



Implementation of the National Flood Protection Programm in the German River Basin District Elbe



SACHSEN-ANHALT

Ministerium für
Umwelt, Landwirtschaft
und Energie



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Background – Flood in 2013

- bursting of levee at the village Fischbeck



Versuch der Schließung
16.06.13 (Foto Jüpner)

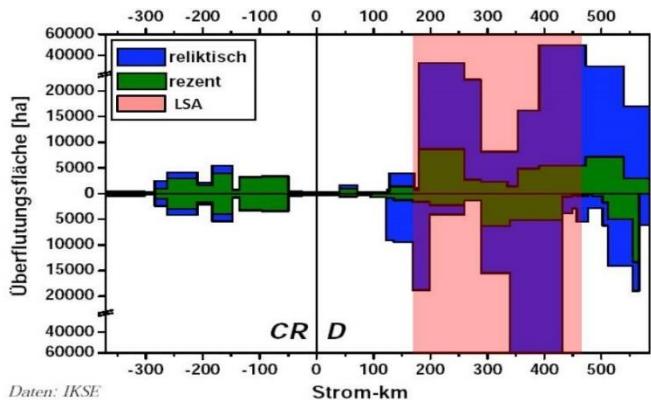


Background

- Losing of floodplain areas and retention areas in the Elbe region

...speed of flood waves and raise of water-level, in the region of Lutherstadt Wittenberg measures about 10 cm and in the region Wittenberge about 50 cm.

The loss of natural floodplains is approximately 570.000 ha in the region of Middle Elbe (this) which caused a loss of retention volume of more than **2,3 Mrd. m³**



Loss of floodplain area at
middle Elbe more than 80 %

Quelle: IKSE 2001 <https://www.ikse-mkol.org/publikationen/hochwasserschutz/1/>

Objective

Integrated Approach for a sustainable Water Management

Total damage of the flood 2013 in Germany about 8 Mrd. €

Work order of the environmental ministry conference:

Development of criterias and evaluation standards for the identification and prioritization to identify effective measures for the improvement of Flood protection

- **Extraction of Retention areas with**
- **Significant Effects and**
- **Elimination of weaknesses in levees**

- desicion of the environment minister's Conference (02.09.13) to develope a national flood protection program
- october 2014: desicion of the program on the meeting of the environment ministers



National Flood Protection Programm - Priorisation

renovation of weak levees



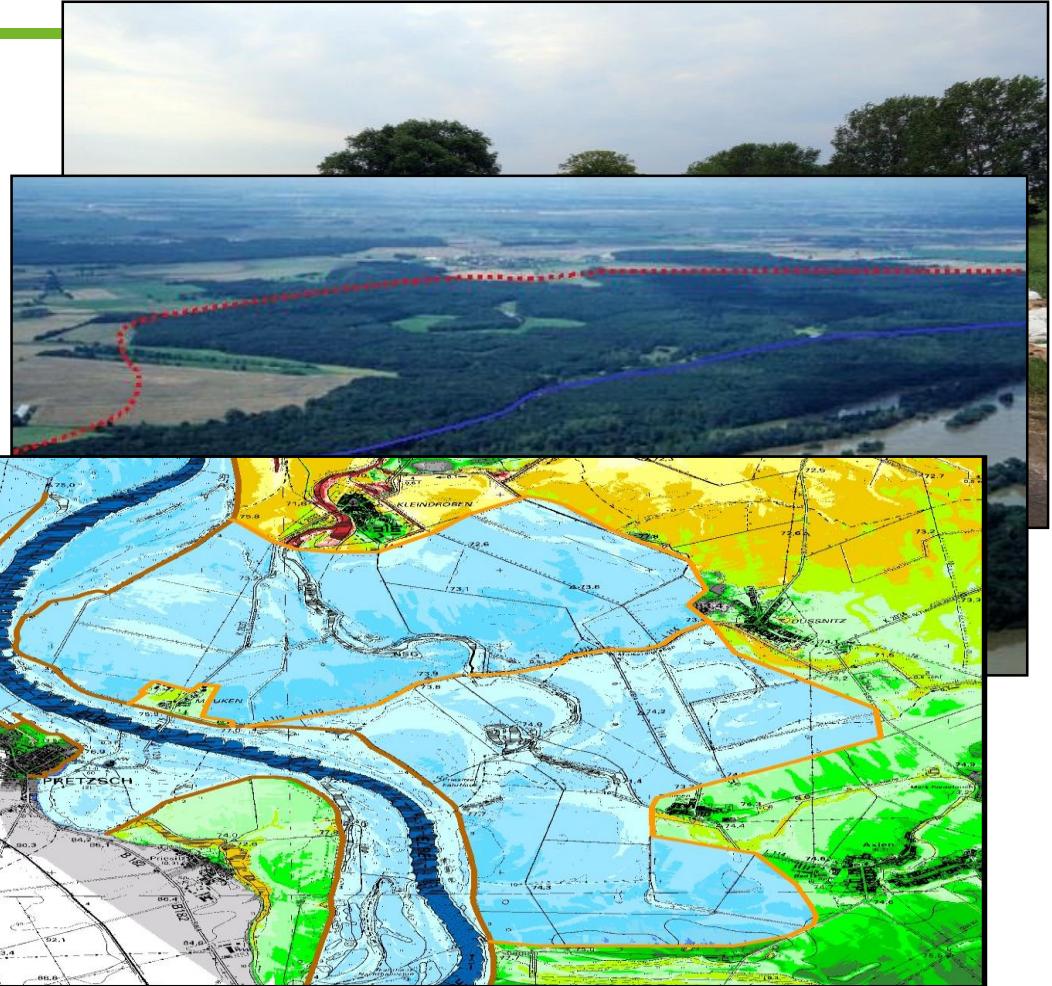
natural water retention
measures eg. relocation of
levees



