Addressing climate change, water stress and biodiversity

Barzlin Peatland

Spreewald, Brandenburg, Germany

146 Ha
Total area

10 years
Monitoring

2026-2030
Project duration

Context & Challenges

A 2026 released UN Water Report warns of a global water crisis. Germany is no exception. The Berlin-Brandenburg region, in particular, is facing growing challenges: droughts are arriving earlier, summers are becoming drier, and the water level of the Spree River is falling. A new lighthouse project, just south of Berlin addresses these challenges, on a local and replicable scale.

The Barzlin is situated in the Spreewald Biosphere Reserve: A lush landscape of forests, meadows and agricultural used land, typical for its vast waterways. In the Barzlin the peatland is disconnected from the natural water flows due to straightening of rivers and closed flooding channels. Now we are restoring these channels and the peatland.

Project objectives

- Reconnecting the peatland to the natural water cycle
- Buffering strong rains and drought periods
- Groundwater recharge
- Improved water quality
- Carbon storage
- Stabilising peat soils
- Providing critical habitat for threatened amphibians

Actions to be taken

- Clear and reopen ~6 km of channels to restore hydrological connectivity
- Create two new amphibian ponds, each with shallow and deep zones to provide year-round habitat for fire-bellied toads, moor frogs, great crested newts, and tree frogs,
- Maintain restored channels annually, coordinating with the Brandenburg State Environment Agency (LfU) and the Spreewald Nature Wardens to protect nesting birds and mammals.

Monitoring

- The project involves long-term management and monitoring, backed by EcoTree's more than 10 years of experience in European nature restoration projects.

- The project includes a comprehensive monitoring framework covering the full implementation period (2026–2030), overall addressing water, soil, biodiversity, and microclimate dimensions with potential to focus specifically on water benefits (VWB).

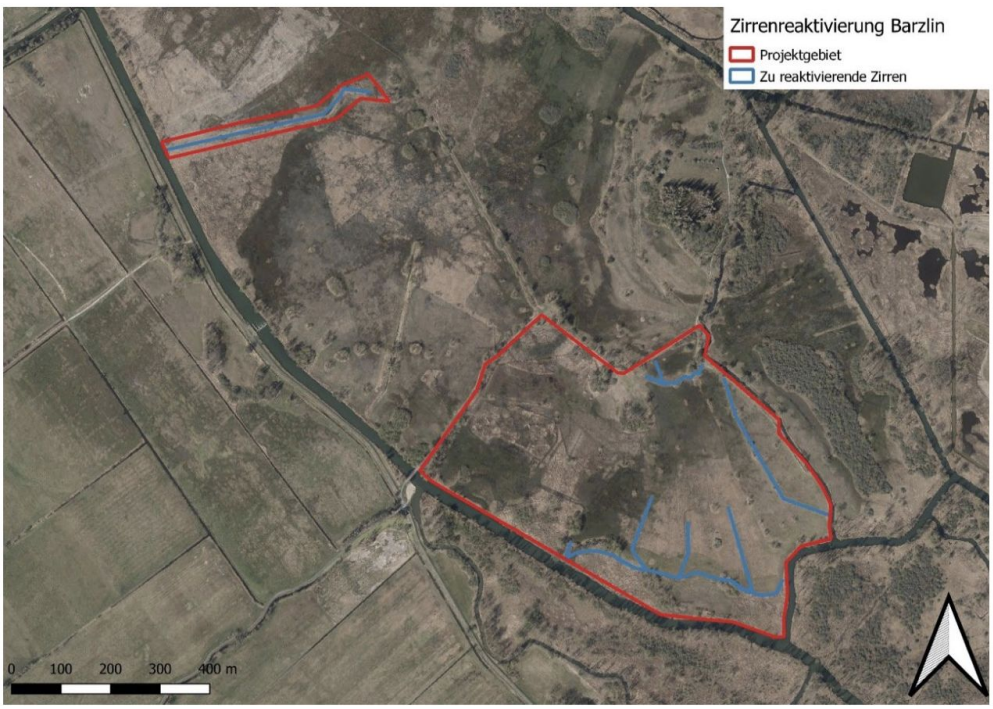
Expected benefits

- **Water retention:** Reactivating the peatland's natural sponge function and hence holding water during wet periods and releasing it gradually during dry periods, stabilising river flows in the broader Spree system.
- **Groundwater recharge:** Seasonal inundation sustains and improves groundwater recharge dynamics, feeding the Spree system and supporting river-bank infiltration.
- **Water quality:** Peat and wetland ecosystems act as natural filters, reducing nutrient and sediment loads entering waterways and decreasing the release of dissolved organic carbon into the river.
- **Carbon storage:** Stabilising the peat body prevents oxidative degradation, keeping stored carbon in place rather than releasing it as CO_2, contributing to Germany's national climate commitments and EU Green Deal peatland targets.
- **Biodiversity:** Through the targeted protection and promotion of the habitats of wet and marshy meadows and endangered amphibian species (e.g. fire-bellied toads and pond and crested newts), numerous insect species, and birds.

CSRD & ESRS

- Through measurable, traceable, and mapped actions, this project enables companies to document their commitment to sustainability in line with their CSRD and ESRS obligations.
- Relevant to **ESRS Standards E1 – Climate, E3 – Water,** and **E4 – Biodiversity and Ecosystems.**
- Enables the documentation of specific restoration measures, supported by scientific monitoring.
- Provides measurable indicators (groundwater recharge, restored area, created habitats, observed species, etc.).

A key feature of the project is the pilot testing of the Volumetric Water Benefit (VWBA 2.0) methodology. This methodology enables an assessment of the project's positive impacts on water retention and groundwater through the implemented measures. The impacts are measured in comparison to a baseline scenario in which the project would not be implemented.



Aerial view of the project site.

The project area can be seen in red.

Source: Brandenburg Viewer - adapted by M. Petschick

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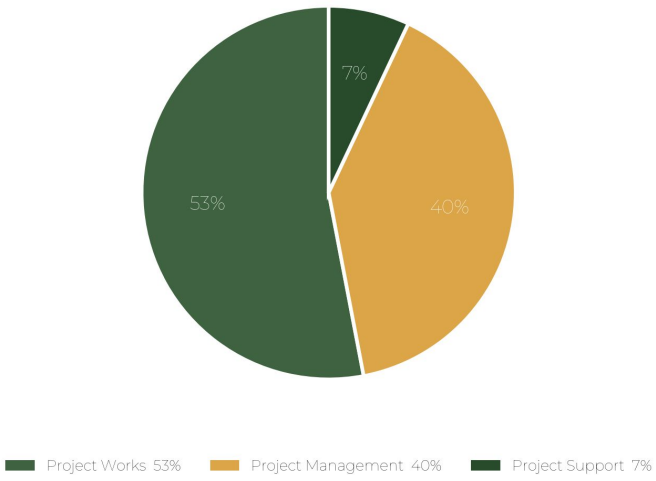
Calendar*

2026	2 km channel clearance, baseline monitoring, water gauging
2027-2028	4 km clearance + 2 new amphibian ponds created Maintenance, mid-term evaluation, AI-driven monitoring rollout
2029-2030	Long-term maintenance, annual monitoring and final reporting

** The timeline for implementing the agreed-upon measures may change due to operational constraints, weather conditions, and the speed at which funding for these measures can be secured.*

Budget Overview



Images from the project area

EcoTree in a nutshell

European Leader in Nature-Based Solutions, EcoTree allows individuals and companies to commit to the environment by supporting protection, sustainable management and ecosystem restoration projects in Europe.

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