkleeberg



Former open pit Goitsche now lake



Recultivated inner dump used for festivals



Glückauf!