controllable retention
areas/polder



flood control basin



National Flood Protection Program

-Priorisation

- **Principles:** Over-regional impact/national importance
- **Effectiveness :**
 - Comforted Inhabitants, comforted Area (living, Comercial and Industry)
- Synergies:
 - **Objectives of the WFD, positive effects on flood plain areas, resilience against climate change**
- Implementation :
 - until 2021, until 2027, after 2027

<http://www.bmub.bund.de/themen/wasser-abfall-boden/binnengewaesser/wasser-binnengewaesser-download/artikel/nationales-hochwasserschutzprogramm>



National Flood Protection Program

- Financing

- Special financing frame (Sonder-GAK)
- Co-funding of budget for measures
(federal state 60%, states 40%)

Financing with following approach:

Start 2015: *total volume 20 Mio. €*

2016-20: *total volume 100 Mio. €/a*

after 2021: prolongation and extension)

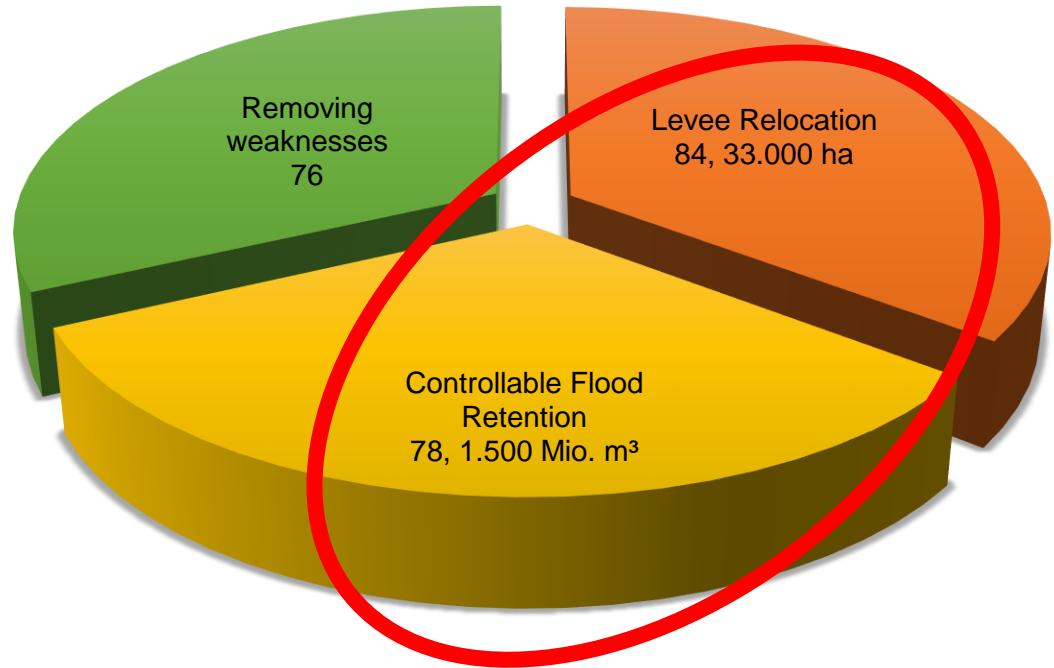


National Flood Protection Program

- Measures

classification of measures (MN) of
NHWSP in :

- levee relocation 84
- controllable flood retention 78
- removing weaknesses 76

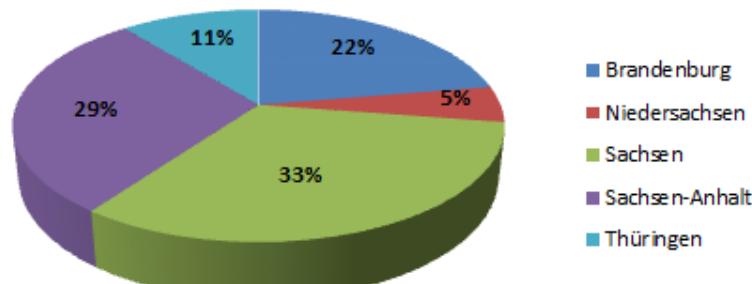


National Flood Protection Program

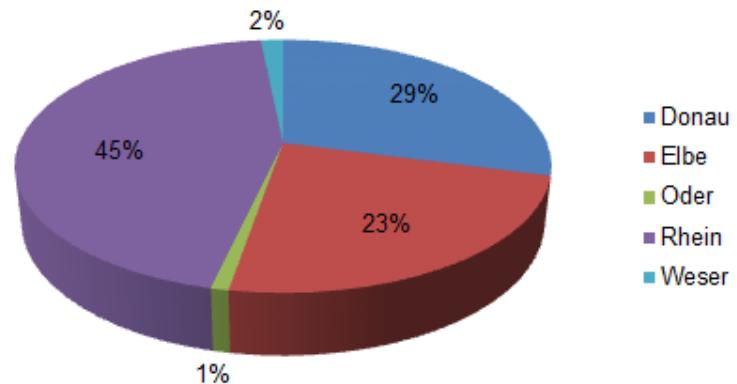
Financing status

Distribution of Costs [Mio. €] of the NHWSP on River Basin in Germany

Distribution of Cost in the Elbe Basin



Total Cost in all German River Basins

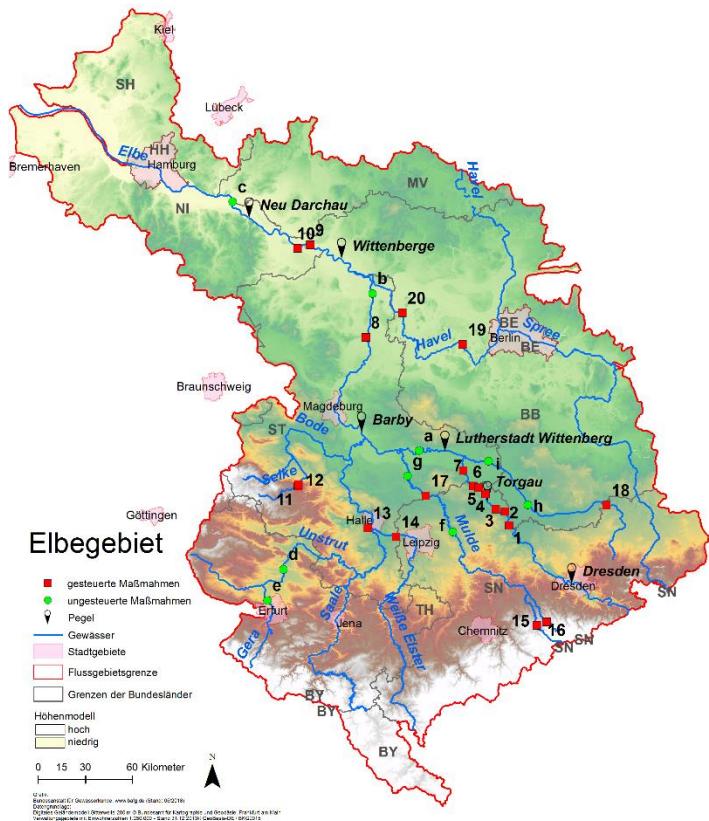


Total Cost

1.091.589.094,00 €

[Quelle: Anlage 1 zu TOP 7.2.2 der 155. LAWA-Vollversammlung am 14./15. März 2018]

National Flood Protection Program general overview measures



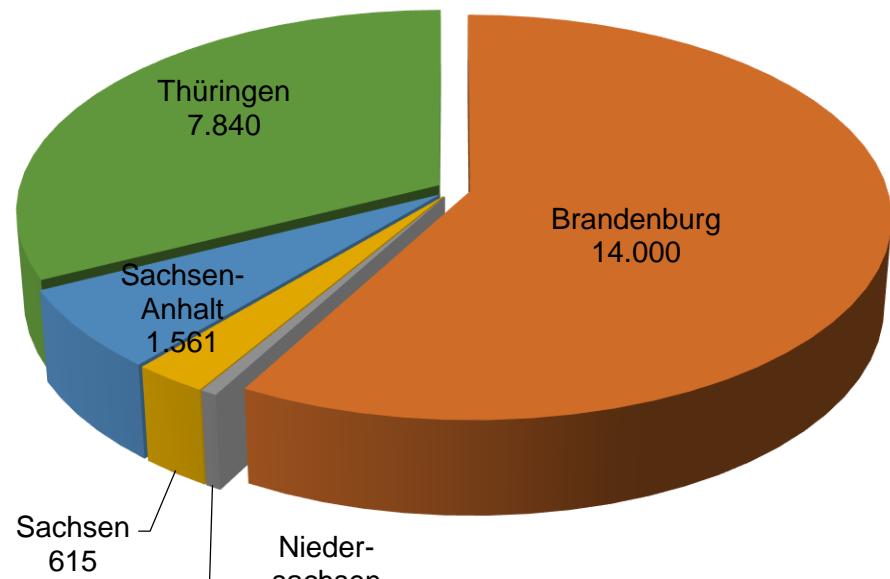
State Country	Number of Measures 2019	
	Levee Delineation (DRV)	Controlled flood retention (gHWR)
Brandenburg	1	5
Lower-Saxony	1	0
Saxony	1	9
Saxony-Anhalt	11	5
Thuringia	2	0
Total Σ	16	19

Quelle: Auszug aus Maßnahmenliste 2019 eNHWSP

National Flood Protection Program

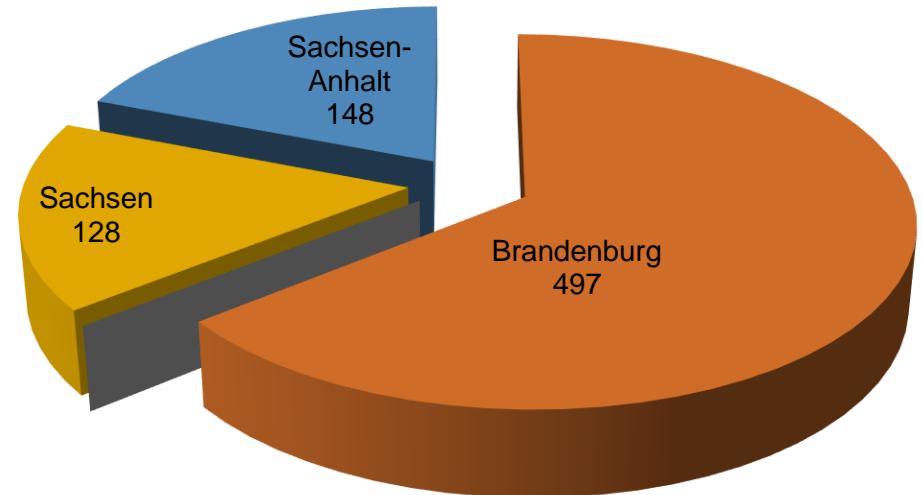
size of measures

Area DRV [ha]



Levee Relocation
Total: 24.156 ha

Volume gHWR [Mio. m³]



Polder
Total: 772 Mio. m³

Quelle: Auszug aus Maßnahmenliste 2019 eNHWSP

National Flood Protection Program

Prioritization of measures

- annual measure prioritization in two classes
- (Construction I; II – Planning)
- Criterias: Effectiveness, Synergies and Practicability

Category	Number of measures 2019 in the countries Brandenburg, Lower Saxony, Saxony, Saxony-Anhalt and Thuringia	
	Priority class I	Priority class II
Relocation Levee	9	6
Polder	7	9
Σ	16	15 (+4)

Quelle: Auszug aus Priorisierungsliste 2019 eNHWSP

Examples

- Joint Project: Optimization of the Havel Polders

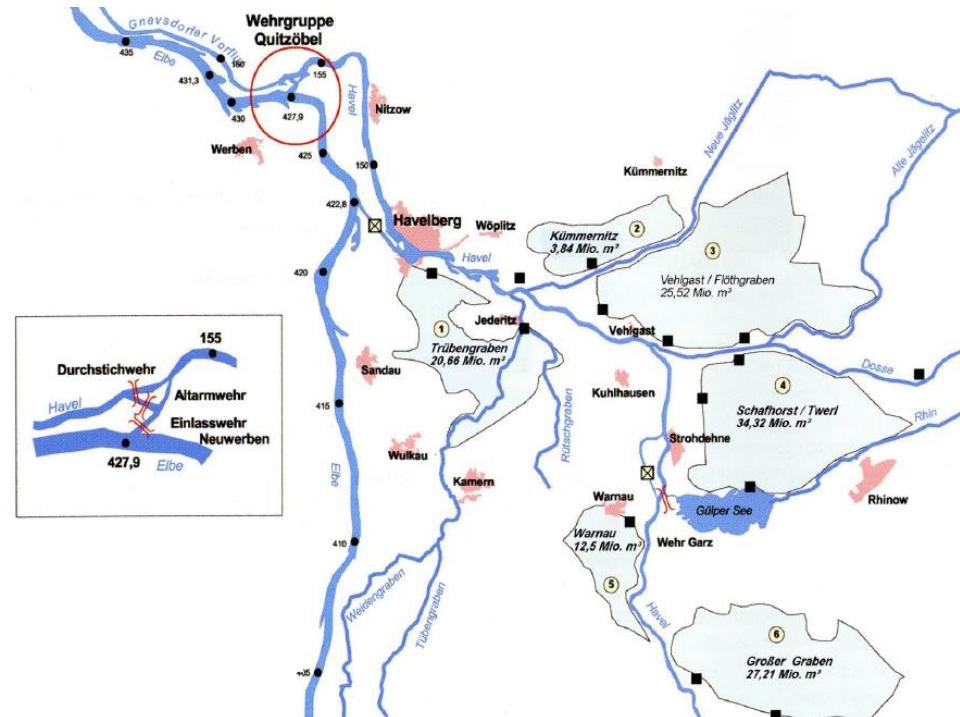
Upgrading Polders, polder levees and intake structures

River: Elbe/Havel

Location: cross border Project
between Brandenburg, Berlin,
Mecklenburg-Vorpommern,
lower Saxony and Saxony
Anhalt

Size: approx. 285 Mio m³

Completion: Results 2019



Examples

- Saxony Anhalt: Delination of the Levee Sandau

River: Elbe

Location: Saxony- Anhalt

Retention Room:

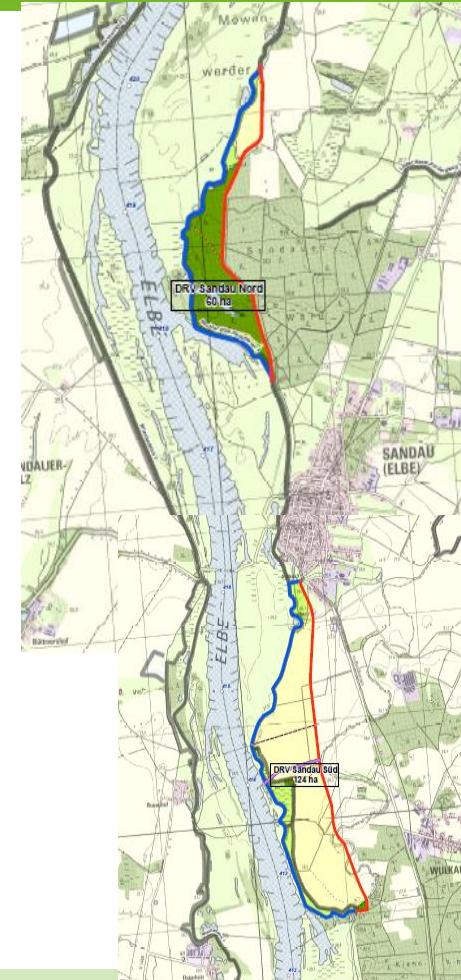
Sandau Nord 60 ha

Sandau Süd 120 ha

Completion:

Sandau Nord: nearly finished

Sandau Süd: 2020



Examples

- Brandenburg: Polder Lenzer Wische

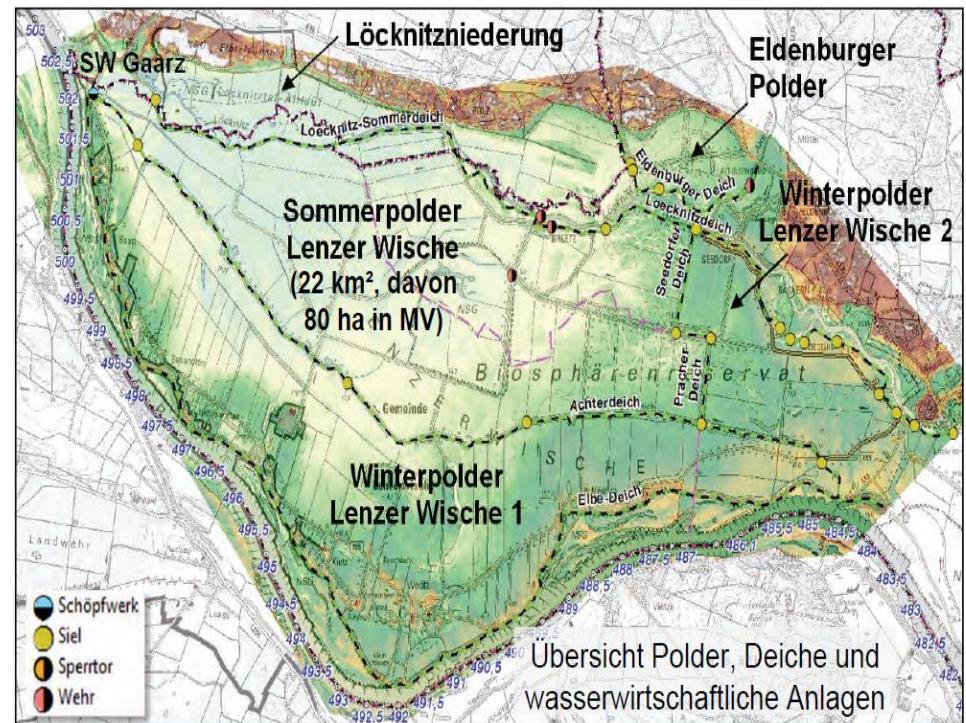
River: Elbe

Location: cross border project between Brandenburg, Mecklenburg- Vorpommern and Lower Saxony

Size: 22 km²

Retention: 43 Mio. m³ (ca.25 cm)

Completion: in planning



Examples

- Thuringia: Delination of the Levee System Unstrut

Projekte in der Elbe-Region

[zurück zur Übersicht](#)

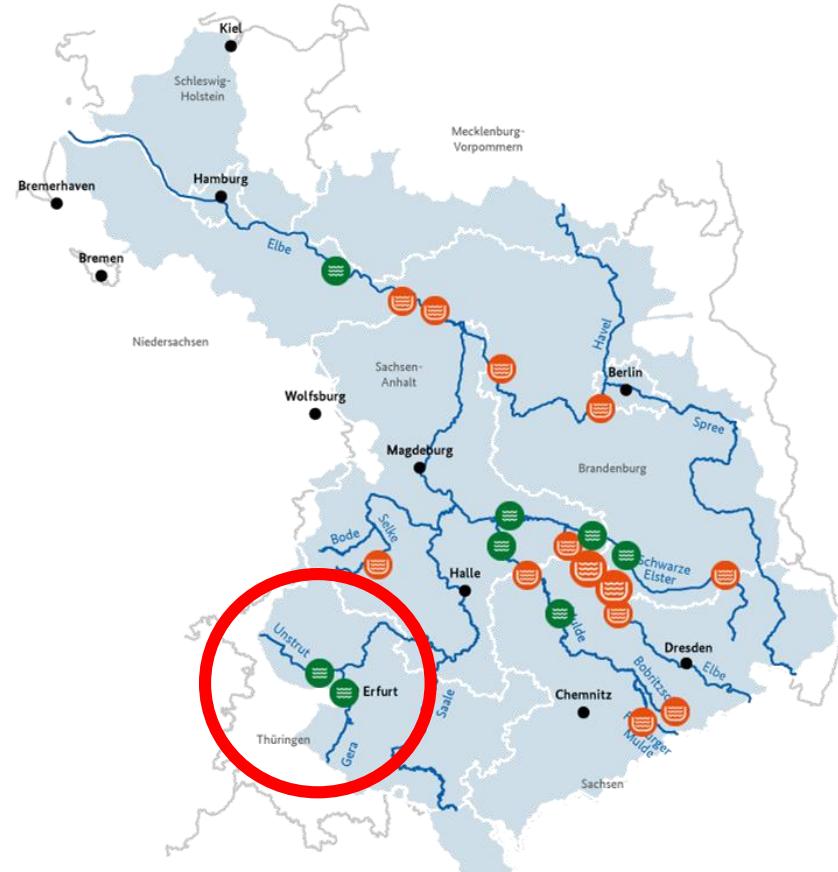
River: Unstrut

Location: Thuringia

Size:

app. 7000 ha Retention Room

Completion: in planning



Examples

- Saxony: Polder System Löbnitz/ Rösa

River: Mulde

Location: border Saxony/ Saxony-Anhalt

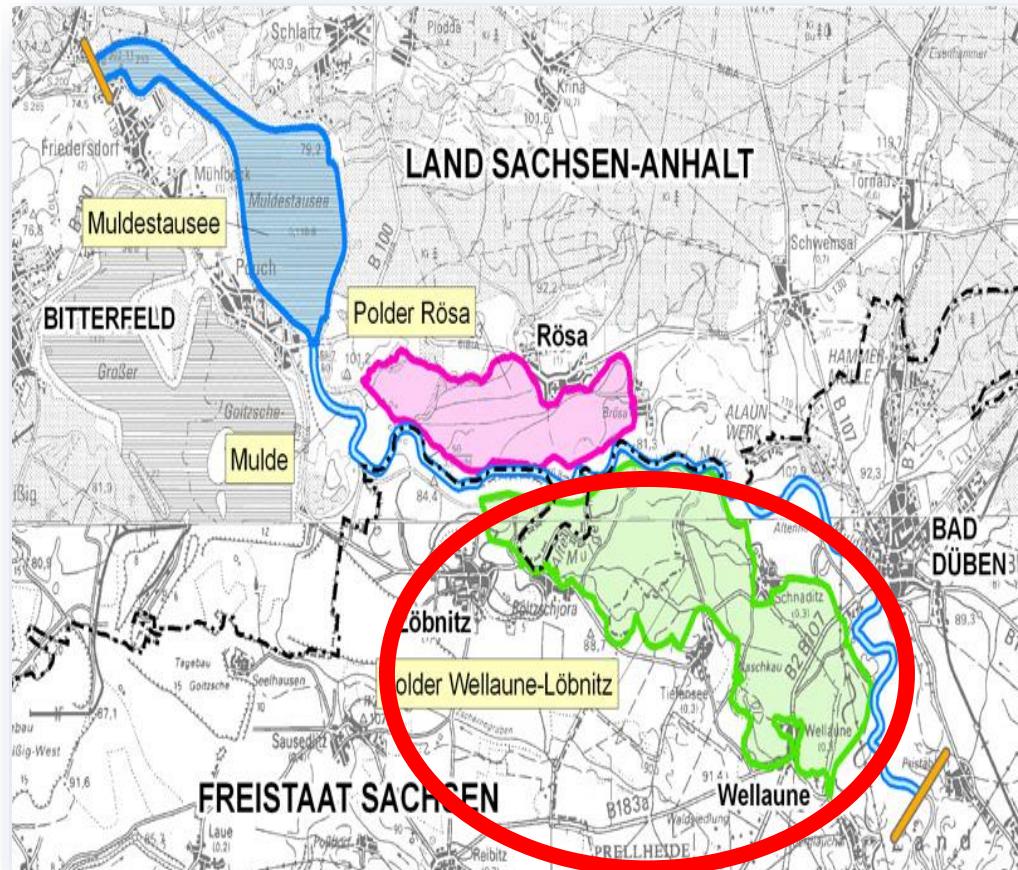
Size: 1430 ha Polder Löbnitz +
520 ha (Polder Rösa)

Retention: 36 Mio. m³ (ca. HQ 200)

Completion:

Polder Löbnitz: 2024

Polder Rösa: 2022/23



Scientific Support and Evaluation

<u>Project</u>	„Analysis of the effects of the measures of the NFPP“	Synergies of the NHWSP with nature conservation, water-ecological and climate policy objectives
<u>Objective</u>	Establishment of the basis for prioritization of NHWSP measures over time	Derivation of synergies from NHWSP measures with regard to the objectives of the WFD, impact on floodplain conditions and stability against climate change
<u>Contractor</u>	BfG on behalf of UBA Federal Goverment and Federal States involved	BfN on behalf of BMU Federal Goverment and Federal States involved (Institute for Eco-Research and Planung GmbH – Biota)
<u>Results</u>	2020	2022

Information / Public Participation

<http://www.bmu.de/service/nationaler-hochwasserschutz/region-elbe/>

The screenshot shows the homepage of the National Flood Protection Program for the Elbe region. The top navigation bar includes links for Ministerium, Themen, Service (highlighted in red), and Presse. Below this, a secondary navigation bar shows 'Region Donau' and 'Region Elbe' with a 'Startseite > Service > Region Elbe' breadcrumb trail. A sidebar on the left contains links for MUL (Ministerium für Umwelt und Landwirtschaft), various topics like Abfall, Boden, Forst/Jagd, etc., and sections for Presse, Öffentlichkeitsarbeit, and Verwaltung. The main content area features a map titled 'Nationales Hochwasserschutzprogramm' showing flood protection measures along the Elbe and Oder in Brandenburg, specifically the 'Flutungspolder Lenzer Wische'. It includes a legend for different colors representing land types and water bodies. To the right of the map are sections for 'Übersicht' (with a link to 'Themen von A - Z'), 'Geodaten Wasser' (with download links for datasets and applications), and 'Fachinformationen'. Below the map is a section titled 'Retentionsräume: Maßnahmenstandorte' with a map of the Elbe river course in Brandenburg showing various green and blue dots indicating measure locations. A legend for 'Standorte' and 'Polder' is provided, listing locations like Axien-Mauken, Cäse, Elster-Luppe-Aue, Kietz-Schönfeld, Rabia, Ropitz Beuchitz-Passendorf, Salitz, Schartau-Blumenthal, and Tangermündung. Another legend for 'Deichrückverlegungen' lists locations like Bung, Bergehalbinsel, Klickern, Klettnick, Kietz-Schönfeld Nord, Kietz-Schönfeld Süd, Markwerder Wiese, Marken-Klöden, Ragnitz-Netzeau, Sachau-Priesitz, and Sandau Süd.

Brandenburg:
e.g. Flood Polder Lenzer Wische

<https://mlul.brandenburg.de>

Sachsen-Anhalt:
<https://www.geofachdatenserver.de/de/standorte-retentionsraeume.html>



The journey is the reward